

Government of the People's Republic of Bangladesh
Local Government Engineering Department (LGED)
Multipurpose Disaster Shelter Project (MDSP)

Consultancy Services for
Monitoring & Evaluation of Project

*Monitoring & Evaluation (M&E)
Framework/Strategy Report
(Final)*



MARCH- 2017

Submitted by:



Development Project Design & Services Ltd.



ACE Consultants Ltd.



MULTIPURPOSE DISASTER SHELTER PROJECT (MDSP)

(IDA Credit No.5561 BD)

Monitoring and Evaluation Consultancy Services

Local Government Engineering Department (LGED)

To
The Chief Engineer,
LGED, Dhaka.

Date : 30.03.2017
Our ref : MDSP-M&E/07
Dealt by: M&E Consultant team

Subject: Monitoring & Evaluation (M&E) Framework/ Strategy Report of MDSP (Final).

Sir,

In accordance with the contract requirements, I have the pleasure to submit herewith the final version of "Monitoring & Evaluation Framework/ Strategy Report for MDSP" for favor of your kind disposal.

Following distribution of the draft M&E Framework/ Strategy Report of MDSP, we received comments on the report from PMU and WB. We have updated the report meeting the comments and observations.

Regards.

Sincerely yours,

A.H.M. Mahbubur Rahman
Team Leader, M&E Consultants,
MDSP. Dhaka.

Enclo: Monitoring & Evaluation (M&E) Framework/ Strategy Report of MDSP.

Copy of the "Monitoring & Evaluation (M&E) Framework/ Strategy Report (Final)" forwarded for favour of kind disposal:

1. The Project Director, MDSP, LGED, Dhaka
2. The Team Leader, D&S Consultants, MDSP, LGED, Dhaka
3. Anna C. O'Donnell, TTL, MDSP, WB, Dhaka

Abbreviations and Acronyms

CPP	Cyclone Preparedness Program
DPD	Deputy Project Director
DPDS	Development Project Design and Services
D&SC	Design and Supervision Consultant
ECRRP	Emergency 2007 Cyclone Recovery and Restoration Project
EMF	Environmental Management Framework
EMP	Environmental Management Plan
ESMF	Environmental & Social Management Framework
GAAP	Governance and Accountability Action Plan
GIS	Geographic Information system
GOB	Government of Bangladesh
GPS	Global Positioning System
HQ	Head Quarter
ICR	Implementation Completion Report
ICT	Information and Communication Technology
IEE	Initial Environmental Examination
LGED	Local Government Engineering Department
MDSP	Multipurpose Disaster Shelter Project
M&E	Monitoring and Evaluation
M&EC	Monitoring and Evaluation Consultant
MLGCRD	Ministry of Local Governments, Cooperatives and Rural Development
MTRR	Mid-Term Review Report
MS	Monitoring System
ODK	Open Data Kit
ORAF	Operation Risk Assessment Framework
O&M	Operation & Maintenance
PAD	Project Appraisal Document
PD	Project Director
PDO	Project Development Objective
PIU	Project Implementation Unit
PMIS	Project Monitoring Information System
PMU	Project Management Unit
PRA	Participatory Rural Appraisal
PSC	Project Steering Committee
RAP	Resettlement Action Plan
SMC	School Management Committee
SMP	Social Managemet Plan
S/RPF	Social/Resettlement Policy Framework
TDF	Tribal Development Framework
ToR	Terms of Reference
URD	User Requirement Document
WB	World Bank

Consultancy Services for Monitoring & Evaluation Consultancy Services of Multipurpose Disaster Shelter Project (MDSP), LGED M&E Framework/Strategy Report

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1 Introduction

1.1 Background and Rationale

Bangladesh is a natural disaster prone Country. Severe cyclones occur almost at regular intervals. Cyclones Sidr, Aila, Mohasen are cyclones of recent past causing severe damages to lives and properties in coastal areas. The disaster issue is further challenged under severe climate change scenerios, particularly with respect o increasing frequency and intensity of extreme weather events and sea level rise.

MDSP was the output of a study under Component D of ECRRP aiming at undertaking a Long-Term Disaster Risk Management Program to strengthen disaster risk mitigation and reduction capacity and ability of the related Government Agencies and stakeholders.

1.1.1 MDSP: Project Development Objective (PDO)

The project development objective (PDO) of the MDSP is *“To reduce the vulnerability of the coastal population to natural disasters across selected coastal districts of Bangladesh.”* PDO will be measured through meeting the increased demand for multipurpose disaster shelters in targeted districts. The objective will be achieved by improving existing multi-purpose shelters, constructing new disaster shelters, and improving roads and connectivity in the area.

1.2 Description of MDSP

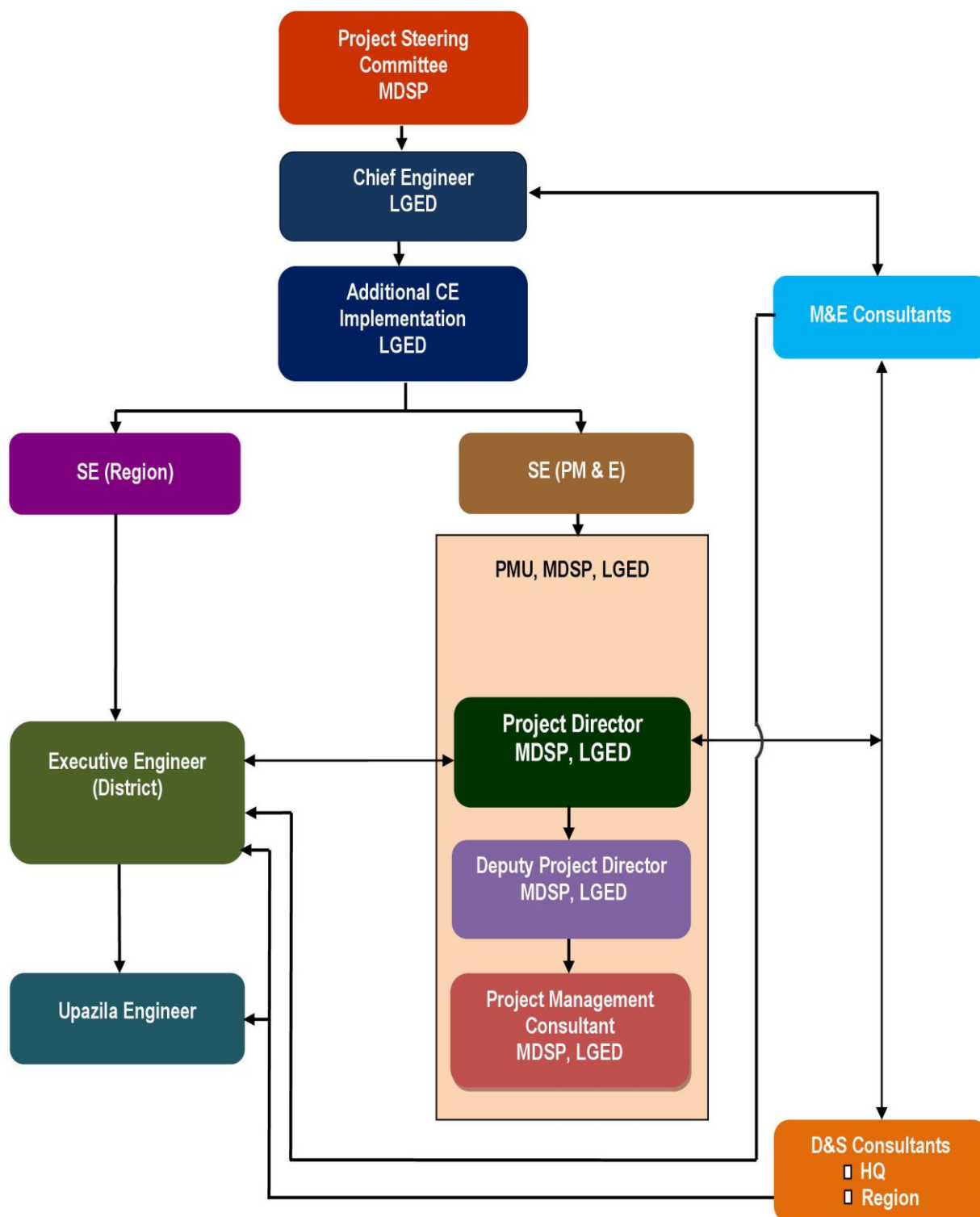
The Multipurpose Disaster Shelter Project (MDSP) is a large scale disaster risk mitigation infrastructure project that will strengthen emergency preparedness and will significantly reduce vulnerability to climate change and natural disasters. This is a follow up of the initial phase of similar successful interventions under ECRRP. The project is expected to have an impact on long-term disaster resiliency in Bangladesh focused particularly on the coastal region. MDSP would focus on meeting the high priority needs by providing construction of 552 nos. new shelters and the improvement of 450 nos. existing shelters. The project will construct 550 km connecting roads and communication networks to shelters with 500 metre bridges and culverts, ensuring increased accessibility and effectiveness. Amongst others, the project will extend support to Cyclone Preparedness Program (CPP) and School Management Committees (SMC) to operate, thereby increasing the sustainability and efficacy of the shelters.

Thus, safeguarding lives of people and livestock, the project will contribute to achieving goals of continued growth and shared prosperity of the residents of the vulnerable locality.

The Project Steering Committee (PSC) chaired by the Senior Secretary/ Secretary of the Local Government Division will provide overall guidance, policy advice and coordination in smooth implementation of the Project. As the Head of the Organization, the Chief Engineer, LGED will overview coordination and monitoring project activities.

The Project Monitoring Unit (PMU), established in LGED, coordinates and manages the Project. **Figure 1** is a graphical presentation of the project implementation arrangements of MDSP

Fig. 1: Implementation Arrangement



1.3 Project Location

Annex 1 shows the map of Bangladesh highlighting MDSP project area. **Table 1** presents the Districts and Upazilas covered by MDSP project area.

Table 1: Coverage of MDSP project area by District and Upazila in Chittagong and Barisal Division

Division	District	Upazila	Infrastructure/ Interventions to be Implemented
			under MDSP
Chittagong	Chittagong	Sandwip	✓
		Lohagara	✓
		Satkania	✓
		Patiya	✓
		Chandanish	✓
		Boalkhali	✓
		Banskhali	✓
		Sitakundu	✓
		Raojan	✓
		Rangunia	✓
		Mirsharai	✓
		Hathazari	✓
		Fatikchari	✓
		Anwara	✓
	Cox's Bazar	Kutubdia	✓
		Cox's Bazar Sadar	✓
		Chakoria	✓
		Pekua	✓
		Moheshkhali	✓
		Ramu	✓
		Ukhiya	✓
		Teknaf	✓
	Feni	Daganbhuiyan	✓
		Chhagalniya	✓
		Sonagazi	✓
		Feni Sadar	✓
		Porshuram	✓

Division	District	Upazila	Infrastructure/ Interventions to be Implemented
			under MDSP
	Lakshimpur	Fulgazi	✓
		Komol Nagar	✓
		Ramgati	✓
		Ramganj	✓
		Raipur	✓
		Lakshimpur Sadar	✓
	Noakhali	Subarna Char	✓
		Kabir Hat	✓
		Sonaimuri	✓
		Noakhali Sadar	✓
		Chatkhil	✓
		Begumgonj	✓
		Companigonj	✓
		Hatiya	✓
		Senbag	✓
Barisal	Bhola	Bhola Sadar	✓
		Borhanuddin	✓
		Char Fasson	✓
		Daulatkhan	✓
		Lalmohan	✓
		Monpura	✓
		Tajumuddin	✓
	Barisal	Agailjhara	✓
		Babuganj	✓
		Bakerganj	✓
		Banaripara	✓
		Barisal Sadar	✓
		Gournadi	✓

Division	District	Upazila	Infrastructure/ Interventions to be Implemented
			under MDSP
		Hizla	✓
		Muladi	✓
		Wazirpur	✓
	Pirojpur	Bhandaria	✓
		Kaukhali	✓
		Mothbaria	✓
		Nesarabad	✓
		Nazirpur	✓
		Pirojpur Sadar	✓
		Zia Nagar	✓
	Patuakhali	Galachipa	✓
		Dashmina	✓
		Kalapara	✓
		Mirjaganj	✓
		Patuakhali Sadar	✓
		Dumki	✓
		Bauphal	✓
		Rangabali	✓

2 M&E Framework

2.1 Overview

Levels of M&E for MDSP

There are three distinct but closely connected levels of monitoring and evaluation for MDSP. These levels, arranged according to the hierarchy of their “cause-effect” linkages, are as follows:

- Level 3 – Focuses on “outcome” of development efforts, which is the “change in development conditions” that MDSP aims to achieve. Outcome incorporates the resultant production of outputs due to aimed development.
- Level 2 – Focuses on “outputs”, which are the “specific products and services” that emerge from processing inputs through the MDSP.
- Level 1 – Concerned with the utilization of MDSP resources (inputs) and tracking of activities (progress).

Levels 2 and 3 answer the question “Are we doing the right thing?”, while Level 1 answers the question “Are we doing things right?”.

As envisaged in the project concept, LGED through PMU and with support of the M&E Consultant is responsible for the overall monitoring of project implementation activities, tracking progress towards achieving targeted output (Level 2) as well as the project’s contribution in terms of strategic outcome (Level 3).

By and large, LGED is responsible for proper management of inputs (Level 1) and timely delivery of outputs (Level 2) through sound administrative arrangements so as to produce the desired outcome (Level 3).

Purpose

The first and basic task in the Monitoring and Evaluation of Project and its Impact is the development of a comprehensive monitoring and evaluation framework for the MDSP. The M&E Framework serves as a plan for the systematic carrying out of monitoring and evaluation. The framework clarifies:

- What are to be monitored and evaluated;
- The activities needed to monitor and evaluate;
- Who is/are responsible for monitoring and evaluation activities;
- When monitoring and evaluation activities are planned (timing); and
- How monitoring and evaluation are carried out (methods).

Assigned Responsibility

The D&S Consultant (D&SC), as ‘Engineer’ is primarily responsible for design, supervision and implementation of project interventions. The M&E Consultant (M&EC) in collaboration with D&SC would support the PMU on overall project oversight, monitoring, validation and evaluation of project performance as per TOR including compliance of the environmental, social safeguards, Governance and Accountability Action Plan (GAAP), and matrix of Operational Risk Assessment Framework (ORAF) etc.

2.2 Framework Components

The M&E Framework has three main components:

1. **The Results Framework** – Refined and updated targets, outputs and outcomes of MDSP.
2. **Matrices of the M&E Framework** – Include the strategies and consolidated information required for monitoring and evaluation.
3. **Description of the M&E Framework** – Explanation on how PMU with the support of the M&E Consultant, and D&S Consultant will undertake monitoring and evaluation, the accountabilities assigned to different individuals and stakeholders, and other notes regarding the information in the matrices of the M&E framework. It also indicates, among others, monitoring and evaluation of: (a) project specific operational risks and risk mitigation measures; and (b) implementation and compliance of the environmental and social safeguards and (c) GAAP matrix.

