REACHING OUT OF SCHOOL CHILDREN (ROSC II)
ADDITIONAL FINANCING

UPDATED ENVIRONMENTAL MANAGEMENT FRAMEWORK

DIRECTORATE OF PRIMARY EDUCATION
MINISTRY OF PRIMARY AND MASS EDUCATION

GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH

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THE UPDATED EMF IS APPLICABLE TO THE
ROSC II ALONG WITH ITS ADDITIONAL FINANCING

TABLE OF CONTENTS

LIST OF ABBREVIATIONS AND ACRONYMS

AS	-	Ananda School
AUEO	-	Assistant Upazila Education Officer
ACF	-	Award Confirmation Forms
BDT	-	Bangladesh Taka (Currency)
BP	-	Bank Procedures
CM	-	Community Mobilizer
CMC	-	Community Management Committee
DOE	-	Department of Environment
DPE	-	Directorate of Primary Education
DPHE	-	Department of Public Health Engineering Department
DRP	-	Displaced Rohingya People
EA	-	Environmental Assessment
ECA	-	Environment Conservation Act
ECC	-	Environmental Clearance Certificate
ECR	-	Environment Conservation Rules
EIA	-	Environment Impact Assessment
EMF	-	Environment Management Framework
EMIS	-	Education Management Information System
EMP	-	Environmental Management Plan
GIS	-	Geographic Information System
GOB	-	Government of Bangladesh
IDA	-	International Development Agency
IEE	-	Initial Environmental Examination
LC	-	Learning Center
LGED	-	Local Government Engineering Department
MOEF	-	Ministry of Environment and Forests
MoU	-	Memorandum of Understanding
M&E	-	Monitoring and Evaluation
NEMAP	-	National Environmental Management Action Plan
NGO	-	Non- Government Organization
NSDWSSP	-	National Safe Drinking Water Supply and Sanitation Policy
OP	-	Operational Policies
PEDP II	-	Second Primary Education Development Program
PEDP III	-	Third Primary Education Development Program
PO	-	Partners Organization
ROSC	-	Reaching Out of School Children
ROSCU	-	Reaching Out of School Children Unit
TC	-	Teachers Committee
UEO	-	Upazila Education Officer
USD	-	United State Dollar (Currency)
WB	-	World Bank

EXECUTIVE SUMMARY

The ROSC II project is being implemented by Directorate of Primary Education (DPE) over a six -year period (2013-2018) in about 148 additional upazilas of the country and the upazilas were selected on the basis of poverty, education deprivation and other relevant criteria. ROSC II has been providing second chance primary education to out-of-school children in targeted rural upazilas (sub-districts) of the country through learning centers (LCs) since January 2013. The project also provides alternative education to the out-of-school children of urban slums in 10 city corporations and pre-vocational training (PVT) to dropped out over-age children and adolescents. The ROSC II Project is being implemented by the ROSC Unit (ROSCU) under the Directorate of Primary Education (DPE) of MoPME. It is financed by an IDA Credit of US$130 million through Investment Project Financing (IPF) and counterpart funding of US$7.5 million from GoB.

Since August 2017, a total of 733,415 people has crossed into Bangladesh from Myanmar, most taking shelter in congested camps, with some living amongst host communities in Cox's bazar and Bandarban districts. They join around 300,000 people displaced from Myanmar in previous years. These Displaced Rohingya People (DRP) have enormous need for humanitarian services, placing an immense strain on an already resource-constrained service delivery system. This project seeks an Additional Financing in the amount of US$20.84 million from the International Development Association (IDA)-18 Regional Sub-Window for Refugees and Host Communities and US$4.16 million from Bangladesh's IDA18 country allocation (IDA credit buy-down). The proposed AF for ROSC II will support the Ministry of Primary and Mass Education (MoPME) in planning, coordinating, managing, providing and monitoring safe and equitable learning opportunities for the DRP in Cox's Bazar during extended project duration of 2019 – 2020 while the original project will cater to the needs of the host communities.

Additional Financing:

Similar to ROSC II, the ROSC II AF will be operated by establishing special Learning Centers (LCs). However, unlike ROSC II, 1000 new and makeshift learning centers (LCs) will be established to conduct informal learning activities in DRP camps. Some 500 already established LCs through funding from other sources will also be supported in addition. To ensure quick effectiveness of the informal learning activities for the DRP children, new and makeshift learning centers need to be operationalized in DRP camps. These LCs will have a safe structure for children and will be in alignment with the environmental safeguards standards. Each LC will support not more than 55 children. Several shifts of learning activities in one LC will support the targeted DRP learners. LCs will be established in specific catchment areas in the DRP camps that can benefit most possible DRP learners. As the proposed service provider, UNICEF will be responsible for establishing the required number of LCs in suitable locations in DRP camps as well as overall management and maintenance of LCs.

The LCs will have basic facilities like access to safe drinking water, acceptable sanitation facilities for girls and boys and quality classroom. Arsenic or microbial contaminated drinking water, poorly maintained sanitation, inadequate ventilation and damp environment and pollution from the surroundings were the potential environmental concerns for the project. There will be no permanent structures, but temporary establishments which can accommodate no more than 55 children taking into consideration safety issues, disaster resilience and minimum ecological footprint. Access to drinking water and sanitation in these makeshift LCs are also going to be important. Government Primary Schools that had been severely affected by the occupation of the DRP communities as their first accommodation during the influx, will be repaired and adequately equipped to be used as centers for training of teachers who will teach in the DRP LCs.

Environmental Instrument

The actual location of the LCs in the Cox's Bazar district is not known at the moment. The location specific environmental problem also cannot be identified at this stage. Arsenic or microbial contaminated drinking water, poorly maintained sanitation, inadequate ventilation and damp environment and pollution from the surroundings, calamitous natural disasters, loss of ecological resources and natural habitats are the potential environmental threats of the project. Specific locations of "Learning Centers" will only be identified at the field level during implementation phase. An EMF was previously prepared for ROSCII which provides general policies, guidelines, and procedures to be integrated into the selection of all "Learning Centers" under the ROSC II. Under the AF, it may be required to upgrade existing facilities or build small scale structures to provide LCs to DRP. Hence, site specific environment screening along with supplementary mitigation measures will be required to ensure low impact on physical environment and the health and safety of service providers (teachers and associates of LCs) since they may be exposed to a complex variety of health and safety hazards and they are at risk. This EMF is updated on extensive consultation at Cox's Bazar area and to cover all the relevant activities to be supported under AF, and to also incorporate the lessons learnt from the existing operations. The EMF provides a template for screening these facilities to avoid any major environmental impact.

Safeguard Category and policies:

Similar to parent project OP 4.01 for Environmental Assessment is triggered for this AF. The environmental category of Additional Financing for ROSC II is retained as "B", since the same nature of activities will be provided to the DRP across Cox's Bazar district (primarily Ukhia and Teknaf upazila). Two additional environmental safeguard policies are triggered [OP 4.04 Natural habitat and OP 4.36 Forests], as activities under this additional financing will take place within important forest landscape. Historically, the project areas were mostly forested, however, they were cleared to accommodate DRP camps. The project area contains critical habitat for wildlife, including critically endangered Asian Elephant and there are evidences of

active human-elephant conflict around the camps with unfortunate loss of human lives. As a result, it is imperative to double check the proposed locations of all Learning Centers to avoid the elephant corridors and pathways. Civil works will be avoided in the remaining forest area and within elephant migration route, and additional mitigation measures will be taken to protect forest and/or elephant migration route if required as the result of screening exercise.

Environment Status of The Original Project:

For ROSC II, no new construction was supported, and LCs were housed in a rental room under a contractual agreement with house owner for definite period of time. The LCs were selected such that it will have basic facilities like access to safe drinking water, acceptable sanitation facilities for girls and boys and quality classroom. Arsenic or microbial contaminated drinking water, poorly maintained sanitation, inadequate ventilation and damp environment and pollution from the surroundings were the potential threat of the project.

Compliance Assessment of ongoing ROSC II:

The LC compliance monitoring report indicates that ROSC LCs are in general in compliance with EMP guidelines, including those on classroom environment, water and sanitation facilities. Overall safeguard rating for the parent ROSC II project was moderately satisfactory in the last ISR.

Lesson Learnt:

Although environmental impacts were nominal, but borrower capacity vis-a vis the monitoring and reporting was not regular because of shortage of designated environmental safeguard staff in ROSCU. Due to this shortcoming, a full-time environmental safeguard staff is proposed under this AF.

Status of LCs already established at DRP camps areas:

Established LCs at DRP camps are selected by UNICEF and their partner local NGOs by using their own selection criteria. However, this was primarily based on availability of land as getting empty space is one of the hardest thing in these extremely cramped DRP camps.

Environmental Screening

To avoid any major environmental impact, a limited environmental analysis/screening will be conducted through the government systems (under the responsibility of DPE). A sample-screening format for selection of LC location is attached in Annex-B (for ROSC II program) and Annex C (specifically for the LCs DRP in Cox's Bazar). The screening format has been developed from the prior experience of PEDP II, PEDP III and ROSC in the light of existing environmental and sanitation rules and regulation of Bangladesh Government and World Bank safeguard policy. Screening for temporary LC construction and Risk of Service Providers (Teacher, Associate) is shown in Annex-F.

Environmental Mitigation Measures

Based on the information obtained from the environmental screening/assessment, a site-specific Environmental Management Plan (EMP) will be prepared. A standard mitigation measure plan matrix is shown below

Table E-1 Standard Mitigation Measure Matrix

Issue	Issue Description	Mitigation Measure	Responsibility
Inadequate Day Lighting and ventilation system	• Poor lighting and ventilation may impact on students and teacher's health • The floors can be damp on which the students need to sit	• LC should have adequate windows in proper direction in consultation with students and teachers • Plastic sheets should be spread over the floor instead of jute bag for the students	• House Owner and will be ensured by CMC, CM, UEO & DPE • CMC, CM, UEO & DPE
Drainage congestion/water logging	• Improper site selection can create localized drainage problem/water logging	• Consider the drainage system of the whole area before LC selection • Collect information about the water level height during flood • Prevent all solid and liquid wastes entering waterways by collecting solid waste and waste water • Ensure proper solid waste collection facility	• Information provided by the house owner and checked by CM, UEO & DPE • House owner, CMC and CM • House owner, CMC and CM, UEO & DPE
Surface Water Pollution	• Improper disposal of solid and liquid waste generated from the school sites will pollute the water quality	• Prohibit direct disposal of solid and liquid wastage into nearby water body.	• house owner and CMC
Selection of appropriate Water Supply Technology;	• Without proper analysis, the new source can be arsenic contaminated • Without proper analysis, the alternative sources can be microbially contaminated	• Identify unions and upazillas based on DPHE surveys • Annually check Arsenic tests if tubewell is selected as drinking water source in arsenic contaminated areas • Analyze local surrounding arsenic test results and recommend for alternative water resource • Analyze annual water quality testing report	• DPE and DPHE
Selection of appropriate location for water source and sanitary latrine	• Location may not be convenient to female students and impacts on natural resources and	• Discuss with CMC and students and select a location which is convenient for school and not	• CM, UEO & DPE

Issue	Issue Description	Mitigation Measure	Responsibility
	common property resources. • Close distance between water point and sanitary latrine can contaminate groundwater.	impacting on trees or any other common property resources. • A minimum distance of 15 m should be maintained between a tube-well and a latrine to prevent contamination of water resources. In case of shallow shrouded hand tube-wells, this distance should be 20 m as horizontal filters are used in this type of tube-wells.	
Integration of drainage facilities with water supply and sanitary latrine	• In absence of proper drainage facilities, water logging can be created around school.	• Should go for alternative option for water and sanitary latrines	• CMC and CM, UEO & DPE

Table E-2 Mitigation Measure Matrix for LC construction for DRPs

Issue	Issue Description	Mitigation Measure	Responsibility
Drinking unsafe water	• The makeshift LCs will be using shared drinking water sources. The quality of the water depends on how the drinking water source is managed.	• Not possible to install treatment plant for the water source. Firstly, a safe water source needs to be selected based on monitoring reports or water testing carried out by the project. If the water source cannot be avoided, provision of chlorination or other means of disinfection should be made available at the LCs. If that is not possible, commercially available bottled water needs to be provided. Regular monitoring of drinking water needs to be done.	• GoB entrusted UN agencies and/or international/local NGOs with overall supervision by DPE
Improper or inadequate sanitation facilities causing environmental pollution	• In the absence of properly managed sanitation facilities near the premises, environmental pollution can happen • Some may take resort to open-defecation	• Constructing the LC at a location where sanitation facilities are available and reasonably well-managed. • Making the learners aware of the risks and hazards of open defecation.	• GoB entrusted UN agencies and/or international/local NGOs with overall supervision by DPE
Construction of makeshift LC can cause ecological degradation	• If LCs are constructed with local trees, leaves (as ceiling), then it may cause destruction of local flora which is	• It needs to be ensured that no part of the physical structure of the LC use local flora. Bamboos and tin-sheds need to be made available for construction.	• GoB entrusted UN agencies and/or international/local NGOs with overall supervision by DPE

Issue	Issue Description	Mitigation Measure	Responsibility
	already under stress of degradation		
Risk of landslides	• If the LC is constructed in barren slopes, there is risk of landslides	• It needs to be ensured that construction of LC does not cause degradation of hills. • The LC needs to be located away from landslide-prone regions	• GoB entrusted UN agencies and/or international/local NGOs with overall supervision by DPE
Risk of human-elephant conflict	• If LCs are located in the paths of elephant passage, there will be conflict with the elephants resulting in loss of life and injury.	• The LCs should be located in a region which does not cause human-elephant conflict. Particularly the map in Figure 3.5 can be used to select an appropriate location for the makeshift LCs	• GoB entrusted UN agencies and/or international/local NGOs with overall supervision by DPE

Institutional Framework

The Program will support environmental monitoring to ensure that envisaged purpose of the program is achieved and result in desired benefits without adversely affecting environmental resources. The monitoring activities of ROSC II will include the compliance of the environmental management plan implementation. In general, the consultant will monitor the following indicators during field visit as 'spot check' and the related mitigation measures: (i) appropriateness of LC location selection in terms of environment of the LCs, (ii) sanitation facility and (iii) water quality. In ROSC II continuous supervision by Monitoring Officers and Community Mobilizers will be carried out with a purpose to make sure that provisions provided in the contract document signed between CMC and house owner are satisfactorily implemented. Arsenic and Fecal coliform of the drinking water of the facility will be tested by DPE on an annual basis using field test kits. Five percent of the total samples will be tested at the laboratory for quality assurance. ROSCU will prepare the half yearly progress report on environmental management and will submit to the World Bank for review. The World Bank will review the screening report, environmental management plan, monitoring reports on random basis and will carry out field visit to cross-check.

GoB entrusted UN agencies and/or international/local NGOs will be doing the screening of suitable locations for LCs in in the Rohingya camps following the format provided in Annex C. Baseline water quality and sanitation situation will be assessed either by direct observation or secondary information. The selected LC locations (GPS coordinates), screening forms and basis for selection will be shared with the World Bank in summary form through DPE. The frequency of monitoring/testing will be decided by the UN agencies and NGOs as deemed feasible by them. DPE will supervise and coordinate the monitoring activities and share with the World Bank monitoring reports once in three months.

Consultation:

Field visits of the existing ROSCII AF project sites in the DRP camps as part of the EMF preparation. The probable locations of learning centers, water supply and sanitation facilities were observed. Discussion with all relevant stakeholders were done and their opinion on how to address the environmental concerns of the program interventions was taken. This EMF reflected the recommendations from consultations and field visits observations. The summary of the consultation is presented in Annex G.

Access to Information:

The EMF will be disclosed by MOPME in their website for public comments. In addition, the World Bank will publish this document in InfoShop.

CHAPTER 1: PROJECT BACKGROUND AND INTRODUCTION

1.1 Background

1. The Reaching Out of School Children (ROSC) project was designed in the backdrop that quality and access continue to remain two major concerns of the government as well as the development partners and other actors in the primary education sector. The ROSC project, as a special innovative intervention nationwide, started in the year 2004 to end in June 2010. As of July 2010, the project has already been extended to 2013. The current ROSC project was started as a pilot initiative to deliver formal primary education to out of school children through non-formal approach. The success of ROSC approach of mobilizing communities and NGOs, and in providing direct grants to communities to operate LCs, and education allowances to attract and retain out of school children has created significant demand for replication in other needy upazilas and other underserved areas including urban slums.

2. As a consequence, ROSC II project was financed by IDA and being currently under implementation by Directorate of Primary Education (DPE) over a five-year period (2013-2018) in about 148 additional upazilas of the country using the same criteria as ROSC. ROSC II has been providing second chance primary education to out-of-school children in targeted rural upazilas (sub-districts) of the country through learning centers (LCs) since January 2013. The project also provides alternative education to the out-of-school children of urban slums in 10 city corporations and pre-vocational training (PVT) to dropped out over-age children and adolescents. The ROSC II Project is being implemented by the ROSC Unit (ROSCU) under the Directorate of Primary Education (DPE) of MoPME. It is financed by an IDA Credit of US$130 million through Investment Project Financing (IPF) and counterpart funding of US$7.5 million from GoB. The number of ever supported out-of-school children has reached 690,000 (93% of the EoP target), the total number of student-years supported is 1,641,135 (notably surpassed target); the percentage of female students enrolled in LCs is 49% (target 50%); average grade retention rate is 73% (target achieved); and the share of disadvantaged students in total enrollment is 87% (surpassed target). A total of US$102.2 million has been disbursed, which is 83% of the IDA credit amount.

3. Since August 2017, a total of 733,415 people has crossed into Bangladesh from Myanmar, most taking shelter in congested camps, with some living amongst host communities. They join around 300,000 people displaced from Myanmar in previous years. This population has enormous needs for humanitarian services, placing an immense strain on an already resource-constrained service delivery system. This project seeks an Additional Financing in the amount of US$20.84 million from the International Development Association (IDA)-18 Regional Sub-Window for Refugees and Host Communities and US$4.16 million from Bangladesh's IDA18 country allocation (IDA credit buy-down). The proposed AF for ROSC II will support the Ministry of Primary and Mass Education (MoPME) in planning, coordinating, managing, providing and monitoring safe and equitable learning opportunities for the DRP in Cox's Bazar while the original project will cater to the needs of the host communities. The

proposed AF will complement, and not replace, education related services for out-of-school children and adolescents who are currently being supported by humanitarian programs under the specific guidelines of GoB. At the same time, the original project, ROSC II, will continue to operationalize the original implementation activities together with providing additional assistance to the hosting community of the said region. The original Project Development Objectives (PDO) will remain unchanged and is to "Improve equitable access, retention and completion in quality primary education in selected under-served areas of Bangladesh". The proposed AF will support a new (fifth) component to be added to the ROSC II project to encompass new activities to support MoPME in responding to the crisis in Cox's Bazar District. It will also support the extension of the ROSC II original project for two years with a new closing date of December 31, 2020 to align with the AF. Overall, the proposed AF will support the government's response to emergency need for the crisis affected Cox's Bazar district in two ways: (a) by providing informal educational and psycho-social support for the DRP children and adolescents; and (b) by strengthening existing central government and local administration facilities/capacities that provide services to the DRP.

4. Similar to ROSC II, the ROSC II AF will be operated by establishing special Learning Centers (LCs). **Learning Center** is local community level institution with concentration of out-of-school (disadvantaged) children. No new construction will be supported under this project. LCs will be housed in a rental room under a contractual agreement with house owner for definite period of time. The LCs will be selected such that it will have basic facilities like access to safe drinking water, acceptable sanitation facilities for girls and boys and quality classroom.

