

# GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH MINISTRY OF LOCAL GOVERNMENT, RURAL DEVELOPMENT AND CO-OPERATIVES LOCAL GOVERNMENT ENGINEERING DEPARTMENT (LGED)

## **Emergency Multi-Sector Rohingya Crisis Response Project (EMCRP)**





# **Environmental Screening Report**

For

Establishment of 4 nos. Women Friendly Space (WFS) / Women and Girls Safe Space (WGSS) in Ukhiya & Teknaf Upazilas of Cox's Bazar District

### **Funded by:**



## Implemented by



# **Prepared by:**

Development Design Consultants Ltd.

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#### **ACRONYMS**

DoE Department of Environment
DRP Displaced Rohingya people
EA Environmental Assessment
EC Electrical Conductivity

EMCRP Emergency Multi-Sector Rohingya Crisis Response Project

ESMP Environmental and Social Management Plan

ERP Emergency Response Plan

FDMN Forcibly Displaced Myanmar National

FGD Focus Group Discussion
FSM Faecal Sludge Management
GBV Gender Based violence
GPS Government Primary School

IEFs Important Environmental Features
ISCG Inter Sector Coordination Group

IUCN International Union for Conservation of Nature

IWM Institute of Water Modeling

PIA Project Influence Area

PPE Personal Protective Equipment
PSC Project Steering Committee
SPM Suspended Particulate Matter
SWM Solid Waste Management

UNHCR The United Nations High Commissioner for Refugees

**UNFPA** United Nations Population Fund

WB World Bank

WFS Women Friendly Space

WGSS Women and Girls Safe Space

#### 1. INTRODUCTION

#### 1.1 Project background

An estimated 730,000<sup>1</sup> people of Rohingya community has fled to neighboring Cox's Bazar district of Bangladesh since August 25, 2017 to escape extreme violence in Rakhine State of Myanmar, which caused the total number of Forcibly Displaced Myanmar National (FDMN) in the district to be about 923,033<sup>2</sup>. This huge number of displaced population account for about one-third of the total population of Cox's bazar, a district which was already facing many development challenges and suffering from resource-constrained social service delivery system even before the crisis evolved and the mass exodus of FDMN has worsened the situation further. Almost all of these displaced people are hosted in Ukhiya and Teknaf Upazila of Cox's Bazar, in extremely congested settlements in areas having very minimal access to basic infrastructure and services and is prone to natural disasters.

Moreover, this forced migrated population has needs in all respect of services and needs. One of the crucial factors which demands attention is well being of women population. FDMN Women living in different camps or shelters have had experience of being tortured and persecuted back in their country or while fleeing the land; and the resulting psychophysical distress and trauma are still haunting many of them. Moreover, this crisis situation is disproportionately affecting women and girls by reinforcing and exacerbating already-existing gender inequalities, gender-based violence and discrimination. So, different tiers of concerns are present while considering safety, health and rights. It is no new matter that female community needs special and separate facilities for the growth and development of health and mental well-being. From the very onset, this crisis has had a particularly gendered nature- 52% of the total refugee population are women and girls, while 85% are women and children and 16% of those households are female headed. Girls, who represent a larger proportion (57%) of the vulnerable group, are particularly at risk of child marriage, sexual exploitation, abuse and neglect. In order to supplement the activities and aid many other development organizations are providing in parallel with UNFPA, in combating the distressed situation of Rohingya Women, girls and adolescents, Women Friendly Spaces (WFS) or Women and Girls Safe Space (WGSS) are being incepted with facilities which will provide services to women based on their needs and development.

The objective of these facilities is to provide greater protection for these vulnerable and different age groups of women communities through:

- Providing psychosocial support to GBV and Non GBV survivors women and girls
- Case management of GBV survivors
- Provide Referral Services to the GBV and Non-GBV survivors women
- Awareness Information Session in WFS
- Awareness Information Session at outreach
- Recreational activities for women and adolescents' girls
- Develop and Disseminate IEC and BCC materials (Early marriage, puberty, HIV/AIDS, Hygiene etc.)
- Form and functioning Women Support Group (WSG)
- Community Watch Group formation and functioning (CWG)

<sup>&</sup>lt;sup>1</sup> ISCG: Situation Report Rohingya Refugee Crisis, (September 27, 2018)

<sup>&</sup>lt;sup>2</sup> IOM Needs and Population Monitoring round 12 as of October 10, 2018



- Awareness raising session to reach women and girls with disabilities.
- Distribution of Dignity Kits to the women and girls of re-productive age Coordination meeting with other service providers for strengthening referral pathway for ensuring SRHR services
- COVID-19 awareness session
- COVID-19 Kit distribution

This initiative is an undertaking of the Gender Based Violence in Emergency (GBViE) sub-Project which is being implemented by Mukti Cox's Bazar and IRC under their respective mandate and scope of works and which is also a partner organization of UNFPA for providing the services. The goal of this endeavor is to advance gender equality, women's and girls' empowerment and reproductive right, for all women and girls in the area, including the most vulnerable and marginalized women, adolescent and youth.

#### 1.2 Aim of the Project

Gender Based Violence in Emergency (GVBiE) sub-project aims to save the lives and Dignity of the women and girls from Rohingya communities and host community as well through improving access to basic services and building separate space with facilities to provide the solutions. Cox's Bazar is facing new challenges with the increasing displaced Rohingya population among all other preconceived emergency conditions at hand. Nonetheless, they are being aided through national and international interventions where solutions to new raised impediments can be arranged. Mukti Cox's Bazar and IRC is no different in this matter. With the support of the United Nations Population Fund (UNFPA) they are targeting the suppressing matter of Gender Based Violence (GBV) and women rights. Women Friendly Space (WFS) is proposed to be a facility to address violence against women and protect women's rights for the Displaced Rohingya women population as well as the host community. This establishment is planned to cover all camp sites and center points of local community in order to make sure accessibility. In most cases women find it challenging to find a safe location to put forth their troubles and find assistance from a reliable authority.

#### 1.3 Elementary information of WFS Project

The catchment area of these components falls within the area where mostly Displaced Rohingya Community lives and some parts fall out of the camp location in host community areas. These facilities are selected on the basis of geographical priority and needs for newly developed camp areas or existing host community locations. Moreover, these interventions are also selected considering different social and environmental aspects.

The objective of this Environmental Screening Report is to screen out the major environmental features of the proposed components site and surrounding areas of WFS assessing the potential impacts in respect to the planned interventions on the site and also suggest intervention items specific management plan including appropriate mitigation options, if any or required.

It is imperative to recognize proposed components of WFS in Ukhiya and Teknaf Upazilas in order to assess and verify its interventions according to UNFPA regards. Acknowledging this matter, such details are accounted for as given below in Table 1.3.1 along with visual presentation (General Upazila Map with WFS points) given in Figure 1.3.1 and separate map for each WFS as Figure 1.3.3.1, Figure 1.3.1.3 and Figure 1.3.1.4.

Table-1.3.1: Basic Geolocation Information and current condition of WFS proposed location

SL. NO	IDENTIFICATION OF WOMEN FRIENDLY SPACE(WFS)	GPS COORDINATE S	DISTANCE FROM UPAZILA HQ	UNION, UPAZILA	WARD	LAND AREA AVAILABLE (SQ.FT.)	LAND AREA ESTIMATED AS DESIGN (SQ.FT.)	PRE-EXISTING CONDITION
1.	Camp-3, Block: E- 54, Women Friendly Space	21.20917 N 92.15175 E	5	Rajapalong, Ukhiya	09	1172.48	1172.48	Existing structures of Semi-Pacca with Tin shed building and are well-functioning. The CiC has allocated the existing facility of Relief International to IRC for the Women Friendly Space (WFS)
2.	Camp-8W, Block-E, Sub-Block-A54, Women Friendly Space	21.199797 N 92.152241 E	6	Palongkhali, Ukhiya	01	2,471.8	994.19	Well-functioning and decorated pre-built bamboo made structure. The CiC has allocated this vacant land to Mukti Cox's Bazar for Women Friendly Space (WFS). Following the approval, Mukti Cox's Bazar has constructed the WFS in the vacant land.
3.	Camp-13, Block-G, Women Friendly Space	21.178405 N 92.136709 E	8	Palongkhali, Ukhiya	04	3,792.08	3,792.08	Fully functioning and well-built bamboo structured building. The CiC has allocated the existing facility of TDH to IRC for the Women Friendly Space (WFS)
4.	Camp-Noyapara NRC, Block-C, Women Friendly Space	20.954330 N 92.249510 E	13	Hnila, Teknaf	09	7,885	1,720.98	The CiC has allocated the private land to Mukti Cox's Bazar for Women Friendly Space (WFS). Following the approval, Mukti has constructed the WFS with bamboo made structured on the private land. This Private land comprising of vegetable yards is fenced with bamboo materials. Well decorated and functioning pre-existing facility.