2.2.1 Results Framework

The original Results Framework for the Project (as specified in the PAD) and the Logical Frameworks (as spelled out in the DPP) were prepared in the earlier part of year 2015 based on the findings and recommendations of the MDSP Feasibility Study report earlier taken up under ECRRP. From the time when the feasibility study findings were made up to the present, the affected communities themselves have made up solutions to the problems.

Therefore, the review/refinement of the MDSP Results Framework and the Logical Frameworks for project was deemed necessary to incorporate the developments that have occurred since their preparation up to the commencement of the project. PMU, D&S Consultants and M&E Consultant carried out this activity collaboratively. Specifically, the purposes of this activity are: (i) put the Results Framework and the Logical Frameworks at work by determining the consistency, appropriateness and “cause-effect” linkages of existing activities, outputs, outcomes and impact capturing what took place since their preparation up to the present; and (ii) enhance the frameworks by improving on current indicators and, when necessary, defining additional ones that reflect on development that were not overseen when the original frameworks were prepared.

The refined and updated MDSP Results Framework is presented in **Annex 2**. The framework has the following key elements shown in **Table 2** below:

Table 2: Key Elements of the Results Framework

Results (Col. 1)	Indicators (Col. 2)	Use of Results Information (Col. 3)
<u>Outcome statement</u> (short- to medium- term effects of projects intervention's outputs; change in development conditions)	Measure of progress against outcome	<ul style="list-style-type: none"> - To measure progressive impact of project. - To improve design of ongoing and likely future investment programs. - To make suitable adjustments on project design, implementation arrangements, and strategy.
<u>Project Outputs</u> (products, capital goods and services – tangible and intangible – delivered or provided by project interventions)	Measure of progress against output/s	<ul style="list-style-type: none"> - To measure progress and effectiveness of project interventions. - To make corrective actions to the project strategy, if necessary. - To make suitable adjustments on project design, implementation arrangements, and strategy.

Targets of Outcomes and Outputs of MDSP

The M&E Framework targets of outcomes and outputs and matrices (i.e. matrix of outcomes and outputs) were developed based on the key elements of the refined and updated Results Framework. To facilitate attainment of consensus thus promoting ownership by concerned stakeholders, the establishment of the M&E Framework was carried out by the M&E Consultants in collaboration with the PMU, D&S Consultants.

The targets of outcome and outputs is shown in **Annex 2: MDSP Results Framework**. It indicates the year-by-year (Fiscal) target achievements of project outputs (as measured through the output indicators) required in order to attain the expected outcome of MDSP (assessed through the outcome indicators). The information includes the following:

- Column 1 - Expected results: These are obtained from the refined and updated MDSP Results Framework – i.e. Column 1 “Expected Results” for project outcomes and outputs / intermediate outputs.
- Column 2 - Indicators: These are the refined and updated MDSP Results Framework – i.e. Column 2 “Indicators” for indicators of project outcomes, and outputs / intermediate outputs.
- Column 3 - Unit of measure
- Column 4 - Baseline value
- Columns 5 thru 10 - Values of indicators: Annual target values of output indicators are determined by the LGED as specified in the Development Project Proposal (DPP) – i.e. cumulative year wise financial and physical target plan (FY 2015-2016 to FY 2020-2021). Actual values of the indicators will be measured by LGED during project implementation.
- Column 11 - Reasons for variance / remarks: These are possible causes for the deviation of actual values of the indicators from the target values.

2.2.2 Matrices of the Outcomes and Outputs

The matrices of outcome and outputs are given in **Annex 3: MDSP Results Framework- Matrix of Outcomes and Outputs**. The matrix includes the following strategies and consolidated information required for monitoring and evaluation of MDSP outcome and outputs:

- Column 1 - Expected results: These are obtained from the refined and updated MDSP Results Framework – i.e. Column 1 “Expected Results” for project outcomes and outputs / intermediate outputs.
- Column 2 - Indicators: These are taken from the refined and updated MDSP Results Framework – i.e. Column 2 “Indicators” for indicators of project outcomes, and outputs / intermediate outputs.
- Column 3 - Baseline data: These are “before-the-project” values of the indicators and are deducted from measured progress values of indicators to determine the net values that can be attributable to the project. These are established by the D&S Consultants, in collaboration with the M&E Consultant.
- Column 4 - Cumulative Total Targets: These are determined by the LGED as specified in the approved Development Project Proposal (DPP) – i.e. year wise financial and physical target plan (FY 2015-2016 to FY 2020-2021).
- Column 5 - Data sources / means of verification: These are systematic sources and locations where identified and necessary data are found – e.g. secondary data from Design and Supervision (D&S) Consultant and field offices , primary data collection from target communities (sampling for verification).
- Column 6 - Data collection methods: Specify how data are to be obtained – e.g. through

LGED reports; through HH survey (sampling from target communities), KII at mid-term and end-of-project, etc.

- | | |
|----------|---|
| Column 7 | - Timing and frequency of data collection: Specifies when and how often data are to be collected – i.e. quarterly, annually, at mid-term and at end-of-project. |
| Column 8 | - Responsible person/agency for collecting data: Designates who are responsible for organizing the data collection, verifying data quality and source, and reporting. |

2.3 Description of the M&E Framework

2.3.1 Key Performance Indicators of MDSP

The project development objective (PDO) of the MDSP is “*To reduce the vulnerability of the coastal population to natural disasters across selected coastal districts of Bangladesh.*”

The PDO, MDSP will be achieved by improving existing multipurpose shelters, constructing new disaster shelters, and improving roads and connectivity in the area. The reduction of vulnerability will be measured in terms of the increase in the number of new multipurpose disaster shelters in targeted districts against the projected demand. In addition, incorporation of improved design provision will demonstrate gendered effect so far as it provides separate spaces and toilets for women, disabled persons. Sheltering livestock during disaster will allow better economic safety assurance to target groups. The multipurpose uses of the shelters particularly as educational institutes will make added social benefits in remote places.

The pertinent indicators in assessing the extent of the attainment of the outcomes are described below.

Results Indicators is shown in **Annex 2A**.

Outcome Indicator P-1: Increase in the share of needs met of priority multipurpose disaster shelters in the targeted districts:

- In terms of percentage

Rationale: Cyclone shelters are perhaps the only feasible forms of protection against cyclones as they provide “safe havens” and have been of great help in saving lives in the vulnerable population. Hence, one of MDSP’s expected outcomes is “*support provided for safety of vulnerable people and livestock.*”

Outcome indicator P-1 is suitable for measuring progress in terms of percentage and in terms of percentage towards the achievement of the targeted outcome. This indicator does not only reflect the progress in the construction and re-construction of shelters against demand but also in the effectiveness of the shelters in providing protection to the vulnerable population for which these shelters are intended.

Data needs: The value for this indicator is computed from the following data:

- (i) Baseline value of existing multipurpose shelters in targeted districts expressed in percent of requirement
- (ii) Total number of shelters constructed and rehabilitated under MDSP in targeted districts.
- (iii) Total requirement of shelters in targeted districts

Using the formula:

$$\text{Outcome Indicator P-1} = (i) + \{(ii) / (iii)\} \times 100$$

Baseline value: The baseline (before-the-project) value for this indicator is the existing number of shelters in the targeted districts expressed in percent of requirement.

Target values: The year-by-year target values for this indicator up to the end of project are indicated in **Annex 2A**.

Data source / means of verification: The source of data for this indicator is the 'Engineer'-D&S Consultant while verification/validation is done in the field offices of LGED and target communities (sampling).

Data collection method: Data is collected from monthly, quarterly and annual reports prepared by the D&S Consultant. Verification/validation is carried out by the M&E Consultants.

Outcome Indicator P-2: Number of project beneficiaries who have access to multipurpose shelters in targeted districts.

Rationale: This indicator is meant to make progressive assessment of the number of vulnerable population having opportunity to get shelter in the completed interventions.

Data needs: The value for this indicator is the number of target population for whom accommodation facility during disasters has been provided in the shelters.

- (i) Number of new shelters
- (ii) Number of rehabilitated shelters with upgraded facilities
- (iii) Average capacity of new shelters providing accommodation to vulnerable population of target communities
- (iv) Average capacity of rehabilitated shelters providing accommodation to vulnerable population of target communities

Computed value of Outcome Indicator P-2 = [(i) x (iii)] + [(ii) x (iv)]

Baseline value: The baseline value for this indicator is taken from the PAD.

Target values: The target value for this indicator by end of project is taken from the PAD.

Data source / means of verification: The sources of data for this indicator are the experts/D&S consultants and other stakeholders like NGOs, Cyclone Preparedness Program (CPP) volunteer force, key disaster management focal points, upazila level DMCs (sampling).

Data collection method: Data will be collected through survey and field visits.

Intermediate Result Indicators

A-1: Number of new multipurpose shelters constructed.

Rationale: The indicator aptly measures the degree of progress towards the attainment of the project in relation to increased protection of the vulnerable population and livestock provided by new multipurpose shelters. Before construction, the design of new shelters should meet the following criteria:

- Following design of improved safety standards;
- Having the capacity to meet the needs of the most vulnerable target communities during disasters, and to store food grains, relief supplies, drinking water, and with proper water and sanitation facilities;
- Appropriate and effective for multipurpose use;
- Provision of modern school appliances
- Located in most demanding remote coastal areas
- Scope to make effective access road.

Data needs: The value for this indicator is the number of new shelters constructed in accordance with improved design.

Baseline value: The baseline (before-the-project) value for this indicator is zero since construction of new shelters can only be achieved through project implementation.

Target values: The year-by-year target values for this indicator up to the end of project are indicated in **Annex 2A**.

Data source / means of verification: PMU and D&S Consultant/ Done by M&E Consultant (sampling)

Data collection method: Monthly, Quarterly and annual progress Reports of D&S Consultant and field visits by M&E Consultants.

Intermediate Result Indicator A-2: Number of multipurpose shelters rehabilitated.

Rationale: The indicator appropriately determines progress towards the achievement of project output in relation to increased protection for the vulnerable population provided by existing shelters that are repaired and improved. Before execution, the repair and improvement works of existing shelters should first be approved in the following context:

- o Following improved design standards;
- o Having the capacity to meet the needs of the most vulnerable in the target communities during emergencies, and to store food grains, relief supplies, drinking water, and with proper water and sanitation facilities;
- o Appropriate and effective for multipurpose use; Provision of modern school appliances.
- o Having appropriate and effective access road.

Data needs: The value for this indicator is the number of existing shelters repaired and improved upon in accordance with appropriate repair and improvement works.

Baseline value: The baseline value for this indicator is zero since repair and improvement of existing shelters can only be achieved through project implementation.

Target values: The year-by-year target values for this indicator up to the end of project are shown in **Annex 2A**.

Data source / means of verification: The source of data for this indicator is the PMU/ D&S Consultant, while verification/validation is done by M&E Consultant (sampling).

Data collection method: Data is collected from monthly, quarterly and annual reports being prepared by the D&S Consultant. Verification/validation is carried out by the M&E Consultant team.

Intermediate Result Indicator A-3: Roads constructed, rural.

Rationale: The indicator measures the degree of progress towards the attainment of the project in relation to providing flood free and safe communication facilities to the vulnerable population and livestock

Data needs: The value for this indicator is the length of access road in km in accordance with proper design.

Baseline value: The baseline (before-the-project) value for this indicator is zero since construction of road following standard design can only be achieved through project implementation.

Target values: The year-by-year target values for this indicator up to the end of project are indicated in **Annex 2A**.

Data source / means of verification: The source of data for this indicator is the PMU/ D&S Consultant, while verification/validation is done by M&E Consultant (sampling).

Data collection method: Data is collected from monthly, quarterly and annual reports being prepared by the D&S Consultant. Verification/validation is carried out by the M&E Consultant team

Intermediate Result Indicator A-4: Number of additional class rooms built or rehabilitated at the primary level resulting from project interventions.

Rationale: The indicator will ensure additional space as class rooms facilitating student accommodation with better schooling facilities.

Data needs: The value of this indicator is the number of additional class rooms built in the new shelters and in the horizontal/vertical buildings of the existing shelters.

Baseline value: The baseline (before-the-project) value for this indicator is zero since construction of additional class rooms can only be achieved through project implementation.

Target values: The year-by-year target values for this indicator up to the end of project are indicated in **Annex 2A.**

Data source / means of verification: The source of data for this indicator is the PMU/ D&S Consultant, while verification/validation is done by M&E Consultant (sampling).

Data collection method: Data is collected from monthly, quarterly and annual reports being prepared by the D&S Consultant. Verification/validation is carried out by the M&E Consultant team.

Intermediate Result Indicator A-5: Participants in consultation activities during project implementation.

Rationale: The purpose of the indicator is to record the number of the stakeholders attending FGD consultation meetings to have clear understanding of the project concept before and during implementation stage so as to develop a sense ownership in the project output and outcome.

Data needs: The value of this indicator is the number of participants attending the project consultation meetings at various stages of project implementation and even after completion.

Baseline value: The baseline (before-the-project) value for this indicator is zero.

Target values: The year-by-year target values for this indicator up to the end of project are indicated in **Annex 2A.**

Data source / means of verification: The source of data for this indicator is the Assessment Reports (Social and environmental) undertaken by the D&S Consultant. Verification/validation is carried out by the M&E Consultant team (sampling).

Data collection Method: Data is collected from package wise safety assessment reports prepared by the D&S Consultant.

Intermediate Result Indicator A-6: Participants (Female) in consultation activities during project implementation.

Rationale: The purpose of the indicator is to record the number of female stakeholders attending FGD consultation meetings to have clear understanding of the project concept before and during implementation stage so as to develop a sense ownership in the project output and outcome.

Data needs: The value of this indicator is the number of participants attending the project consultation meetings at various stages of project implementation and even after completion.

Baseline value: The baseline (before-the-project) value for this indicator is zero.

Target values: The year-by-year target values for this indicator up to the end of project are indicated in **Annex 2A**.

Data source / means of verification: The source of data for this indicator is the Assessment Reports (Social and environmental) undertaken by the D&S Consultant. Verification/validation is carried out by the M&E Consultant team (sampling).

Data collection Method: Data is collected from package wise safety assessment reports prepared by the D&S Consultant.

2.3.2 Additional Result Indicators for Tracking Project Inputs and Outputs and Outcome

The baseline data referred to are “before-the-project” values for additional result indicators of the project inputs, outputs and outcomes. These values are deducted from the measured progress values of these indicators to determine the net values that can be attributed to the project. The target beneficiaries are primarily the most vulnerable population in target communities and secondarily are the stakeholders concerned with the schools.

Additional Results indicators is shown in **Annex 2B**.

Additional Outcome indicator P-3: Increase in the share of needs met of priority multipurpose disaster shelters in the targeted districts:

- In terms of numbers

Rationale: Cyclone shelters are perhaps the only feasible forms of protection against cyclones as they provide “safe havens” and have been of great help in saving lives in the vulnerable population. Hence, one of MDSP’s expected outcomes is “support provided for safety of vulnerable people and livestock.

Additional Outcome indicator P-3 is suitable for measuring progress in terms of numbers towards the achievement of the targeted outcome indicator P-1. This indicator does not only reflect the progress in the construction and re-construction of shelters against demand but also in the effectiveness of the shelters in providing protection to the vulnerable population for which these shelters are intended.