5. The actual location of the LCs in the Cox's Bazar district is not known at the moment. The location specific environmental problem also cannot be identified at this stage. Arsenic or microbial contaminated drinking water, poorly maintained sanitation, inadequate ventilation and damp environment and pollution from the surroundings, calamitous natural disasters, loss of ecological resources and natural habitats are the potential environmental threats of the project. Since the project will not facilitate any new construction, failure to provide basic environmental facilities to the students will lead to cancellation of the rental contract with the existing house owner and move to a new LC establishment.

1.2 Environment Status of The Original Project:

6. For ROSC II, no new construction was supported, and LCs were housed in a rental room under a contractual agreement with house owner for definite period of time. The LCs were selected such that it will have basic facilities like access to safe drinking water, acceptable sanitation facilities for girls and boys and quality classroom. Arsenic or microbial contaminated drinking water, poorly maintained sanitation, inadequate ventilation and damp environment and pollution from the surroundings were the potential threat of the project.

1.3 Compliance Assessment of ongoing ROSC II:

7. The LC compliance monitoring report indicates that ROSC LCs are in general in compliance with EMP guidelines, including those on classroom environment, water and sanitation facilities. Overall safeguard rating for the parent ROSC II project was moderately satisfactory in the last ISR.

1.4 Lesson Learnt:

8. Although environmental impacts were nominal, but borrower capacity vis-a vis the monitoring and reporting was not regular because of shortage of designated environmental safeguard staff in ROSCU. Due to this shortcoming, a full-time environmental safeguard staff is proposed under this AF.

1.5 Status of LCs already established at DRP camps areas:

9. Established LCs at DRP camps are selected by UNICEF and their partner local NGOs by using their own selection criteria. However, this was primarily based on availability of land as getting empty space is one of the hardest thing in these extremely cramped DRP camps.

10. Lesson learned from the existing LCs in DRP camp areas on environmental issues are generic and incorporated in the current design. Finding suitable spaces to establish a learning center is difficult, moreover, providing safe food and drinking water for the children is a challenge. All LCs also have toilet facilities for boys and girls.

1.6 About EMF

11. Projects and programs financed with IDA resources must comply with the World Bank Operational Policies. Therefore, program components eligible for funding under the ROSC II AF will be required to satisfy the World Bank safeguard policies, in addition to conformity with relevant legislation of the Government of Bangladesh (GOB). The environmental regulation and water supply and sanitation facility of GOB and World Bank safeguard policy are presented in Annex A.

12. The types of "Learning Centers" to be funded under ROSC II AF have been identified at the program design phase. However, specific locations of "Learning Centers" will only be identified at the field level during implementation phase. Therefore, it is not possible to identify the "Learning Centers" and/or Learning Centers specific environmental issues upfront during program design and appraisal stage.

13. This EMF provides general policies, guidelines, and procedures to be integrated into the selection of all "Learning Centers" under the ROSC II AF. In the first ROSC program an "Environmental Guidelines for Learning Center Venues" was prepared. The Guideline stated minimum requirement of an LC to be selected to ensure environment friendly learning state for the disadvantaged students. In preparing this document, relevant environment safeguard practices and compliance (especially the experience of ROSC, PEDPI and PEDP II & PEDP III)

were reviewed. This review included field visits, multi-level consultations, qualitative assessments of environmental safeguard compliance processes, a rapid capacity assessment of the implementing agency and its field level staff from environmental safeguard perspective etc. The EMF addresses the possible environmental related issues in the ROSC Program in general as well as specific issues in Cox's Bazar district associated with the service delivery to DRPs.

1.3 Objectives of the EMF

14. The purpose of this Environmental Management Framework (EMF) is to ensure that neither the learning quality at primary schools nor the environment is compromised through the program intervention. The EMF will contribute the goal of environmental sustainability by:

- enhancing environmental outcomes of the activities implemented under individual "Learning Centers";
- preventing and/or mitigating any negative environmental impact that may emerge from the project;
- ensuring the long-term sustainability of benefits from "projects" by securing the natural resource base on which they are dependent; and
- facilitating pro-active "Learning Centers" that can be expected to lead to increased efficiency and improved management in the use of natural resources resulting in improvements in local environmental quality and human well-being.

15. More specifically the objectives of the EMF are:

- To outline a framework for environmental screening procedures and methodologies for the "Learning Centers" to be financed under the program;
- To provide guidance for selecting LC locations for environmental sustainability and safety;
- To specify appropriate roles and responsibilities to carryout environmental screening/assessment, environmental management (mitigation, monitoring and compensation) and reporting related to environment at the "Learning Centers".
- To sketch out concerned environmental factor as one of the selection tools/criteria for selecting the LCs.

16. This will also cover institutional/organizational needs of the implementing agency in executing the recommendations to mitigate any possible environmental negative impacts and other climate induced impacts.

CHAPTER 2: PROGRAM DESCRIPTION

2.1 General Description

17. The proposed AF will benefit approximately 300,000 DRP children and adolescents in Cox's Bazar District. Among them, around 1,50,000 new and 50,000 existing primary-aged DRP children will receive direct access to LCs while awareness raising, and promotion of psycho-social activities are expected to reach 300,000 children and adolescents in the DRP community. With community management as the fulcrum, buttressed by a partnership between the government and non-governmental organizations (NGOs), the approach would focus on the establishment of learning centers by community-based Center Management Committees (CMC) following a transparent mapping of underserved areas.

2.2 Project Components

18. The proposed AF will support a new fifth component of ROSC II, which is organized into four sub-components. The original four components of ROSC II will remain unchanged. The description of the components is below:

2.2.1 Component 1: Increasing Equitable Access

19. The objective of this component is to reduce number of out-of-school children in the under-served areas through provision of access to formal primary education with Grants to Learning Centers and Education Allowances to eligible students. This component would finance: (i) LC establishment and management, (ii) education allowances, and (iii) ROSC Pilot in Urban Slums. The activities under *LC establishment* include identification and mobilization of targeted communities, formation of CMCs, selection of eligible students, recruitment of qualified teachers and approval of LC establishment applications. Once established, LCs are operated and managed by CMCs through Grants from the project to finance initial LC set-up, student uniforms and basic stationery, monthly teacher salary, monthly rental and maintenance of LC venues, and to contribute to management costs including the salary of upazila level training coordinators (TC).

20. The *student allowances,* intended to attract out-of-school children to enroll in LCs and retain them through the primary cycle, would be provided to the students enrolled in ROSC LCs who meet the following criteria: (i) coming from disadvantaged households, (ii) aged between 7 and 12 inclusive at the time of initial enrolment; (iii) having a project ID card, (iv) average attendance of 80 percent every quarter, and (v) passing trimester exams in respective grades. *ROSC Pilot in selected urban areas* will finance LC type of intervention in urban slums, and voucher program for domestic child labor. The urban slums pilot would support establishment and operation of 100 LCs in 15 selected slums in Dhaka. The voucher scheme would initially support 1000 children on student education allowance and tuition fees in the schools the students are enrolled. Based on the impact evaluations, these pilot programs

would be considered for expansion. All disbursements (Grants, allowances, vouchers) will be processed through Award Confirmation Forms (ACF) prepared based on the data on LCs and individual students and remitted through the designated banking system.

2.2.2 Component 2: Enhancing Education Quality

21. The objective of this component is to improve retention in and completion of primary education cycle through teacher development, classroom support, and pre-vocational skills training for eligible ROSC students. Activities financed under *teacher development* sub-component would include initial foundation training, annual refresher training, and subject-based training with focus on English and Mathematics. IER of Dhaka University and IED of BRAC University have been identified to serve as partner training agencies to support the project on identification of national-level resource persons (RPs) and upazila-level Training Coordinators (TCs), development of appropriate training course for TCs and LC teachers, provision of classroom support to teachers and selection/development of appropriate teaching learning materials. TCs and RPs would provide training to LC teachers.

22. Under *classroom support* sub-component, Assistant Upazila Education Officers (AUEOs), nearby primary school head-teachers (HTs) and upazila TCs would be mobilized to provide academic guidance to LC teachers on the use of subject plans, teaching-learning materials (including posters, charts and audio-visual clips), and continuous student assessments. Government of Bangladesh would continue to provide free NCTB text books to ROSC students. Supplementary teaching-learning materials developed and used by different agencies (for example NCTB, BRAC Education Program, BRAC-IED, English in Action (EIA) and Save the Children) will be identified and arrangements would be made to make the materials available at ROSC LCs.

23. *Pre-vocational skills training pilot* sub-component aims to support ROSC students who have completed at least grade 3 but are aged 15 and above. Under the pilot, the project ROSCU would provide vouchers to 5,000 eligible students to participate in market responsive trade courses. The voucher would cover student education allowance as well as tuition fees in the training institutes the students are enrolled. The training courses and institutes would be identified in partnership with the Save the Children Bangladesh. Based on the impact evaluation of the pilot, the program would be considered for expansion.

2.2.3 Component 3: Improving project management and capacity

24. The objectives of this component are to establish an effective project implementation structure and enhance project implementation capacity through mobilization of communities and involvement of capable partner agencies to deliver quality primary education to out-of-school children. This component comprises: (a) *project management, (b) capacity building, and (c) social awareness and advocacy.*

25. The Directorate of Primary Education (DPE) under the Ministry of Primary and Mass Education (MOPME) would continue to implement ROSC-II under the same arrangement. ROSC Committee would oversee overall project implementation, carry out joint annual reviews, and resolve implementation issues. ROSC Unit (ROSCU) will continue to be responsible for day-to-day implementation of the Project. At the Upazila level, the Upazila Education Committee (UEC) would continue to support Upazila Education Officer (UEOs) for all upazila level coordination activities. ROSCU will implement the proposed ROSC II project with support from partner agencies and through mobilization of communities. Community Mobilizers (CMs) from Partner Organizations (POs) would support in the establishment of LCs and their operations during the first year of LC establishment. ROSC MIS Cell at Local Government Engineering Department, LGED would continue the services of data processing and monitoring agency. There will be a contingent of Monitoring Officers under ROSCU stationed in the upazilas to directly monitor activities at the field level. One major feature of the ROSC II will be significant use of ICT in monitoring results and activities at the field level Sonali Bank would continue the services as funds disbursement agency. Besides, use of post offices and their ICT devices in this regard will be piloted in a number of upazilas. In addition, IER-DU and BRAC-IED would serve as teacher development/training agencies.

26. This component would also strengthen *capacity* of ROSCU, UEO and other partner agencies including CMCs, CMs, MOs and TCs by financing in-country training in the areas of management, M&E, educational development, procurement and financial management; international training to observe and share best practices in relevant education programs; and community-level training to CMCs.

27. Under *social awareness* sub-component, strategies to enhance community awareness about ROSC II will be devised and implemented with support from a professional communication agency. The activities will include, among other things, preparation and dissemination of ROSC Operation manual, brochures, posters and audio-visual materials; central and upazila-level conferences and workshops, and community-level meetings; and mobilization of print and electronic media (newspapers, TV, video).

2.2.4 Component 4: Monitoring and Evaluation

28. The objective of this component is to establish an effective monitoring and evaluation system to monitor inputs, processes and outputs, and assess the impact in relation to the stated project development objectives. This component comprises (a) monitoring of inputs, process and outputs, (b) learning assessment pilots, and(c) impact evaluation of ROSC interventions. Key *monitoring* activities include: preparation of database (student, teachers, CMCs, LCs, RPs, TCs, CMs, MOs); validation of LCs (student, teacher and LC location); trimester monitoring of LCs based on self-reported monitoring forms (for ACF); and sample-based compliance monitoring. Use of ICT such as SMS monitoring and data validation through smart phones would be promoted under this sub-component. *Learning assessment pilots* would

support administration of two rounds of student learning assessments for grades 3 and 5. *Evaluation* sub-component aims to evaluate the impact of ROSC interventions on schooling outcomes. The sub-component would finance: (a) baseline survey to update baseline and target indicators; (b) follow-up surveys to assess the impact on KPIs and other outcome indicators; and (c) impact evaluations of pilot interventions (urban slums, voucher schemes for domestic child labor, pre-vocation skills, SMS monitoring).

2.2.5 Component 5: Provide safe and equitable learning opportunities to children and adolescents of DRP in Cox's Bazar District

29. The proposed new component to be financed by the proposed AF will provide informal education and psycho-social support to around 300,000 DRP children and adolescents. It will also support (i) strengthening the Government systems for planning and management of education activities for the DRP, monitoring the activities and reporting; (ii) preparation of teacher training facilities and support centers; (iii) procurement of learning materials for DRP; (iv) awareness raising among the DRP children, adolescent and their families regarding child rights, gender violence and exploitation, personal safety, and promote psycho-social activities to overcome the shock of violence, humiliation and forced resettlement; and (v) experience sharing activities for the local and central government officials for effectively managing such emergency situation and policy planning.

Sub-Component 5.1 Provide informal education to DRP children and adolescents

30. This sub-component will support the following activities: (i) Delivery of informal education to the DRP children and adolescents following the guidelines of GoB regarding DRP response. GoB entrusted UN agencies and/or international/local NGOs will be selected as service providers for this sub-component. ROSCU will remain as the project unit for implementing this component. (ii)The target beneficiaries will include 50,000 already enrolled DRP learners. UNICEF has 1,100 operational LCs with 100,000 DRP learners in the camps. Due to funding gap, at least half of those centers cannot be supported beyond December 2018. This will leave around 50,000 children, among the already enrolled 100,000, out of scope for basic education. The proposed AF will support these 50,000 along with 150,000 newly enrolled learners (who were never supported before) through this sub-component. (iii) Equal enrolment of female learners from DRP community. As more than 52% of newly arrived DRP children and adolescents are girls, an improved gender mainstreaming and targeted interventions will ensure that girls are not excluded from education assistance. This includes creating a safe environment, ensuring separate spaces for adolescent girls, recruiting female teachers, and supporting menstrual hygiene management interventions. (iv) Establishment of 1000 new and makeshift learning centers (LCs) to conduct non-formal learning activities in DRP camps. In addition, approximately 500 already established LCs through funding from other sources will also be supported. To ensure quick effectiveness of the informal learning activities for the DRP children, new and makeshift learning centers need to be operationalized

in DRP camps. These LCs will have a safe structure for children and will be in alignment with the environmental safeguards standards. Each LC will support not more than 55 children. Several shifts of learning activities in one LC will support the targeted DRP learners. LCs will be established in specific catchment areas in the DRP camps that can benefit most possible DRP learners. The selected service provider will be responsible for establishing the required number of LCs in suitable locations in DRP camps as well as overall management and maintenance of LCs. (v) Recruitment and Training of 2,000 teachers/learning instructors (at least 50% female) for the DRP LCs. To provide non-formal education to the target DRP learners following the specific modality, 2,000 teachers/learning instructors will be recruited by the selected service provider in the Cox's Bazar area. Adolescent girls in camps face severe challenges including risks of abuse, abduction, early marriage and lack of a place or person to report or seek advice from. Deploying a proportionate number of properly trained female teachers will address parents' safety concerns while ensuring retention of female learners effectively. The training module for female teachers will include child protection and safety issues targeted specially at adolescent DRP girls. (vi) Provision of special training to teachers/learning instructors. The objective of this special training will be to make teachers capable of: (i) providing psychological support to the DRP learners; (ii) teaching basic safety and hygiene skills to the DRP learners; and (iii) guiding the DRP children to cope with this change in their life in this new community. The teachers will also be sensitized to properly manage LCs in displaced camps while they can ensure increased communal participation and engagement in DRP children's education.

Sub-component 5.2 Enhance Capacity of government and local administration

31. This sub-component will support capacity building of MoPME to ensure an effective service delivery fitting to this unique crisis of Cox's Bazar district. MoPME is the implementing Ministry of the original project (ROSC II) and will be the same for the AF. MoPME is responsible for the planning, coordination and policy level decision making and interventions in this emergency education response. To address this unprecedented crisis and parallelly unique service delivery mechanism to DRP community, capacity building interventions for MoPME and other relevant Ministries such as the Planning Commission, and Economic Relations Division are crucial. This intervention will also be proven critically effective beyond this initial emergency phase, , to assist the government in planning and implementing a medium to long term approach. Knowledge sharing from nations facing similar crises and their experience in responding at the policy and coordination levels will also be supported through this sub-component. This sub-component will also support a longitudinal study that takes comprehensive stock of the needs, experiences, implementation challenges, impacts and other options for DRP education.

32. This sub-component will also support the strengthening of the service delivery system for the DRP of Cox's Bazar district through capacity building of the local administration. The District Primary Education Officer (DPEO) of Cox's Bazar district, Upazilla Education Officer

(UEO) of Ukhia and Teknaf upazila and their respective offices are responsible for managing education response in the said areas. Equipment, logistics support, training and capacity building interventions are required for the local administration to be able to properly and quickly execute the emergency education response plan for the DRP.

33. To ensure effective coordination and to support GoB and administrative structures in Cox's Bazar, the coordination and information management mechanism of the "Education sector" will be placed within the DPEO. The information management system will generate a periodically updated database that will assist the project to track the children and adolescents. This subcomponent will also support GoB efforts to monitor and manage the education component of the DRP response.

Sub-component 5.3 Improve Facilities for the DRP LC Teachers' Training

34. This sub-component will support the recovery/improvement of facilities to be used as DRP LC teachers' training centers. Government Primary Schools that had been severely affected by the occupation of the DRP communities as their first accommodation during the influx, will be repaired and adequately equipped to be used as centers for training of teachers who will teach in the DRP LCs. As these facilities are also used as Emergency Support Centers for the DRP, selection of the buildings will be based on certain criteria including location for ensuring affordable support for the DRP communities. The DRP are situated in highly congested camps in naturally vulnerable locations in precarious camps and as these school buildings remain as the immediate support facilities for the DRP during any disaster, the renovation works need to be considered on an emergency basis. As the newly approved Primary Education Program (PEDP4), which has a civil works component, is not designed for an emergency situation, immediate support from the AF is necessary. However, the nature of the civil works will be strictly confined to cater to the needs of DRP LC teachers training requirements and emergency disaster support. This will not facilitate any routine maintenance work of GPS to support regular activities.

35. This sub-component will also support the selection and monitoring of the said recovery works through the existing mechanism of MoPME. 100 GPS, which will also function as teacher training facilities, will receive support for recovery works. These GPS will be selected based on proximity to the DRP camps. ROSCU in partnership with the Local Government Engineering Division (LGED) will facilitate these minor works. The selection and monitoring services of these recovery works will be acquired through the existing mechanism of MoPME.

Sub-component 5.4 Psycho-social Activities and Awareness Building

36. This sub-component will support psycho-social activities aimed at helping the DRP to recover from the shock, ensuring their safe existence with local community, and preventing the exploitation of the DRP children and adolescents. This initiative aims to increase the children's sensitivity to their surroundings, teach them how to act as part of a group and to

take care of each other and siblings. These activities will support them to cope with the psychological trauma they have suffered from experiencing conflict and displacement while helping them to avoid adopting negative coping mechanisms. This sub-component will have a special focus on female children and adolescent girls as they are more susceptible to gender-based violence inflicted in displaced situations like this. There would also be a particular focus on working with adolescent boys in awareness raising activities as a way of preventing gender-based violence, preventing their exploitation as drug peddlers and discouraging them from engaging in other anti-social activities. The activities will include cultural events, sports, homestead gardening, home-making, tree plantation, arts and crafts etc. This sub-component will also support awareness raising activities to ensure effective parental engagement and community participation.