[Sources of data: Field survey, June 2022]

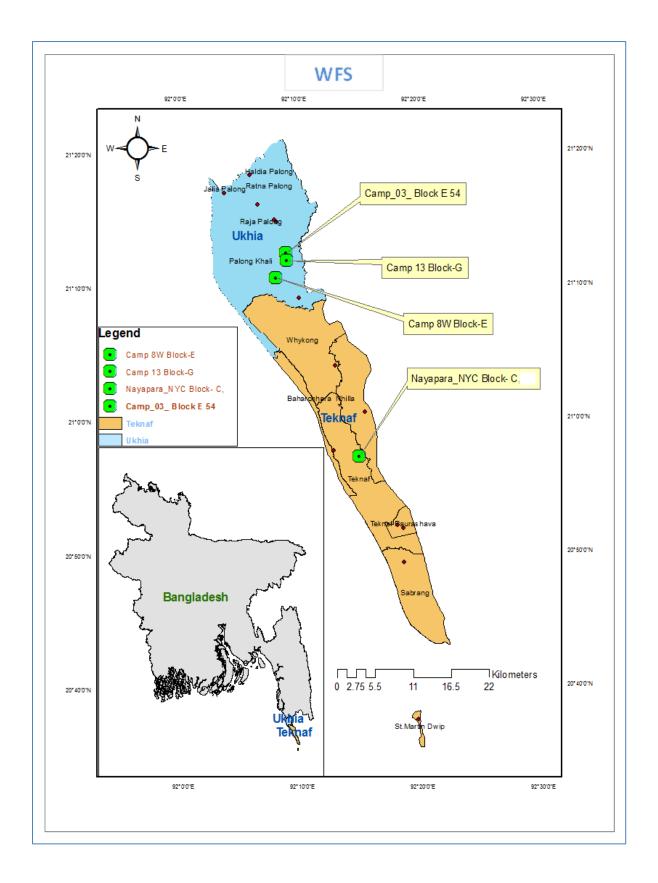


Figure 1.3.1: Map illustrating WFS/WGSS locations in Ukhiya & Teknaf Upazila

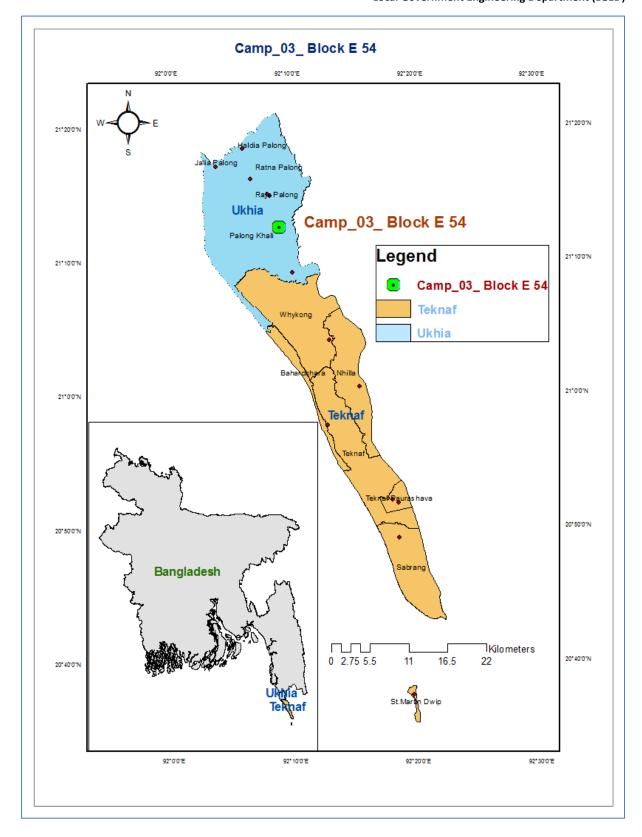


Figure 1.3.1.1: Map illustrating WFS/WGSS location of Camp-3, Block-E54

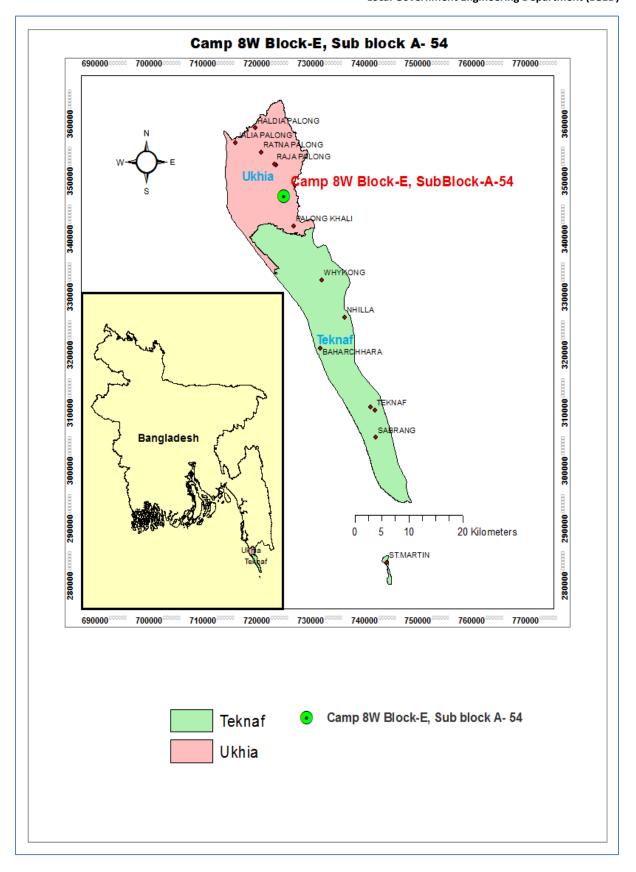


Figure 1.3.1.2: Map illustrating WFS/WGSS location of Camp-8W, Block-E, Sub Block-A54

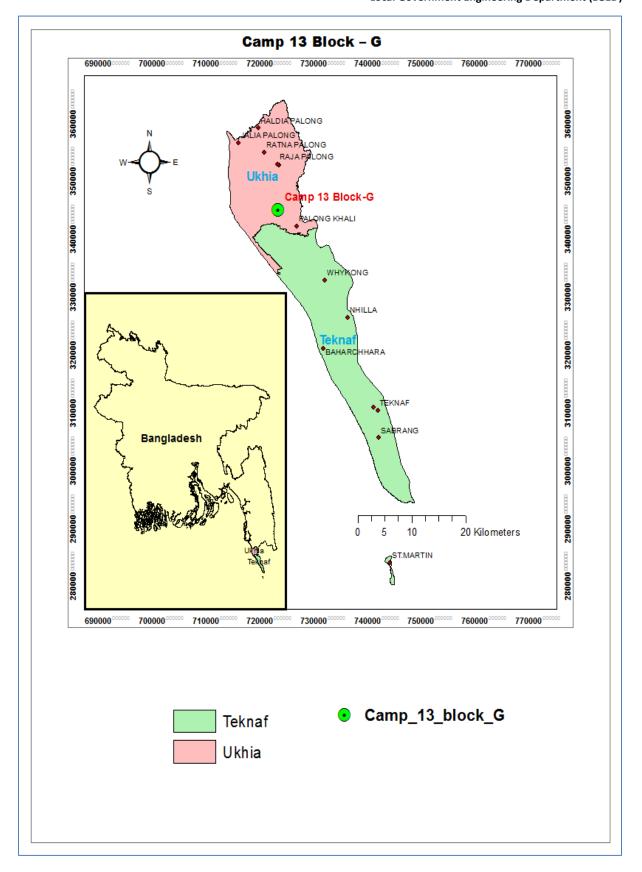


Figure 1.3.1.3: Map illustrating WFS/WGSS location of Camp-13, Block-G

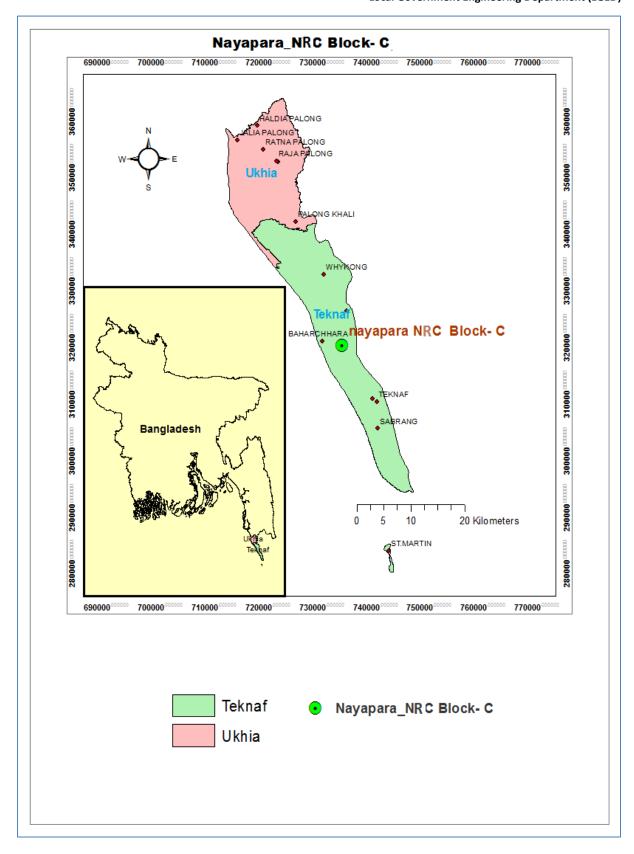


Figure 1.3.1.4: Map illustrating WFS/WGSS location of Camp-Noyapara NRC, Block-C



#### 1.4 Proposed Facilities in WFS/WGSS

These Women Friendly Space (WFS)/ Women and Girls Safe Space (WGSS) locations have been proposed to ensure aimed services for women and girls. Facilities that are crucial in order to deliver assistance to surrounding women and girls of Rohingya or Host community, was kept in mind while choosing the target location. Each WFS/WGSS will host separate space for all concerning activities in order to deliver targeted services and facilities. In context, there will be spaces for consultation, women group meetings and mid-wife facilities and so on. Moreover, these sites are not only set for women welfare but also for children and adolescent groups.