Data needs: The value for this indicator is computed from the following data:

- Baseline value of existing multipurpose shelters in targeted districts expressed in numbers
- Total number of shelters constructed and rehabilitated under MDSP in targeted districts.

Using the formula:

Outcome Indicator P-3 = (i) + (ii)

Baseline value: The baseline (before-the-project) value for this indicator is the existing number of shelters in the targeted districts.

Target values: The year-by-year target values for this indicator up to the end of project are indicated in **Annex 2B**.

Data source / means of verification: The source of data for this indicator is the ‘Engineer’-D&S Consultant while verification/validation is done in the field offices of LGED and target communities (sampling).

Data collection method: Data is collected from monthly, quarterly and annual reports prepared by the D&S Consultant. Verification/validation is carried out by the M&E Consultants.

Additional Outcome Indicator P-4: Rehabilitation of Existing Shelters- Provide improved facilities(modern floor, water supply, sanitation, separate toilets for men and women, separate space for disabled and maternity use, store room, solar power etc.) to vulnerable population.

Rationale: This indicator has been added in assessing progress towards the attainment of the outcome “providing improved and upgraded facilities in existing cyclone shelters”. It measures (expressed in number) the extent of MDSP’s contribution towards attainment of the desired facilities to the vulnerable population in target communities.

Data needs: The value for this indicator is computed from the following data:

- (i) Number of existing shelters rehabilitated and provided with improved facilities
- (ii) Average capacity of rehabilitated shelters providing accommodation to vulnerable population of target communities

Computed value of Additional Outcome Indicator P-4 = [(i) x (ii)].

Baseline value: Existing shelters still provide protection to the vulnerable population during cyclones, although with poor facilities due to their relatively bad/dilapidated conditions. The baseline value of Outcome Indicator P-2 has however been considered as zero as none of these has the improved and upgraded facilities.

Target values: The annual target values for this indicator up to the end of project are shown in **Annex 2B**

Data source / means of verification: The source of data for this indicator is the D&S Consultant while verification/validation is done by M&E Consultants from the target communities (sampling).

Data collection method: Data is collected from monthly, quarterly and annual reports prepared by the D&S Consultant. Verification/validation is carried out by the M&E Consultant.

Additional Outcome Indicator P-5: Total number of project beneficiaries who have access to the multipurpose shelters under MDSP as a percentage (%) of total vulnerable population in targeted districts.

Rationale: This indicator has been added to supplement Outcome indicator P-2 for determining (in percent) the effectiveness and extent of contribution of MDSP intervention towards safety of vulnerable population during disasters.

Data needs: The value for this indicator is determined from the following data:

- (i) Total number of project beneficiaries who have access to the multipurpose shelters
- (ii) Total vulnerable population needing shelter during disaster in targeted districts

Computed value of Outcome Indicator P-5 = [(i) / (ii)] x 100

Baseline value: The baseline value will be determined carrying out baseline survey by the M&E consultants in collaboration with PMU and D&S Consultants.

Target values: The annual target values for this indicator up to the end of project will be finalized in consultation with PMU, D&S Consultants and field survey.

Data source: The sources of data for this indicator are the experts/D&S consultants and other stakeholders like NGOs, Cyclone Preparedness Program (CPP) volunteer force, key disaster management focal points, upazila level DMCs (sampling).

Data Collection Methods: Data will be collected through survey and field visits.

Additional Outcome Indicator P-6: Provision of space for providing shelter to live stock for safety in new shelters during disasters in targeted districts.

Rationale: This indicator has been added to assess the number of livestock given safety in new shelters during disasters.

Data needs: The value for this indicator is determined from the following data:

- (i) Total number of new shelters where separate space for livestock shelter have been provided.
- (ii) Average capacity of shelters accommodating livestock.

Computed value of Outcome Indicator P-6 = [(i) x (ii)]

Baseline value: The baseline value is 18000.

Target values: The annual target values for this indicator up to the end of project will be determined from survey.

Data source: The source of data for this indicator is the D&S Consultant while verification/validation is done by M&E Consultants from the target communities (sampling).

Data collection method: Data is collected from monthly, quarterly and annual reports prepared by the D&S Consultant .Verification/validation is carried out by the M&E Consultant.

Additional Outcome Indicator P-7: Number of livestock to have safe shelter in the multipurpose shelters as a percentage (%) of total vulnerable livestock population needing shelter in targeted districts.

Rationale: This indicator has been added to supplement to outcome indicator P-5 for determining (expressed in percent) the effectiveness and extent of contribution of new shelters towards safety of vulnerable livestock population during disasters.

Data needs: The value for this indicator is determined from the following data:

- (i) Total number of livestock having access for safety in new shelters.
- (ii) Total vulnerable livestock population needing shelter in targeted districts baseline value.

Computed value of Outcome Indicator P-7 = [(i) / (ii)] x100

Baseline value: The baseline value will be determined from survey.

Target values: The annual target values for this indicator up to the end of project will be finalized in consultation with PMU, D&S Consultants and field survey.

Data source: The sources of data for this indicator are the experts/D&S consultants and other stakeholders like NGOs, Cyclone Preparedness Program (CPP) volunteer force, key disaster management focal points, upazila level DMCs (sampling).

Data Collection Methods: Data will be collected through survey and field visits.

Additional Outcome Indicator P-8: Increase in the student enrolment in percent due to creation of additional space and provision of modern facilities for schooling in the shelter cum schools.

Rationale: This indicator has been added to determine (expressed in percent) the effected impact in terms of increased enrolment of students due to construction of new and upgrading old shelter cum schools for primary and other education.

Data needs: The value for this indicator is determined from the following data:

- (i) Total number of students enrolled in the schools before providing MDSP interventions.
- (ii) Total number of students that can be accommodated in the primary schools after MDSP interventions.

Computed value of Outcome Indicator P-8 = $\frac{(ii)-(i)}{(i)} \times 100$

Baseline value: The baseline value will be determined carrying out baseline survey by the M&E consultants in collaboration with PMU and D&S Consultants.

Target values: The annual target values for this indicator up to the end of project will be finalized in consultation with PMU, D&S Consultants and field survey.

Data source: The sources of data for this indicator are the experts/D&S consultants and other stakeholders like NGOs, Cyclone Preparedness Program (CPP) volunteer force, key disaster management focal points, upazila level DMCs (sampling).

Data Collection Methods: Data will be collected through survey and field visits.

Additional Outcome Indicator P-9: Perception on improved communication facilities for the target groups for easy access to shelter cum schools.

Rationale: This indicator has been added to determine the effectiveness of access roads on communities due to creation of improved road facilities.

Data needs: The indicator is qualitative and will be determined from the following:

- (i) The perception of the road users on level of satisfaction before road improvement
- (ii) The perception of the road users on level of satisfaction after road improvement.

Perception expressed in terms of Excellent, Very good, Good, Fair, Bad

Baseline value: The baseline perception will be determined carrying out survey by the M&E consultants in collaboration with PMU and D&S Consultants.

Target values: The perceptive outcome impression of this indicator will be determined carrying out survey in collaboration with PMU, D&S Consultants.

Data source: The sources of data for this indicator are the experts/D&S consultants and other stakeholders like NGOs, Cyclone Preparedness Program (CPP) volunteer force, key disaster management focal points, upazila level DMCs (sampling).

Data Collection Methods: Data will be collected through survey and field visits.

Additional Outcome Indicator P-10: Perception of beneficiaries on project intervention as safe haven.

Rationale: The interventions have been made to give the vulnerable people a sense of safety during disasters. The objective of the indicator is to obtain feed back from the target group for whom the interventions have been constructed.

Data needs: The value for this indicator is the beneficiaries' perception due to project interventions at mid-term and at end of project as compared to before-the-project:

Perception expressed in terms of High, Moderate, Average, Farly safe, Unsafe

Baseline value: The baseline value will be determined in the baseline survey to be carried out by the M&E Consultant.

Target values: The target value for this indicator at midterm and end of project is “Better than before the project”:

Data source / means of verification: The sources of data for this indicator are the beneficiaries impression by sampling.

Data collection method: Data is collected through survey (primary data gathering) to be conducted, at mid-term and at end of project, by the M&E Consultant in collaboration with the PIUs and the D&S Consultants.

Additional Intermediate Results Indicators

A-7: General views of stakeholders on Social/Environmental Safety Issues

- (a) ***Complying appropriate social mitigation measures before and during construction phase***
- (b) ***Complying required environmental mitigation measures before and during construction phase***

Rationale: The purpose of the indicator is to get feed back from the stakeholders if sufficient considerations on the identification and compliance of social and environmental safety measures owing to interventions have been made in the implementation plan and accordingly complied.

Data needs: Feedback from the stakeholders.

Baseline value: The baseline information will be obtained from the baseline survey to be carried out by the M&E Consultant.

Target values: The target of obtaining stakeholders perception on proper planning and meeting social and environmental safety issues due to constructions will be during baseline, midterm and end of project surveys.

Data source / means of verification: The sources of data for this indicator are the surveys conducted on the beneficiaries of MDSP by sampling.

Data collection method: Data is collected through survey (primary data gathering) to be conducted at baseline, mid-term and at end of project by the M&E Consultant in collaboration with the PIUs and the D&S Consultants.

A-8: Number of trainings conducted by the D&S Consultants for the capacity building of

- (a) **CPP volunteers**
- (b) **SMCs**

Rationale: The purpose of the indicator is to provide intensive trainings to;

- (a) Have continued coordination, support and strengthened capacity building of CPP volunteers in respect of appropriate use of the shelters prior and during disasters and
- (b) Make provision of important interface with the School Management Committees for the sustainability of smaller maintenance of the completed school cum shelters.

Data needs: The value of this indicator is the number of trainings undertaken by the D&S Consultant during project implementation.

Baseline value: The baseline value will be zero.

Target values: The year-by-year target values for this indicator up to the end of project are indicated in **Annex 2B.**

Data source / means of Verification: The source of data for this indicator is the PMU/ D&S Consultant, while verification/validation is done by M&E Consultant (sampling).

Data collection method: Data is collected from monthly, quarterly and annual reports being prepared by the D&S Consultant. Verification/validation is carried out by the M&E Consultant team.

A-9: Number of participants attending the training programs conducted for CPP volunteers and SMCs.

Rationale: The aim of the indicator is to record the number of the participants from CPP volunteers and SMC members obtaining specified training to serve the assigned tasks.

Data needs: The value of this indicator is the number of participants attending training program.

Baseline value: The baseline (before-the-project) value for this indicator is zero.

Target values: The year-by-year target values for this indicator up to the end of project are indicated in **Annex 2B.**

Data source / means of verification: The sources of data for this indicator are the beneficiaries of MDSP by sampling.

Data collection method: Data is collected from monthly, quarterly and annual reports being prepared by the D&S Consultant. Verification/validation is carried out by the M&E Consultant team.

A-10: ICT monitoring of number of visits made in the project sites by:

- (a) LGED Engineers
- (b) World Bank Personnel
- (c) M&E Consultant team members.

Rationale: The aim of the indicator is to monitor the number and frequency of visits by the LGED Engineers, World Bank Personnel and M&E Consultant team members assigned with the task of supervision of project implementation.

Data needs: The value of this indicator is the record of the number of visits undertaken per shelter per quarter.

Baseline value: The baseline (before-the-project) value for this indicator is zero.

Target values: The year-by-year target values for this indicator up to the end of project are indicated in **Annex 2B.**

Data source/means of verification: The source of data for this indicator is the PMU/ D&S Consultant, and M&E Consultant.

Data collection method: Data is collected from PMU, D&S Consultant, WB and M&E Consultant sources.

2.4 Tracking Key Indicators during Project Implementation

The tracking/monitoring of project inputs and outputs (through respective indicators), evaluation of progress towards outputs, and reporting to Chief Engineer, PMU and WB will be the responsibility of the M&E Consultants with support from the D&S Consultants. The M&E Consultant is also responsible for the verification, validation, and analysis of these information as to their contribution to progress in the attainment of desired outcome.

To facilitate and for consistency in monitoring, data collection and analysis; the Results Framework shown in **Annex 2** (Targets of Outcomes and Outputs) will be used, as follows:

- 1) Annual target values of outcome indicators (that would reflect the attainment of MDSP PDO) are collaboratively established by the PMU, D&S Consultant and M&E Consultant.
- 2) Year-by-year target values of the project output indicators (that would indicate the achievements of outputs contributing to the attainment of MDSP outcome) are determined by PMU, D&S Consultant as specified in the Development Project Proposal (DPP) – i.e. year wise financial and physical target plan (FY 2015-2016 to FY 2020-2021).
- 3) During project implementation; actual quarterly and annual values of output indicators are measured by PMU, MDSP through the D&S Consultant, and entered into the matrix. These are then compared to the target values, and analyzed as to their variance. Reasons for the deviation of actual values of the indicators from the target values, if there are any, are to be provided by LGED.
- 4) The M&E Consultant verifies the information provided by PMU with support from the D&S Consultant. These are then consolidated and analyzed to determine the degree of progress in the attainment of project outputs and consequently of their contribution to the overall progress towards the achievement of MDSP outcome.

2.5 Carrying out Process and Progress Monitoring of the Project

M&E Consultant will carry out M&E of project inputs and outputs as also the efficiency and effectiveness of the processes underlying the design and implementation of the project. The process monitoring forms (PMF), presented in **Annex 4** and described below, were devised to facilitate monitoring and evaluation:

- PMF-A-1– General Information on Cyclone Shelters: Construction/Re-construction– used in gathering basic features of new shelters, existing shelters to be repaired and improved and shelter connecting roads. This form would be filled-up upon selection of shelter/s.
- PMF-A-2– Process Monitoring – New Cyclone Shelter Packages– used in monitoring the quarterly pre-construction status (preparatory works, design, study of social and environmental aspect, tender process etc). The purpose of the monitoring activity using the form is to identify “bottlenecks” or causes of initial delays resulting consequent delay in the overall implementation process.
- PMF-A-3 – Process Monitoring- Repair and Improvement of Existing Shelter Packages: used in monitoring the quarterly pre-construction status (preparatory works, design, study of social and environmental aspect, tender process etc). The purpose of the monitoring activity using the form is to identify “bottlenecks” or causes of initial delays resulting consequent delay in the overall implementation process.
- PMF-A-4 – Process Monitoring- Construction of Shelter Connecting Roads: used in monitoring the quarterly pre-construction status (preparatory works, design, study of social and environmental aspect, tender process etc). The purpose of the monitoring activity using the form is to identify “bottlenecks” or causes of initial delays resulting consequent delay in the overall implementation process.
- PMF-A-5- Progress Monitoring – New Cyclone Shelter Packages– used in monitoring the quarterly physical and financial progress status of construction works.

- PMF-A-6- Progress Monitoring – Improvement of Existing Cyclone Shelter Packages– used in monitoring the quarterly physical and financial progress status of re-construction works.
- PMF-A-7 – Progress Monitoring- Construction of Shelter Connecting Road Packages– used in monitoring the quarterly physical and financial progress status of construction works.