2.3 Project Activities with Environmental Foot Print

37. The project will provide informal education and psycho-social support to around 300,000 DRP children and adolescents (under the 5th component) in addition to supporting four components providing basic education to the education deprived children aged 6-12 years all over the country by establishing Learning Centers. The program will support mainly four types of activities which may trigger environmental issues. These are: i) Establishment of LCs, ii) Maintenance of LCs; iii) Water supply and sanitation provision for LCs; and iv) repaired and adequately equipped selected Government Primary Schools. For the first four components, under the parent project ROSC II, the Learning Centers will be rented. The selection criteria of the learning centers will be well ventilated classroom, safe drinking water and hygienic sanitation facility. For the DRP children, new and makeshift learning centers will be constructed and operationalized within DRP camps. There will be no permanent structures, but temporary establishments which can accommodate no more than 55 children taking into consideration of safety issues for both the structure and the pupils, disaster resilience and minimum ecological footprint. Access to drinking water and sanitation in these makeshift LCs are also going to be important criteria for selecting the location. Local Government Primary Schools that had been severely affected by the occupation of the DRP communities as their first accommodation during the influx, will be repaired and adequately equipped to be used as centers for training of teachers who will teach in the DRP LCs. Therefore, small-scale civil works will be involved but only to an extent required to cater to the needs of DRP LC teachers training requirements and emergency disaster support.

2.4 Safeguard Category and policies:

38. Similar to parent project OP 4.01 for Environmental Assessment is triggered for this AF. The environmental category of Additional Financing for ROSC II is retained as "B", since the same nature of activities will be provided to the DRP across Cox's Bazar district (primarily Ukhia and Teknaf upazila). As per agreed measures, the Environment Management framework (EMF) for ROSC II was prepared and disclosed by the MoPME in August 2012. The

assessment of P4R of the recently approved Fourth Primary Education Development Project shows DPE does not have sufficient technical capacity for managing environmental safeguard issues. Moreover, activities under this additional financing will take place in ecologically fragile and vulnerable locations. Therefore, it was recommended that dedicated focal person for environmental safeguards should be on board before the implementation starts. The EMF for the new operation has been updated with the new dimension of the emergency situation, activities and lessons learnt from the original project.

39. Two additional environmental safeguard policies are triggered, as activities under this additional financing will take place within important forest landscape, OP 4.04 Natural habitat and OP 4.36 Forests are triggered. Historically, the project areas were mostly forested, however, they were cleared to accommodate DRP camps. The project area contains critical habitat for wildlife, including critically endangered Asian Elephant and there are evidences of active human-elephant conflict around the camps with unfortunate loss of human lives. As a result, it is imperative to double check the proposed locations of all Learning Centers to avoid the elephant corridors and pathways. Civil works will be avoided in the remaining forest area and within elephant migration route, and additional mitigation measures will be taken to protect forest and/or elephant migration route if required as the result of screening exercise.

CHAPTER 3: POSSIBLE ENVIRONMENTAL ISSUES

3.1 Introduction

40. This section deals with the main potential environmental concerns likely to arise from the various activities and/or components interventions proposed under the ROSC II. The program will support mainly four types of activities which may trigger environmental issues. These are: i) Establishment of LCs, ii) Maintenance of LCs; iii) Water supply and sanitation provision; and iv) repaired and adequately equipped selected Government Primary Schools. The project will not finance any new construction/renovation of LCs outside DRP camps under the parent ROSC II. LCs will be housed in a rental room under a contractual agreement with house owner for definite period of time. Since the project will not support construction of latrines or installation of any drinking water source, supply of safe drinking water and the provision of hygienic sanitation are the two vital challenges of the program. Lessons from ROSC I and similar programs show that issues such as selection of appropriate sites for LC establishment, preference of students and teachers are some of the key concerns that influence project success and sustainability. The typical environmental impacts related to the establishment of LC and water supply and sanitation issues are drinking water pollution risk, risk from poor sanitation, drainage congestion/water logging, inadequate ventilation and risk from unhygienic surrounding environment.

41. For Additional Financing component (component 5), the LCs will be established in makeshift structures within the DRP camps. Ground reality is that many of the temporary makeshift sheds may not have their water sources and might use bottled water (supplied by aid agencies) for consumption or depend on water points and latrines belonging to other agencies. In such challenging circumstances, several aspects need to be ensured from the environmental safeguard point of view: (i) minimum ecological footprint for the construction of the makeshift sheds, (ii) provision of reliable and safe drinking water source and sanitation facilities at the vicinity of the sheds, (iii) siting the LCs away from elephant passageways and camp boundaries to reduce human-elephant conflict. The renovation work of damaged primary schools need to ensure good housekeeping of construction materials, safety of public and workers etc.'

3.2 Baseline Environmental Characteristics of Bangladesh

42. The physical geography of Bangladesh is varied and has an area characterized by two distinctive features: a broad deltaic plain subject to frequent flooding, and a small hilly region. The climate of Bangladesh is dominated by sub-tropical monsoons characterized by wide seasonal variations in rainfall, moderately warm temperatures, and excessive humidity. However, the climate of Bangladesh exhibits pronounced temporal variability. This is because of the moisture-laden monsoon winds flowing predominantly from the south-west during summer and the comparatively dry and colder north-western winds during winter. Whole Bangladesh is divided into seven climatic zones, (Figure 3.1). Three seasons are generally

recognized: a hot, muggy summer from March to June; a hot, humid and rainy monsoon season from June to November during which more than 85% of the total annual rainfall occurs; and a moderately cold, dry winter from December to February. The beginning of the rainy season vary from year to year; heavy rains may commence anywhere between mid-April and early June and may end anywhere between the end of September and mid-November. Usually winter season is dry with occasional rains. The early summer season is considered from March-April. During summer, the air becomes hot with very low humidity. Early summer is also dominated by Baishakhi cyclone and rains. The general pattern of precipitation (which consists entirely of rain) follows the monsoon pattern with the cooler, drier months of November to March, increasing rains in April and May, and highest rainfall in the summer months of September and October when the prevailing wind direction from the southwest brings moisture-laden air from the Bay of Bengal. The winter period (November to February)

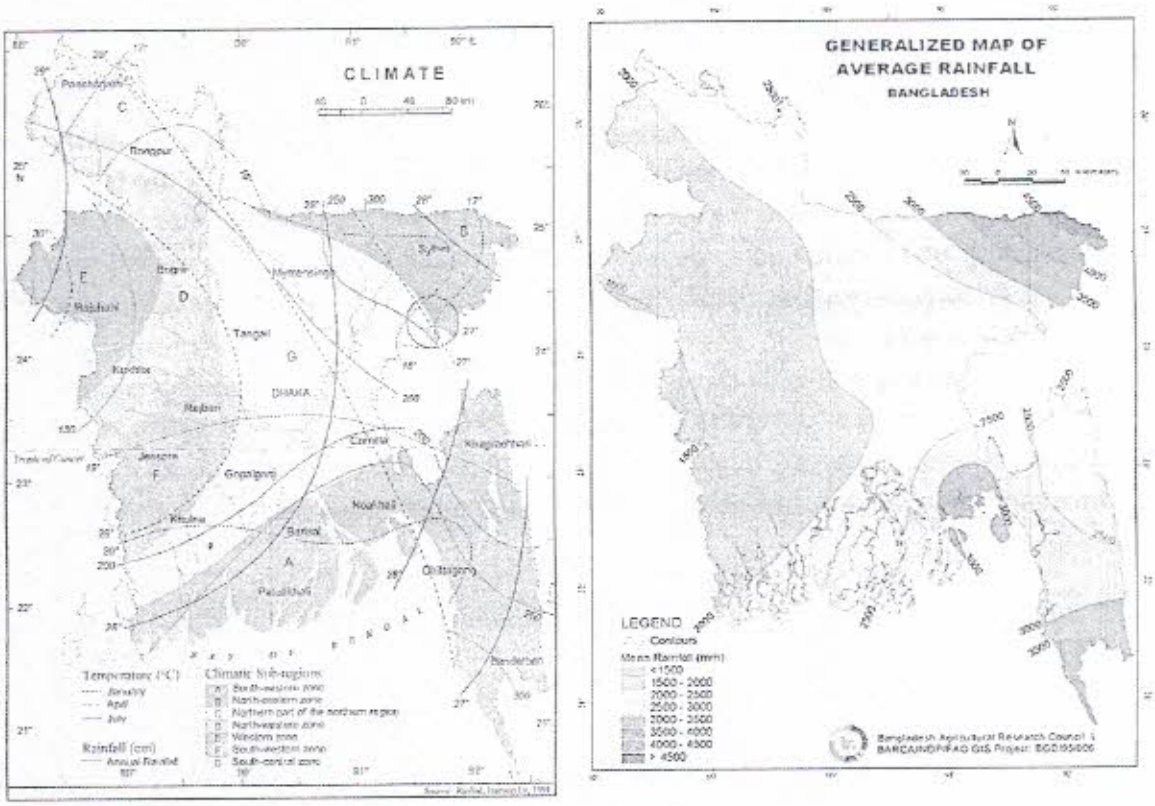


Figure 3.1: Climatic zones of Bangladesh (left) and average rainfall map of Bangladesh (right)
(Source: Banglapedia)

is dry with very little rainfall. Even though the temporal pattern of rainfall is pretty much similar throughout the country. These average climatic characteristics may be taken into consideration while in the process of deciding to establish a LC in a particular area.

43. Bangladesh is prone to flooding; the coastal flooding as well as the bursting of Bangladesh's riverbanks is common and severely affects the landscape of the country. 75% of

Bangladesh is less than 10m above sea level and 80% is flood plain, therefore rendering Bangladesh as a nation very much at risk of further widespread damage. Flooding normally occurs during the monsoon season from June to September during the monsoon. The convectional rainfall of the monsoon is added to by relief rainfall caused by the Himalayas. Melt-water from the Himalayas is also a significant input and flood every year. Due to lack of adequate drainage system and frequent flooding drainage congestion/water logging is very much prevalent both in rural and urban areas. Figure 3.2 shows the flood-prone areas in Bangladesh which can be taken into consideration in selecting an LC in a particular area.

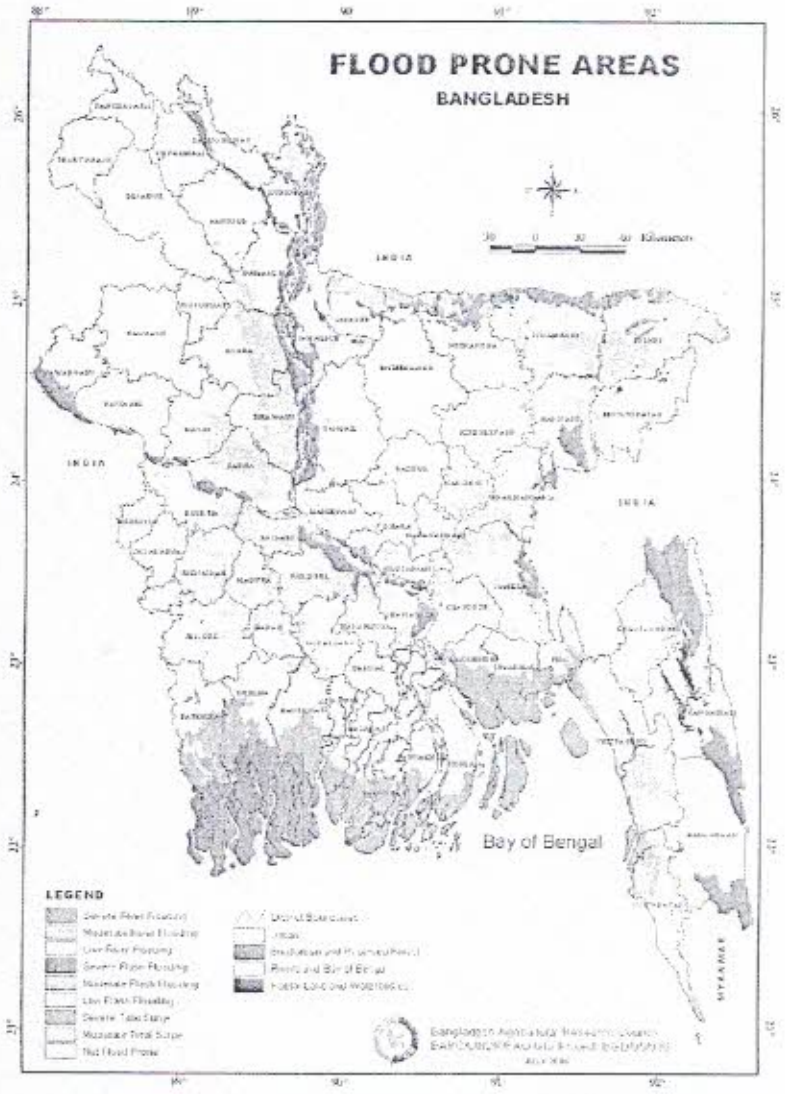


Figure 3.2: Flood prone areas of Bangladesh

44. The Learning Centers will be equipped with safe water and adequate sanitation facilities. Therefore, the selection process of an LC need to take into consideration whether these facilities are available in that particular area. Since water supply in most rural areas are

groundwater-based, the availability of water is dependent on groundwater level. Water aquifers are present beneath the vast majority of Bangladesh, which are being recharged by the major river systems and by infiltration of rainwater. The groundwater level fluctuates seasonally, approaching the ground surface at some places of the country during the months July to September. Groundwater is replenished each year during the monsoon season when rain and flood water finds its way into the aquifer slowly percolating down through overlying soils and sediments. The rate of recharge varies depending on the property of soil and geology of the area. Figure 3.3 shows the location of the proposed project site on the groundwater zoning map of Bangladesh. Groundwater quality is challenged by naturally occurring arsenic. In 1993 it was discovered that groundwater, the source of drinking water for 97% of the rural population and a significant share of the urban population, is in many cases naturally contaminated with arsenic. It gradually emerged that 70 million people drank water which exceeds the WHO guidelines of 10 microgram of arsenic per liter, and 30 million drank water containing more than the Bangladesh National Standard of 50 microgram per liter, leading to chronic arsenic poisoning. An estimated 12.6 per cent of the population exposed to arsenic contaminated water. Figure 3.3 shows the arsenic contaminated areas of Bangladesh. DPE will consider alternative sources of drinking water in the places of high arsenic contamination.

3.3 Water Quality & Sanitation Status in Bangladesh

45. Bangladesh has made remarkable progress in achieving water supply coverage in the past 3 decades. About 87 percent of the national population is estimated to have access to improved water sources in 2015 according to the recent JMP estimate. JMP also estimates that about 65 million people gained access to improved water from 1990 to 2014 (JMP 2014). Yet, among the south-asian countries Bangladesh has the second to worst water supply coverage compared to its neighbors. This is primarily due to arsenic contamination in groundwater in the shallow aquifers which Bangladesh primarily depends on as its drinking water source. The considerable success in drinking water supply is challenged by quality of service provision in hard to reach areas such as the hilly regions, River Island (chars), swampy areas (beels and haors), water-scarce areas (coastal belt and Barind area) and particularly rapidly growing urban slum. Sanitation faces its own challenges. Only 56 percent of the population has access to improved sanitation. It is to be noted, being one of the most densely populated countries in the world, as high as 25 percent of the population in Bangladesh use shared latrines which is not considered as improved sanitation coverage. Poor sanitation causes contamination of ground and surface water. While selecting LCs in a particular area, the availability of drinking water and adequate sanitation needs to be taken into consideration.

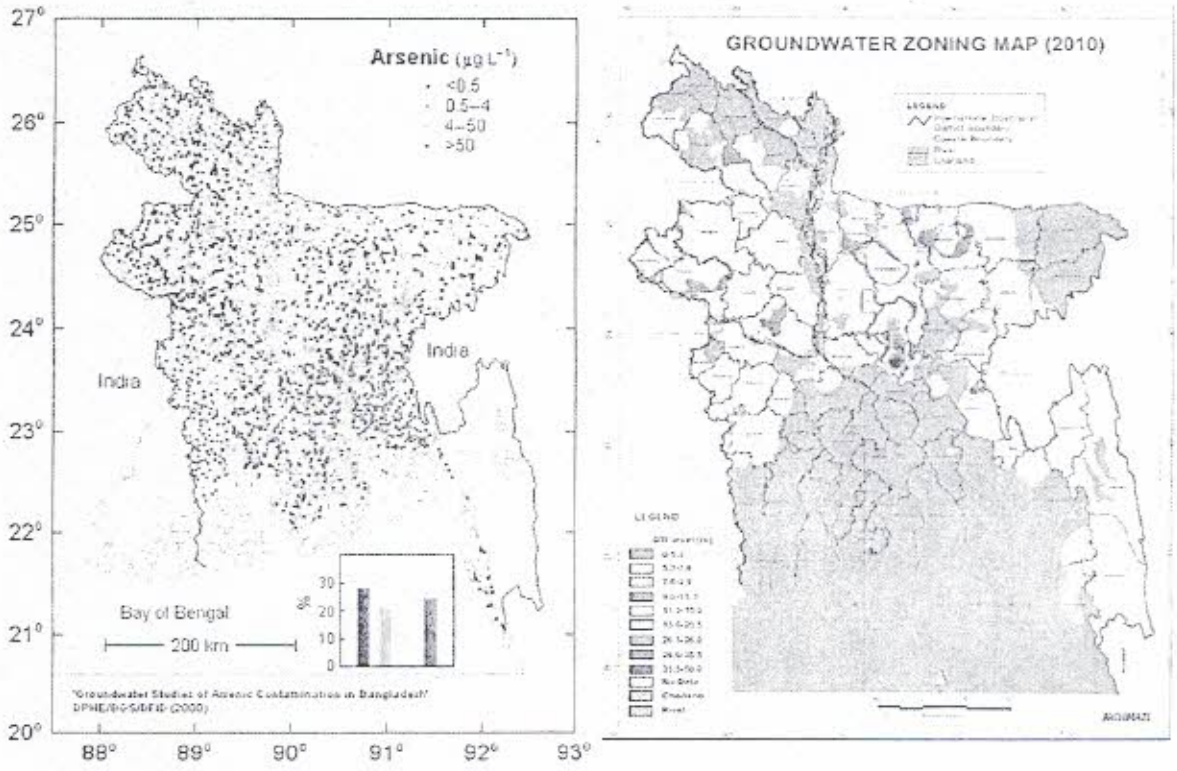


Figure 3.3: Arsenic contaminated groundwater map (left) and groundwater level map of Bangladesh (right)

3.4 Environmental Baseline of DRP Camp Area

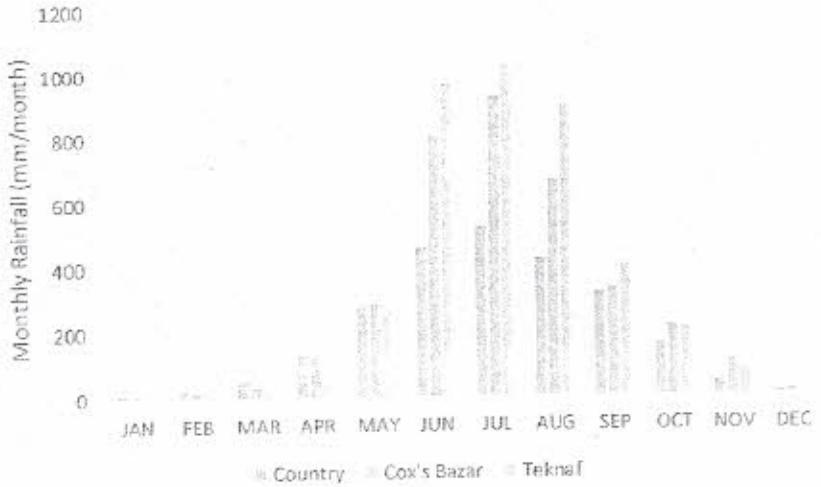
46. The environmental and social baseline of the project area and affected people are provided in this Section.

3.4.1 Physical Environment Baseline

Climate

47. The climate of this region is tropical, with monsoons characterized by a change of 4 seasons; pre- monsoon (March to May), Monsoon (June to September), post monsoon (October to November), and dry season (December to February). The project area is highly susceptible to tropical cyclone and tidal surges. Cyclone storms develop in the Bay, generally in April – May and October- November, occasionally coming to shore and causing severe damage to human settlements and vegetation.