Table 1.4.1: Total requirements of land for each WFS/WGSS constructions and proposed facilities

	WGSS,	Camp-3, IRC	WGSS, Camp-13, IRC		WFS, Camp-8W, Mukti		WFS, Camp-Noyapara, Mukti	
Facilities Required	Quantity	Dimensions (ft)	Quantity	Dimensions (ft)	Quantity	Dimensions (ft)	Quantity	Dimensions (ft)
Store room, Solar system (Battery)	1	(8' X 5')	1	16'X10'	1	12′X7′	1	12'X7'
Staff Office room	1	(10' X 9'-6')	1	15'X16'	1	12'-2"X10'	1	11'-7''X9'-10''
Session room	2	(10'-6'' X 10')	2	24'X16'				
Case Management room/Counseling room	3	(10'-6'' X 10') (11' X 9') X 2	3	12′X8′	1	11'-6''X7'	1	11'-7''X9'-10''
SRH room	1	(11' X 9')	1	24'X12'				
Corridor	2	(3' X 6') X 2	2	6' and 8'	1	18'-8''X6'	1	57'X4'
General Store			1	24'X8'				
Sterilization Room		-	1	8'X6'				
Outreach Room		-	1	15' X16'				
Meeting Room					1	17'-8''X18'-8''	2	16'-1''X24'-7''
Midwife Room					1	8'-8''X10'	1	11'-7''X9'-10''
PSS Room		-		-			1	12'X10'
Open Space		-		-	1	15′X7′		
Guard Room					1	7′X5′	1	7'X5'
Generator Room		-					1	6'X7'
Latrine					1	5'X4'	2	5'X4'
Bath Room					1	5'X4'	2	5'X4'



#### 2. PUBLIC CONSULTATION, PARTICIPATION AND SURVEY FINDINGS

#### 2.1 Methodology

Public participation and community consultation have been taken up as an integral part of environmental assessment process of the project. As part of the impact assessment, participatory public consultation was conducted in areas of concern for proposed WFS/WGSS by Development Design Consultants Ltd. The consultation meeting was attended by disparate social groups representing local habitants of different age groups & social class and most importantly women communities. In all cases, Mukti Cox's Bazar and IRC representative were present. The meetings were organized in an informed, expressive and unbiased manner, wherefrom different views and concerns came across which will be properly taken care of during the design, construction and operational phases. In order to serve the screening processes, relevant items were communicated to the audience in discussion and troubleshoot confusing or worrying matters regarding the proposed intervention. Impacts in regards to environment, socio-economic matters during pre-construction, and construction and post construction phases have been put forth. Moreover, their comprehension as stakeholder has been up lifted.

All components under the work package have been put through review for locating impediments or possible adversity affecting future environment and socio-economic conditions. In order to comprehend surrounding features and impacts which may stipulate with it, screening has acknowledged to have a Project Influence Area (PIA) of 0.5-kilometer radius. In addition, several walk-through informal group consultations were held. A questionnaire was kept ready and responses were elicited. During these consultations, the communities were explained about the project, facilities for the specific components, its benefits, and associated social and environmental aspects and possible mitigation measures.

As such, public consultation is a living process as the types of problems/ difficulties, involved parties or stakeholders and mode of settlement or resolution processes are more likely to differ with time. Thus, consultation with different parties or stakeholders will be continued throughout the construction/implementation period and records of resolutions, whatsoever and wherever possible, will be kept in writing at the site and made available on any enquiries or requests by all parties concerned.

#### 2.2 Important features/establishments within the PIA

Initial screening process is conducted through field survey and direct involvement of stakeholders in the influence area of the proposed component. In combination of both field walk-through and inputs of audience, a register of existing features is formed. Allow the following table to describe such elements in all the WFS/WGSS.

Table 2.2.1: Important features under Project Influence Area

SI. No.	Component's name	Direction	Important features/ establishment (approx. distance from the proposed site)
1.	Camp-3, Block: E-54,	North	Madrasah (10m), Mosque (10m), Swing machine training Center (15m)



SI. No.	Component's name	Direction	Important features/ establishment (approx. distance from the proposed site)			
	Women North-West Plan International Learning Cen		Plan International Learning Center (80m)			
	Space	South	School (15m), Mukti Learning Center (10m), BRAC Child & Adolescent Field Space (50m)			
		East	Modlur Chorra (10m), Drain (10m)			
		West	Mosque (70m)			
	Camp 914/	North	BRAC Learning Center (50m), BRAC Learning Center (80m)			
	Camp-8W, Block-E, Sub- Block-A54,	South	Mosque (25m), BRAC Learning Center (100m), Rizda School (100m), Mosque (250m)			
2.	Women	East	Mosque (200m), BRAC Adolescent Center (200m)			
	Friendly	North-East	BRAC Learning Center (200m)			
	Space	West	BRAC Adolescent Center (100m), Mosque (250m)			
	Camp-13, Block-G, Women Friendly Space	North	STC Learning Center (40m), Mosque (50m)			
3.		South	MSF hospital (40m), Mosque (50m), PHD Hospital (300m), BDRCS Hospital (500m)			
		East	Hill (10m)			
		West	Ipsha learning Center (60m), Mukti Learning Center (70m)			
		North	Mosque (400m), Pond (415m)			
	Camp-	North-East	Madrasah (300m), UNHCR Water Treatment Plant (315m), Graveyard (1 Km)			
	Noyapara	South	BRAC Learning Center (200m), Block Mosque (150m)			
4.	NRC, Block-C, Women Friendly Space	East	Primary Health Care (300m), NGO Offices (320m), CiC office (350m), Police Check post (400m), Muchni Bazar (420m), Teknaf highway (450m), High School (460m), Salt Field (475m)			
		West	Pond (15m), Household (25m), Chora (150m), Teknaf Hill (160m)			



#### 2.3 Issues and Recommendations raised by the Participants in regards to component interventions

In the consultation meeting, environmental issues and their relevant impacts for WFS/WGSS development work such as rented space renovation or construction of a one-story building were thoroughly discussed. The advantages and disadvantages regarding the development activities were also revealed. A successful public consultation programme requires the following three elements to be effectively executed (i) dissemination of information to the stakeholders (ii) solicitation of views and information from affected parties and inhabitants on social and environmental issues. (iii) Consultation with interest groups and the public.

D&S Consultants from EMCRP-LGED part conducted consultation meetings with the Rohingya community regarding the work activities. Participants in general don't have any objection regarding the interventions; rather they expressed sheer enthusiasm in beneficial outcomes of the proposed spaces and interest in receiving the services or benefits. The participants were also assured that very low impact might accrue especially from masonry works for the construction/renovation of these WFS/WGSS structures in open places, but the extent is very negligible.

Please follow the table 2.3.1 given below to recognize participants' inputs arranged in relevance with separate component. Consultation meeting summary and attendance sheets along with pictures of location with separate meetings for proposed location of each Women Friendly Space can be found in Table 2.3.2 and Appendix-01 and Appendix-02 respectively. Women and adolescent girls were the target groups in every consultation meetings, whose for services will be rendered primarily. In deciding the suitable location in camp areas, representatives of CIC office were consulted as well. No consultation has been undertaken without Mukti Cox's Bazar or IRC official. Also, for Rohingya women population translator was involved to convey concerning messages to ensure proper consultation.