The M&E Consultant will use the above forms for the purpose of independent monitoring and evaluation. Besides, contract wise financial and physical progress will be produced in S-curve showing target vs achievements along with variances of time.

3 Supervision of the Implementation and Compliance of the ESMF

3.1 General

The ESMF provides suggestive provisions for environmental and social considerations, a checklist of potential environmental and social issues usually generated due to project implementation activities. ESMF emphasizes the identification of the resultant social and environmental hazards and the mitigation measures thereof into the design of the project so that environmentally and socially sustainable implementation of project activities can take place.

The Environmental and Social part of ESMF requires the conduct of environmental impact assessment and social impact assessment studies of the individual subprojects complying with the GoB and WB environmental and social safeguard policies.

The social assessment mainly comprises of (i) beneficiary assessment, (ii) stakeholder analysis, and (iii) impact assessment related to land acquisition and displacement of PAPs (authorized and unauthorized) from the lands.

For carrying out environmental and social assessments, field surveys, consultations with different stakeholders, Focus Group discussions etc are needed.

3.2 Supervision of the Implementation and monitoring of Environmental Safeguards.

Environmental supervision and monitoring address two questions:

- (i) Implementation: What beneficial and/or adverse impacts is project implementation having on the environment?
- (ii) Compliance: Is the Project complying with relevant Government of Bangladesh and World Bank environmental policies, laws, guidelines, and procedures?

The environmental management studies serve as the environmental safeguard document for disclosure and consultation prior to implementation when details of subprojects are yet to be finalized,

MDSP interventions consist of new construction of shelters, rehabilitation of old shelters and construction of shelter connecting roads. The potential environmental impacts of these interventions, primarily those of construction activities are expected to be relatively minor.

Environmental Assessment (EA)

All the subprojects will be subject to prior environmental assessment in order prevent execution with significant negative environmental impacts. The purpose of EA is to get relevant environmental concerns addressed before start of construction activities to ensure identification of probable environmental impacts, mitigation measures thereof, preparation of Environmental Management Plan (EMP) which will be budgeted for. The Environmental Specialist of D&S Consultant will conduct the EA to come out with EMPs.

Major activities of EA are: i) Screening for identification of possible impacts, ii) Description of surrounding baseline environment along with a site map showing surrounding existing infrastructure likely to be affected by the intervention, iii) Analysis of alternatives, iv) evaluation of impacts on baseline environment, v) Carrying out public consultations, vi) Identification of possible hazards and mitigation measures thereof, vii) Preparation of EMP, and viii) Costing of EMP mitigatory measures. Special environmental clauses will be included in the BoQ of the contract with corresponding provision of budget for EMP implementation by the contractor.

PMU with the assistance from the M&E Consultants will be designated to review environmental assessment reports of all subprojects and obtain concurrence from the Bank for financing.

Supervision of EMP implementation and compliance

- It will be the basic responsibility of the contractor to implement the EMP as per provision of the terms of contract.
- The Environmental Specialist of the D&S consultant in cooperation with the field supervision staff will supervise the implementation and compliance of the site specific EMP.
- The M&E consultant will be responsible to oversee the implementation and compliance EMPs. PMU with the help of Environment Specialist of M&E Consultant will submit overall quarterly progress report on environment compliance to the World Bank.

The EMP, if needed will be periodically updated/modified throughout the implementation period so as to document the best operating/construction practices for present and future use by LGED as part of the agreed strategy of mainstreaming the environmental management process into all LGED works.

A checklist for field monitoring of the environmental safeguards is given in **Annex 5**

3.3 Supervision of the Implementation and Monitoring of the Social Safeguards

The SMF part of ESMF sets out policies, acts, rules, procedures to be followed and organizational arrangements to enhance positive social development impacts and mitigate adverse or negative social impacts of the MDSP. It: (i) defines mitigation measures to minimize social impacts; (ii) serves as a guide in the preparation of sub-project or site specific RAPs, where applicable and provides site-specific mitigation and monitoring measures; and (iii) provides screening, monitoring, and post-evaluation mechanisms.

Social Assessment (SA)

When the sites for new shelters, rehabilitation of older ones and construction of shelter connecting roads are finalized, detailed subprojectwise Social Assessments will be undertaken to identify project beneficiaries, project affected people (PAP) and other relevant stakeholders. Social issues relating project implementation are: i) avoiding adverse social impacts in site selection, design and construction, ii) participation by project functionaries and local communities, iii) identification of unavoidable adverse social impacts and mitigation, iv) social conflicts and grievances management, etc. The results of the social survey and community consultation will be a decisive element in selection of the design, size and location of the shelters.

Social assessment reports will cover among others, the following:

Land Acquisition

New shelters and horizontal extension buildings will be built on the existing land owned by the Government educational and social institutions. The Shelter Connecting Roads (SCR) will however be developed using the existing roads where land acquisition may not be necessary but in cases of narrow existing roads, extra land on the sides may be necessary to accommodate design width of the road. Therefore, shelters in general may not require land acquisition, but extra private land may be required for SCRs in particular cases when land may be acquired or voluntary donation need to be obtained.

Resettlement Action Plans (RAP)

The social assessment will feed into the relevant individual RAPs for applicable locations and will be incorporated, along with consultation feedback from those identified in the PAP census relating to development of mitigation measures, especially livelihood strategies of affected persons, if any. D&S Consultants is mainly responsible for preparation of the sub project specific social assessment reports covering adverse social negative impact, if any and preparation of Social management Plan (SMP), RAP etc. The implementation of the SMP and RAP, Grievance Redress Mechanism (GRM) will be applied for each subproject site.

PMU with the assistance from the M&E Consultants will be designated to review social assessment reports of all subprojects for obtaining subsequent concurrence from the Bank.

Monitoring of Compliance of Social Safety Issues.

The M&E consultant will be responsible for overseeing the implementation and compliance of SMPs and RAPs. PMU with the help of Social Management Specialist of M&E Consultant will submit overall quarterly progress report on compliance of social safeguard issues to the World Bank.

The above issues have been explained in details in the **Environmental and Social Management Framework (ESMF)**

4 ICT Monitoring System

4.1 Introduction

One of the important innovative inclusion in the MDSP is the introduction of ICT Monitoring System. The ICT monitoring tasks will be performed by the D&S Consultants in collaboration with all project stakeholders.

The purpose of ICT monitoring of MDSP as envisaged in the PAD is to improve the efficiency of project implementation by providing a single stop instrument to ensure monitoring of (i) project construction activities, (ii) adherence to quality assurance plan, and (iii) compliance of environmental and social safeguard aspect of project interventions. It will also record the number and frequency of visits made by D&S Consultants, LGED Engineers, M&E Consultants, and the WB representatives.

ICT monitoring system is meant to provide in-depth and real-time snapshots of project activities to the project supervising personnel. The mechanism will automatically create pressure points for timely addressing identified problems, shortcomings, inject transparency into the construction process and generation of motivation spirit amongst supervision teams and contractor personnel.

4.2 Features of ICT Monitoring System of MDSP

The ICT monitoring system mainly include the following features as outlined in the ToR of the D&S Consultants:

- i) Build a custom, user-friendly, LGED branded interface for ODK Collect with a login panel and launch new application for down load on Android. The App should be developed such as the monitoring reports would be generated by field level supervision engineers for the purposes of monitoring construction progress of infrastructure;
- ii) Create customized forms for monitoring reports that closely replicate and supplement the paper based system that LGED currently uses;
- iii) Solicit feedback on the proposed user interface and forms from field staff of LGED/ D&S Consultant, HQ staff of LGED/ D&S Consultant and M&E Consultant. This will be useful in finalizing issues based on participatory feedback.
- iv) Develop database monitoring system in LGED HQ. Separate systems to be established for the Chief Engineer's office and the PMU office.
- v) Develop database management system and trained system analysts. The system should put in place edit trackers to fully capture edits made to reports, draw attributes and analyse shelter based and user based statistics, as well as generate periodical reports for PMU staff as well as the Chief Engineer;
- vi) Install system on equipment purchased by LGED for the project, conduct training sessions by the system analyst;
- vii) System Analyst/ database developer will develop and manage database system. He will conduct trainings to related field and HQ staff to ensure performance of the activity mentioned in SI. (iii) from the beginning of the project; and
- viii) Monitoring and oversight over rolling out the system during project implementation period; and
- ix) Handing over the completed ICT monitoring technology and database system to LGED at end of project.

4.3 Development of ICT Monitoring Tool by the D&S Consultant.

Being primarily responsible for the development of the ICT Monitoring System, the D&S Consultants have since developed ICT Monitoring Tools for MDSP. The smart-phone based ICT monitoring tool includes mechanisms for real-time monitoring of data capture, participatory tracking of project progress and irregularities etc. It also includes multiple customized formats suitable for capturing information at different stages of project implementation with provision of transmittal of spot photos with reporting dates and times, GPS coordinates etc. via a mobile device to an online database.

The prime *objectives* of ICT Monitoring Tools are to:

- Provide a single stop instrument, to monitor the progress of construction works;
- Provide in-depth and real time snapshots of project performance;
- Motivate the supervision teams and contractors

The ICT Monitoring Tool can be used to monitor and evaluate the following parameters:

- Tracking of project progress and irregularities;
- Monitoring of compliance of EMPs and SMPs;
- Monitoring of number and frequency of visits by D&SC, LGED Engineers, M&E Consultants and WB representatives;
- Real-time monitoring of data capture including GPS coordinates;
- Ensure the quality of construction works through regular supervision of key activities;
- Capabilities to submit pictures and comments;
- Pinned reports will be shown for each shelter on an interactive map interface

Key Users of ICT Monitoring APP.

The following have been permitted as key users of ICT Monitoring App:

- LGED
- D&S Consultants
- WB Representatives
- SMCs.

The **M&E Consultants** being responsible for overall monitoring and evaluation of project activities and impacts need be included in the list of key users of ICT Monitoring App developed by D&SC.

4.4 ICT Monitoring by the M&E Consultants

In case of ICT monitoring of MDSP by the M&EC, the monitoring and evaluation of the project is the main concern. The Monitoring system provides information to support certain project activities. In the development of the ICT M&E system for use by the M&EC, an exercise is made to identify the information required, i.e. the information needed for the project specialists to monitor and evaluate the project activities and the sources thereof. Then processes are defined to obtain the needed information.

The M&E ICT Monitoring System to support M&E activities consists of two components:

- The ICT M&E database
- The ICT M&E web site

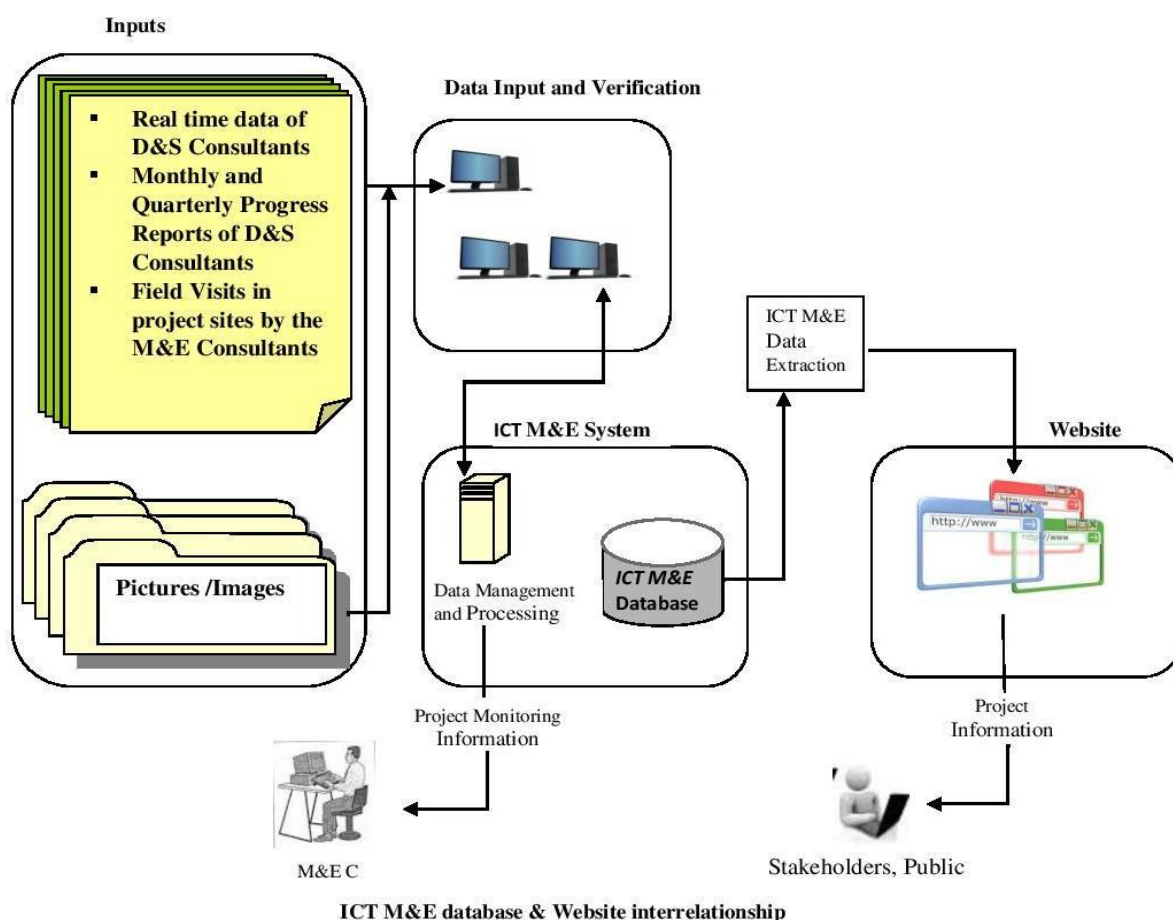
The ICT M&E database contains all the textual data required for project M&E. A Database Management System (DBMS) is used to enter, store, process and analyze the data and present the result thereof.

The ICT M&E web site disseminates extract of the M&E database concerning the project.

Summarizing, the ICT M&E system provides M&E output in the form of text, tables and graphs that can be presented through reports, web site and local area network.

ICT M&E data base and website inter-relationship is shown in **Figure 2** below.

Figure 2: ICT M&E database and website inter-relationship.



4.4.1 ICT M&E database

The database is the core of the ICT M&E System. Its function is to store and manage the data that are required for the ICT M&E System and website.

Base data concerns all data that, in principle, are entered once at the beginning and serve as base for the analysis of periodical data. Base data includes, among others, identifiers and description of indicators, and baseline and target values.

Monitoring data concerns periodical project related data that is collected during the course of the project implementation and includes, among others, actual achievements vs. targets of indicator values.

Information required for monitoring and evaluation

Information Analysis

The first step in the monitoring system development process concerns the determination of the information that is required to support the MDSP monitoring and evaluation (M&E) activities. Furthermore information is required to show to a wider audience in order to make project results transparent. The LGED and WB will be interested in the status of activities and finances at a certain point of time and showing comparison with the planning of activities and expenditures in order to be able to take timely action especially when activities are overdue and/or budgets are exceeded. The required information of the indicators for project output and outcomes, process and progress and the results of relevant analyses thereof.