48. The normal monthly rainfall pattern in the project area and the country is shown in Figure3.4.



Source: BMD

Figure 3.4: Rainfall Pattern in Assessment Area

49. Annual rainfall in Cox's Bazar is about 45% higher compared to the national average. Annual rainfall in Teknaf is 63% higher compared to the national average. In both locations the higher intensity of monsoon rainfall is apparent, compared to the national average. Another clear pattern is that the rainfall begins later in Cox's Bazar compared to rest of the country and it is even more late in Teknaf (usually in June).

Hydrology

50. Hydrology of the project area is complicated by the varying terrain and topography. There is interaction between fresh water flowing from the upstream hilly areas and the tides flowing from the Bay of Bengal. Rainfall and runoff from adjacent uplands along with the relief pattern of the plains regulates the surface hydrology in the forest areas. The area is interspersed by valleys, gullies and crossed by 149 streams which at the eastern side flow to the Naf River[1].

51. The project area is representative of typical hill slope hydrology where numerous chorrhas flow down slope towards the bay on the west and the Naf River on the east. On the coastal side (western part), many of small and large khals run from the hilly hinterland to the bay. The main khals are: Reju, Inani, Mankhali, Rajarchora and Mathabhanga. There are a several shallow depressions in the area providing wetlands to migratory birds, and fish for local livelihoods.

Hydrogeology

52. The groundwater system in the project area is quite different compared to rest of the country. The area is part of the Zone N under UNDP's 1982 classification, which is based on

[1] Arannayk Foundation (2013) Biodiversity of Protected Areas of Bangladesh, First edn. The Arannayk Foundation, Dhaka.

lithology, thickness and structure of rock formations along with recharge potentiality and aquifer characteristics. The area has complex groundwater conditions characterized by a complex geology of folded Tertiary sediments.

53. There are apparently no arsenic problems reported in the groundwater system of the assessment area and faecal contamination of water sources was found to be mostly related to point sources[2].

54. High groundwater salinity exists in areas close to the Bay of Bengal. The Teknaf area is generally unsuitable for shallow wells (less than 400ft). Overall, there is low potential for large scale groundwater development in the Teknaf area[3].

Water Sources

55. The main water sources used by local communities are: surface (khal or chorrha, pond, rubber dam); groundwater (artesian well, dug well (kua) or hand tubewell; and combination of surface and groundwater (chorrha and kua; or pond and kua). Water sources for the DRP are mainly tubewells and in some cases khals. Where water sources are common between DRP and local communities, there is considerable pressure on the limited resources.

Air Quality

56. In general, the air quality in the project area is not susceptible to intense pollution due to lack of industries or intense vehicular movement. Some localized dust pollution temporarily occurs near construction sites and brick kilns in the dry season (November to May). Some noise and vehicular pollution increases along roadsides in the Cox's Bazar to Teknaf areas during the peak tourist periods Detailed baseline data on air quality is currently not available.

Soils and Topography

57. The soils of the region in particular the hills are mostly composed of coarse materials and is less mature than other coastal region of the country and are susceptible to erosion and landslides. The region has a long history of landslides. There have been recent reports of landslides in and around the camp areas, e.g. 21 incidents were reported in the period 16 to 31 October, 2018[4].

58. The soils range from clay to clayey loam on level ground and from sandy loam to coarse sand on hilly land. In the forest areas, the clayey and sandy loams are fertile, and the sandy soil is often infused with iron resulting in red or yellowish tinge. The hilly soils developed from un-consolidated rocks are moderately well to excessively well drained, generally deep,

[2] UNHCR (2016) Bangladesh Hydrogeological Field Mission Report.
UNDP (1982) Groundwater Survey, The hydrogeological Condition of Bangladesh. UNDP Technical Report DP/UN/BGD-74-009/1.
[3] Ahmed, K. M. (2003) Constraints and issues of sustainable groundwater exploitation in Bangladesh. Proceedings of the International Symposium on Safe and Sustainable Exploitation of Soil & Groundwater Resources in Asia, Okayama University, Japan, pp. 44–52
[4] UNHCR (2018) Operational Update, 16-31 October 2018.

and probably the oldest soils in this region, while those occurring on hills from consolidated rocks tend to be formed in weathered sandstones, shales, and siltstones[5]. The soils developing from the weathered sandstones tend to be sandy loams to clay loams, and those in shales silty clay loams. Generally, the soils of Tipam Surma formations are less acidic in reaction relative to the soils of Dupitila formations.

59. The Ukhia and Teknaf forest ranges cover gently sloping hills comprising several different geological formations. These are Pliocene and Miocene. The hills comprise of upper tertiary rocks with three representative series-Surma, Tipam and Dhupitila. The Pliocene covers the Dupitila formation which consists primarily of folded, fine to coarse sandstone, mixed with mottled siltstones and shales, plinthitic, and lateritic layers. The sediments are subject to strong erosion. The Miocene covers the oldest Surma formation which is situated in the centre of the anticlines and surfaces at the bottom of valleys.

Natural Disasters

60. The project area has record of the following natural hazards: river floods, flash floods, landslides storm surges, earthquakes and salinity intrusion[6]. In the project area, river floods occur mainly during July to September. Flash floods and landslides occur in April and May. Storm surges can occur in May, June, October or November. Salinity intrusion tends to occur from December to May.

61. According to BBS 2011 Census data, neither Ukhia nor Teknaf have any fire brigade station[7].

3.4.2 Biological Environment Baseline

Terrestrial Flora and Fauna

62. The forest land in Ukhia and Teknaf upazilas is covered by tropical evergreen and semi-evergreen forests with major tree species are Chaplish (*Artocarpus chaplasha*), Garjan (*Dipterocarpus* sp.), *Syzigium* species, Jarul (*Legarstromia speciosa*), Gamar (*Gmelina arborea*), Koroi (*Albizzia* sp), Civit (*Swintonia floribunda*), Toon (*Cedrela toona*), Bandorhola (*Duabanga grandiflora*), Telsur (*Hopea odorata*), Uriam (*Mangifera sylyatica*), Dhakijam (*Syziqium grande*), occurring in deep valleys and shaded slopes8. The human activities have denuded the most parts of the hills which have been re-occupied by sungrass, herbs and shrubs. Still the area houses rich biodiversity, especially within the protected areas (PA).

63. Within the last two decades, the forest areas in Ukhia and Teknaf have become degraded or have been cleared due to the human causes. Between 1989 and 2009, the forest

[5] Canonizado, J.A. (1999) Integrated forest management plan, Noakhali C/A Division (1999-2008), FRMP TA Component. Mandala Agril. Dev. Crop/FD/MOEF.

[6] UNDP (2014) Comprehensive Disaster Management Plan -Final Report, United Nations Development Programme, Bangaldesh.

[7] BBS (2013) District Statistics 2011 – Cox's Bazar, Bangladesh Bureau of Statistics, Ministry of Planning, Government of the Peoples' Republic of Bangladesh.

[8] IUCN (2002) Bio-Ecological Zones of Bangladesh. IUCN Bangladesh Country Office, Dhaka

coverage of Teknaf Wildlife Sanctuary (TWS) has been reduced by 46% from 3,304 ha to 1,794 ha. But the shrub type of forests was increased by 25% from 6,263 ha to 7,824 ha[9].

64. The project area is rich in biodiversity with numerous environmental assets and scenic beauty. The region has various tourist attractions. Most attractive feature of the influx area is a picturesque beach which is the longest in the world in one stretch. The sea beach also supports five species of sea turtles including olive ridley turtle (*Lepidochelys olivacea*), green turtle (*Chelonia mydas*), hawksbill turtle (*Eretmochelys imbricate*), loggerhead turtle (*Caretta caretta*), and leather back turtle (*Dermochelys coriacea*). Mudflats and sand dunes across the sea beach are the other two environmental assets of the project area. The *Ipomoea pes-caprae* dominated sand dune vegetation in the shore line of Cox's Bazar through Teknaf protect the beach from soil erosion and recruit sands for increasing elevation of the beach. It supports the breeding of the turtles. There is a significant land of sea-beach found to be planted by Jhau (*Casuarina equisetifolia*) and Baen (*Avicennia officinalis*) tree in Cox's Bazar zone. A large size sand dune formation due to this plantation was observed[10].

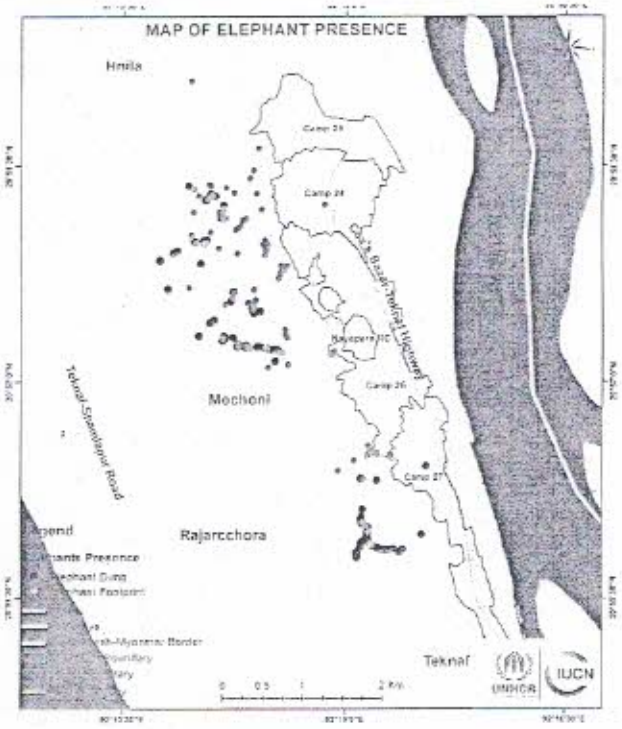
65. Himchari National Park, declared in 1980, is one of the important protected areas in Bangladesh. It lies under the Cox's Bazar South Forest Division covering the area 1729 ha. This is the home of 56 species of reptiles,13 amphibians, 286 birds, and more than 100 species of trees, shrubs, grasses, canes, palms, ferns and herbs, etc. Waterfalls adds a great weight with the total beauty of the Himchari national park. It attracts more than two million visitors each year. The biodiversity of this park is threatened by many anthropogenic factors. Rohingya influx has a distant influence on this forest too. Especially, the bamboo and fuelwood merchants illegally collect bamboo and fuelwoods from this forest and sold out to the Rohingya community, thereby impacting on this forest ecosystem.

66. Inani protected area under the Cox's Bazar South Forest Division, 26 km away from the Cox's Bazar city, lies between 21°6′-21°17′N latitude and 92°3′-92°7′E longitude. It covers an area of 7,700 ha of reserve forest falling under evergreen and semi-evergreen tropical forest zone. It includes both Inani and Ukhia forest range. Although Inani forest area was rich in biodiversity earlier, but presently the vegetation cover is being dominated by herbs, sungrass, shrubs and bushes. The high forest has been shrinking from 70% to less than 30% for the last three decades[11]. In the bushes, sungrass and bamboos are dominating the landscape. Inani protected area belongs to 443 plant species under 93 families. A gymnospermic tree species, Banspata (*Podocarpus nerifolia*) is one of the rare trees still is found in this forest. Among the plant species, herbs are 140 (32%), shrubs are 85 (19%), trees are 151 (34%), climbers are 60 (13%) and epiphytes are 7 (2%). This forest houses 29 species of amphibians under six families. Among the amphibians, most species, 12, are rare, 9 are common and 8 are very common. It belongs to 58 species of reptiles of which 5 are turtles

[9] Arannyak Foundation (2013) Biodiversity of Protected Areas of Bangladesh, First edition. The Arannyak Foundation, Dhaka.
[10] UNDP (2017) Report on Environmental Impact of DRP Influx.
[11] Arannyak Foundation (2016) Biodiversity of Inani Protected Forest. The Arannyak Foundation, Dhaka.

and tortoise (9%), 21 are lizards (36%), and 32 are snakes (55%). Arannyak Foundation confirmed that 34 reptiles (60%) found in this forest are rare, 18 (31%) are common and 6 (10%) are very common. It supports 253 bird species of which 195 are residents (77%) and the rest 58 are migratory (23%). Among the birds, 44 species are very rare (23%) and 68 are rare (35%). A total of 39 mammals are found in this forest. Among the mammals, 12 are carnivores, 11 are rodents, 7 are bats and 4 are primates. However, 61% of the total mammals of this forest are either rare or very rare species (Arannyak Foundation 2016). Although the current Rohingya influx does not have any direct influence on the Inani protected area, still there are some assumptions that bamboo and fuelwoods are being extracted from the Inani protected areas and being sold out for the Rohingya community.

67. According to IUCN (2016), there are 50-78 elephants in the Cox's Bazar District South region (which consists 5 forest ranges in Ukhiya and 4 in Teknaf)[12]. Around 40 of these are trapped in and around the camps due to the sudden influx of DRP[13]. Recently, IUCN have conducted extensive surveys of elephant presence in and around the camps (see **Error! Reference source not found.**3.5).



Source: IUCN (2018)[14]

Figure 3.5: Locations of Elephant Presence near Camps in Teknaf Area

[12] IUCN (2016) Status of Asian Elephants in Bangladesh.
[13] Personal communication with Mr. Motaleb of IUCN.
[14] IUCN (2018) Field survey https://www.iucn.org/asia/countries/bangladesh/human-elephant-conflict-mitigation-around-refugee-camp-coxs-bazar

Aquatic Flora and Fauna

68. A survey of the Fisheries fauna of the Naf river estuary in 1990's recorded 123 fish species, 20 species of shrimp and prawns, 3 species of crabs and 2 species of lobster[15]. The dominant group was represented by a few small sized fishes. Considering the close proximity to the sea and the presence of back waters, the people in the region are habituated in pisciculture and prawn culture. The people also practice salt farming.

3.5 Solid and Hazardous waste management of the camp area

69. Solid waste management refers to the collection, disposal and recycling of solid waste materials. Waste materials need to be separated before they leave the shelter but currently there are neither primary collection centers nor an organized collection center in the camps. Solid waste management will be an issue for as long as the DRP remain in the camps. The study team identified the impact as moderate to severe. Principal waste materials are the polythene bags in which relief provisions are distributed. Other waste materials include kitchen garbage, food packaging materials, batteries and plastic bottles. Of these, recycling efforts are only beginning to get underway for plastic bottles. Due to the scarcity of firewood, some families use plastic as a cooking fuel, a practice which is extremely harmful.

70. Medical waste management (MWM) is considered to be the most significant environment issue. Medical wastes contain both general wastes (approximately75–80%) and infectious wastes (about20–25%).Medical waste constitutes a public health hazard, if not managed properly. Although majority of the medical waste is no more dangerous than household/municipal waste, the hazardous waste, if exposed to the people or environment in an untreated form, pose various kinds of danger. Thus, the main concern relates to the portion of medical that are defined as hazardous.

71. Under the WB funded proposed Emergency Multi-Sector Rohingya Crisis Response Project (EMCRP), a feasibility study and design for Fecal Sludge and Solid Waste Management System. These interventions are expected to improve the quality, resilience, and sustainability of water services, as well as help, reduce water losses for DRP.

3.6 Typical Environmental Risks of Learning Centers under the ROSC Program

72. Since the program does not support construction of learning centers (as these are rented), there are no risks for hazards associated with civil construction. However, the learning environment and health/well-being of the students in the learning center can potentially be affected by a number of factors which should be screened while selecting a particular LC. The possible environmental risks are discussed below:

[15] Islam, M.S. (1993) Fisheries fauna of the Naf river estuary, Bangladesh Journal of Fish.

Drinking Water Pollution Risk

73. The major environmental concern for the water collection from nearby tubewell is Arsenic. Arsenic poses major environmental and health risk in the project. In the absence of proper testing facilities and alternative option, students may continue to consume arsenic contaminated water in arsenic affected-areas of the project. The long-term exposures to arsenic in drinking water may result in arsenicosis and other ailments. There is also risk of microbiological contamination in water if the tubewell is not properly maintained or lack of maintenance of sanitation facilities or inadequate sanitation facilities. Some organisms such as viruses, bacteria, protozoa and algae, cause nuisance problems with taste and odor while others are potential pathogens which may create severe diarrhea to the students.

Risk from Poor School Sanitation

74. Sanitary latrines provide enormous health benefits to communities. However, they should be maintained properly. Close location of latrines to tube-wells can lead to groundwater contamination. Again, lack of proper maintenance can create drainage congestion. Inadequate maintenance of latrines and water logging also may create mosquito-breeding habitat.

Inadequate Lighting and Ventilation System

75. Poor indoor lighting in classroom may have many harmful effects on health and well-being (e.g. eyesight) of teachers and students. Inadequate ventilation in classrooms may lead to respiratory problems, and easier transmission of infectious diseases. Due to poor ventilation and construction defect the floor may get damp especially during rainy season.

Fire-fighting and emergency evacuation

76. Since the LCs will be established by renting existing structures, it may pose risk during an emergency situation (fire and other hazard). Therefore evacuation and exit routes, firefighting facilities of the facility needs to be assessed.

Drainage Congestion/Water Logging

77. Stagnant water due to poor drainage, blocked sewers, and overflowing septic tanks or soak pits may create adverse health effects. These issues should be properly addressed and taken into consideration during the selection of LCs both in urban and rural areas.

Risk from Unhygienic Surrounding Environment

78. Nearby waste disposal sites, presence of any industry in the surrounding environment of the LC can pose serious air, water and noise pollution. Waste from agriculture and industries can also cause serious health risks. Disposal of industrial hazardous waste with municipal waste can expose people to chemical and radioactive hazards. Uncollected solid waste can also obstruct storm water runoff, resulting in the forming of stagnant water bodies that become the breeding ground of disease and create bad odor. Waste dumped near a water source also causes contamination of the water body or the ground water source

3.7 Additional Risks of Learning Centers at Cox's Bazar Rohingya camps

79. As mentioned earlier, to ensure quick effectiveness of the informal learning activities for the DRP children, new and makeshift learning centers need to be operationalized in DRP camps. The area where the LCs will be established is already congested, environmentally challenged in an adverse manner and pose the following risks:

Risk of poor quality of water and sanitation

80. The healthcare facilities (HCFs) for the DRP are makeshift structures and similar structures are envisaged for the LCs. An assessment by WHO says that in terms of water supply, a majority of the HCFs (70%) use tube well water and 9% use deep well (borehole) water. However, 7% do not have any water source of their own[16]. Even among the available water sources, microbial contamination is present and in most of the places the water is not suitable for drinking (red and yellow dot regions in Figure 3.4). Since ROSCII AF will not support installation of new tubewells and sanitation facilities and may not have their own water sources, it is likely that the LCs will be sharing existing water supply facilities where there is risk of contamination is high. Regarding sanitation facilities, these makeshift LCs will have to depend on latrines belonging to other agencies.

Risk of ecological degradation

81. The DRPs in the camps have already caused huge ecological degradation in the area in terms of loss of natural flora. It needs to be ensured that construction of makeshift LCs do not cause further destruction of flora.