Table 2.3.1: Issues and Recommendations raised by the Participants

TOPIC DISCUSSED	ISSUES INTRODUCED	PARTICIPANTS' FEEDBACK /ACKNOWLEDGEMENT
Ideology of WFS	Purpose of WFS/WGSS and benefits for Women community in	They (especially female participants) have considered this with a strong
	regards to women right, women general health/reproductive	view and find it as an access point for security and development. They
	health/ mental health and support in time of social aggression etc.	wish to have services from WFS/WGSS as early as possible since they deal
	WFS will also stand as a socio-economic development center for	with regular challenges and need help from closer proximity.
	women.	
Construction/renovation	Location of WFS along with relevant renovation issues such as	Every location will have to adjust with material storage with whatever
and positioning of WFS	possible location for temporary material storage. No child labor is	space is available. None has any objection regarding the development
	acceptable.	and renovation of WFS in chosen locations.

# Emergency Multi Sector Rohingya Crisis Response Project (EMCRP) Local Government Engineering Department (LGED)

Environmental Concerns	No torrest the late to the first the formation of the first terms of t	The colored locations are not noting any threat to any water hady since
Environmental Concerns	No trees should be harmed for this improvement work. Adjacent	The selected locations are not posing any threat to any water body since
	Water body (if present) should be kept undisturbed along with	no site is nearby to any such feature as such, neither the development
	preserved soil and air quality.	interventions.
		However, renovation works may cause materials leftover to be spread
		across the surrounding areas such as chemicals (e.g., paints). These
		specific and very local mismanagement in works may induce impacts on
		the vicinity, which can easily be avoided or minimized very effectively
		with a careful work practice. Mukti and IRC as a monitoring agent for the
		implementation must take care of these issues.
Safety at work site	Safety of children and adults at the sites during construction works.	They have appreciated this motif and stated they will arrange fencing, if
	Fencing will have to be maintained while construction so that local	necessary, for their own safety from their part of effort.
	habitants are not disturbed for any reason.	
Specific Need	Any matter that has not been included in this endeavor was	They are satisfied with what this intervention is offering and informed,
	requested to be presented by the participants.	and they also wish to have female consultants and doctors for their
		health check-up and they have been informed of what Mukti Cox's Bazar
		and IRC is planning to deliver. Also, children's playground is included in
		the work plan where possible. Women would find guidance for childbirth
		and their upbringing as well.



#### **Table 2.3.2: Particulars of Consultation Meetings**

SI.	Name of camps of proposed Women Friendly			Number of Participants			S	
No.	Space	Date of Meetings	Meeting Places	Host		DRP		Total
				Male	Female	Male	Female	
1	Camp-3, Block: E-54, Women Friendly Space	08/06/2022	Existing WFS Compound	0	0	0	26	26
2	Camp-8W, Block-E, Sub-Block-A54, Women Friendly Space	08/06/2022	Existing WFS Compound	0	0	0	21	21
3	Camp-13, Block-G, Women Friendly Space	08/06/2022	Existing WFS Compound	0	0	0	24	24
4	Camp-Noyapara NRC, Block-C, Women Friendly Space	08/06/2022	Existing WFS Compound	0	0	0	13	13
Total	participants =		0	0	0	84	84	



#### 3. ENVIRONMENTAL SCREENING

#### 3.1 General

This section identifies the potential impacts (if any) that the various elements of the proposed WFS/WGSS may have on the physical, biological and socio-economic environment based on this screening study for the Sub-project that has been conducted to identify and determine which potential Project impacts may be significant and therefore require the application of reasonable and effective management and/or mitigation measures.

In order to realize the exact physical, biological, socio-economic and environmental impacts of the proposed sub-project sites and the influence area in regards to the implementation measures, an extensive field visit was carried out in each proposed area.

The screening data and information for each surveyed Women and Girls Safe Space (WGSS) and Women Friendly Space (WFS) under the Gender Based Violence in Emergency Project (GBViE) is illustrated in safeguard questionnaire summary form shown in tables under section 3.2 where project impacts in construction phases have been considered. Each component has been brought to questioning in order to understand the characteristics of each way impacts these developments may have with circumambient features.

#### 3.2 Major Findings

A complete view of current environmental conditions of individual location in relation to interested queries has been congregated in order to understand the degree of impacts corresponding with marked interventions. Interestingly, most components have correspondence with its surrounding features and uphold interchangeable impacts. However, the degree is not an interchangeable factor since scale is not parallel to each of these components, where differentiation in mitigation measures is implied. There are some cases where unique circumstances have been met with while environmental screening took place which is also accounted for and should be a matter of concern. The significant issues observed in each sub-project are enlisted in following Table 3.2.1 with pertaining impacts. Moreover, impacts that are adventitious have also been embraced for promoting best practices. Detailed Environmental Screening form is given in Appendix-03

#### Table 3.2.1: Concerning environmental issues relating to each proposed WFS

#### **Environmental Screening Summary**

#### Is the project located in any environmentally sensitive location?

No. The location is not occupied in any critical area of any sort. No impact is expected on any sensitive habitat or major forest cover or water body. Current condition of the proposed site is found to have a pre-existing tin-roofed facility.

#### Is the project located in elephant migration route?

No. This have been checked based on elephant migration route map established by UNHCR/IUCN (latest updated maps as of 22 February 2018 and later June 05, 2018).

#### Will the construction of this component induce land degradation or landslide?

No. This location is well-built on plain land and functioning on a semi-pacca tin shed structure. So, soil degradation and landslide chances are very low.

# Will the construction obstruct water cycle of the local area or pollute near water body and groundwater?

No. The renovation works will be limited to the selected site, and this is not located near any waterbody which will be subject to deterioration.

#### Chances of Waste generation?

The renovation works will induce waste which is mostly renovation debris such as leftovers of wood, bamboo, plastics, wires, and paint chemicals as paint thinners which contain Volatile Organic Compounds (VOCs) etc. Workers who will work during the renovation period will not generate organic and faecal waste and kitchen waste since labor shed is not needed.

#### Any damage to existing vegetation or garden plants?

No. As the site is occupied with a pre-existing tin-roofed facility, which will be used as the proposed WFS with very minor renovation works involved. Therefore, any damage to existing vegetation or garden plants is very unlikely.

#### Will the project cause socio-economic disturbance?

The selected space is not located in any sort of area that will cause socio-economic deprivation for the development.

#### Violation of Environment, Health and Safety?

Though this component is purely renovation works with minor changes, it should be ensured that during construction/renovation phase or operation phase the site do not experience damage. Chemical spills from paint jobs or improper disposal of renovation waste materials may occur due to worker's misconduct and poor labor safety initiatives. Other than this, no other items are seen to pose risk during construction and operation phase.

#### Availability of Labor camp and material storage Space?

Labor camp is not necessary and separate location other than the nominated site was not found for material storage.

#### **Availability of Utility Services?**

Electricity is not available. Solar light or Generator will have to be arranged. No pre-existing tube well is found in the proposed location. Tube well will need installing after the construction, which has been confirmed by IRC.



#### Availability of access road?

5 feet wide BFS road is available connecting different blocks in the camp area. This can be used for transport and material supply route. This road also connects the Camp-03 CiC office.

#### Does the component have Social Safety and Acceptance?

Selected location is accepted by both male and female representatives.

Environmental Components (Physical/ Biological)	Impact during the project life span			
	PC	ОМ	DE	
Noise Pollution	None	Low	Low	
Air Pollution	None	Low	None	
Soils	None	Low	None	
Vibrations	None	None	None	
Surface Water	None	None	None	
Groundwater	None	None	None	
Flora	None	None	None	
Fauna	None	None	None	

Note: PC = Pre-construction and construction stages; OM = Operation and Maintenance Stage; DE = decommissioning stage. High = Likely to cause long-term impacts or over large area (>0.5sqkm); Medium = Likely to cause temporary damage or over moderate area (0.25 to 0.5sqkm); Low = Likely to cause little, short-term damage and over small area (<0.25sqkm)

Project Name:	Camp-8W, Block-E, Sub-Block-A54, Women Friendly Space

#### **Environmental Screening Summary**

#### Is the project located in any environmentally sensitive location?

No. The location is not occupied in any critical area of any sort. No impact is expected on any sensitive habitat or major forest cover or water body. Current condition of the proposed site is found to have a pre-existing bamboo made facility.

#### Is the project located in elephant migration route?

No. There is no existence of Elephant corridor/ route now, which have been checked on the basis of elephant migration route map established by UNHCR/IUCN (latest updated maps as of 22 February 2018 and later June 05, 2018).

#### Will the construction of this component induce land degradation or landslide?

No. This location is well-built on plain land and functioning on a bamboo made structure. So, soil degradation and landslide chances are very low.

# Will the construction obstruct water cycle of the local area or pollute near water body and groundwater?

No. The renovation works will be limited to the selected site, and this is not located near any waterbody which will be subject to deterioration.

#### **Chances of Waste generation?**

The renovation works will induce waste which is mostly renovation debris such as leftovers of wood, bamboo, plastics, wires, and paint chemicals as paint thinners which contain Volatile Organic Compounds (VOCs) etc. Workers who will work during the renovation period will not generate organic and faecal waste and kitchen waste since labor shed is not needed.