Information requirements

Output and outcome indicators

The output and outcome indicators are originally provided in the PAD of MDSP. The PAD indicators have been fully reviewed and updated in order to make a more comprehensive and effective monitoring and assessment of the project impact. This will however, be fine-tuned by the M&E Consultant in consultation with the PMU, D&SC and WB.

ICT M&E Output Forms

The information required for M&E of project activities is provided in the form of user-friendly interactive output forms. The content of these forms will be finalized in consultation with the project stakeholders. The database has been designed in such a way that additional outputs, if required can be developed at a later stage.

The list of outputs forms are given in **Table 3**.

Table 3: List of the Output Forms

Output Forms	Description
PMF-A-1	General Information on Cyclone Shelters: Construction/Re-construction– used in gathering basic features of new shelters, existing shelters to be repaired and improved and shelter connecting roads. This form would be filled-up upon selection of shelter/s.
PMF-A-2	Process Monitoring – New Cyclone Shelter Packages– used in monitoring the quarterly pre-construction status (preparatory works, design, study of social and environmental aspect, tender process etc). The purpose of the monitoring activity using the form is to identify “bottlenecks” or causes of initial delays resulting consequent delay in the overall implementation process.
PMF-A-3	Process Monitoring- Repair and Improvement of Existing Shelter Packages: used in monitoring the quarterly pre-construction status (preparatory works, design, study of social and environmental aspect, tender process etc). The purpose of the monitoring activity using the form is to identify “bottlenecks” or causes of initial delays resulting consequent delay in the overall implementation process.
PMF-A-4	Process Monitoring- Construction of Shelter Connecting Roads: used in monitoring the quarterly pre-construction status (preparatory works, design, study of social and environmental aspect, tender process etc). The purpose of the monitoring activity using the form is to identify “bottlenecks” or causes of initial delays resulting consequent delay in the overall implementation process.
PMF-A-5	Progress Monitoring – New Cyclone Shelter Packages– used in monitoring the quarterly physical and financial progress status of construction works.
PMF-A-6	Progress Monitoring – Improvement of Existing Cyclone Shelter Packages– used in monitoring the quarterly physical and financial progress status of re-construction works.
PMF-A-7	Progress Monitoring- Construction of Shelter Connecting Road Packages– used in monitoring the quarterly physical and financial progress status of construction works.
PMF-A-8	Environmental Assessment Status Monitoring: Monitoring of progress status of EA Reports <ul style="list-style-type: none"> - Preparation -----(Date) - Review and Recommendations -----(Date) - Approval by PMU ----- (Date) - Concurrence by WB ----- (Date)
PMF-A-9	Social Assessment Status Monitoring: Monitoring of progress status of SA Reports <ul style="list-style-type: none"> - Preparation -----(Date) - Review and Recommendations -----(Date) - Approval by PMU -----(Date) - Concurrence by WB -----(Date)

4.4.2 ICT M&E Website

The objective of the ICT M&E website is to disseminate information about M&E of MDSP and provide information about project progress, compliance of safeguards issues etc.

The ICT M&E website will be developed, hosted and administered by the M&E Consultants.

The website will have periodical updating to focus latest information.

The ICT M&E website monitoring information can be accessed in an interactive way.

Website Menu

The website will have the following menu and sub-menu:

- Home page
- ICT M&E Data Extract
- M&E Information updates: Monthly/ Quarterly
- Field Visit Reports
- Progress Reports
 - Quarterly
 - Annual
- Deliverables
 - M&E Framework/ Strategy Report
 - Baseline Report
 - Midterm Evaluation Report
 - Final Impact Assessment Report
 - Project Completion Report
- User feedback
- Photo Gallery
- Links
- Contact Us

The detailed User Requirement Document (URD) on ICT Monitoring Software, Database and M&E website will be prepared & circulated separately.

5 Project ‘Operational Risks’ and ‘GAAP’ of MDSP

5.1 Operational Risk Assessment Framework (ORAF)

Project specific risks originate mainly on procurements, financial management and activities relating to implementation. Adequate measures need to be built-in to the project design to mitigate the risks. The overall risk of MDSP has been rated as ‘Substantial’ in the PAD. The risk rating has been based on the governance risk present in the country, the fiduciary risks related to large procurement packages, and risks related to delivery of monitoring and supervision. Parallel to the identification of risks, PAD has put in place several risk mitigation measures in the ORAF to address specific MDSP related risks. Matrix of ORAF has been given in **Annex 6**.

M&E Consultants with support from the PMU and D&S Consultants will regularly monitor compliance of the risk mitigation measures which will be reflected in the periodical reports of the M&E Consultants.

5.2 Governance and Accountability Action Plan (GAAP)

PAD of MDSP identifies specific measures to ensure good governance and minimize fraud and corruption risks of the project. GAAP describes the responsibilities of LGED as implementing agency and World Bank as donor to facilitate effective and appropriate use of the funds for the project. The specified measures of GAAP will be adjusted as necessary during project implementation to reflect governance issues. GAAP will be monitored regularly by LGED in cooperation with the independent M&E Consultants through indicators as mentioned in **Annex 7**. The periodical follow up GAAP monitoring report will be reflected in the reports of the M&E Consultants. The WB implementation supervision missions will separately monitor GAAP issues which will be reflected in the Aide Memoires.

5.3 Proposing/Recommending Appropriate Corrective Actions and Recommendations

The M&E Consultant will assess the primary information provided by the D&S Consultant for tracking/monitoring of key indicators (described in Section 2.4), and process & progress monitoring (explained in Section 2.5), supplemented with the results of the independent monitoring and verification. Based on the results of the assessment, the M&E Consultant will propose recommendations for appropriate corrective actions, if any. These will be regularly provided to LGED for taking timely actions.

6 M&E by Consultants

6.1 Objectives

The M&E Consultant Team supports the LGED in undertaking oversight M&E activities, and in providing feedback to the LGED, PMU, WB and related stakeholders on project performance and impact at various stages of project implementation so as to help the decision makers and the donor in taking appropriate decisions and actions in a timely manner.

On 24 September 2016, the JV of Development Project Design and Services Limited (DPDS), Bangladesh and ACE Consultants Ltd. (ACE), Bangladesh (herein the M&E Consultant) entered into an agreement with LGED for rendering the Monitoring and Evaluation Consultancy Services for Multipurpose Disaster Shelter Project (MDSP) .

6.2 Scope of Works

The scope of work of Monitoring and Evaluation Consultants is to carry out the following activities of MDSP:

- 1) Overall monitoring and evaluation of project implementation;
- 2) carry out independent monitoring of project progress, inputs, outputs, outcomes and impacts of project activities;
- 3) Review and monitor specific social and environmental management plans and assessments, supervision of compliance of social and environmental safeguards;
- 4) Evaluate project impact on disaster risk reduction measures on the communities against specified indicators;
- 5) Help reinforce overall transparency and governance during project implementation;
- 6) Monitor compliance of Operation Risk Assessment Framework (ORAF) and Governance and Accountability Action Plan (GAAP), and
- 7) Provide feedback to LGED, PMU, WB on project implementation performance, issues and impact.

6.3 M&E Tasks

The M&E Consultant will work independently as the PMU, MDSP will be responsible for contract management. The Consultant will periodically report to the Chief Engineer, LGED and other concerned stakeholders to keep all apprised of the project performance, impact assessment and corrective measures, if any at various stages of project implementation.

According to TOR, the M&E Consultant will perform 11 specified tasks as listed below:

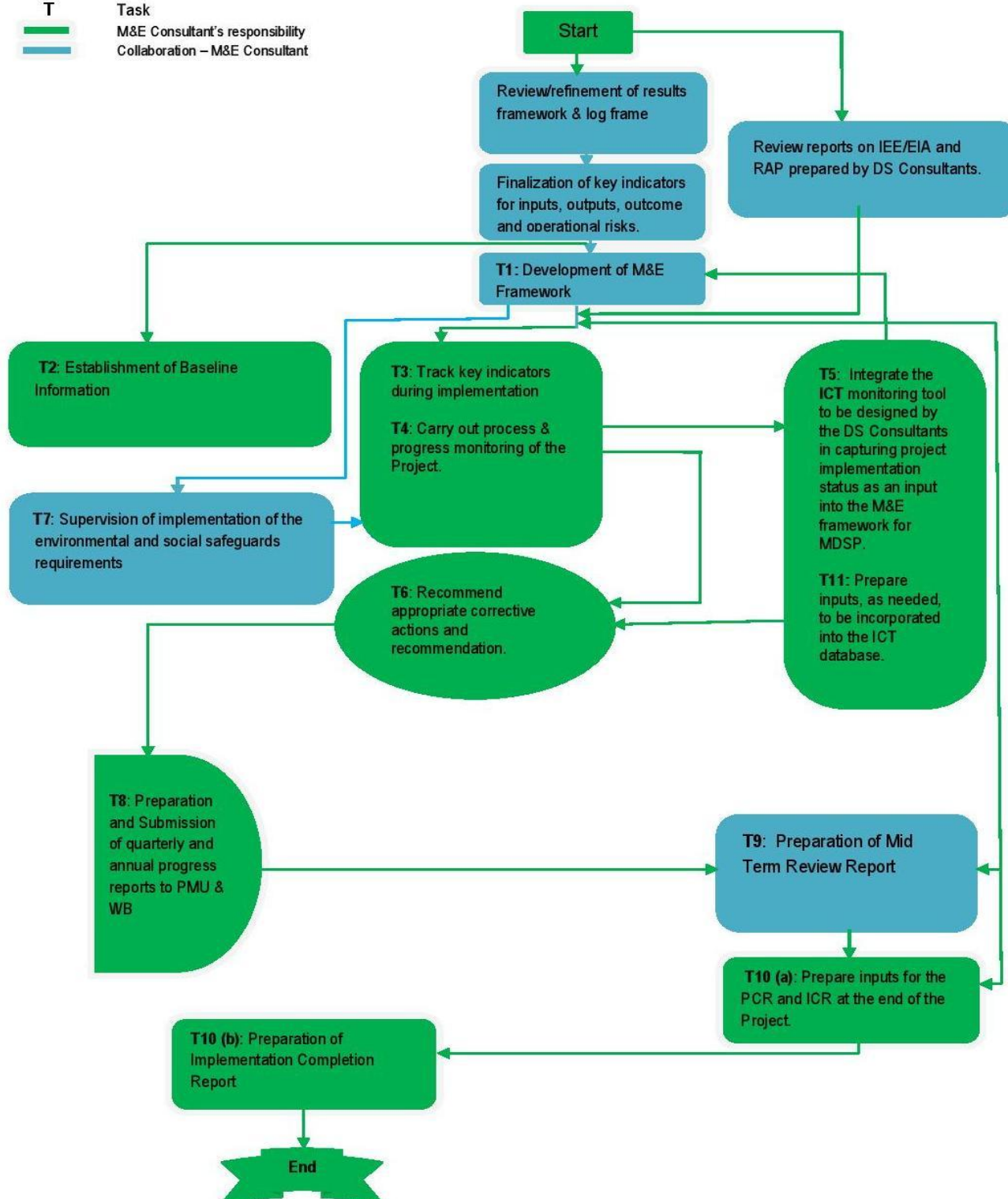
- Task 1: Create a comprehensive M&E Framework for MDSP;
- Task 2: Develop baselines for the key project indicators for tracking project inputs, outputs and outcomes;
- Task 3: Track key indicators (input, output, outcome, operational risks and governance issues) during project implementation;
- Task 4: Carry out process & progress monitoring of the Project;
- Task 5: Integrate the ICT monitoring tool designed by the D&S Consultants in capturing project implementation status as an input into the M&E Framework;
- Task 6: Recommend appropriate corrective actions and recommendations;
- Task 7: Supervise the implementation of the environmental and social safeguards requirements (including quality control oversight of safeguards documentation prepared by the D&S Consultants)
- Task 8: Prepare and submit consolidated quarterly and annual progress reports to LGED, PMU and WB;
- Task 9: Prepare Mid-term Review report for MDSP;
- Task 10: Prepare inputs for the PCR and ICR at the end of the project; and
- Task 11: Prepare inputs, as needed for incorporation into the ICT database.

The sequence of the conduct of the M&E Consultant's tasks, and their interrelationships is shown in **Figure 3**.

Figure 3: Flowchart of M&E Consultant Tasks

Legend

T	Task
█	M&E Consultant's responsibility
█	Collaboration – M&E Consultant



6.4 Monitoring and Evaluation – Key Performance Indicators for Outputs of M&E Consultants

The output of the Monitoring and Evaluation of Project Impact is “**Project outputs and outcomes are measured and documented to best satisfaction of LGED**”. The pertinent indicators in assessing the level of achievement of this output by the M&E Consultants are described below.

Output Indicator B-1: Development of Monitoring and Evaluation Framework/Strategy for MDSP.

Rationale: The M&E framework/strategy, which serves as the plan and guidelines for monitoring and evaluation of MDSP, would be developed in partnership with PMU and D&S Consultant to promote ownership of the framework by the Implementing Agency. Output Indicator B-1 was included to specify that the M&E framework/strategy should be established such that monitoring and evaluation can be carried out systematically enhancing progress towards the achievement of M&E output.

Data needs: The value for this indicator is the assessment of the status of the development/ establishment of the MDSP M&E framework/strategy.

Baseline value: This indicator has no baseline (before-the-project) value since the development of the MDSP M&E framework will only be carried-out during project start up stage.

Target values: The target for this indicator is that the M&E framework/strategy *report* be developed and established by January 2017.

Data source / means of verification: The sources of data for this indicator are the PMU, D&S Consultant and the M&E Consultant.

Data collection method: M&E Framework/Strategy Report.

Output Indicator B-2: Evaluation and Assessment of Project Impact.

Rationale: Baseline data are reference information against which progress in the attainment of project outputs and outcomes are compared or assessed. Baseline information should be established at the start up stage thus contributing to project progress towards the achievement of M&E output.

Data needs:

- Baseline survey to develop baselines for key project indicators
- Mid-term survey to assess intermediate project outcome
- End-of-project survey to make final assessment of project impact.

Data source / means of verification: The sources of data for this indicator are the baseline, mid-term and end-of-project survey data obtained by conducting field survey by the M&E Consultant and secondary data.

Data collection method: Baseline, mid-term and end-of-project survey (for project outputs and outcomes) undertaken by the M&E Consultant; Social Assessment Reports covering baseline information prepared by the D&SC.

6.5 Tracking Key Indicators during Project Implementation

The tracking/monitoring of project inputs and outputs (through their respective indicators), evaluation of progress towards outputs, and reporting to PMU/WB, is mainly the responsibility of M&E Consultant. The M&E Consultant is also responsible for the consolidation, verification, and analysis of these information as to their contribution to progress in the attainment of outcome.