[16] Report on the Assessment of Health Care Facility Services in DRP Settlement Areas

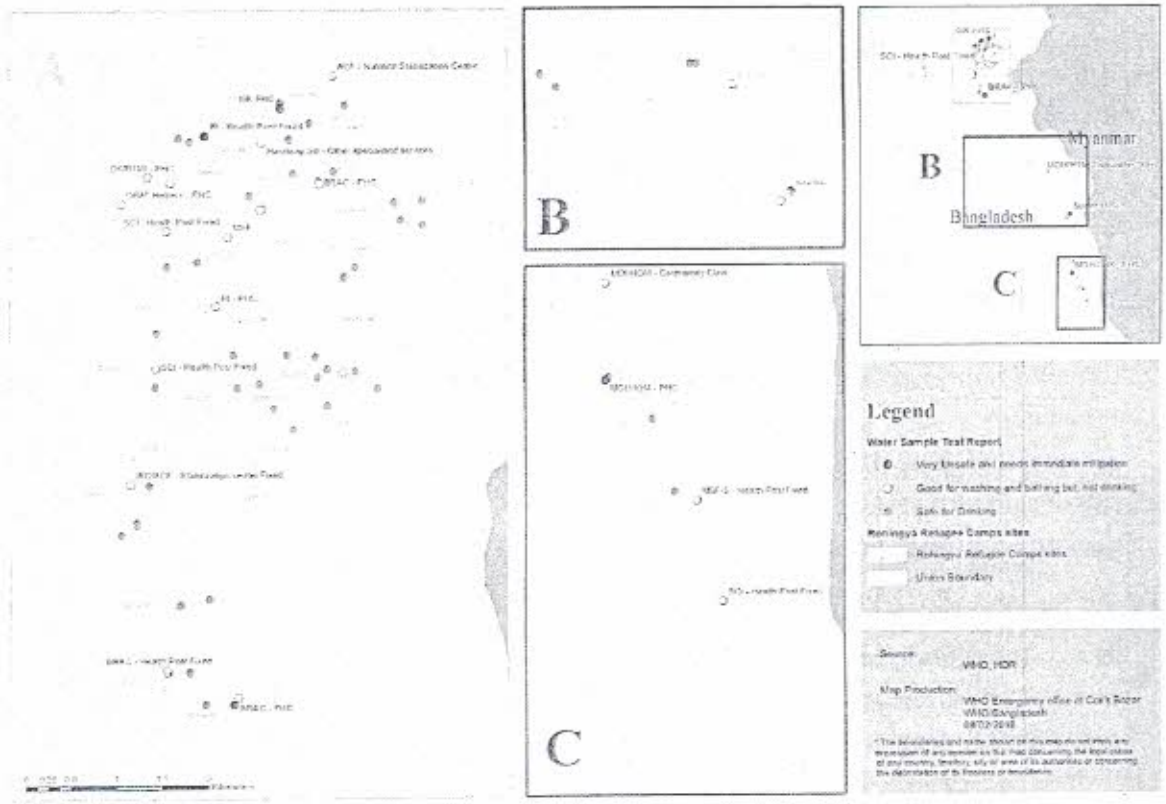


Figure 3.4: Map of the Water Test Results of Health Facilities in DRP Settlement Areas

Risk of human-elephant conflict

82. Kutupalong of Ukhia, Cox's Bazar, where the largest refugee camp is now established, is well known for the important habitat corridor of Asian Elephants and is an important forest area frequently used by wild elephants. It is also used as migration route of elephants from Myanmar to Bangladesh and vice versa to cover food and shelter. Behaviorally, elephants always follow their traditional routes and corridors for regular movement. If they find any obstacles within it, they try to break it. As a consequence of that, human-elephant conflicts have already happened on the edge of the refugee camp in Ukhia, causing several human deaths since September 2017. Recently, a number of human-elephant conflict incidences have happened close to the Camp as well as inside the Camp causing human casualties. Nine people were killed, including children and elderly people from mid-September 2017 to 21 January 2018[17]. Surveys and maps revealed that elephant movement was frequent along the north-western and western boarder of the Camp, specifically Camps 1, 3, 4, 17, 19 (currently not inhabited), 18, 20, 13, 14, 15, and 16 (Figure 3.5). The survey revealed a number of points through which elephants could enter into the Camp, as the whole area is now barren due to

[17] Survey Report on "Elephant Movement, Human-Elephant Conflict Situation, and Possible Intervention Sites in and around Kutupalong Camp, Cox's Bazar" by IUCN/UNHCR, February 2018

high rate of deforestation. If makeshift LCs are to be constructed in these areas, it may expose the structures to elephant interaction and potential loss of life.

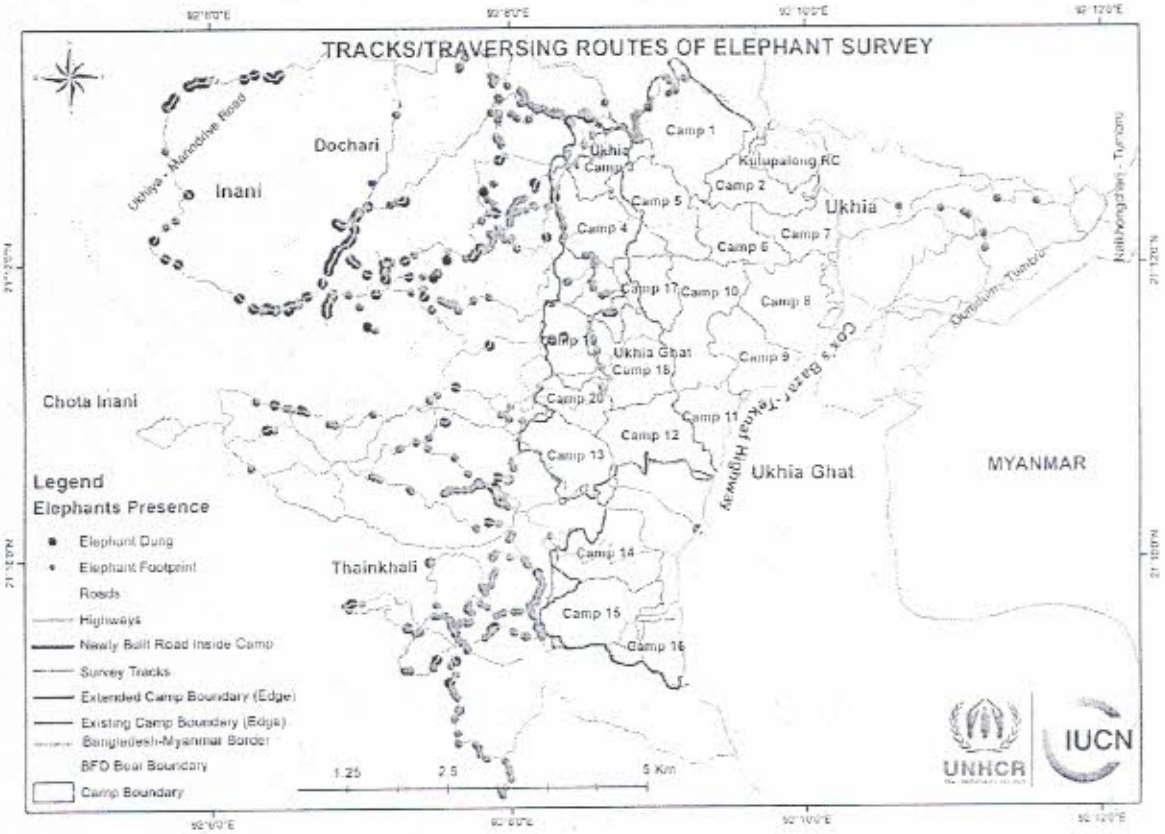


Figure 3.5: **Elephant presence, along with traversing routes, around Kutupalong Camp in Cox's Bazar, based on elephant signs - foot-prints and dung piles. (Data from IUCN Bangladesh's field survey conducted during 31 January-10 February 2018 and maps provided by UNHCR)**

CHAPTER 4: ENVIRONMENTAL MANAGEMENT IN THE ROSC PROGRAM

4.1 Introduction

83. The main objective of the environmental management for ROSC to project is to (a) establish clear and appropriate tools for environment friendly LC selection; (b) ensure that O&M of the LC are environment friendly. For programmatic or sectoral projects/programs, in which specific site is not known in advance, it is recommended that a set of environmental principles for the implementation of the project to be agreed upon in the Environmental Management Framework (EMF). The DPE, UEO, CM and CMC will follow a set of principles/general principles in establishment of LCs under ROSC II to ensure environmental sustainability of the project. The general principles of the environmental management in ROSC II are mentioned below:

4.2 General Principles

- The Program Director or his/her assigned official at the DPE will be responsible overall for environmental compliance in ROSC II.
- Under the parent project it will not finance any new construction of LCs or any water supply sanitation infrastructure. LCs will be housed in a rental room under a contractual agreement with house owner for definite period of time. For component 5 under ROSC II AF, makeshift LCs will be constructed for DRPs in Rohingya camps.
- All the LCs to be funded under the ROSC II will be subjected to an environmental screening/assessment during selection in order to prevent any significant negative environmental impacts.
- Selection of LCs with safe drinking water and hygienic latrine provision.
- The selected LCs should be well ventilated, damp free irrespective of seasonal variation and well-lit with natural light.
- Annual water quality monitoring of all the drinking water sources will be carried out to ensure safe drinking water facilities to the students and teachers.
- Provision for adequate sanitation facilities for the teachers and students will be ensured during LC selection and a mechanism for regular cleaning and routine maintenance will be developed.
- Environment friendly (e.g. solid waste management) and energy-efficient options (e.g. solar lighting, SHS, rain water harvesting, etc.) should be promoted
- There should be adequate provision for fire-fighting and safety measure in the school

4.3 Environmental Screening

84. In general, the environmental screening process identifies what level of environmental assessment is required for "subprojects" and/or components. It is one of the crucial stages of project decision making. The screening process also provides information to decision-making authorities about the nature of an activity before its implementation. Broadly speaking, the purpose of the environmental screening is to get relevant concerns addressed early on before further decision of a project and to ensure that actions to mitigate environmental impacts or enhance environmental opportunities are budgeted for. The environmental screening is about taking stock in time to avoid losing later opportunities. The participation and consultation with beneficiaries/local communities are important in identifying the potential impacts of the interventions. Environmental Screening will be carried out to get more information before renting the LCs to achieve the following objectives:

- To establish the limited environmental baseline around the LC site, and to identify any significant environmental issue;
- To assess these impacts and provide for measures to address the adverse impacts by the provision of the requisite avoidance and mitigation measures;
- To integrate the environmental issues before decision making for LC selection;
- To develop appropriate management plans for implementing, monitoring and reporting of the environmental mitigation and enhancement measures suggested.

85. Considering the nature and magnitude of potential environmental impacts which can be mitigated through proper LC selection, the proposed project is to be classified as category 'B'. For the parent projects ROSC and ROSC II, only one Bank environmental safeguard policy i.e., OP/BP 4.01 Environmental Assessment was triggered to ensure that the program design and implementation are focused on reducing adverse impacts and enhancing positive impacts. Two additional policies OP 4.04 (Natural habitat) and OP 4.36 (Forests) are triggered for ROSC II AF since the project may be implemented near critical natural habitat.

86. Since the extent and exact locations of LCs is not to be known at appraisal, the requirement to carry out an environmental analysis as part of program preparation can be waived. However, to avoid any major environmental impact, a limited environmental analysis/screening will be conducted through the government systems (under the responsibility of DPE).

87. The Screening format will be used as one of the selection criteria for selecting the LCs. A sample-screening format for selection of LC location is attached in Annex-B (for ROSCII program) and Annex C (specifically for the LCs DRP in Cox's Bazar). The Bangla form will be used for the screening purposes at field level. The screening format will also help to analyze the present condition to understand the real need for water supply and sanitation facilities and existing hygiene practices in the LCs. The screening format has been developed from the prior experience of PEDP II, PEDP III and ROSC in the light of existing environmental and

sanitation rules and regulation of Bangladesh Government and World Bank safeguard policy. Screening for temporary LC construction and Risk of Service Providers (Teacher, Associate) is shown in Annex-F.

88. For the selection of LC, the collection of following information should be ensured during LC selection in addition to the filled up checklist in Annex B:

- Size of the room (no more than 55 learners to be accommodated in a 35 ft by 20 ft from)
- Well ventilated room
- Sufficient natural light
- Provision of safe drinking water
- Provision of water sealed hygienic latrine

89. For the decision of the drinking water, the following information should be collected and analyzed.

- Arsenic concentration of the tube-wells (with depth and year of installation) within 500 m radius of proposed point
- Level of dissolved iron and salinity
- Distance from closest sanitary latrine
- Drainage facility
- Option for surface water availability

90. The following information should be collected and analyzed for the sanitary latrine provision.

- Distance from water source
- Drainage facility
- Closest water table
- Soil condition

91. For selection and construction of makeshift LC in the Rohingya camp area, the following information need to be collected:

- Drinking water availability near the LC
- Drinking water quality (Arsenic, microbial contamination) data from secondary sources.
- Status and quality of sanitation facilities

4.4 Environmental Mitigation

92. The primary objective of the environmental management and monitoring is to record environmental impacts resulting from ROSC II and AF activities and to ensure implementation

of the 'mitigation measures' in order to reduce adverse impacts and enhance positive impacts from specific activities. Based on the information obtained from the environmental screening/assessment, a site-specific Environmental Management Plan (EMP) will be prepared. The EMP will indicate the impacts predicted, mitigation measures to minimize the impacts, identify the institutional arrangements for undertaking the mitigation measures and monitoring arrangements, implementation schedules of the mitigation arrangements and reporting requirements and cost estimates. A sample environmental management plan format is attached in Annex-D. A standard mitigation measure plan matrix is attached below

Table 4-2A. Standard Mitigation Measure Matrix

Issue	Issue Description	Mitigation Measure	Responsibility
Inadequate Day Lighting and ventilation system	• Poor lighting and ventilation may impact on students and teacher's health • The floors can be damp on which the students need to sit	• LC should have adequate windows in proper direction in consultation with students and teachers • Plastic sheets should be spread over the floor instead of jute bag for the students	• House Owner and will be ensured by CMC, CM, UEO & DPE • CMC, CM, UEO & DPE
Drainage congestion/water logging	• Improper site selection can create localized drainage problem/water logging	• Consider the drainage system of the whole area before LC selection • Collect information about the water level height during flood • Prevent all solid and liquid wastes entering waterways by collecting solid waste and wastewater • Ensure proper solid waste collection facility	• Information provided by the house owner and checked by CM, UEO & DPE • House owner, CMC and CM • House owner, CMC and CM, UEO & DPE
Surface Water Pollution	Improper disposal of solid and liquid waste generate from the school sites will pollute the water quality	• Prohibit direct disposal of solid and liquid wastage into nearby water body.	House owner and CMC
Selection of appropriate Water Supply Technology	Without proper analysis, the new source can be arsenic contaminated Without proper analysis, the alternative sources can be microbially contaminated	• Identify unions and upazillas based on DPHE surveys • Annually check Arsenic tests if tubewell is selected as drinking water source in arsenic contaminated areas • Analyze local surrounding arsenic test results and	DPE and DPHE

Issue	Issue Description	Mitigation Measure	Responsibility
		recommend for alternative water resource • Analyze annual water quality testing report	
Selection of appropriate location for water source and sanitary latrine	Location may not be convenient to female students and impacts on natural resources and common property resources. Close distance between water point and sanitary latrine can contaminate groundwater.	* Discuss with CMC and students and select a location which is convenient for school and not impacting on trees or any other common property resources. * A minimum distance of 15 m should be maintained between a tube-well and a latrine to prevent contamination of water resources. In case of shallow shrouded hand tube-wells, this distance should be 20 m as horizontal filters are used in this type of tube-wells.	CM, UEO & DPE
Integration of drainage facilities with water supply and sanitary latrine	In absence of proper drainage facilities, water logging can be created around school.	* Should go for alternative option for water and sanitary latrines	CMC and CM, UEO & DPE

Table 4-2B. Mitigation Measure Matrix for LC construction for DRPs

Issue	Issue Description	Mitigation Measure	Responsibility
Drinking unsafe water	• The makeshift LCs will be using shared drinking water sources. The quality of the water depends on how the drinking water source is managed.	• Not possible to install treatment plant for the water source. Firstly, a safe water source needs to be selected based on monitoring reports or water testing carried out by the project. If the water source cannot be avoided, provision of chlorination or other means of disinfection should be made available at the LCs. If that is not possible, commercially available bottled water needs to be provided. Regular monitoring of drinking water needs to be done.	• GoB entrusted UN agencies and/or international/local NGOs with overall supervision by DPE
Improper or inadequate sanitation facilities causing	• In the absence of properly managed sanitation facilities near the premises,	• Constructing the LC at a location where sanitation facilities are available and reasonably well-managed.	• GoB entrusted UN agencies and/or international/local NGOs with overall supervision by DPE

Issue	Issue Description	Mitigation Measure	Responsibility
environmental pollution	environmental pollution can happen • Some may take resort to open-defecation	• Making the learners aware of the risks and hazards of open defecation.	
Construction of makeshift LC can cause ecological degradation	If LCs are constructed with local trees, leaves (as ceiling), then it may cause destruction of local flora which is already under stress of degradation	It needs to be ensured that no part of the physical structure of the LC use local flora. Bamboos and tin-sheds need to be made available for construction.	GoB entrusted UN agencies and/or international/local NGOs with overall supervision by DPE
Risk of landslides	If the LC is constructed in barren slopes, there is risk of landslides	• It needs to be ensured that construction of LC does not cause degradation of hills. • The LC needs to be located away from landslide-prone regions	GoB entrusted UN agencies and/or international/local NGOs with overall supervision by DPE
Risk of human-elephant conflict	If LCs are located in the paths of elephant passage, there will be conflict with the elephants resulting in loss of life and injury.	The LCs should be located in a region which does not cause human-elephant conflict. Particularly the map in Figure 3.5 can be used to select an appropriate location for the makeshift LCs	GoB entrusted UN agencies and/or international/local NGOs with overall supervision by DPE

4.5 Environmental Supervision and Monitoring under ROSC II and Reporting Requirement

93. The purpose of environmental supervision is to make sure that specific mitigation parameters are identified in the environmental assessment and as bound by the contract are satisfactorily implemented. In ROSC II continuous supervision by Environmental Safeguard Specialist, Monitoring Officers and Community Mobilizers will be carried out with a purpose to make sure that provisions provided in the contract document signed between CMC and house owner are satisfactorily implemented. In addition, monitoring will aim to ensure that the envisaged purpose of the project is achieved and result in desired benefits to the target population without adversely affecting natural environmental resources. The monitoring activities of ROSC II will include verifying compliance with the environmental management plan implementation. A typical Environmental Management Plan format is attached in Annex D.

94. The Environmental Safeguard Specialist, Monitoring Officers, Project Officers, UEO, CMC and CM and Consultants will monitor the following indicators during field visit as 'spot checking' and the related mitigation measures:

LC Environment:

- appropriateness of LC location selection;

- flood water level and height of the LC location site/village;
- Floor condition
- Ventilation
- drainage congestion/water logging;
- dust and noise pollution;

Water Quality

- Distance between tube-wells and sanitary latrines;
- Maintenance of water supply and sanitation facilities.

Sanitation Facility

- Cleanliness of latrine and area around
- Latrine and area around free from fly nuisance
- A cover or other means to keep the flies out
- Latrine and the area around it free from odors
- The area around the latrine free from stagnant water
- Latrine slab smooth and easy to clean
- Latrine slab strong and without any cracks
- Tube-well platform clean
- Proper drainage facilities?
- Hand-washing facilities available in or near the latrine

95. Arsenic and Fecal coliform of the drinking water of the facility will be tested by DPE on an annual basis using field test kits. 5% of the total samples will be tested at the laboratory for quality assurance. The water quality monitoring report will include the upazilla-wise comparison of the data with the previous year monitoring and also between the test results of the field-test kit method and laboratory test method. The report will also cover the present water supply option of the arsenic affected tube-well. The findings of the report will help in planning the next water supply options for LCs. The Environment focal person will ensure to submit it with the half yearly progress/monitoring report.

96. The ROSC project has a unique Educational Management Information System (EMIS). The environmental mitigation and monitoring information along with the third-party monitoring information will be incorporated in existing EMIS. ROSCU will prepare the following report during the course of project implementation for environmental safeguard:

Table 4-3 Report Requirement

Activity	Report Requirement	Sharing Period with Bank	Responsibility
Selection of LC	Summary Table of Environmental Status of the LC	Before finalizing the LC selection	Environmental Safeguard Specialist

Water Quality	Annual Water Quality checking with field test kits, 5% Lab testing report in summarized form	Annually	Environmental Safeguard Specialist,
Sanitation Status	Check regularly, prepare summary reports and share with Bank	Half yearly	Environmental Safeguard Specialist,
Environmental Management	Progress Report which will report status of LC, water quality and sanitation status	Half yearly	Environmental Safeguard Specialist,

97. The Environmental Safeguard Specialist, Monitoring officers and CMs will fill-up the screening form (Annex B) in presence of the house owner and submit it with the proposal. The Terms and Conditions for environmental compliance will be attached with the contract document. Failure to fulfilling the environmental requirement in LC environment and water and sanitation will result in discontinuation of the contract. The screening forms will have to be summarized by the environmental safeguard specialist of DPE and share with the Bank before finalizing the LC selection.