#### Any damage to existing vegetation or garden plants?

This location does not offer any greenery which might be affected by the intervention.

#### Will the project cause socio-economic disturbance?

The project is not located in or around any agriculture field or existing socio-economic structure which will be challenged by this intervention. Hence, no impact is expected.

#### Violation of Environment, Health and Safety?

Though this component is purely renovation works with minor changes, it should be ensured that during construction/renovation phase or operation phase the site do not experience damage. Chemical spills from paint jobs or improper disposal of renovation waste materials may occur due to worker's misconduct and poor labor safety initiatives. Other than this, no other items are seen to pose risk during construction and operation phase.

#### Availability of Labor camp and material storage Space?

Labor camp is not necessary and separate location other than the nominated site was not found for material storage.

#### **Availability of Utility Services?**

Electricity is not available. Solar light or Generator will have to be arranged. No pre-existing tube well is found in the proposed location. Tube well will need installing after the construction, which has been confirmed by Mukti Cox's Bazar.

#### Availability of access road?

A road is present coming from Balukhali Paan bazar connecting the CIC office. This camp road does not take to the facility but another connecting pathway will lead to the proposed site on foot only. The main camp road is under construction, when completed it can provide the due access.

#### Does the component have Social Safety and Acceptance?

Selected location is accepted by both male and female representatives. Also, the location does not have any surrounding element that might hamper the peaceful activity of WFS.

Environmental Components (Physical/ Biological)	Impact during the project life span				
	PC	ОМ	DE		
Noise	None	None	Low		
Air Pollution	None	None	Low		
Soils	None	None	None		
Vibrations	None	None	None		
Surface Water	None	None	None		
Groundwater	None	None	None		
Flora	None	None	None		
Fauna	None	None	None		

Note: PC = Pre-construction and construction stages; OM = Operation and Maintenance Stage; DE = decommissioning stage. High = Likely to cause long-term impacts or over large area (>0.5sqkm); Medium = Likely to cause temporary damage or over moderate area (0.25 to 0.5sqkm); Low = Likely to cause little, short-term damage and over small area (<0.25sqkm)



Project Name:	Camp-13, Block-G, Women Friendly Space
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### **Environmental Screening Summary**

#### Is the project located in any environmentally sensitive location?

No. The location is not occupied in any critical area of any sort. No impact is expected on any sensitive habitat or major forest cover or water body. Current condition of the proposed site is found to have a pre-existing bamboo made facility.

#### Is the project located in elephant migration route?

No. This has been checked based on elephant migration route map established by UNHCR/IUCN (latest updated maps as of 22 February 2018 and later June 05, 2018).

#### Will the construction of this component induce land degradation or landslide?

No. This location is well-built on plain land and functioning on a bamboo made structure. So, soil degradation and landslide chances are very low.

# Will the construction obstruct water cycle of the local area or pollute near water body and groundwater?

No. The renovation works will be limited to the selected site, and this is not located near any water body which will be subject to deterioration.

#### Chances of Waste generation?

The renovation works will induce waste which is mostly renovation debris such as leftovers of wood, bamboo, plastics, wires, and paint chemicals as paint thinners which contain Volatile Organic Compounds (VOCs) etc. Workers who will work during the renovation period will not generate organic and faecal waste and kitchen waste since labor shed is not needed.

#### Any damage to existing vegetation or garden plants?

None. An existing facility will be used for providing the services; therefore, any damage to existing vegetation or garden plants is very unlikely.

#### Will the project cause socio-economic disturbance?

The selected space is not located in any sort of area that will cause socio-economic deprivation for the development.

#### Violation of Environment, Health and Safety?

Though this component is purely renovation works with minor changes, it should be ensured that during construction/renovation phase or operation phase the site do not experience damage. Chemical spills from paint jobs or improper disposal of renovation waste materials may occur due to worker's misconduct and poor labor safety initiatives. Other than this, no other items are seen to pose risk during construction and operation phase.

#### Availability of Labor camp and material storage Space?

Labor camp is not necessary and separate location other than the nominated site was not found for material storage.

#### **Availability of Utility Services?**

Electricity is not available. Solar light or Generator will have to be arranged. No pre-existing tube well is found in the proposed location. Tube well will need installing after the construction, which has been confirmed by IRC.

#### Availability of access road?

18 feet wide BFS road is available on the north-west connecting different blocks in camp-13 area.



This can be used	for transport and n	naterial suppl	y route.		
Does the compor	nent have Social Sa	afety and Acc	eptance?		
Selected location	is accepted by bot	h male and fe	emale represe	entatives.	
Environmental Biological)	Components	(Physical/	Impact du	ring the project	life span
			PC	ОМ	DE
Noise Pollution			None	Low	Low
Air Pollution			None	Low	Low
Soils			None	None	None
Vibrations			None	None	None
Surface Water			None	None	None
Groundwater			None	Low	Low
Flora			None	None	None
Fauna			None	None	None

Note: PC = Pre-construction and construction stages; OM = Operation and Maintenance Stage; DE = decommissioning stage. High = Likely to cause long-term impacts or over large area (>0.5sqkm); Medium = Likely to cause temporary damage or over moderate area (0.25 to 0.5sqkm); Low = Likely to cause little, short-term damage and over small area (<0.25sqkm)

Project Name:	Camp-Noyapara NRC, Block-C, Women Friendly Space

### **Environmental Screening Summary**

#### Is the project located in any environmentally sensitive location?

No. The location is not occupied in any critical area of any sort. No impact is expected on any sensitive habitat or major forest cover or water body. Current condition of the proposed site is found to have Girl and Women Safe Space which is currently in use and moderated by Mukti Cox's Bazar.

#### Is the project located in elephant migration route?

No. There is no existence of Elephant corridor/ route now, which has been checked on the basis of elephant migration route map established by UNHCR/IUCN (latest updated maps as of 22 February 2018 and later June 05, 2018).

#### Will the construction of this component induce land degradation or landslide?

The nominated location is found to be on plain land. However, this location will not need any construction since the existing facility will be used as WFS. Soil degradation chances are very low nonetheless minimum scale of top soil clearing maybe needed.

# Will the construction obstruct water cycle of the local area or pollute near water body and groundwater?

No construction is needed here, and the site is not obstructing water body of any sort.

#### **Chances of Waste generation?**

No major construction is necessary here therefore waste from construction activity will not need any consideration. However, some renovation works may cause plastic and residual waste in low quantity.

#### Any damage to existing vegetation or garden plants?

This location does not offer any vegetation (and a nearby vegetation yard is well fenced) which might be affected on any level and since there is an existing facility which is going to be used as WFS and the



footprint is already set.

#### Will the project cause socio-economic disturbance?

The project is not located in or around any agriculture field or existing socio-economic structure which will be challenged by this intervention. This location will need adjustments if all the service rooms are to be included as per design of Mukti Cox's Bazar. This location already has pre-established rooms which will suffice the goal of a WFS facility. It is highly recommended that adjustments be made with deliberating fashion and include stakeholders of each level.

#### Violation of Environment, Health and Safety?

Absence of construction implies that no risk is implied in any works. Since renovation will not create significant condition which may invite violation but for this case, small scale construction might be needed depending on the decision stakeholders take. If full design is implemented, it is advocated that landslide precautions work will have to include protection wall surrounding this facility. On another matter, one of the rooms houses the batteries which store charge from the solar panels. This is a risky consideration to keep since it is not safe keeping all these batteries where people reside as safe place. A separate location should be selected to keep these out of human contact and safe maintenance should be practiced.

#### Availability of Labor camp and material storage Space?

Separate location for labor camp is not needed in this case.

#### **Availability of Utility Services?**

Electricity is available through solar panels which the facility already offers and water supply is also established.

#### Availability of access road?

12 feet HBB road inside the camp connecting with main highway is available

#### Does the component have Social Safety and Acceptance?

Selected location is accepted by both male and female representatives. Also, the location does not have any surrounding element that might hamper the peaceful activity of WFS.

Environmental Components (Physical/ Biological)	Impact during the project life span				Impact during the project life span			
	PC	ОМ	DE					
Noise	None	Low	None					
Air Pollution	None	None	None					
Soils	None	None	None					
Vibrations	None	None	None					
Surface Water	None	None	None					
Groundwater	None	None	None					
Flora	None	None	None					
Fauna	None	None	None					

Note: PC = Pre-construction and construction stages; OM = Operation and Maintenance Stage; DE = decommissioning stage. High = Likely to cause long-term impacts or over large area (>0.5sqkm); Medium = Likely to cause temporary damage or over moderate area (0.25 to 0.5sqkm); Low = Likely to cause little, short-term damage and over small area (<0.25sqkm)

There is no evidence of presence of elephants in the subproject area. The IUCN has conducted a study on such conflict. With the support from UNHCR, IUCN has been marking elephant routs and

corridors and informing local communities and stakeholders of avoiding the marked areas. As part of the mitigation options, different initiatives have been undertaken, such as formation and capacity development of Elephant Response Teams (ERTs); providing equipment to ERTs to divert in-coming elephants; and setting up elephant deterrent tools (e.g., trip alarms and watch-towers). Though the current chances of occurrence of conflicting incidence are becoming narrow since for long periods elephants have left these locations showered with displaced population and settled away from all the commotion, any recurrence would be managed by the ERTs and they will be called if there appears any minute possibility to recur. Appendix-4 presents a map of elephant routes of Ukhiya Upazila which is prepared by the IUCN.