To facilitate and for consistency in monitoring, data collection and analysis; the matrix shown in **Annex 2** (Global Targets of Outcomes and Outputs) will be used, as follows:

- 1) Annual target values of outcome indicators (that would reflect the attainment of MDSP PDO) are collaboratively established by the PMU, D&S Consultant and M&E Consultant.
- 2) Year-by-year target values of output indicators (that would indicate the achievements of outputs contributing to the attainment of MDSP outcome) are determined by the PMU/ D&S Consultants as specified in their respective approved Development Project Proposal (DPP) – i.e. year wise financial and physical target plan (FY 2015-2016 to FY 2020-2021).
- 3) During project implementation; actual quarterly and annual values of output indicators are measured by the D&S Consultant and entered into the matrix. These are then compared to the target values, and analyzed as to their variance. Reasons for the deviation of actual values of the indicators from the target values, if there are any, are to be provided by LGED.
- 4) The M&E Consultant verifies the information provided by D&S Consultant. These are then validated and analyzed to determine the degree of progress in the attainment of outputs and consequently of the overall progress towards the achievement of MDSP outcome.

6.6 Carrying Out Process and Progress Monitoring of the Project

M&E will not only be carried out for project inputs, outputs and outcomes but also on the efficiency and effectiveness of the processes underlying the design and implementation of the project components. Process and progress monitoring will be linked to M&E of operational risks and governance aspects. The M&E Consultant team does not include any field staff of its own for the purpose of carrying out independent monitoring in the field. The M&E Consultant will establish participatory monitoring by the field personnel of LGED, D&S Consultant and beneficiary communities, NGOs, and/or other community-based organizations. The M&E Consultant's specialists will conduct regular verification and validation of information for quality control purposes.

The formats for Process and progress monitoring have been given in **Annex 4**

Deliverables

Besides others, the general outputs from the M&E Consultant in the form of reports include:

- (i) Inception Report,
- (ii) Detailed M&E Framework/ Strategy Report,
- (iii) Baseline Survey Report,
- (iv) Periodical Reports (Quarterly and Annual Reports),
- (v) Mid Term Review (MTR) Report,
- (vi) Implementation Completion Report (ICR), and
- (vii) Final Report/ Final Impact Evaluation Report.

6.7 Preparation and Submission of Reports

The M&E Consultant will prepare and submit to the Chief engineer, LGED, PMU and WB with copies to the project stakeholders, the following reports throughout their contract period.

- 1) **Monthly Updates in the Website**– Consolidated updates on the progress of the processes underlying the design and implementation of the project.

- 2) **Baseline Survey Report**

The M&E Consultants in collaboration with the PMU, PIUs, D&S Consultants and other related stakeholders will undertake a Baseline Survey as a first step to establish the pre-intervention situation against which progress towards final indicators in the Project Results Framework will be measured. The Baseline Report will cover the following: a household survey to find out the existing socioeconomic status of the target population, prevailing living conditions of the communities to be served by the shelters and other interventions before start of project works; general perception of the beneficiaries concerning the needs and benefits of shelters, access roads, schools; general perception of their needs; level of awareness among beneficiaries about MDSP interventions etc.

The Baseline will use a quasi-experimental design with the before-and-after-intervention-measures. This design involves the use of treatment and control groups where both groups are deemed similar in that differences could be clearly attributed to the MDSP with a high degree of confidence. The Consultant will design a baseline survey methodology in consultation with the PMU and other stakeholders. Survey data will describe 'before' project conditions.

The baseline survey will be supplemented by secondary data on socio-economic conditions in selected areas as well as environmental, institutional and production profiles, which will be collected from secondary sources such as government offices. The baseline household survey will be supplemented by Key Informant Interviews (KIA).

The sampling design as well as sample size will be determined once the schemes (Construction/ Re-construction of Shelters, Shelter Connecting Roads etc.) have been selected in consideration of two important elements: the first is the geographic expanse or outreach of selected schemes and the second is the population of farms and households within the geographic expanse of selected schemes. Random sampling techniques will be applied in the field data collection. The survey will be carried out through personal interviews using a pre-tested and structured baseline survey questionnaire. Prior to designing the questionnaire, the M&E Consultant will review formats currently used by Government agencies. The survey questionnaire will be pre-tested and the final one will be subject to the concurrence by the PMU and the Bank.

The output of the baseline survey will be documented in a Baseline Survey Report that will discuss the methodology, analysis and findings on 'before' project conditions.

Baseline Survey Indicators:

The baseline survey will include a canvas of indicators that will be examined during the field contacts conducted with various stakeholders. This will comprise of:

- Existing network of shelters and access roads in the project area
- Catchment population under the existing network of shelters in the communities
- Construction/ Reconstruction of the multipurpose disaster shelters and O&M issues
- Construction/ Improvement of communication network including bridges and culverts to the multipurpose disaster shelters and O&M issues
- Catchment population of students in the existing schools
- Institutional, social and tribal issues
- Financial and fiscal aspects
- Economic aspects, long term sustainability, assessment of secondary impact on economic activity in the project area

- Environmental aspects
- Any other key measurable indicators as may be relevant and identified during the project period.

The collected information will be utilized for the monitoring and evaluating of the project performance against the project objectives. In order to collect information, the M&E Consultant will be supported by the field staffs of LGED, D&S Consultants during the entire period of the project.

3) Quarterly and Annual Progress Reports:

- Progress (as of the reporting quarter/year) in the attainment of project outputs and outcomes measured through the corresponding indicators (as reflected in Annex 2). These are based on data of quarterly/annual reports of D&S Consultants, tracking key indicators by the M&EC; and the independent monitoring and verification of the indicators through intensive field visits by M&EC;
- Feedback regarding implementation progress as against the targets and work plans;
- Feedback on progress towards attainment of outputs and outcomes;
- Feedback on the efficiency and effectiveness of the implementation processes and approaches;
- Recommendation of corrective actions on implementation strategies and practices, if any. If required, recommendations on changes in the project scope, interventions, implementation processes, etc. for consideration of LGED and WB.
- Status of environment and social management plan implementation.

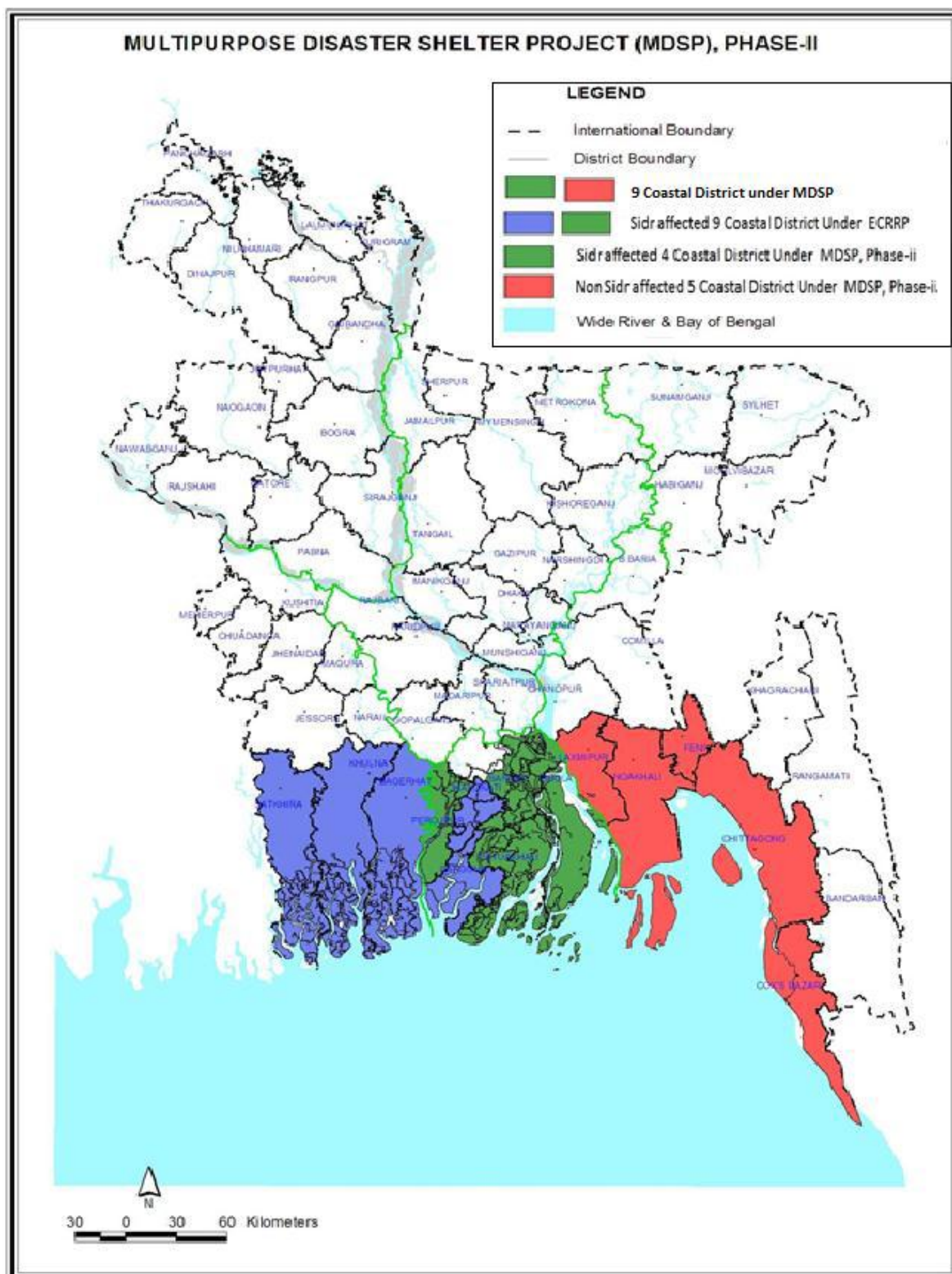
4) Mid-Term Review Report

The mid-term review report will focus upon, amongst others evaluation of project impact at mid term stage of project implementation. The Mid-term Review Report will include: (i) progress up to mid-term stage, (ii) work program for the remainder of project, and (iii) key issues, if any for attention of LGED/PMU/World Bank. For impact evaluation of project up to mid-term stage, a HH field survey will be undertaken by the M&E Consultants. The mid-term report will include: (i) evaluation of project progress compared to target, (ii) assessment and analysis of project outcomes and impact, (iii) review of environmental and social compliance, (iv) organized monitoring database, v) recommendations based on the lessons learnt.

5) Prepare inputs for the Project Completion Report and Implementation Completion Report

The M&E Consultants will prepare inputs for the Project Completion Report and Implementation Completion Report at the end of the project. Besides, the M&E Consultants will also conduct final HH survey on the target group to assess and prepare final project impact evaluation report.

Annex-1: Map of Bangladesh, Highlighting MDSP Project Area



Annex-2: MDSP Results Framework

Annex 2A: Results Indicators

Project Development Objectives							
PDO Statement							
The development objective of this project is to reduce the vulnerability of the coastal population to natural disasters across selected coastal districts of Bangladesh.							
These results are at	Project Level						
Project Development Objective Indicators							
Indicator Name	Baseline	Cumulative Target Values					
		YR1	YR2	YR3	YR4	YR5	End Target
P-1 Increase in the share of needs met of priority multipurpose disaster shelters in the targeted districts (Percentage)	60.00	60.00	65.00	70.00	75.00	80.00	80.00
P-2 Number of project beneficiaries who have access to multipurpose shelters in targeted districts (Number)	0.00	121,500.00	314,500.00	557,500.00	968,500.00	1,236,500	1,236,500.00

Intermediate Results Indicators

Indicator Name	Baseline	Cumulative Target Values					
		YR1	YR2	YR3	YR4	YR5	End Target
A-1 Number of new multipurpose shelters constructed (Number)	0.00	50.00	150.00	250.00	350.00	552.00	552.00
A-2 Number of multipurpose shelters rehabilitated (Number)	0.00	50.00	100.00	200.00	325.00	450.00	450.00
A-3 Roads constructed, Rural (Kilometers) - (Core)	0.00	50.00	100.00	300.00	450.00	550.00	550.00
A-4 Number of additional classrooms built or rehabilitated at the primary level resulting from project interventions. (Number) - (Core)	0.00	300.00	750.00	1350.00	2325.00	3000.00	3000.00
A-5 Participants in consultation activities during project implementation (number) (Number) - (Core)	0.00	2,000.00	5,000.00	10,000.00	13,500.00	20,000.00	20,000.00
A-6 Participants in consultation activities during project implementation - female (Number - Sub-Type: Breakdown) - (Core)	0.00	1,000.00	2,500.00	5,000.00	6,750.00	10,000.00	10,000.00

Annex 2B: Additional Results Indicators

EXPECTED RESULTS (Col. 1)	ADDITIONAL PDO INDICATORS (Col. 2)		Unit of Measure (Col. 3)	Baseline Value (Col. 3)	Cumulative Targets Values (Fiscal Year)						Reasons for Variance Remarks (Col. 11)
					YR 0 (2015-16) (Col. 5)	YR 1 (2016-17) (Col. 6)	YR 2 (2017-18) (Col. 7)	YR 3 (2018-19) (Col. 8)	YR 4 (2019-20) (Col. 9)	YR 5 (2020-21) (Col. 10)	
PDO The development objective of this project is to reduce the vulnerability of the coastal population to natural disasters across selected coastal districts of Bangladesh.	P-3	Increase in the share of needs met of priority multipurpose disaster shelters in the targeted districts: In terms of numbers:	Target Actual Variance: value %	Number	3006	Project start up activities				4008	
	P-4	Rehabilitation of Existing Shelters- Provide improved facilities (Modern floor, water supply, sanitation, separate toilets for men & women, separate space for disabled and maternity use, store room, solar power etc.) to vulnerable population.	Target Actual Variance: : value %	Number of target groups benefitted (Population)	0.00	Project start up activities				450,000.00	
	P-5	Total number of project beneficiaries who have access to the multipurpose shelters under MDSP as a percentage (%) of total vulnerable population in targeted districts.	Target Actual Variance: value %	%	-	Project start up activities				-	
	P-6	Provision of space for providing shelter to live stock for safety in new shelters during disasters.in targeted districts.	Target Actual Variance value %	Number	18,000.00	Project start up activities				1,10,400.00	

EXPECTED RESULTS (Col. 1)	ADDITIONAL PDO INDICATORS (Col. 2)		Unit of Measure (Col. 3)	Baseline Value (Col. 3)	Cumulative Targets Values (Fiscal Year)						Reasons for Variance Remarks (Col. 11)
					YR 0 (2015-16) (Col 5)	YR 1 (2016-17) (Col 6)	YR 2 (2017-18) (Col 7)	YR 3 (2018-19) (Col 8)	YR 4 (2019-20) (Col 9)	YR 5 (2020-21) (Col 10)	
	P-7	Number of livestock to have safe shelter in the multipurpose shelters as a percentage (%) of the total vulnerable livestock population in targeted districts.	Target Actual Variance: value %	%	-	Project start up activities				-	
	P-8	Increase in the student enrolment in percent due to creation of additional space and provision of modern facilities for schooling in the shelter cum schools.	Target Actual Variance: value %	%	0.00	Project start up activities				-	
	P-9	Perception on improved communication facilities for the target groups for easy access to shelters cum schools.	Target Actual Variance: value %	-	-	Project start up activities				-	
	P-10	Perception of beneficiaries on project interventions as safe haven.	Target Actual Variance: value %	-	-	Project start up activities				-	

Additional Intermediate Results Indicators.