98. ROSCU will prepare the half yearly progress report on environmental management and will submit to the World Bank for review. The World Bank will review the screening report, environmental management plan, monitoring reports on random basis and will carry out field visit to cross-check.

4.6 Environmental Supervision and Monitoring under ROSC II AF

99. GoB entrusted UN agencies and/or international/local NGOs will be doing the screening of suitable locations for LCs in in the Rohingya camps following the format provided in Annex C, environmental safeguard specialist of ROSCU will support and oversee this screening and selection process. Baseline water quality and sanitation situation will be assessed either by direct observation or secondary information. The selected LC locations (GPS coordinates), screening forms and basis for selection will be shared with the World Bank in summary form through DPE.

100. Basic drinking water quality parameters (Arsenic, Fecal coliform) will be periodically checked for contamination by the UN agencies and NGOs. The sanitation facilities will also be monitored periodically. The frequency of monitoring/testing will be decided by the UN agencies and NGOs as deemed feasible by them. DPE will supervise and coordinate the monitoring activities and share with the World Bank monitoring reports once in three months.

4.7 Third Party Monitoring

101. The effectiveness of screening, monitoring and implementation of EMP will be carried out by the third-party monitoring firm along with the project component activity monitoring

annually. 5% of the LC will be subject to annual third-party monitoring for environmental compliance check.

CHAPTER 5: INSTITUTIONAL ARRANGEMENT AND CAPACITY BUILDING

5.1 Institutional Arrangement for ROSC II

102. DPE (ROSCU) has been implementing the ROSC II project with support of partner agencies and through mobilization of communities. Community Mobilizers (CMs) from Partner Organizations (POs) has been supporting establishment of LCs and their operations during the first year of LC establishment. DPE is to appoint a dedicated Environmental Safeguard Specialist at Assistant Director Level who will be responsible for ensuring the completion of environmental screening/assessments during LC selection. S/He will supervise the implementation of the EMP and will ensure budgetary provision for conducting capacity building of the CMC/NGO in EMP implementation.

103. The Environment Safeguard Specialist will also be responsible for conducting environmental screening/assessments during LC selection and preparation of half yearly environmental monitoring report on the implementation status and quality of the EMP which will be shared with Bank. The World Bank will review the screening report, environmental management plan, monitoring reports on random basis and will carry out field visit to cross-check. DPE may need to hire the service of an individual consultant to assist the environmental safeguard specialist. The ToR of the Environment Safeguard Specialist (individual consultant) is attached in Annex-D.

104. The Upazila Education Offices (UEOs) will provide coordination support at the field level. Assistant Upazila Education Officers (AUEOs) and Head-Teachers from nearby primary schools would be mobilized in classroom support activities at the field level. At the Learning Centre level, the project would enter into an annually renewable co-operation agreement with CMCs. This cooperation agreement would be comprehensive and include roles and responsibilities of CMCs for all project activities, including water and sanitation, education allowances and Grants related activities. CMC and NGOs will be involved in EMP implementation.

105. The implementing agency will sign a memorandum of understanding with the Department of Public Health Engineering for annual water quality testing of the program-funded drinking water sources for the LCs. ROSC MIS Cell at LGED will continue the services of data processing and monitoring agency. Regular Third-Party Monitoring will be conducted for ensuring proper implementation of the EMP.

106. Table-5.1 summarizes the responsibilities of different stakeholder in environmental management of the ROSC II.

Table -5.1: Responsibilities of Different Stakeholders

Responsible Entity/Person	*Responsibility*	*Working Phase*
Community Management Committee	Participation and contribution to • Environmental screening • Preparation and implementation support to EMP	• Establishment of LC • Implementation • Operational and Monitoring
Community Mobilizers (CMs) from Partner Organizations (POs)	• Environmental Screening • Mitigation Measures • Preparation and implementation support to EMP	• Establishment of LC • Implementation • Operational and Monitoring
Upazila Education Offices (UEOs)	• Environmental screening • Provide coordination support for environmental Monitoring	• Establishment of LC • Implementation • Operational and Monitoring
Environmental Safeguard Specialist	• Environmental Screening • Supervising implementation of the EMP • Ensure budgetary provision for conducting capacity building of the CMC/NGO in EMP implementation • Preparing half yearly report • Ensuring update of the Environmental Information in the EMIS	• Establishment of LC • Implementation • Operational and Monitoring
Project Coordinator/Director	• Review, finalization and approval of LCs • Overall monitoring • Send half yearly report on environmental compliance	• Establishment of LC • Implementation • Operational and Monitoring
External agency	Independent Assessment and/or third-party monitoring	

The summary of key steps wise responsibility is presented in Figure 5.1 flow chart.

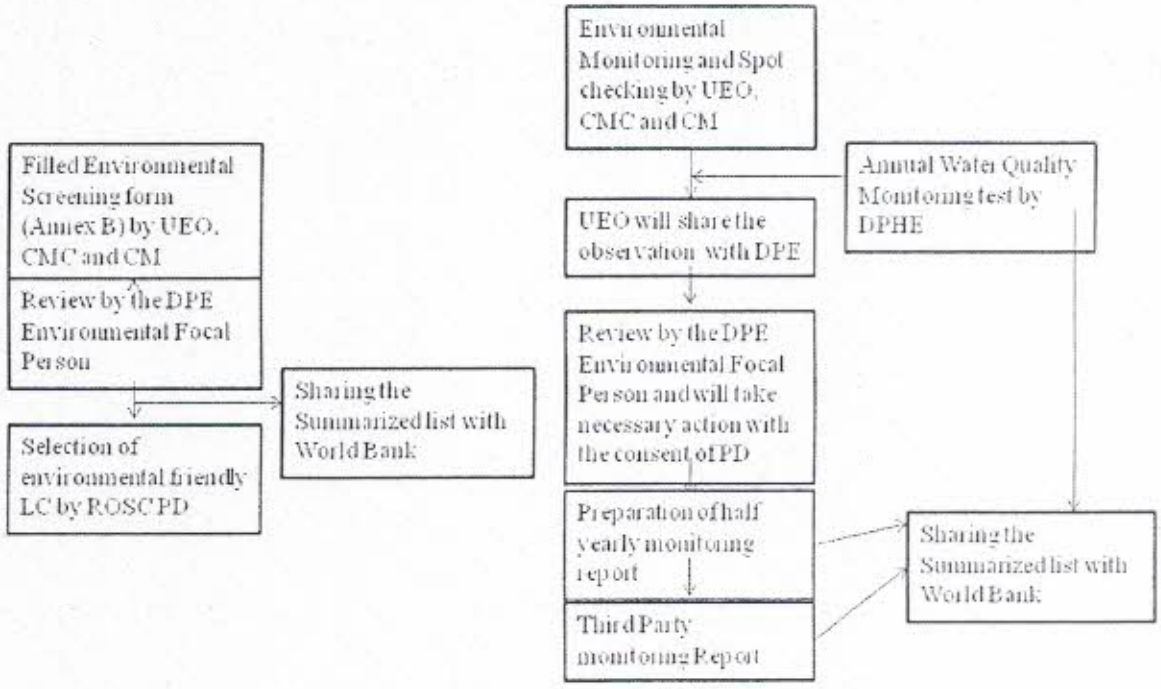


Figure 5.1 Summary of Key Steps for ES, EMP Execution

5.2 Institutional Arrangement for ROSC II AF

107. GoB entrusted UN agencies and/or international/local NGOs will be doing the screening of suitable locations for LCs in in the Rohingya camps following the format provided in Annex C. These will be reviewed by DPE environmental safeguard specialist. A summarized list along with the basis for selection will be shared with the World Bank.

108. GoB entrusted UN agencies and/or international/local NGOs will be responsible for spot checking and monitoring and the information will be reviewed and consolidated by the environmental safeguard specialist of DPE. Quarterly progress reports will be shared by the DPE with the World Bank.

5.3 Capacity Building

109. **Directorate of Primary Education** is one of the leading government agencies that have incorporated environmental assessment to their project planning. DPE has practiced environmental assessment for PEDP II and III and ROSC I project by far. However, capacity building at different levels is necessary in order to implement the EMF successfully. The suggested capacity building measures, for example include: i) providing environmental competency/human-resources, ii) training, orientation and awareness, activities on environmental planning and management of learning centers, and iii) mechanisms for

coordination and for accessing specific environmental services e.g. water-quality testing, climate resilient school building design and construction, etc.

110. ROSCU will have an Environmental Safeguard Specialist at Assistant Director Level who will be responsible for ensuring the completion of environmental screening/assessments during LC selection, preparation of half yearly environmental monitoring report on the implementation status and quality of the EMP which will be shared with the Bank. The focal person will also be responsible for implementation of the EMF and its provisions, including compliance checking, facilitation, coordination and ensuring dissemination, orientations and capacity buildings activities. S/He will ensure budgetary provision for conducting capacity building of the CMC/NGO in EMP implementation.

111. The program will also consider the capacity building of the CMC for the maintenance of the water supply and sanitation facilities. The option of linking with the existing government program of health and hygiene education will also be explored. Special attention will be provided to the boys and girls for encouraging them to spread the messages they have learned from teachers, health workers or other sources. Children have special advantages and special roles in spreading health messages to others. This will also help to properly maintain the hygienic condition of the urinals, toilets and water supply conditions in the schools.

5.4 Grievance Redress Mechanism

112. A well-defined grievance redress and resolution mechanism will be established to resolve grievances and complaints in a timely and satisfactory manner. The objective of the grievance redress mechanism (GRM) is to resolve complaints as quickly as possible and at the local level through a process of conciliation; and, if that is not possible, to provide clear and transparent procedures for appeal. All affected persons will be made fully aware of their rights, and the detailed grievance redress procedures will be publicized through an effective public information campaign.

113. Grievance Redress Mechanism (GRM) will be established at central (ROSC Unit at DPE) and at local level (Upazila and Union) to deal with any complaints/grievances about environmental and social inclusion issues. At the union level, the CMC will be the local Grievance Redress (GR) focal point for addressing the grievances. Members of CMCs are all outside the government and will handle grievances independent of the government. Aggrieved persons will have easy access to the CMCs as the members hail from the community and can be located even inquiring the teachers at the LCs. The UEC at the Upazila level will be the GR focal point. The aggrieved student, their parents or the community persons or entities will submit the complaints/grievances to the Chairman of CMC at the Union level.

114. The CMC will register grievances and issue receipts to the aggrieved persons/entities with the entry reference. The chairman of CMC will schedule hearings in consultation with other members. In open meetings, CMC will hear and discuss the complaints and try to

resolve them in view of the applicable guidelines of the SIMF. The aggrieved person, if female, will be assisted by a female UP member in the hearing, and if from a small ethnic community, by a small ethnic community representative in the capacity of a voting member of the CMCs. It is expected that all complaints at CMC level will be disposed within 15 days, failing which the petitioner can seek resolution from the focal point at the UEC at the Upazila Headquarters.

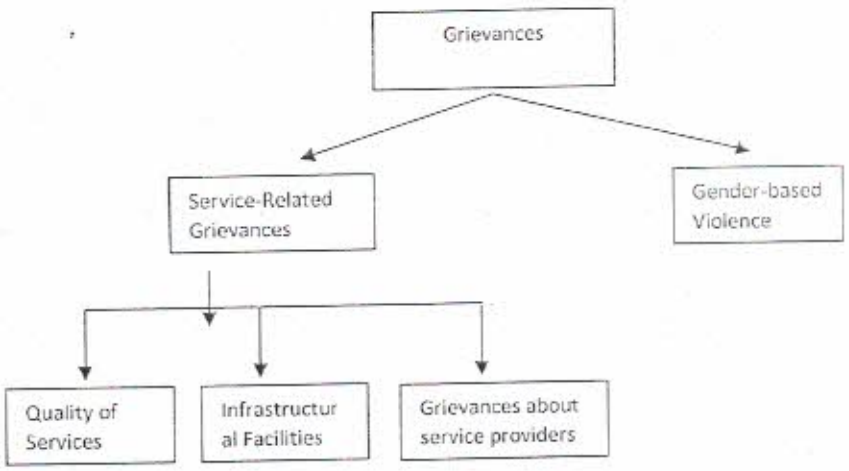
115. Any time, any aggrieved person can send complaints directly to the PD of ROSC Unit. The PD will review and try to resolve the complaints and may seek advice from the DPE about any issues critical to the project. The aggrieved persons or entities will also have the option to lodge the complaints directly to the Secretary, DPE when they are not satisfied with resolutions proposed up to the PD level. A decision agreed by the complainants at any level of hearing will be binding on the concerned CMCs and DPE. The GRM will, however, not pre-empt an aggrieved person's right to seek redress in the courts of law.

116. The provision of GRM and the process will be well disclosed to the community, local NGOs, Union Parishads and the beneficiaries before selection of LCs. The disclosure will be done by the UTC on behalf of the Project. The UTC will keep the records of all resolved and unresolved complaints and grievances and make them available for review -- as and when requested for by the World Bank. The case records will also be posted in the DPE website.

5.4.1 GRM on violence against women and children

Grievances within the DRP Camps

117. Life within the camps is extremely difficult as the DRP are dealing with new problems and challenges every day. Grievances faced by the DRP can be categorized into two types- service related grievances and gender-based violence related grievances. However, the service related grievances can be further categorized in three sub-groups- grievance about quality of essential services (e.g. food, water), grievances about infrastructural facilities, and grievances about behavior of agency officials delivering services. The following figure shows the categorization-



118. Speculations are there that violence against DRP women and adolescent girls are frequent within the DRP camps. The women and adolescent girls become victims of violence when they go outside of the camps in search of water or firewood. Given that they do not have any mechanism in place to seek help or justice, in most cases, the incidents of SGBVs remain unreported or unnoticed. In fact, women are not secure even within the camps and as a result, the adolescent girls remain within their homes the entire day. Intimate Partner Violence has increased significantly especially due to the fact that the male members are now getting married multiple times. The absence of a formal channel to seek redress to these difficulties is making the lives of women and adolescent girls extremely difficult.

Governance Structure within the Camps

119. A formal structure has been developed within the DRP camps that includes the aid agencies and government of Bangladesh to deliver services within the camps in a coordinated way. With the new influx started in 2017, the Government of Bangladesh introduced the "Majhi System", which was first initiated in 1991/1992. According to this system, the Majhis are representatives of the DRP living within the camps selected informally by the government officials or the law enforcement agencies. The primary roles of the Majhis include estimating DRP population, organizing distribution efforts, and maintaining regular communication with the DRP populations. The Majhi system has its own hierarchical chain. At the top of the hierarchy is the Head Majhi and he is the one who keeps in touch with the representative of the National Government, i.e. Camp-in-Charge, who is an executive magistrate of the Government of Bangladesh. The camps are divided into several blocks and each of the block is under the supervision of Block Majhi who is accountable to the Head Majhi. The block Majhis work with the support of the Sub-Block Majhis, who are at the lowest tier of the "Majhi Hierarchy" system. The following figure shows how the system works-

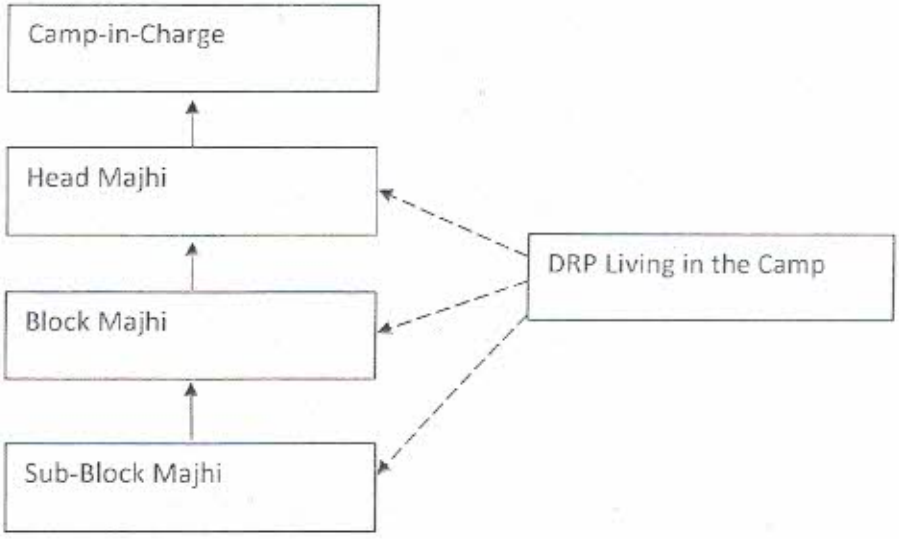


Figure 5.2 Majhi System in DRP Camps

120. However, it is important to note that the Majhi system is not inclusive and accountable to the DRP community. It is, however, important to note that in some camps, an alternative system is gradually being practiced with the approval from the government. In this, a new elected committee system has been introduced. As per this, from each sub-block, 10 representatives are elected by the people. The sub-block representatives then select 4 block representatives and these 4 eventually select one block leader. This is a decentralized system where all the elected members have equal importance and they jointly take decisions and try to resolve conflicts. They can also interact with the CiCs and other government officials and unlike the previous system, this one includes female representation.

121. This elected committee system, known as Community Development Committee (CDC), is better suited to function as GRM for the DRP community. The CDCs within the camps enjoys the legitimacy to perform as the voice of the DRP as they are elected by the camp residents. The committee, due to its decentralized power structure, is accessible and its nature of representation (especially the participation of women) makes it more inclusive. These specific characteristics may play an important role in encouraging the DRP to come to these committees and to trust them as a responsive GRM. It is, however, important to note that this 'trust' will not sustain unless and until the CDC succeeds in establishing linkage with the national government authorities, especially the CiC and in resolving the difficulties through using the formal channels. Given that the Government of Bangladesh is on-board in embracing this new framework, there is an opportunity to make this new management structure successful and transform it into an effective GRM.

Design of the GRM for DRP

122. The CDC System (Figure 2) can be divided with two groups- (i) Service Delivery Related Grievance Committee (SGC) which will focus on grievances related with quality of services, complaints related with service facilities and concerns about service delivery process; and (ii) Gender Related Grievance Committee (GGC) which will deal with violence against women and children including sexual and gender-based violence. It is important to note that in the GGC, most of the members will be females (i.e. if the GGC is a five-member committee at least 3 to 4 will be women) and it will be headed by a woman member.

123. Whenever a complaint or a grievance will reach to the CDC, they will analyze the complaint and assign it to the relevant committee. The complaint may reach to the CDC in the following way:

1. In-person: An aggrieved person can simply go to a member/ members of the CDC and lodge his/her complaint;
2. Several complaint boxes will be set up within the camps and the Rohingyas can submit/drop their complaints within these boxes. There will be a designated member of the CDC (women member) who will keep an eye on the complaint boxes and collect the grievance notices;

3. A mobile app can be developed which will allow the aggrieved person to send his/her complaint to the CDC. There will be a dedicated cell-phone number/ hotline connected with the app and a female member should be in-charge of handling the complaints.
4. **Complaints related to gender-based violence (GBV) or sexual exploitation and abuse (SEA)** will be directly received and registered by the designated member of the GGC in full confidentiality. The complaint will then be forwarded to the GBV response and referral service established under the Emergency Multi-Sector Rohingya Crisis Response Project (EMSRCRP). The GGC operators will be trained on how to collect GBV/SEA cases confidentially and empathetically (with no judgement). No identifiable information on a GBV/SEA survivor will be stored in the GRM. The GGC will not ask for, or record, information on more than three aspects related to the GBV incident:
    - The nature of the complaint (what the complainant says in her/his own words without direct questioning);
    - If, to the best of their knowledge, the perpetrator was associated with the project; and,
    - If possible, the age and sex of the survivor.