In order to offset the loss or attenuating the environmental degradation, a set of mitigation measures will be adopted, on top of general practice of standard construction procedure or following the relevant codes of practices.

#### 3.3 Climate Change Impact Screening

#### 3.3.1 General Overview of the area

Cox's Bazar is one of the coastal districts of Bangladesh and is prone to the effects of climate change due to its geomorphological siting and climate induced effects. The hilly tracts of Cox's Bazar could foster further environmental crisis brought on by indiscriminate deforestation and diminishing groundwater reservoirs, which have been taken place in recent months as the Rohingya crisis evolved. A recent study conducted by World Bank<sup>3</sup> has found that Cox's Bazar will be the worst-hit district in South Asia as average temperatures rise and rainfall patterns become disruptive, by 2050, if greenhouse gas emissions continue unabated.

The hilly region of the country, especially the part in Cox's Bazar is characteristically of muddy soil structure, not of any rocky formation and the stability comes from the roots of the trees. Also rainfall, proximity to the sea, elevation, and land cover are very important factors for analyzing the risk of cyclone. Denudation of trees from hilltops in order for the huge settlement of Rohingya people has already increased the vulnerability to the risk of hill collapse by destabilizing the terrain. Also deforestation at a rapid speed uncovers the land and raise the risk of occurrence of cyclones, as forests protect land from high wind and storm surges where demolishing the trees would make the area vulnerable.

Together with the above-mentioned hazardous situation, again due to sudden extraction of huge amount of groundwater, availability of potable water from shallow tube wells that pump water up from about 150 feet has already reached to a critical level. Averting the problem requires new tube wells to be plumbing deeper into the poorly mapped aquifer, but going deeper than 700 feet in some places may cause salt water to contaminate freshwater resources.

#### 3.3.2 Site Specific Screening and outcome

Climate Change impact on a particular subproject is tough to deduce as the highest resolution of climate model simulation done over Bangladesh is 50km. Depending on the simulation ensemble of Cox's Bazar district, the temperature and precipitation are likely to increase with time.

<sup>&</sup>lt;sup>3</sup> https://openknowledge.worldbank.org/bitstream/handle/10986/28723/9781464811555.pdf



The impact of cyclone and precipitation has higher impact in this area, Intensity of precipitation has increased according to the participants and number of cyclones has been seen to have increased in the past few years. Salinity has not been found in the vicinity of the target locations. Cyclonic storm surge has medium impact in the proposed areas. Temperature has increased and thus has medium impact on the area and Thunder storm has been seen to have increased and is found to have highest impact in the area. Water stagnation has not been found. Drainage channel has not been found in the target areas.

As compared to the entire district area or a 50km resolution for model simulation, the proposed sites are trivial point for impact generation, having minor footprints in respect to climate change effects. Yet, to avoid the devastation caused by the growing thunderstorm events, conventional lightning protection system (copper rod to be used as a lightning arrester) should be employed to the proposed facilities. Solar power as energy sources is suggested to be incorporated in the design and to be implemented as part of the construction of these WFS. As there is very low impact of cyclonic storm surge in the area the mitigation measures for flooding potential are not provided here.

#### 4. ENVIRONMENTAL AND SOCIAL PROTECTION/SAFEGUARDS

#### 4.1 Mitigation and Management Measures

Considering the environmental settings of the sub-project area, it can be assumed that possible impacts would be largely construction-related, and could be addressed through adoption of good engineering practices; good housekeeping; better *in-situ* construction materials management; and observance of health and safety protocols during the implementation period.

Though these components will not require intensive structure development, the contractor must adhere to the best practice debris management procedure and regular adoption of dust control measures (spraying of water at least twice a day) to minimize the effect to the least level from the renovation works. Further improvement related activities which may result in adverse impacts in the surrounding environment of the sub project must be kept under close consideration and appropriate mitigation and management measures will be taken with due care and vigilance. In order for ensuring electricity supply in the WFSs, solar powered system will be installed in every facility, which will cause eventual reduction in GHG emission significantly to the atmosphere (as electricity generated from conventional fuels, e.g., all types of fossil fuels, causes a huge quantity of GHG emission to the atmosphere). Contractor's staffs and workers will be given training on good practice construction works, health safety, and efficient camp management, and relevant awareness building sessions will also be conducted, and records of all those training and awareness building sessions will be kept on-site as part of effective management and monitoring of safeguard works. With all the required efforts, once the overall effects for this proposed development works are minimized to its least level and controlled efficiently, it will turn into a welcoming and beneficial project for the DRP communities.

Environmental management plan has been outlined for WFS/WGSS in Appendix-5 delivering specific indicators for each category of project intervention periods including sub-project specific issues. The mitigation measures as well as monitoring program of ESMP have also been incorporated in the management plan.



#### 4.2 Health and Safety Measures under COVID situation

Apart from the established Occupational Health and Safety (OHS) measures being followed in construction/renovation sites and offices, a set of additional measures has to be taken and practiced throughout the daily cycle by each labor, staff and any involved parties, due to the ongoing pandemic coronavirus situation. Staffs and consultants at PIU and D&SC, and UNFPA, along with the pool of staffs of implementing/partner organizations and construction contractors and suppliers have to play much sensitive, pro-active and responsible roles in abiding by the rules and measures by themselves and getting the involved workers and different stakeholders adhered to the same. A detailed guideline containing a set of measures with shared responsibilities has been sketched out under this project, in order to curb the exposure and further spread of this potentially fatal situation. This plan or guideline shall constitute an integral part of ESMP measures for every sub-project, though is not included in this report to keep it concise and specific, and the contractor is required to keep the copy of that guideline at every site office.

However, among many other relevant issues, the guidelines emphasize on following line of directives:

- a. Contractor must designate one of his employees as H&S/Safeguards supervisor to lead, coordinate and interface in order to fight the COVID 19 situation under the direct guidance of COVID focal at PIU of EMCRP project (here, someone from MUKTI would do the same).
- b. All workers, supervising and supporting engineers and staffs, service providers and other concerned parties must adhere to the personal health and hygiene rules, social distancing, and other protective measures in full in order to protect themselves and contain the infections any further. Necessary training and awareness campaign will be aligned with the specific sub-project scenario and prevailing conditions.
- c. General practice of cleaning and hygiene has to be maintained in all project/site offices and camp sites, and supply of necessary PPEs and cleaning /disinfecting materials along with proper use of those is to be ensured.
- d. Necessary protocols have to be established and maintained in case of handling a sick employee or worker, and appropriate compensation to a sick disengaged labor is required to be given with due documentation.
- e. Budgeting for suggested protective measures, along with necessary supervision and monitoring for the required interventions has to be ensured.

#### 5. CONCLUSION AND RECOMMENDATIONS

The overall conclusion is that if the mitigation, compensation and enhancement measures are implemented in full, there will be no significant negative environmental impacts in regards to the selection of location, design, construction/renovation, and/or operation procedure of the proposed Sub-project. Pre-existing facilities are to be used in most cases but precautions must not be taken lightly doing any level of renovation works. There will in fact be tremendous benefits from recommended mitigation and enhancement measures and major improvements in quality of life and ensuring social safety and security for women community will be achieved once the scheme is in operation.



The conclusions of the screening study can be summarized as follows:

- The female communities will receive large benefits in terms of quality of life, particularly with reducing vulnerability to social aggression, miss-treatment, and health & education.
- None of the proposed WFS/WGSS sites are located in or near to any environmentally sensitive sites/areas, nor will cause any significant detrimental impacts during the construction period. Social impacts of different forms may arise during the operational period of those WFS facilities, which need to be carefully handled.
- The short-term negative impacts that may come by the way of noise, solid waste, occupational health & safety need to be minimized through the management plan.
- The project will create employment for those who live in the vicinity of the construction site and will provide them a short-term economic gain.
- A comprehensive Environmental and social Management Plan (ESMP) has been prepared to
  mitigate and reduce the adverse impacts that will come out from the project activities. Costs
  involved with any preparatory, conservative, mitigation, or offsetting measures delineated in
  the ESMP or for any contingency measures will be borne by the UNFPA/Mukti and IRC.