EXPECTED RESULTS (Col. 1)	INTERMEDIATE RESULT INDICATORS (Col. 2)		Unit of Measure (Col. 3)	Baseline Value (Col.4)	Cumulative Values (Fiscal Year)						Reasons for Variance Remarks (Col. 11)
					YR 0 (2015-16) (Col. 5)	YR 1 (2016-17) (Col. 6)	YR 2 (2017-18) (Col. 7)	YR 3 (2018-19) (Col. 8)	YR 4 (2019-20) (Col. 9)	YR 5 (2020-21) (Col. 10)	
	A-7	General views of stakeholders on Social/ Environmental Safety Issues:									
	(a)	Complying appropriate social mitigation measures before and during construction phase.	Target Actual Variance: value %	-	-	Project start up activities				-	
	(b)	Complying required environmental mitigation measures before and during construction phase.	Target Actual Variance: value %	-	-	Project start up activities				-	
	A-8	Number of trainings conducted by the D&S Consultants for the capacity building of:									
	(a)	CPP Volunteers	Target Actual Variance: value %	Number	0.00	Project start up activities				-	
	(b)	SMCs	Target Actual Variance: value %	Number	0.00	Project start up activities				-	

EXPECTED RESULTS (Col. 1)	INTERMEDIATE RESULT INDICATORS (Col. 2)		Unit of Measure (Col. 3)	Baseline Value (Col.4)	Cumulative Values (Fiscal Year)						Reasons for Variance Remarks (Col. 11)
					YR 0 (2015-16) (Col.5)	YR 1 (2016-17) (Col.6)	YR 2 (2017-18) (Col.7)	YR 3 (2018-19) (Col.8)	YR 4 (2019-20) (Col.9)	YR 5 (2020-21) (Col.10)	
	A-9 Number of participants attended in the training programs conducted for:										
		(a) CPP Volunteers	Target Actual Variance: value %	Number	0.00	Project start up activities					-.
		(b) SMCs	Target Actual Variance: value %	Number	0.00	Project start up activities					-.
	A-10 ICT monitoring of number of visits made in the project sites by:										
		(a) LGED Engineers	Target Actual Variance: value %	Number	0.00	Project start up activities					-
		(b) World Bank Personnel	Target Actual Variance: value %	Number	0.00	Project start up activities					-
		(c) M&E Consultant team members	Target Actual Variance: value %	Number	0.00	Project start up activities					-.

Note: Baseline and cumulative target values that are not furnished in the table will be finalized in consultation with PMU, DS Consultants & field survey.

Annex-3: Multipurpose Disaster Shelters Project: Result Framework- Matrix of Outcomes & Outputs

Annex 3A: Multipurpose Disaster Shelter Project: Monitoring - Outcome Matrix per PAD.

EXPECTED RESULTS (Col.1)	OUTCOME INDICATORS (Col. 2)	BASELINE DATA (Col. 3)	TOTAL TARGET- CUMULATIVE (Col. 4)	DATA SOURCES! MEANS OF VERIFICATION (Col. 5)	DATA COLLECTION METHODS (Col. 6)	TIMING AND FREQUENCY OF DATA COLLECTION (Col. 7)	RESPONSIBLE PERSON FOR COLLECTING DATA (Col. 8)
PDO The development objective of this project is to reduce the vulnerability of the coastal population to natural disasters across selected coastal districts of Bangladesh.	P-1 Increase in the share of needs met of priority multipurpose disaster shelters in the targeted districts (Percentage)	60	80	Source: PMU/ Design & Supervision (D&S) Consultant of MDSP Verification: From field offices of LGED/ DS Consultants and target communities (sampling).	From monthly, quarterly and annual progress reports prepared by the D&S Consultant of MDSP Verification sampling during periodic field visits by M&E Consultant, baseline, mid-term & end of project survey.	Quarterly and annually.	M & E Consultant's team members in collaboration with the PIUs & staffs of the D&S Consultants of MDSP at field and HQ.
	P-2 Number of project beneficiaries who have access to multipurpose shelters in targeted districts (Number)	0.00	12,36,500.00	Source: PMU/ Design & Supervision (D&S) Consultant of MDSP Verification: From field offices of LGED/ DS Consultants and target communities (sampling).	From monthly, quarterly and annual progress reports prepared by the D&S Consultant of MDSP Verification sampling during periodic field visits by M&E Consultant, baseline, mid-term & end of project survey.	Quarterly and annually.	M & E Consultant's team members in collaboration with the PIUs & staffs of the D&S Consultants of MDSP at field and HQ.

Annex 3B: Multipurpose Disaster Shelter Project: Additional Monitoring-Outcome Matrix

EXPECTED RESULTS (Col. 1)	OUTCOME INDICATORS (Col. 2)	BASELINE DATA (Col. 3)	TOTAL TARGET (Col. 4)	DATA SOURCES! MEANS OF VERIFICATION (Col. 5)	DATA COLLECTION METHODS (Col. 6)	TIMING AND FREQUENCY OF DATA COLLECTION (Col. 7)	RESPONSIBLE PERSON FOR COLLECTING DATA (Col. 8)
PDO The development objective of this project is to reduce the vulnerability of the coastal population to natural disasters across selected coastal districts of Bangladesh.	P-3 Increase in the share of needs met of priority multipurpose disaster shelters in the targeted districts: In terms of numbers:	3006.00	4008.00	Source: PMU/ Design & Supervision (D&S) Consultant of MDSP Verification: To be done by the M& E Consultant's team members (sampling).	From monthly, quarterly and annual progress reports prepared by the D&S Consultant of MDSP Verification sampling during periodic field visits by the M&E Consultant team.	Quarterly and annually.	M & E Consultant's team members in collaboration with the PIUs & staffs of the D&S Consultants of MDSP at field and HQ.
	P-4 Rehabilitation of Existing Shelters- Provide improved facilities (Modern floor, water supply, sanitation, separate toilets for men & women, separate space for disabled and maternity use, store room, solar power etc.) to vulnerable population.	0.00	4,50,000.00	Source: PMU/ Design & Supervision (D&S) Consultant of MDSP Verification: To be done by the M& E Consultant's team members (sampling).	From monthly, quarterly and annual progress reports prepared by the D&S Consultant of MDSP Verification sampling during periodic field visits by the M&E Consultant team.	Quarterly and annually.	M & E Consultant's team members in collaboration with the PIUs & staffs of the D&S Consultants of MDSP at field and HQ.

EXPECTED RESULTS (Col. 1)	OUTCOME INDICATORS (Col. 2)	BASELINE DATA (Col. 3)	TOTAL TARGET (Col. 4)	DATA SOURCES! MEANS OF VERIFICATION (Col. 5)	DATA COLLECTION METHODS (Col. 6)	TIMING AND FREQUENCY OF DATA COLLECTION (Col. 7)	RESPONSIBLE PERSON FOR COLLECTING DATA (Col. 8)
	P-5 Total number of project beneficiaries who have access to the multipurpose shelters under MDSP as a percentage (%) of total vulnerable population in targeted districts.	-	-	Source: PMU/ Design & Supervision (D&S) Consultant of MDSP Verification: To be done by the M& E Consultant's team members (sampling).	From monthly, quarterly and annual progress reports prepared by the D&S Consultant of MDSP Verification sampling during periodic field visits by the M&E Consultant team.	Quarterly and annually.	M & E Consultant's team members in collaboration with the PIUs & staffs of the D&S Consultants of MDSP at field and HQ.
	P-6 Provision of space for providing shelter to live stock for safety in new shelters during disasters. In targeted districts.	18,000.00	1,10,400.00	Source: PMU/ Design & Supervision (D&S) Consultant of MDSP Verification: To be done by the M& E Consultant's team members (sampling).	From monthly, quarterly and annual progress reports prepared by the D&S Consultant of MDSP Verification sampling during periodic field visits by the M&E Consultant team.	Quarterly and annually.	M & E Consultant's team members in collaboration with the PIUs & staffs of the D&S Consultants of MDSP at field and HQ.

EXPECTED RESULTS (Col. 1)	OUTCOME INDICATORS (Col. 2)	BASELINE DATA (Col. 3)	TOTAL TARGET (Col. 4)	DATA SOURCES! MEANS OF VERIFICATION (Col. 5)	DATA COLLECTION METHODS (Col. 6)	TIMING AND FREQUENCY OF DATA COLLECTION (Col. 7)	RESPONSIBLE PERSON FOR COLLECTING DATA (Col. 8)
	P-7 Number of livestock to have safe shelter in the multipurpose shelters as a percentage (%) of the total vulnerable livestock population in targeted districts.	-	-	Source: PMU/ Design & Supervision (D&S) Consultant of MDSP Verification: To be done by the M& E Consultant's team members (sampling).	From monthly, quarterly and annual progress reports prepared by the D&S Consultant of MDSP Verification sampling during periodic field visits by the M&E Consultant team.	Quarterly and annually.	M & E Consultant's team members in collaboration with the PIUs & staffs of the D&S Consultants of MDSP at field and HQ.
	P-8 Increase in the student enrolment in percent due to creation of additional space and provision of modern facilities for schooling in the shelter cum schools.	0.00	-	Source: PMU/ Design & Supervision (D&S) Consultant of MDSP Verification: From field offices of LGED/ DS Consultants and target communities (sampling).	From monthly, quarterly and annual progress reports prepared by the D&S Consultant of MDSP Verification sampling during periodic field visits by M&E Consultant, baseline, mid-term & end of project survey.	Quarterly and annually.	M & E Consultant's team members in collaboration with the PIUs & staffs of the D&S Consultants of MDSP at field and HQ.

EXPECTED RESULTS (Col. 1)	OUTCOME INDICATORS (Col. 2)	BASELINE DATA (Col. 3)	TOTAL TARGET (Col. 4)	DATA SOURCES! MEANS OF VERIFICATION (Col. 5)	DATA COLLECTION METHODS (Col. 6)	TIMING AND FREQUENCY OF DATA COLLECTION (Col. 7)	RESPONSIBLE PERSON FOR COLLECTING DATA (Col. 8)
	P-9 Perception on improved communication facilities for the target groups for easy access to shelters cum schools.	-	-	Source: Experts/ Design & Supervision (D&S) Consultant of MDSP and other stakeholders like NGOs, CPP Volunteer force, Key Disaster focal points, upazila level DMCs Verification: From field offices of LGED/ DS Consultants and target communities (sampling).	Sampling during periodic field visits by M&E Consultant, baseline, mid-term & end of project survey.	Quarterly and annually.	M & E Consultant's team members in collaboration with the PIUs & staffs of the D&S Consultants of MDSP at field and HQ.
	P-10 Perception of beneficiaries on project interventions as safe haven.	-	-	Source: Experts/ Design & Supervision (D&S) Consultant of MDSP and other stakeholders like NGOs, CPP Volunteer force, Key Disaster focal	Sampling during periodic field visits by M&E Consultant, baseline, mid-term & end of project survey.	Quarterly and annually.	M & E Consultant's team members supported by the staffs of the D&S Consultants of MDSP at field and HQ.

EXPECTED RESULTS (Col. 1)	OUTCOME INDICATORS (Col. 2)	BASELINE DATA (Col. 3)	TOTAL TARGET (Col. 4)	DATA SOURCES! MEANS OF VERIFICATION (Col. 5)	DATA COLLECTION METHODS (Col. 6)	TIMING AND FREQUENCY OF DATA COLLECTION (Col. 7)	RESPONSIBLE PERSON FOR COLLECTING DATA (Col. 8)
				points, upazila level DMCs Verification: From field offices of LGED/ DS Consultants and target communities (sampling).			

Note: Baseline and cumulative target values that are not furnished in the table will be finalized in consultation with PMU, DS Consultants & field survey.

Annex-3C: Multipurpose Disaster Shelter Project: Monitoring Output Matrix per PAD.

EXPECTED RESULTS (Col 1)	INTERMEDIATE RESULT INDICATORS (Col. 2)	BASELINE DATA (Col. 3)	TOTAL TARGET (Col. 4)	DATA SOURCES! MEANS OF VERIFICATION (Col. 5)	DATA COLLECTION METHODS (Col. 6)	TIMING AND FREQUENCY OF DATA COLLECTION (Col. 7)	RESPONSIBLE PERSON FOR COLLECTING DATA (Col. 8)
	A-1 Number of new multipurpose shelters constructed (Number)	0.00	552.00	Source: Experts/ Design & Supervision (D&S) Consultant of MDSP and other stakeholders like NGOs, CPP Volunteer force, Key Disaster focal points, upazila level DMCs Verification: From field offices of LGED/ DS Consultants and target communities (sampling).	From monthly, quarterly and annual progress reports prepared by the D&S Consultant of MDSP Verification sampling during periodic field visits by M&E Consultant, baseline, mid-term & end of project survey.	Quarterly and annually.	M & E Consultant's team members in collaboration with the PIUs & staffs of the D&S Consultants of MDSP at field and HQ.
	A-2 Number of multipurpose shelters rehabilitated.(Number)	0.00	450.00	Source: PMU/ Design & Supervision (D&S) Consultant of MDSP Verification: From field offices of LGED/ DS Consultants and target communities (sampling).	From monthly, quarterly and annual progress reports prepared by the D&S Consultant of MDSP Verification sampling during periodic field visits by M&E Consultant, baseline, mid-term & end of project survey.	Quarterly and annually.	M & E Consultant's team members in collaboration with the PIUs & staffs of the D&S Consultants of MDSP at field and HQ.
	A-3 Roads constructed, Rural (Kilometers)	0.00	550.00	Source: PMU/ Design & Supervision (D&S) Consultant of MDSP Verification: From field offices of LGED/ DS	From monthly, quarterly and annual progress reports prepared by the D&S Consultant of MDSP Verification sampling during	Quarterly and annually.	M & E Consultant's team members in collaboration with the PIUs & staffs

				Consultants and target communities (sampling).	periodic field visits by M&E Consultant, baseline, mid-term & end of project survey.		of the D&S Consultants of MDSP at field and HQ.
A-4	Number of additional classrooms built or rehabilitated at the primary level resulting from project interventions. (Number)	0.00	3,000.00	Source: PMU/ Design & Supervision (D&S) Consultant of MDSP Verification: From field offices of LGED/ DS Consultants and target communities (sampling).	From monthly, quarterly and annual progress reports prepared by the D&S Consultant of MDSP Verification sampling during periodic field visits by M&E Consultant, baseline, mid-term & end of project survey.	Quarterly and annually.	M & E Consultant's team members in collaboration with the PIUs & staffs of the D&S Consultants of MDSP at field and HQ.
A-5	Participants in consultation activities during project implementation (Number)	0.00	20,000.00	Source: PMU/ Design & Supervision (D&S) Consultant of MDSP Verification: From field offices of LGED/ DS Consultants and target communities (sampling).	From monthly, quarterly and annual progress reports prepared by the D&S Consultant of MDSP Verification sampling during periodic field visits by M&E Consultant, baseline, mid-term & end of project survey.	Quarterly and annually.	M & E Consultant's team members in collaboration with the PIUs & staffs of the D&S Consultants of MDSP at field and HQ.
A-6	Participants in consultation activities during project implementation - female (Number)	0.00	10,000.00	Source: PMU/ Design & Supervision (D&S) Consultant of MDSP Verification: From field offices of LGED/ DS Consultants and target communities (sampling).	From monthly, quarterly and annual progress reports prepared by the D&S Consultant of MDSP Verification sampling during periodic field visits by M&E Consultant, baseline, mid-term & end of project survey.	Quarterly and annually.	M & E Consultant's team members in collaboration with the PIUs & staffs of the D&S Consultants of MDSP at field and HQ.