124. A key issue to consider is in case of service delivery related grievances, it will be possible to lodge complaint anonymously. However, for gender related grievances, submitting complaints anonymously may not solve the problems. Without identifying the aggrieved person, it will not be possible to solve the complaints, but this may cause security concerns for the women. To address that, the following safe-guards are necessary-

1. The GDC will mainly consist of the female members as that will allow the victims of the GBV and IPV to raise their concerns in an effective manner;
2. The complaint boxes and the hotlines/ cell-phones will be controlled by the female members and they will play the role of the gate-keepers in identifying the complainants and determining the nature of the problems.

125. Once the problems are assigned of the committees, they will take the necessary steps. In case of gender related grievances, the GGC will verify the problem, record it and will try to address that at the community level. If they fail to do that, they will push it upward to the CiC. The GGC will try to address the problem and in this case, they will mainly try to solve the problem through Alternate Dispute Resolution (ADR). If they fail to do so, the responsibility will then fall on the CiC, who is an executive magistrate and has limited judicial authority. However, if he fails to address the grievances, he will refer it to the Union Legal Aid Committee (ULAC) or District Legal Aid Committee (DLAC). In other words, if the grievances cannot be redressed within the camps, it will then be referred to the existing judicial system of the country.

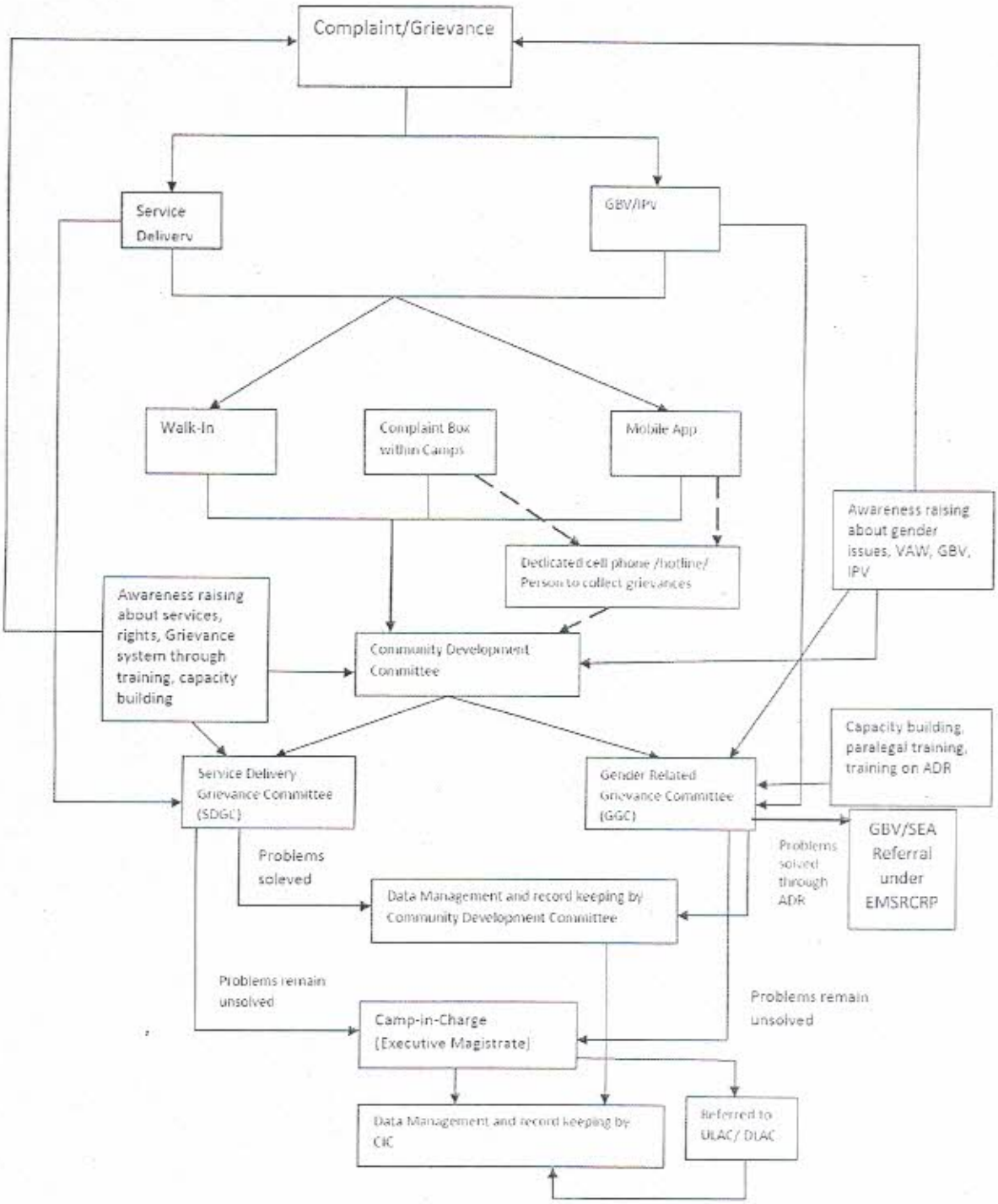


Figure 5.3 CDC System of GRM in DRP Camps

126. For effective GRM on violence against women and children, building the capacity of GGCs is extremely critical to equip them with necessary legal knowledge and understanding. As per the law, the residents of the camps are not supposed to have their own cell-phone connection. Whereas this law is not followed within the camps (in practice), it will still be difficult to introduce an app-based system within the camps if we try to integrate the GRS with the formal system.

Tracking the Stakeholder Engagement and GRM

127. A robust and well-sequenced communication strategy will be crucial for better sequencing of the interventions, larger stakeholder support and smoother implementation. This will help mitigate potential resistance and misunderstanding between the DRP and the host community. The strategy will help the stakeholders better understand and adopt the project interventions as well as create support for those at all levels. A Communications Need Assessment will be undertaken first for designing an effective strategy. The assessment will identify all stakeholders and allow a better understanding of the socio-political context, information gaps, attitudes, aspirations, real and perceived concerns and fears as well as barriers to change.

128. The strategy will have two-prong objectives: i) behavioral change communication and information sharing to ensure the affected communities are aware of and can benefit from the project interventions; and ii) to build consensus of proposed interventions at the local and national level. As the communication will be aimed at multiple stakeholders including different ministries at central and local level, development partners, policy makers, media, and DRPs and host community, it will be important to ensure consistent messaging aimed at managing and mitigating any evolving risks, including domestic violence and trafficking. The project will deploy multiple communication channels to reach different stakeholder groups. To help build public understanding and support for the project and create an enabling environment for the projects implementation.

129. This standard operating procedure will be followed to manage stakeholder engagement and communications using a simple log in sheet to record (i) date, (ii) stakeholder name, (iii) category of inquiry, (iv) a short description of the issue (logged as a grievance, problem, or question); (v) actions necessary to follow-up the issue; and, finally, (vi) a status (either active or closed) along with a date. A space for optional comments provide space for 'memos-for-record' for each entry. The tracking template with instructions is intended for use by safeguard specialists or representatives of PIU's staff engaged in stakeholder consultations for recordkeeping and tracking purposes.

130. The task of managing the tracking template is assigned to safeguard specialist/ communication specialist who will consolidate inputs from (1) any members from ROSCU, INGO or contracted UN agencies participating in stakeholder consultations; (2) all stakeholders, including individuals and groups who contact PIU directly (phone call, text, Internet, face-to-face meeting) to file a grievance, report a problem, or ask a question. The

safeguard specialist will maintain a 'master' tracking template of consolidated inputs updated daily and/or as necessary using a simple year, month, date format, plus an identifier consisting of number to establish a sequence for inquiries received as of the same date.

CHAPTER 6: CONSULTATION AND INFORMATION DISCLOSURE

6.1 Consultation

131. Field visits of the existing ROSCII AF project sites in the DRP camps as part of the EMF preparation. The probable locations of learning centers, water supply and sanitation facilities were observed. Discussion with all relevant stakeholders were done and their opinion on how to address the environmental concerns of the program interventions was taken. This EMF reflected the recommendations from consultations and field visits observations. The summary of the consultation is presented in Annex F.

6.2 Disclosure

132. The EMF will be disclosed by DPE in their website for public comments within 30 days. The disclosure notice will be published in the 2 daily national newspapers (one English and another Bangla). In addition, the World Bank will publish this document in InfoShop.

Annex A: Relevant Policies and Regulatory Framework

General Description

A wide range of laws and regulations related to environmental issues are in place in Bangladesh. Many of these are cross-sectoral and several of them are directly related to environmental issues. The most important of these are the Environment Conservation Act, 1995 (ECA, 1995), and the Environment Conservation Rules (ECR, 1997). The ECA 1995 is primarily an instrument for establishing the Department of Environment (DOE), and for controlling industrial and project related pollution. The Act also defines in general terms that if any particular activity is causing damage to the ecosystem, the responsible party will have to apply corrective measures. Until the appearance of ECR, 1997, enforcement of the Act was not possible, as many of the clauses refer to specifications detailed in the Rules.

In addition to the Environmental Conservation Act and Rules, there are a number of other policies, plans and strategies which deal with the water sector, agricultural development, coastal area, protected area disaster management and climate change. These are the National Water Policy, 1999; the Forest Act 1927 (last modified 30th April 2000); National Forest Policy, 1994; the National Conservation Strategy1992;; National Environmental Management Action Plan (NEMAP), 1995; Coastal Zone Policy, 2005; National Policy for Safe Water Supply and Sanitation 1998, National Policy for Arsenic Mitigation 2004, National Sanitation Strategy 2005, Coastal Development Strategy, 2006; National Agricultural Policy, 1999; National Fisheries Policy, 1996; National Livestock Development Policy, 2007; Standing Orders on Disaster, 1999 (revised in 2010); Bangladesh Climate Change Strategy and Action Plan, 2009; Solid Waste Management Rules 2010, National 3R Strategy for Waste Management(2010), Noise Pollution (Control) Rules 2006, National Plan for Disaster Management, 2010-2015. Some of these policies and legislations are described in this chapter for reference. The Bangladesh National Building Code, 2006 and Bangladesh Labor Act, 2006 will also be important regarding the occupational health and safety of workers and laborers to be involved in the Project's infrastructure development.

Relevant Policies and Legislation

Environment Conservation Act 1995

The national environmental legislation known as Environmental Conservation Act, 1995 (ECA'95) is currently the main legislative document relating to environmental protection in Bangladesh, which replaced the earlier environment pollution control ordinance of 1992and has been promulgated in Environmental Conservation Rules, 1997 (ECR'97). This Act is amended in 2000 and 2002. The main objectives of ECA'95 are: i) conservation of the natural environment and improvement of environmental standards; and ii) control and mitigation of environmental pollution.

The main strategies of the act can be summarized as:

- Declaration of ecologically critical areas, and restriction on the operation and process, which can be continued or cannot be initiated in the ecologically critical areas
- Regulation with respect to vehicles emitting smoke harmful to the environment
- Environmental clearances

- Remedial measures for injuries to ecosystems
- Regulation of projects and other development activities
- Promulgation of standards for quality of air, water, noise and soil for different areas for various purposes
- Promulgation of standard limit for discharging and emitting waste
- Formulation and declaration of environmental guidelines

Department of Environment (DOE) implements the Act. DOE is under the Ministry of Environment and Forest and is headed by a Director General (DG). The DG has complete control over the DOE. The power of DG, as given in the Act, may be outlined as follows:

- The DG has the power to shut down any activities considered harmful to human life or the environment. The operator has the right to appeal and procedures exist for this purpose. However, if the incident is considered an emergency, there is no opportunity for appeal.
- The DG has the power to declare an area affected by pollution as an ecologically critical area. DOE governs the type of work or activities that can take place in such an area.
- Before beginning new development project, the project proponent must obtain Environmental Clearance from DOE. The procedures to obtain such clearance are in place. Failure to comply with any part of ECA'95 may result in punishment by a maximum of 10 years imprisonment or a maximum fine of BDT. 1000,000 or both.

Environmental Conservation Rules 1997

The Environment Conservation Rules provide a first set of rules under the Environment Conservation Act, 1995. This rules is further amended in 2002 and 2003. These provide, amongst others items, standards and guidelines for:

- Categorization of industries and development projects, including roads and bridges on the basis of actual and anticipated pollution load
- Requirement for undertaking Initial Environmental Examination (IEE) and Environmental Impact Assessment (EIA), as well as formulating an Environmental Management Plan (EMP) according to categories of industries/development projects/activities
- Procedure for obtaining environmental clearance
- Environmental quality standards for air, surface water, groundwater, drinking water, industrial effluents, emissions, noise and vehicular exhaust

The Rules incorporate "inclusion lists" of projects requiring varying degrees of environmental investigation. The Government is also empowered to specify which activities are permissible and which restricted in the ecologically critical area. Under this mandate, MOEF has declared Sundarban, Cox's Bazar-Tekhnaf Sea Shore, Saint Martin Island, Sonadia Island, HakalukiHaor, Tanguar Haor, Marzat Baor and Gulshan-Baridhara Lake as ecologically critical areas and accordingly has prohibited certain activities in those areas.

Under the Environmental Conservation Rules (1997) a classification system was established for development projects and industries on basis of the location, the size and the severity of potential pollution. It classifies industrial units and projects into four categories for the purpose of issuance of Environmental Clearance Certificate (ECC). These categories are:

Green

Orange A
Orange B, and
Red

Green Category projects are considered relatively pollution-free and hence do not require initial environmental examination (IEE) and EIA. An environment clearance certificate (ECC) from the Department of Environment (DoE) is adequate for a project that fall into the Green category.. Orange Category projects fall into two categories. Orange A projects are required to submit general information, a feasibility report, a process flow diagram and schematic diagrams of waste treatment facilities along with their application for obtaining DOE environmental clearance. Orange B projects are required to submit an Initial Environmental Examination (IEE) report, along with their application and the information and papers specified for Orange B projects. Red Category projects are those which may cause 'significant adverse' environmental impacts and are, therefore, required to submit an EIA report. It should be noted that they may obtain an initial site clearance on the basis of an IEE report, and subsequently submit an EIA report for obtaining environmental clearance along with other necessary papers, such as feasibility study reports and no objections from local authorities. The DoE has recently developed IEE and EMP checklists in order to simplify the preparation of conventional and voluminous IEE and EMP reports that may contain irrelevant and unnecessary information.

As per ECR '97 all existing and new industries and projects in Orange B and Red category require an Environmental Management Plan (EMP) to be prepared (after conducting an IEE or EIA) and submitted along with other necessary papers while applying for environmental clearance.

National Water Policy 1998

The National Water Policy was promulgated in 1999 with the intention of guiding both public and private actions to ensure optimal development and management of water in order to benefit both individuals and the society at large. The policy aims to ensure progress towards fulfilling national goals of economic development, poverty alleviation, food security, public health and safety, a decent standard of living for the people and protection of the natural environment. According to the policy, all agencies and departments entrusted with water resource management responsibilities (regulation, planning, construction, operation and maintenance) will have to enhance environmental amenities and ensure that environmental resources are protected and restored while executing their activities. Environmental needs and objectives will be treated equally with the resources management needs. The policy has several clauses related to the protection and conservation of the natural environment to ensure sustainable development.

National Safe Drinking Water Supply and Sanitation Policy 1998

The National Safe Drinking Water Supply and Sanitation Policy (NSDWSSP, 1998) was adopted in 1998, and sets out the basic framework for the improvement of public health quality and to ensure an improved environment, together with a set of broad sectoral action guidelines. The policy offered the following various objectives to achieve the goal:

- To manage water supply and sanitation related basic needs for all
- To bring about a positive change of peoples' attitude towards water and sanitation
- To reduce the outbreak of water-borne diseases

- To increase the efficiency of the Local Government and associated communities for handling the problems related to water supply and sanitation more effectively
- To improve and make the water supply and sanitation system more sustainable
- To promote proper conservation, management and use of surface water and to control water pollution in light of the scarcity of groundwater
- To take necessary steps to capture and use rain water

Ensuring the installation of one sanitary latrine in each household in the rural areas and improving public health standard through inculcating the habit of proper use of sanitary latrines is mentioned as one of the objectives. About urban sanitation, the policy objective is to ensure sanitary latrine within easy access of every urban household through technology options ranging from pit latrines to water borne sewerage. Installing public latrines in schools, bus stations and important public places and community latrines in densely populated poor communities without sufficient space for individual household latrines is also emphasized.

National Policy for Arsenic Mitigation 2004

The policy provides a guideline for mitigating the effect of arsenic on people and environment in a holistic and sustainable way. This policy also supplements the National Water Policy 1998, National Policy for Safe Water Supply and Sanitation 1998 in fulfilling the national goals of poverty alleviation, public health and food security. Policy statement includes: access to safe water for drinking and cooking shall be ensured through implementation of alternative water supply options in all arsenic affected areas. All arsenicosis cases shall be diagnosed and brought under an effective management system. Impact of arsenic on agricultural environment shall be assessed and addressed. This policy gives preference to surface water over groundwater. The policy has set the target of providing arsenic free water by 2010 in the worst affected communities.

National Sanitation Strategy 2004

The goal of National Sanitation Strategy 2004 was to achieve 100% sanitation coverage by 2010. The strategy aims to delineate the ways and means of achieving the national target through providing a uniform guideline for all concerned. It defines 100% sanitation – at the very least, the term "100% sanitation" will mean to include all of the followings: (i) no open defecation; (ii) hygienic latrines available to all; (iii) use of hygienic latrines by all; (iv) proper maintenance of latrines for continual use, and (v) improved hygiene practice. The strategy also defines the Hygiene Latrine -A hygiene latrine would mean to include all of the following: (i) confinement of feces away from the environment; (ii) sealing of that passage between the squat hole and the pit to effectively block the pathways for flies and other insect vectors thereby breaking the cycle of disease transmission, and (iii) venting out foul gases generated in the pit through a properly positioned vent pipe to keep the latrine odor free and encourage continual use of the hygiene latrine. The key suggested strategies for sanitation improvement include: (i) creating effective demand through health education and hygiene promotion; (ii) ensuring individual and community actions; (iii) activating local government institutions to play the key role for improving sanitation coverage; (iv) facilitating adequate supply chain of 'hygiene latrines'; (v) reaching the hardcore poor; (vi) improvement in urban sanitation; (vii) media campaign; (viii) strategies for sustainability; (ix) financing for sanitation programs; (x) monitoring and evaluation; and (xi) emergency response.

National Environnent Management Action Plan (NEMAP) 1995

NEMAP is an environmental planning exercise initiated by the government through the MoEF following the commitments made under Agenda 21 at UNCED in Rio de Janeiro in June 1992. The key element that distinguishes the NEMAP from the NCS is the commitment to full participation of the population at large interest groups, resource users and environmental stockholders, NEMAP identified the key environmental concerns to Bangladesh and provided an action plan to halt or reduce the rate of environmental degradation, improve the natural and manmade environment, conserve habitats and biodiversity, promoting sustainable development and improving quality indicators of human life. NEMAP has prioritized 57 actions on the environmental front and the government is in the process of creating a second-order priority list for immediate implementation. NEMAP outlines an Action Plan not only for the government, but for the community, the society and suggest what each and every citizen can do to protect the environment. The management actions considered in NEMAP are all essential to the sustainable development and environmental protection of the natural and human resources of Bangladesh. For the purpose of management, implementation, acquiring dedicated funds and enabling all different agencies to initiate or implement their own programs singly or in combination of agencies, all the action have been grouped under four heads: institutional, sectoral, location specific and long-term issues. Sectoral issues are: Health and Sanitation, Forest, Biodiversity, Natural Hazards, Education and Awareness, Industry, Water, Agriculture, Energy, Fisheries, Land, Housing and Transport, etc.