ER: 08/06/2022

দাব পাহকক নং।

Appendix-01: List of Participants in the Consultation Meetings

# Camp 3, Block-E 54 WFS

Safeguard Screening of Women Friendly Space Public Consultation Participants List

Focus Group Discussion

эни: 01.00 РМ

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#### Camp 3, Block-E 54 WFS Safeguard Screening of Women Friendly Space Public Consultation Participants List **Focus Group Discussion** wifer: 08 06 2022 \*\*\* 01.00 PM BM-2558/ANCHICHE AR HIM: CAMP 03, Block-E 54 WFS WE REAL EXISTING WES COMPOUND অপোহণকারীদের হাজিরা (পরিসহ ও ছাম্মর) **शृक्ष/**मारी 200 স্বাক্তর / টিপসই वाम বয়স নাম HZ. HOST Block E-54 Rabia Khatan 30 नाकी Ambia Khatun 45 Luther E-54 Gul Bahar 39 E-54 Kulsom Bahar 40 Rohima Khatun E-54 54 Fatema Khatun E-54 50 E-54 Ayerha Begum Roslida 35 A. Toslima 26 20. Rosida 40 D. Ferroza Khatun 40 6-54 Fetema Khatun 38 210

Figure: Attendance of consultation meeting for WFS at Camp-3

# Camp-8W WFS, Block-E, Sub Block: A-54

# Safeguard Screening of Women Friendly Space

**Public Consultation Participants List** 

### **Focus Group Discussion**

744: 04:10 PM

WEN: 08/06/2022

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# Camp-8W WFS, Block-E, Sub Block: A-54

### Safeguard Screening of Women Friendly Space Public Consultation Participants List

**Focus Group Discussion** 

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Figure: Attendance of consultation meeting for WFS at Camp-8W



# Camp-13 WFS, Block: G-04

### Safeguard Screening of Women Friendly Space **Public Consultation Participants List**

#### **Focus Group Discussion**

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#### Camp-13 WFS, Block: G-04 Safeguard Screening of Women Friendly Space **Public Consultation Participants List Focus Group Discussion** WAY: 08 06 2022 MR : 02:45 PM कन-अक्क/क्यानात्मक वह नाम : Cam P 13, Block: G-04 WFS NO PRIME EN : At Existing WFS Compound one in: 04 sious (cons one on) ! Ushiya ESTHEM Palongkhali জেলা : কল্পবাধার সাব পাহকর বং । অংশরহণকারীদের হাজিরা (পরিচয় ও স্বাঞ্চর) পুরুষ/নারী 30 নাম যকর / টিপসই বাস গ্ৰাম नर DRP HOST Camp-13 Hamida 01 20 Block-E1 Nosima Khatun Camp-13 32 Block-E1 mastofa Whatun Camp-13 60 Block-E1 Rolina Camp-13 04 26 Block-E1 Asia Khatu amp-13 22 Block-E1 Hasina Camp-13 Block-E1 06 26 Anowak Begum Camp-13 28 Block-El Sajeda Begun Camp-13 08 Block-El Samsunnakan Camp-13 09 25 Block-E1 Lofiba Camp-13 10 Block-E1 Shofika Camp-13 11 30 Block-E1 ShahanaBegum Carep-13 12 26 Block-E1 Sonijida Camp-13 13 30 Block-E1

Figure: Attendance of consultation meeting for WFS at Camp-13



### Nayapara-NRC, Block-C Safeguard Screening of Women Friendly Space Public Consultation Participants List **Focus Group Discussion** ABM: OP.OM 5055 148:02:30 FOT, 235 SM. STORY ONLY THE HE HE I ADJECT OF -NRC-WFS , Block-C. 20 NO FEBRURE ET : At Existing WFS Compound कार्ड न : 0 के जन्म (लो कार नर) : दिखा-8945 इडमहन । दिन्ता क्षानाः कस्रवासत পাৰ প্যাকেজ দং। অংশ্যাহণকারীদের হাজিরা (পরিচর ও স্বাক্ষর) পुरुष/नादी ছকর / টিপসই वाय माम HOST 報 স্**শৃপা**ঞ্চ ভার্ম 80 TIMEST im 5 সনোয়ারা আজার 20 2 00 0 \* 20 80 0 00 ON USEDIA वृत ज्यानिका 20 81 80 ত্যানোয়ারা বেগধা ৩৮ 20 2 50 22 22 26 20 划

Figure: Attendance of consultation meeting for WFS at Camp-Noyapara NRC

Appendix-02: Pictorial View of the sites and consultation meetings











Figure: Present condition of selected site for WFS Camp-3; Block-E 54

# Development Design Consultants Ltd.











Figure: Present condition of the selected site for WFS Camp-8W; Block-E

# Development Design Consultants Ltd.



Figure: Present condition of the selected site for WFS Camp-13; Block-G

Emergency Multi Sector Rohingya Crisis Response Project (EMCRP)
Local Government Engineering Department (LGED)



Figure: Present condition of the selected site for WFS Camp-Noyapara NRC; Block-C



## Appendix-03: Filled in Environmental Screening Forms for examining WFS

## **Environmental Screening Form for WFS (Camp-03)**

Name of Sub-Project: Camp-03, Block: E54, Women and Girls Safe Space

Implementing Agency/Agencies: International Rescue Committee (IRC)

District: Cox's Bazar Sub-District: Ukhiya Union: Rajapalong

Name of Community/Local Area: Rajapalong, Ward No.-09, Camp-03, Block-E54

## Description of proposed sub-project activities (incl. type of activities, footprint area, natural resources required, etc.):

The Sub-Project is categorized as single storied building with tin roof. Proposed structure will have Meeting room, Counseling/Session Room, Mid-Wife Room, Office Room, Corridor etc. The total area needed for these facilities is around 1172.48 square feet. Apart from these, Storeroom, generator room, Kitchen, Latrine, Bathroom and Psychosocial Support (PSS) room are added in the plan which accounts for 381 square feet area. Moreover, the compound will be surrounded with boundary made of wood and bamboo.

Estimated footprint / land area for this sub-project is 1172.48 sq. feet

Available land area: 1172.48 sq. feet for existing structure and 925 sq. ft. proposed on the east side for separate room which will need construction. The later space is still not confirmed by IRC and indicated to be under consideration of CiC.

## Brief description of sub-project site: (e.g., present land use, Important Environmental Features (IEFs) near site, etc.:

Proposed WGSS is situated within the catchment area of Camp-03 in Rajapalong union of Ukhiya Upazila under Ward 9. The proposed location has a tin shed house that was previously used by a separate organization. The space however has no environmentally significant concerning feature which may be harmed from the placement of the proposed WFS/WGSS. It falls in camp-03 area having Rohingya settlements in the surrounding area. Few mosques and non-permanent establishments are present within 500-meter area, majority of which are DRP settlements and learning facilities of different organizations. Most of the surrounding space of this intervention used to be covered with forests. However, migration of these displaced Rohingya population has resulted in barren space and there are no significant eco-sensitive features on the footprint area. No socioeconomic facilities as agriculture fields or fish farm are present near this location. This location is set on a comparatively low land.

### **Overall Comments**

The proposed WGSS is not located within any remarkable environmentally sensitive area and will not cause any severe affect to the environmental settings of the area, thus not going to create intimidation to important environmental features. No drainage congestion/water loggings have been observed in the area and drainage system is in place for easy water runoff. No agricultural



productive soil will be used for this development. The major inputs will mainly include renovation works within existing project boundary. However, minor construction works is planned on the east side from the existing structure.

People of the project area are very much optimistic about the success of the project and are also eager to participate in the project activities. The subproject is environmentally sustainable and socially acceptable. The local and Rohingya community attended in the participatory public consultation meeting. Their community representatives have no objection to the construction of this infrastructure in the proposed site; the community also appreciated the initiative of International Rescue Committee (IRC) to ensure safe and secure facility for women community. The public consultation meeting results confirmed that establishment of this WFS will increase social security in female communities and make lives easier for these people.

### Types of waste to be generated during construction and operation phase:

The construction period will see minor renovations and small-scale repairing works. Other than that, no major construction is included in any phase of this project. As a result, types of wastes will be limited to plastics, unused wires, wood chips, etc. Amount will be negligible and come as residue. Liquid waste will include chemicals of paint leftovers, thinners, used oil, degreasing solvents etc. Domestic solid wastes will be produced in kitchen of WFS during the operation period; besides, sludge from sewage and fecal wastes will also be generated during both the construction and operational period of the WFS/WGSS.

## Sensitive environmental, cultural, archaeological, religious sites near (within 1km) of site including elephant migration routes and remaining forests:

Within the influence area of the subproject no historical sites were identified. Sensitive environmental, cultural, archaeological, religious sites within half a kilometer includes: to the North there are Madrasah (10m), Mosque (10m), Swing machine training Center (15m), Plan International Learning Center (80m NW), to South there are School (15m), Mukti Learning Center (10m), BRAC Child & Adolescent Field Space (50m), to the East there is Modlur Chorra (10m), Drain (10m) and to the west there is a Mosque (70m). Apart from these structures no other sensitive environmental, cultural, archaeological, religious sites exists.