Annex -3D: Multipurpose Disaster Shelter Project: Additional Monitoring Output Matrix

	A-7 General views of stakeholders on Social/ Environment safety issues.	-	-	Source: PMU/ Design & Supervision (D&S) Consultant of MDSP Verification: From field offices of LGED/ DS Consultants and target communities (sampling).	From monthly, quarterly and annual progress reports prepared by the D&S Consultant of MDSP Verification sampling during periodic field visits by M&E Consultant, baseline, mid-term & end of project survey.	Quarterly and annually.	M & E Consultant's team members in collaboration with the PIUs & staffs of the D&S Consultants of MDSP at field and HQ.
	A-8 Number of trainings conducted by the D&S Consultants for the capacity building of: a) CPP Volunteers b) SMCs	0.00 0.00	- -	Source: PMU/ Design & Supervision (D&S) Consultant of MDSP Verification: From field offices of LGED/ DS Consultants and target communities (sampling).	From quarterly and annual progress reports prepared by the D&S Consultant of MDSP Verification sampling during periodic field visits by M&E Consultant, baseline, mid-term & end of project survey.	Quarterly and annually.	M & E Consultant's team members in collaboration with the PIUs & staffs of the D&S Consultants of MDSP at field and HQ.
	A-9 Number of participants attending the training programs conducted for: a) CPP Volunteers b) SMCs	0.00 0.00	- -	Source: Design & Supervision (D&S) Consultant of MDSP Verification: From field offices of LGED, and target communities (sampling).	From quarterly and annual progress reports prepared by the D&S Consultant of MDSP Verification sampling	Quarterly and annually.	M & E Consultant's team members supported by the staffs of the D&S Consultants of MDSP at field and HQ.

	A-10 ICT monitoring of number of visits made in the project sites by:			Source: Design & Supervision (D&S) Consultant of MDSP	From monthly, quarterly and annual progress reports prepared by the D&S Consultant of MDSP	Monthly, quarterly and annually.	M & E Consultant's team members supported by the staffs of the D&S Consultants of MDSP at field and HQ.
	(a) LGED Engineers	0.00	-				
	(b) World Bank Personnel	0.00	-	Verification: From field offices of LGED, and target communities (sampling).			
	(c) M&E Consultant team members	0.00	-		Verification sampling		

Note: Baseline and cumulative target values that are not furnished in the table will be finalized in consultation with PMU, DS Consultants & field survey.

Annex 4: Monitoring Forms – MDSP

Monitoring Form PMF-A1: General Information on Cyclone Shelters- Construction/ Re-construction MDSP Component A: Reconstruction and Improvement of Multipurpose Shelters

Date:

Package No.	Shelter ID (including shelter connecting roads, bridges and culverts etc.)	Shelter constructi on or repair/ improveme nt? (C or R)	Estimated Cost (Tk. In lakh)	Location of the Shelter				Capacity of the Shelter vis-à-vis total population in the community (village)			Shelter Connecting Roads		Livestock Provision		Existing Shelters (Out of MDSP)			Remarks (any relevant information not yet included, e.g., multipurpose use, general description of vicinity etc.)	
				Coordinates		Village/ Mouza	Upazila	District	Floor Area of Shelter (sq.m)	Capacity of the Shelter (no. of persons)	Population in the community / village	Access road [m]	Bridge/ culvert [length in m]	Area [sq.m]	Capacity [no. of livestock]	Number	Operationa l / Non- Operationa l (O / N)		Capacity of the Shelter (no. of persons)
				Lat	Long														
1	2		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

Information gathered/provided by:

Check/verified by:

Signature over printed name, Designation, Date

Signature over printed name, Designation, Date

Process Monitoring Form PMF-A3: Process Monitoring - Package wise Improvement of Cyclone Shelters
MDSP Component A: Reconstruction and Improvement of Multipurpose Shelters

Progress Monitoring Form PMF-A5: Progress Monitoring - Package wise Construction of New Cyclone Shelters

MDSP Component A: Reconstruction and Improvement of Multipurpose Shelters

Date:

[illegible]

Progress Monitoring Form PMF-A6: Progress Monitoring - Package wise Improvement of Existing Cyclone Shelters
MDSP Component A: Reconstruction and Improvement of Multipurpose Shelters

Annex 5: Environmental Monitoring Checklist for Old Shelter/New Shelter/SCR

Environmental Monitoring Checklist for Old Shelter/New Shelter/ SCR

Agency: LGED

Date:

Contract No:

Name of Work:

Location:

Contractors Name:

Mitigation measures.

Hazards	Potential Impact	Mitigation Measures	Compliance Status			Instructions, if any
			Yes	No	Not Applicable	
Waste disposal/ Management	Nuisance to student /people in surroundings due to sand & debris heap	▪ Ty. Fencing around construction area				
		▪ Debris must be stockpiled & removed				
Air/dust pollution	Health hazard to school children and residents	▪ Keep construction materials covered				
		▪ Make water sprinkling				
		▪ School to be temporarily shifted				
		▪ Ty. Shifting cost included in BoQ				
		▪ Sprinkle water on dusty roads				
Noise Pollution	Hearing hazards to School children & residents	▪ Adjust working hours with school timing				
		▪ School be temporarily moved, if necessary				
		▪ Ty. Shifting cost to be included				

Hazards	Potential Impact	Mitigation Measures	Compliance Status			Instructions, if any
			Yes	No	Not Applicable	
		<ul style="list-style-type: none"> Community transportation not to be disrupted 				
		<ul style="list-style-type: none"> Machineries to have silencing device like acoustic shielding or mufflers etc. 				
		<ul style="list-style-type: none"> Make speed reduction provision 				
Cutting of Trees	Deforestation and desertification	<ul style="list-style-type: none"> Make tree plantation in school premises & link road sites 				
		<ul style="list-style-type: none"> Encourage re-vegetation of barren surfaces 				
Surface and Ground water pollution	Contamination of surface/ground water table	<ul style="list-style-type: none"> Ensure proper waste disposed 				
		<ul style="list-style-type: none"> Ensure proper design of septic tanks and soak wells. 				
Wastewater / solid wastes pollution	Unhygienic environment to residents	<ul style="list-style-type: none"> Arrange temporary waste disposal area 				
		<ul style="list-style-type: none"> Arrange training of labors & contract supervisors 				
		<ul style="list-style-type: none"> Passing liquid wastes into safety tank with soak well. 				
Drainage congestion	Creates water logging	<ul style="list-style-type: none"> Construct drainage structures (bridges/culverts) permitting free flow 				
Health and Safety Risk of workers	Injury due to accidents	<ul style="list-style-type: none"> Provide adequate safety gears for workers 				
		<ul style="list-style-type: none"> Arrange training to contract supervisors & workers 				
Traffic Congestion	Creation of obstacles to thoroughfares	<ul style="list-style-type: none"> Use proper signs & light for the warning or direction of traffic at construction sites 				

Hazards	Potential Impact	Mitigation Measures	Compliance Status			Instructions, if any
			Yes	No	Not Applicable	
		<ul style="list-style-type: none"> • Display detour map for the road diversions 				
Water supply and Sanitation facilities for workers (M/F)	Creates nuisance to environment	<ul style="list-style-type: none"> ▪ Camps should have adequate water sealed latrines, urinals & bathing places 				
		<ul style="list-style-type: none"> ▪ Provide separate toilet & bathing facilities for male & female workers. ▪ Not to use school existing student toilets 				
Accommodation for labors	Labors creates problem by occupying school rooms	<ul style="list-style-type: none"> ▪ Construct labor sheds ▪ Not to use school rooms as labor sheds. 				
Spoiling of playground due to construction	Dissatisfaction among the students Imbalances Physical and mental growth of health	<ul style="list-style-type: none"> ▪ Avoid spoiling playground ▪ Make alternative playground 				
Antagonism to local community and people	Social unrest	<ul style="list-style-type: none"> ▪ Solve problem discussing with school authority/ community 				
		<ul style="list-style-type: none"> ▪ Prioritize recruiting local labors 				

Annex 6: Operational Risk Assessment Framework (ORAF)

Multipurpose Disaster Shelter Project (MDSP)

Risk Indicators	Rating	Risk Management Measures	Responsibility	Stage	Frequency	Compliance Status
A. Project Stakeholder Risks Risk Description Project stakeholders are expected to be broadly supportive of the project. The Bank has been engaged in disaster risk reduction efforts in shelter construction and rehabilitation. Project financing will expand the investments to improve the equitable distribution of shelters.	Moderate	Continued dialogue with relevant stakeholders, including Government agencies, donors, CSOs, private sector and local communities through Communications, Consultation, and frequent follow up	LGED and WB	Planning & Implementation	Continuous	
B. Implementing Agency Risks (including fiduciary risks)	Substantial					
Risk description: (i) Capacity LGED has been engaged in the construction and rehabilitation of cyclone shelters under an existing IDA credit. Governance risks, particularly with respect to contract management and procurement are present. Challenges to adequate maintenance continue to prevail.		(i) Project Implementation will be supported by a dedicated Project Management Unit that will receive technical assistance and adequate budget to implement the project. Risks to maintenance will be carefully assessed.	LGED	Implementation	Quarterly	
(ii) Financial Management: LGED has relatively good capacity in financial management. Skilled FM staff will be made available to the project under a dedicated Project Management Unit(PMU) within each agency. Currently there are no overdue audits under any other IDA		(ii) A Senior Financial Management Specialist will be recruited within the PMU to oversee FM issues.	LGED	Implementation	Quarterly	

Credits implemented by LGED, and FM arrangement have been satisfactory.						
(iii) Procurement: The procurement of works is likely to pose risks with respect to hiding, evaluation of bids and contract management.		(iii) Procurement risks will be mitigated through the use of large contract package (ICB) managed from Dhaka, as well as by review and award of the procurement package by a procurement panel.	LGED	Implementation	Continuous	
C. Governance	Substantial					
Risk Description Some governance risks exist for the project, in (i) contract Management and (ii) Procurement, given the size and nature of the contracts for construction		The project will continue to be ring-fenced to ensure transparency in contracting through the use of a Procurement Panel, large ICB contracts, and through the use of a GAAP The project will ring-fence procurement risks to the greatest extent possible, with a procurement panel, ICB to attract international bidders, and disclosure requirement in the bidding process. Construction quality will be monitored by an independent supervision consultant. In addition, active monitoring by the bank team with the Dhaka based staff and Consultants and frequent visits to the field would help in timely action in case of irregularity.	LGED	Implementation	Continuous	
D. Design	Moderate					
Risk description The technical designs of the cyclone shelter pose very low risks. The types of shelters have been developed and tested under previous investments.		The design will continue to seek feedback for improvements through engagement with local stakeholder groups to discuss any issues.	LGED	Implementation	Continuous	
E. Social & Environmental	Moderate					

Risk description						
The construction phase may cause unforeseen environmental or social impacts.		Site specific EMPs and SMPs will be prepared in line with the project's ESMF/TDF. Land acquisitions are not anticipated under the project, however an RPF will be prepared to guide any site specific TDPs or RAPs, should tribal population be found in the area or if land acquisition be unavoidable.	LGED	Implementation	Quarterly	
F. Program & Donor	Low					
Risk Description						
While several donors are active in disaster risk reduction efforts, the Bank has been the lead financier on the construction and rehabilitation of multipurpose cyclone shelters. Under previous IDA Credits, several donors provide co-financing to the continued construction of shelters.		Continued engaged with lead donors and international agencies working in the coastal areas.	LGED and WB	Planning and Implementation	Continuous	
G. Delivery Monitoring & Sustainability	Moderate					
Risk Description						
The remote sites of many of the cyclone shelters, and the high numbers of shelters to be financed under the project will make it difficult to monitor construction quality in each site, thereby posing a risk to delivery monitoring and sustainability of the investments.		Switching to steel shelter construction would alleviate many of these issues. An ICT monitoring system will be developed to assist in a more efficient and accountable monitoring system within LGED.	LGED	Implementation	Continuous	

Annex 7: Multipurpose Disaster Shelter Project: Governance and Accountability Action Plan (GAAP)

Issues/Risks/ Objective	Actions	Agency responsi ble	Timeline	Early Warning Indicators to Trigger Additional Action	Status (as of -----)
Governance Risks					
Need to ring-fence the project from the broader governance and accountability concerns in Bangladesh	<p>Retain independent consultants for design, construction supervision (D&S) who act as "Engineer" for the project</p> <p>Procurement panel established to undertake all technical reviews and awards</p> <p>Frequent supervision by World Bank supervision teams, including frequent site visits</p>	<p>LGED</p> <p>LGED</p> <p>Task team/WB</p>	<p>Key staff recruited prior to start</p> <p>Ongoing</p> <p>Ongoing</p> <p>At least quarterly</p>	<p>Delays in conduct of procurement, execution of contracts, processing of payments, filing reports</p> <p>Evidence of quality issues through field visits.</p>	
Potential for or reduce risks of conflict of interest among participants in procurement	<p>International Competitive Bidding (ICB) contracts for all procurement of works</p> <p>Declarations of no conflict of interest by LGED personnel, including members of procurement panel members, and bidders</p>	<p>LGED</p> <p>LGED</p>	<p>Bidding documents prior to project approval</p> <p>LGED personnel 'by effectiveness; bidders at submission</p>	<p>Procurement red flags in ex ante and ex post review</p> <p>Inconsistencies with 'need to know' principles in procurement mapping, evidence of unauthorized access to information</p>	
	Require bidders' statements concerning agents and other possible connections to persons involved with procurement.	LGED	At bidding stage	<p>Delays in suo moto disclosure plan issuance/implementation</p> <p>Website and newsletter are delayed or not updated.</p>	

Local Institutional Capacity Risks					
Reduce risks at the local level with supervision of works and monitoring to address possible quality issues in construction	Retain independent consultants for design, construction supervision (D&S) who act as "Engineer" for the project	LGED	Key staff recruited prior to start	Delays in conduct of procurement, execution of contracts, processing of payments, filing reports	
	Contract out M&E functions through M&E Consultant	LGED	Contracted in first year; quarterly reports	Changes in frequency of reports, frequency of edits to reporting system	
	ICT based monitoring system for LGED field officers with geo-tagging and photo capabilities	LGED	Ongoing	Unauthorized entry into monitoring system	
	On site cameras to ensure live feed of construction sites (where possible)	LGED	Ongoing	Nature and frequency of complaints	
Delivery and Sustainability Risks					
Poor construction quality leading to poor sustainability of the Project	Shift to steel shelter construction to improve quality oversight, durability, maintenance and speed of construction	CSC,LGED	Ongoing	Nature and frequency of complaints	
	Engagement with SMCs to identify ongoing monitoring, maintenance etc.	CSC,LGED	Ongoing		