Others: Standing Orders on Disaster

The 'Standing Orders on Disaster, 2010' is a substantial improvement over the previous editions (English 1999 and Bangla 1887). New features introduced in this edition include, among others, the following: i) an outline of disaster management regulative framework, ii) an introduction of core groups for emergency response at various levels, iii) multi-agency disaster incident management system, iv) risk reduction roles and responsibilities for all committees and agencies, v) new outlines for local level plans, vi) revised storm warning signals, vii) a report on cyclone shelter design. Conceptually, this edition follows a comprehensive approach emphasizing risk reduction as well as emergency responses relating to all hazards and all sectors. Consequently, it has to be followed not only during disasters, but also at normal times. The Standing Order is designed to enhance capacity at all tiers of government administrative and social structures for coping with and recovering from disasters. The document contains guidelines for construction, management, maintenance and use of cyclone shelters. According to the guideline, geographical information system (GIS) technology will be applied at the planning stage to select the location of cyclone shelter considering habitation, communication facilities, distance from the nearest cyclone-center etc. The advice of the concerned District Committee is to be obtained before final decision. The cyclone shelters should have effective communication facilities so that in times of distress there are no unnecessary delays. For this reason, the road communication from the cyclone shelters should link to cities, main roads and neighboring village areas. Provision of emergency water, food, sanitation and shelter space for livestock during such periods should also be considered for future construction of shelters.

World Bank Environmental Guidelines

The Bank requires environmental assessment (EA) of projects proposed for Bank financing to help ensure that they are environmentally sound and sustainable. The World Bank's environmental assessment policy and recommended processing are described in Operational Policy (OP)/Bank Procedure (BP) 4.01: Environmental Assessment. This policy is considered to be the umbrella policy for the Bank's environmental "safeguard policies" which among others include: Natural Habitats (OP 4.04), Forests (OP 4.36), Pest Management (OP 4.09), Physical Cultural Resources (OP 4.11)), and Safety of Dams (OP 4.37). The Operational Policies (OPs) are the statement of policy objectives and operational principles including the roles and obligations of the Borrower and the Bank, whereas Bank Procedures (BP) are the mandatory procedures to be followed by the Borrower and the Bank.
The most relevant policy of WB in ROSC II activities is OP/BP 4.01 Environmental Assessment. The ROSC II has been classified as 'Category B', because the project may have minor site-specific environment impacts, which cannot be determined upfront since the "Learning Centers" are not defined at this stage. Most of the impacts are not expected to be very significant or irreversible. The project requires partial environmental assessment of "subprojects" before implementation. The partial environmental assessment examines the project's potential negative and positive environmental impacts and recommends any measures needed to prevent, minimize, mitigate, or compensate for adverse impacts and improve environmental performance. In World Bank operations, the purpose of Environmental Assessment is to improve decision making, to ensure that project options under consideration are sound and sustainable, and that potentially affected people have been properly consulted.

World Bank Environmental Screening under OP/BP 4.01

All World Bank projects are classified into three environmental assessment categories as shown in the following Table.

Table: World Bank Environmental Screening

Category	Category 'A'	Category 'B'	Category 'C'
Description	The project is likely to have significant adverse environmental impacts that are sensitive, diverse, or unprecedented. These impacts may affect an area broader than the sites or facilities subject to physical works	The project has potential adverse environmental impacts on human populations or environmentally important areas—including wetlands, forests, grasslands, and other natural habitats—are less adverse than those of Category 'A' projects. These impacts are site-specific; few if any of them are irreversible; and in most cases mitigation measures can be designed more readily than for Category 'A' projects.	The project is likely to have minimal or no adverse environmental impacts
EA Requirements	For a Category 'A' project, the project sponsor is responsible for	EA is narrower than that of Category 'A' EA. Like Category 'A' EA, it examines the project's potential negative and positive environmental impacts and	Beyond screening, no further EA action is

	preparing a report, normally an EIA	recommends any measures needed to prevent, minimize, mitigate, or compensate for adverse impacts and improve environmental performance.	required for a Category 'C' project

Implication of Policies and Legislations with ROSC II

Many Learning Centers in disaster prone areas can also be used as cyclone/flood shelters for the community. If the LCs will be considered as shelter, the concerned District Committee should be consulted about its location and other information.

As per the policies/guidelines on water supply and sanitation, provision for arsenic safe drinking water and adequate sanitation will have to be ensured for schools. The water quality needs to be monitored to ensure that the supplied water is safe for drinking. The latrine to be constructed in the ROSC II must be hygienic- confinement of feces away from the environment, blocking the pathways for flies and other insects, proper ventilation of foul gases, proper maintenance for continual use with improved hygiene practice.

Annex B: Environmental Screening Format for Establishment of Learning Center

(Will be filled up during LC location Selection)

District: ..... Upazilla: .....

Union: ..... Village: .....

Number of Target Students: .....

Size of the room: .....

Screening Questions	*Yes*	*No*	*Remarks*
A. LC Location			
• Is there any Protected Area near the LC?	□	□	
• Is there any Wetland near the LC?	□	□	
• Is the LC location easily accessible?	□	□	
• Was the LC affected during flood?(Please specify the flood water level height in the remark column.)	□	□	
• Is there any waste disposal site within 10 m of the LC surrounding?	□	□	
• Does any bad odor come from the surrounding of the LC?	□	□	
• Is there any industry in the nearby area? (if yes please specify the type of industry)	□	□	
• Was the LC affected by cyclone?	□	□	
B. LC Description for ensuring healthy environment			
• Are there at least four or more windows?	□	□	
• Is the floor of the room earthen (Kacha)?	□	□	
• Is the floor of the room concrete (Paka)?	□	□	
• Does the floor get damped during rainy season?	□	□	
• Does the room have brick wall?	□	□	
• Does the room have galvanized corrugated sheet?	□	□	
• Does the room have any ceiling? If yes, What is the material of the ceiling? Please specify in the Remark Colum	□	□	
• Is the condition of ceiling good?	□	□	
• Does the building have an evacuation route specified in the event of an emergency?	□	□	
• Does the building or classroom have fire-fighting equipment?	□	□	
• Does any water logging/drainage congestion happen around the LC during any time of the year?	□	□	
• Is there any existing latrines?	□	□	

Screening Questions	*Yes*	*No*	*Remarks*
If yes please answer the following questions			
a) Separate Latrine for boys and girls	□	□	
b) The number of latrines available sufficient for the number of students / teachers(Please specify the number of latrines/urinals in the remark column)	□	□	
c) Urinals available for the boys	□	□	
d) Hand washing facility (soap, ash etc.) available	□	□	
e) Constructions/maintenance of the latrines OK	□	□	
f) latrines have privacy in terms of proper doors and location	□	□	
g) Latrine attached to septic tank	□	□	
h) Type of Latrine	*1. Single pit,2. Double pits3. Twin pit*		
• Is there any existing water supply? If yes please answer the following questions	□	□	
a) Water supply facilities available in the premises	□	□	
b) Water supply facilities available out of the premises	□	□	
c) The physical condition of the water supply facilities is good	□	□	
d) The distance between water supply facility and latrines is sufficient. (Please mention the distance)	□	□	
e) Sources of water used for sanitation and drinking purposes is same	□	□	
f) The environment of water supply facility is clean	□	□	
g) A soak away exists	□	□	
h) Any reported events of sickness or contamination by drinking the existing water source (if yes please clarify in the remark column)	□	□	
i) The source water is	*1. Tube well 2. Surface Water (mention type) 3. Rain Water Harvesting*		

Screening Questions	*Yes*	*No*	*Remarks*
	4. Piped Water supply *5. Others (Specify)*		

Note: Please add any other screening questions relevant to the demonstration. Also provide additional comments and/or positive impacts in 'remarks' column.

Additional Information to be collected:

For the selection of LC, the collection of following information should be ensured during LC selection in addition to the filled-up checklist:

- Size of the room (no more than 55 learners to be accommodated in a 35 ft by 20 ft from)
- Well ventilated room
- Sufficient natural light
- Provision of safe drinking water
- Provision of water sealed hygienic latrine

For the decision of the drinking water, the following information should be collected and analyzed.

- Arsenic concentration of the tube-wells (with depth and year of installation) within 500 m radius of proposed point
- Level of dissolved iron and salinity
- Distance from closest sanitary latrine
- Drainage facility
- Option for surface water availability

The following information should be collected and analyzed for the sanitary latrine provision.

- Distance from water source
- Drainage facility
- Closest water table
- Soil condition

Recommendations:

Filled and signed by: Name:

Designation:

Date:

Filled and signed by Environment Safeguard Specialist (Consultant):

Name:

Date:

Reviewed and signed by DPE Deputy Director: Name:

Date:

Annex C: Additional Environmental Screening for Learning Centers for DRP

(Will be filled up during LC location Selection only if the LC is intended for DRP)

District: ..... Upazilla: .....

Union: ..... Village: .....

Number of Target Students: .....

Size of the room: .....

Rohingya Camp number: .....

GPS Coordinate of the LC: N ..... E .....

Screening Questions	*Yes*	*No*	*Remarks*
A. LC Location			
• Is the LC located near any natural habitat (forests, wetlands)?	☐	☐	
• Is the LC located near or around elephant corridors or where human-elephant conflict has previously occurred? (Ref: Figure 3.5)	☐	☐	
• Is the LC located in a land already made barren by the DPR?	☐	☐	
• Is the LC located in an area susceptible to erosion by storm runoff and where there is risk of landslide?	☐	☐	
• Will construction of LC use any materials derived from clearing existing forests?	☐	☐	
• Is the LC located near existing makeshift healthcare facilities?	☐	☐	
B. Additional screening questions regarding water supply and sanitation			
• Are there any provisions for bottled water supply?	☐	☐	
• Is the LC sharing water supply with existing facilities (e.g. a health care facility)? *If yes, then answer the following questions*	☐	☐	
a) Does the facility regularly test and monitor water quality for microbial contamination?	☐	☐	
b) Does the facility apply any form of water treatment (e.g. chlorination)?	☐	☐	
• Is the LC sharing sanitation of others (e.g. a health care facility)? *If yes, then answer the following questions*	☐	☐	
a) is the sanitation facility enough to support 50 – 55 number of additional individuals?	☐	☐	

Screening Questions	*Yes*	*No*	*Remarks*
b) Is there a service contract for regular desludging for the sanitation facility?	☐	☐	
c) Is any form of treatment on the fecal sludge being carried out?	☐	☐	

Filled and signed by:

Name:

Designation:

Date:

Filled and signed by Environment Safeguard Specialist (Consultant):

Name:

Date:

Reviewed and signed by DPE Deputy Director:

Name:

Date:

Annex D: Typical Environmental Management Plan Format

Activity/Issue	Potential Environmental Impacts	Proposed Mitigation Measures	Responsible Partiers	Estimated Cost

Factors to understand Existing Sanitation and Water Supply Condition

(Will be filled up during LC Water and Sanitation Status Monitoring)

Sanitation Facilities:

- What is the type of existing latrines? (Are these single pit/ double pits/ twin pit latrine of attached with a septic tank?)
- What is the number of the available latrines and urinals?
- Is constructions/maintenance of the latrines OK? (are the doors, plaster, roof etc. in good condition?)
- Are the latrines working well? (are pits/ twin pits/ septic tanks/soak away working properly?)
- Are the latrines clean or are the dirty and smelly?
- Can the latrines be locked from inside?
- Do these latrines have privacy in terms of proper doors and location?
- Are the latrines kept under lock and key during school time?
- Is there a hand washing facility (soap, ash etc.) available?
- Are urinals available for the boys?
- Are the urinals smelly?
- Do the girls students stay at home because of having no proper latrines or because they have to share with boys?
- Do the latrines need any special maintenance?
- Is the number of latrines available sufficient for the number of students / teachers in each shift we have in the school? etc.
- Other observations

Water Supply Facilities:

- Are water supply facilities available in the premises?
- Is there enough water available for washing hands, cleansing, flushing and cleaning of the latrines?
- How is the physical condition of the water supply facilities?
- What is the distance between water supply facility and latrines?
- Are different sources of water used for sanitation and drinking purposes?
- Is the environment of water supply facility clean and does a soak away exist?
- Are there any reported events of sickness or contamination by drinking the existing water source?
- Other observations

Annex E: Sample Terms of Reference of Environmental Safeguard Specialist

The Environmental Safeguard Specialist, preferably with the post-graduation specialization in environmental engineering/science, shall have attest 10 years of working experience related to preparation or EA, integration of environmental and social issues in the design, implementation and operation of rural water and sanitation projects. Experience in environmental management of school water and sanitation is preferred.
The specific roles and responsibilities of the Environmental Safeguard Specialist shall include, but not limited to the following:

- Contribute in the overall EMF implementation and capacity building
- Monitor and review the certain percentage of screening process for "LC" selection
- Supervise the implementation of the EMP by the CMC
- Carry out environmental monitoring to ensure compliance with the EMP & GOB requirements.
- Prepare and submit half yearly environmental monitoring and implementation progress reports
- Interact with the implementing agency regarding the implementation of the environmental compliance
- Work closely Training team and ensure proper capacity building of staff and contractors

Qualification of Environmental Safeguard Specialist

- At least Master's Degree in environmental studies/ management/science /engineering
- About 10 years of experience in environmental assessment
- Experience in education project is preferable
- Ability to lead, organize and co-ordinate
- Good verbal and written communication skills in both English and Bangla
- Demonstrated interpersonal skills, and proven ability to work in a different multicultural context

Annex F: Screening for temporary LC construction and Risk of Service Providers (Teacher, Associate)

Guideline Construction Issues

Will the construction work generate significant amounts of dust, odour or noxious gases that are likely to disturb DRPs and host communities?
Will the construction work cause a noise nuisance due to the operation of heavy machinery and other on-site activities?
Will the construction work produce significant amounts of runoff, change drainage patterns and/or erosion?
Will the construction work disrupt traffic (pedestrian and vehicular) or distributing relief?
Will the construction of the sub-project affect access to existing land uses (for example, will the movement and location of heavy equipment, trenching, etc. for rural roads, large drains, interfere with access to private property)?
Is the location suitable for treated wastewater or grey water re-use?
Is the location easily accessible for differently-able (physically challenged) individuals?

Health and safety: Service Providers (Teacher, Associate)

Will Health-workers be exposed to a complex variety of health and safety hazards?
Will the required measures be provided for the protection of health workers from these workplace hazards (PPE, masks etc.)?
Is there an emergency response plan in the event of an accident on site (e.g. fire)?

Annex G: Environmental Safeguard Consultation Meetings

Field Visit, September 29 to October 02, 2018

Field Visits were conducted for Environmental safeguard consultations for ROSC II Additional Financing. During this visit, meeting with Government officials, UN agencies, NGO's, Local government representatives, Local community and DRP's were arranged. Problems in the area and probable mitigation options were discussed. The consultation meetings in DRP camps were arranged as per the following schedule:

Date	Meeting No.	Description	Participating organizations/communities
September 29, 2018	1	Consultation meeting at LGED Executive Engineer's Office, Cox's Bazar	RRRC office, LGED, DPHE, DDFP, WFP, UNFPA and BRAC
September 30, 2018	2	Consultation meeting at Nayapara Rohingya Camp (camp 26) at Teknaf, Cox's Bazar	CiC office, RTMI, BRAC, DRP Community
	3	Consultation meeting at UNO office, Teknaf, Cox's Bazar	LGED, DPHE, HOPE, Local government personnel, Teknaf press club
October 01, 2018	4	Consultation meeting at Kutupalong Rohingya Camp (camp 1e) at Ukhia, Cox's Bazar	BRAC, DRP community
	5	Consultation meeting at Balukhali Rohingya Camp (camp 9) at Ukhia, Cox's Bazar	BRAC, DRP community
	6	Consultation meeting with local communities at UNO Office, Ukhia, Cox's Bazar	UNO, LGED, DPHE, UEO, Local government personnel

Problems in Project Area:

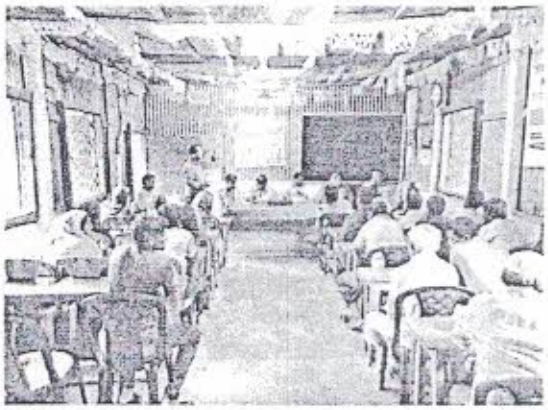
- Cyclone, storm surges, floods and land sliding are the major hazards in this area Cyclone along with storm surges are creating unfortunate deaths and huge damage of crops and houses due to the breaching of embankment
- During the heavy monsoon, land sliding is causing unfortunate deaths as well.
- Water supply and sanitation facilities should be improved. Drinking water scarcity is a major concern in some areas. People have to fetch water from long distances and difficult places.
- Drainage congestion/waterlogging is affecting the existing road network.
- The availability of cheap labour (Rohingya people are willing to be employed at a far cheaper rate than the local people) has created complications in the community as the contractor is often willing to employ the Rohingya workers instead of the local men. Also the DRP's receive food from humanitarian agencies and hence is not in need of a lot of money but situation is not same for local people and they are facing economic crisis.
- Environment of the localities has been damaged greatly including water sources, hills have been cleared by cutting all trees

Solutions/ mitigations:

- Construction of cyclone shelter cum primary schools.
- Access roads to shelters as well as other roads should be above flood level with storm water drainage.
- Specific interventions should address land sliding risk.
- Afforestation/ Reforestation program should be included to mitigate the environmental impacts of deforestation.
- Construction works should be scheduled before and after school hour or during holidays,
- Toilets should be constructed on the upper floor of the shelters with water supply facilities,
- Ensure active participation of LGI during projects implementation. SMC members should be involved in construction management to ensure quality of work.

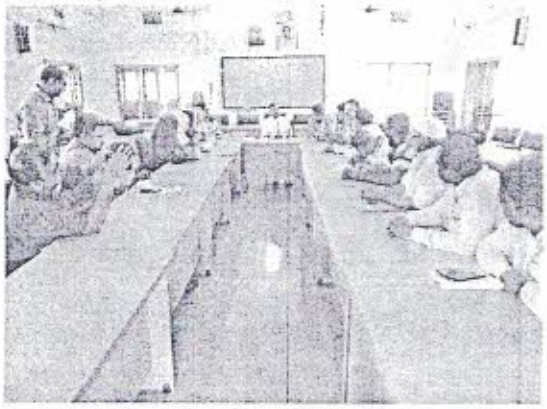
Pictures of field consultations

Meeting 1

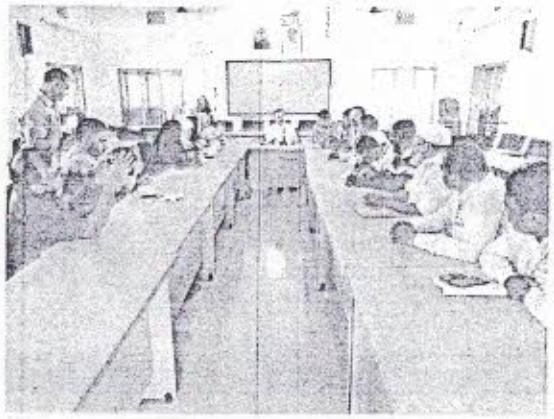


Meeting 2

Meeting 2



Meeting 3



Meeting 3

Meeting 3

Meeting 5

Meeting 5

Meeting 5

Meeting 6