Mostly Rohingya settlements are found around the proposed area. No disturbance is anticipated due to construction activities to those environmental components. In this sub-project area, no elephant migration routes exist (ref. IUCN). No disturbance is anticipated due to construction activities to those social and environmental components.

## Completed environmental and social screening forms are given below Section A: Sub-Project Overview

Description of sub-project/component interventions:		
This intervention will include the following ite	ems:	
Facility Room Dimensions (00' X 00')		
Store room, Solar system (Battery)	(8' X 5') sq. ft	
Staff Office room	(10' X 9'-6') sq. ft	
Session room-1	(10'-6' X 10') sq. ft	
Session room -2	(10'-6' X 10') sq. ft	



Case Management room-1	(10'-6' X 10') sq. ft
Case Management room-2	(11' X 9') sq. ft
Case Management room-3	(11' X 9') sq. ft
SRH room	(11' X 9') sq. ft
Corridor-1	3 ft
Corridor-2	(3' X 6') sq. ft

## **Sub-project Location:**

Important Features	
District	Cox's Bazar
Upazila	Ukhiya
Union	Rajapalong
WARD	09
Proposed area size	1172.48 Sq. ft. (current structure)
Distance from Upazila HQ	5 km
Coordinates	21.20917 <sup>0</sup> N
	92.15175 <sup>0</sup> E

## Land ownership

**Private Land** 

**Expected construction period:** 6 months

Description of project intervention area and project influence area with schematic diagram (where relevant, indicate distance to sensitive environmental areas such as elephant corridors, water bodies, etc. and historical or socio-cultural assets): Please also explain any analysis on alternative location was conducted:

To the North there are Madrasah (10m), Mosque (10m), Swing machine training Center (15m) Plan International Learning Center (80m NW), to South there are School (15m), Mukti Learning Center (10m), BRAC Child & Adolescent Field Space (50m), to the East there are Modlur Chorra (10m), Drain (10m) and to the west there is a Mosque (70m). Within the influence area of the proposed location no historical sites were identified. Also, there is no evidence of elephant movement close to the proposed component location (confirmed by the participants in the consultation meeting).

### **Section B: Environmental Screening**

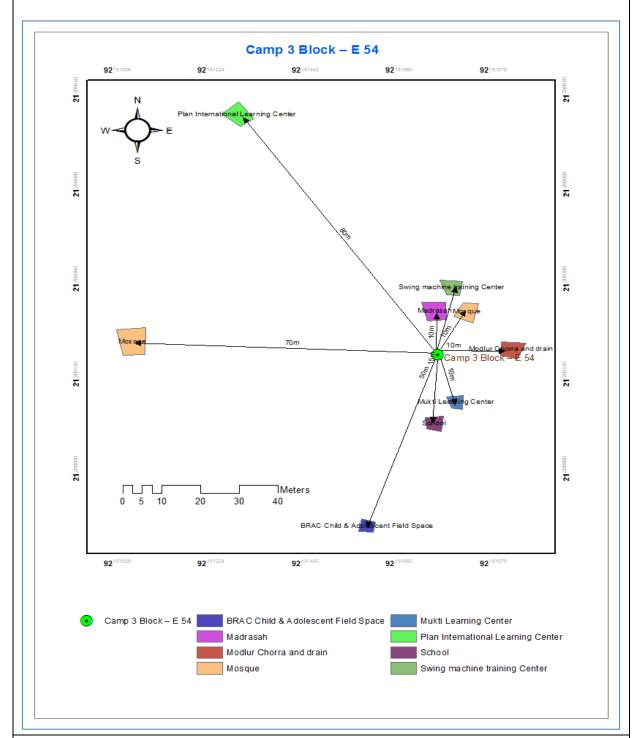
### **B.1**: Environmental feature of sub-project location

Description of cultural properties (if applicable, including distance from site): vSensitive environmental, cultural, archaeological, religious sites near (within the catchment area) of site including elephant migration routes and remaining forests:

To the North there are Madrasah (10m), Mosque (10m), Swing machine training Center (15m) Plan International Learning Center (80m NW), to South there are School (15m), Mukti Learning Center (10m), BRAC Child & Adolescent Field Space (50m), to the East there are Modlur Chorra (10m), Drain (10m) and to the west there is a Mosque (70m). There are no other sensitive environmental, cultural, archaeological sites within the catchment area of this sub-project.



A sketch of the project surrounding area with several features at relatively distant places and locations of sensitive institutions in the project surrounding areas are shown below.



## Location of environmentally important and sensitive areas:

There are no environmentally important or sensitive features found in the footprint and surrounding areas. Several mosques and DRP settlement were found during the survey. It will not be affected by the renovation works, as the activities will be carried out within the existing proposed area boundary and necessary preventive and mitigation measures will be followed during the entire construction period.



## (1) Within/near Elephant Migration Routes Yes/No\*

No. This has been checked based on elephant migration route map established by UNHCR/IUCN (latest updated maps as of 22 February 2018 and later June 05, 2018).

## (2) potential impacts on remaining forests in/around camps Yes/No

N/A (This activity will be confined within the proposed location)

### (3) Other issues: N/A

\*This question needs to be answered by checking the elephant migration route map established by UNHCR/IUCN

### **Baseline air quality and noise levels:**

Ascertaining distinctively the baseline air and noise quality level in respect to any sites at different parts of Cox's Bazar district is nearly impossible because of the huge burden of physical developmental works including roads, bridges, culverts, building structures, markets, jetties, etc. being carried out simultaneously across the areas. Therefore, the apparent baseline of the predevelopment period can only be anticipated and results of visual observation are worth to be presented here.

#### **Dust:**

Ambient air quality data was not readily available, but quality is apparently good due to the appearance of rural vegetative settings around. Dust is slightly generated through movement of pedestrians.

### Noise:

Noise in the Sub-project area is not a major concern because noise level is within the tolerance limit. No vehicles movement can be reported adjacent to proposed location throughout the day generating noise.

## Baseline soil quality:

The Sub-project area is located mainly on red, alluvial, muddy, and sandy soil. The soil developing from the weathered sandstones tend to be sandy to clay loams. Presence of Organic matter content in the soil is moderate.

### Landslide potential (high/medium/low, with explanation):

The nominated location is found to be on plane land. There is no condition found around the selected site which might give reasons for landslides.

### Baseline surface water and groundwater quality (FE, TDS, fecal coliform, pH):

Groundwater is the main source of potable water in the Sub-project area. The shallow depth is about 100 feet to 120 feet and deep tube well depth is 700 to 850 feet. In the sub-project area, deep groundwater is fresh and potable, and arsenic free. Water from the shallower aquifers contains medium concentration of iron. Deep groundwater table (drinkable) varies from 600-800ft (Field survey, 2021). Local people usually use deep tube-well water for drinking and other domestic purposes. There should have been deep tube well which pump water from the confined aquifer.

Groundwater quality: pH-5.17 to 8.51, DO-2.26 to 8.14mg/l, TDS-23.40 to 320 mg/l, EC -25.7 to 681µs/cm, Fe-0.5 to 7.0 mg/l and As-Nil (IWM Study Report, 2019)

## Status of wildlife movement:

N/A (None of the information was found about the wildlife movement in or across the area)



### State of forestation:

No major vegetation containing vegetable crops and small trees found in target location but in surrounding area vegetation coverage was found.

Summary of water balance analysis (For water supply scheme only):

N/A

#### **B.2: Pre-construction Phase**

## Information on Ancillary Facilities (e.g., status of access road or any other facility required for subproject to be viable):

5 feet wide BFS road is available connecting different blocks in the camp area. This can be used for transport and material supply route. This road also connects the Camp-03 CiC office.

## Requirement of accommodation or service amenities (toilet, water supply, electricity) to support the workforce during construction:

Toilet and water supply facilities will be ensured by IRC in the vicinity of the renovation area for all the components of the project. Moreover, electric connection will be established with the accommodation facility.

Electricity is not available in the area. Generator or Solar lamp will need installation

## Possible location of labor camps:

Labor camp will not be necessary for this work.

## Requirement and type of raw materials (e.g., sand, stone, wood, etc.):

No material is necessary in this period of the development.

### Identification of access road for transportation (Yes/No):

5 feet wide BFS road is available connecting different blocks in the camp area. This can be used for transport and material supply route.

### Location identification for raw material storage:

Separate location other than nominated site was not found. Material storage will have to adjust in the selected vicinity.

## Possible composition and quantities of wastes (Solids wastes, demolition materials, sludge from old latrines, etc.):

There is no pre-existing structure which will face demolition. Here, demolition waste will not have to be accounted for. Few leftovers from soil clearing, plastics or residual clearing, and site clearing may be generated.

High = Likely to cause long-term impacts or over large area (>1sqkm); Medium = Likely to cause temporary damage or over moderate area (0.5 to 1sqkm); Low = Likely to cause little, short-term damage and over small area (<0.5sqkm)

## **B.3: Construction Phase**

## Type and quantity of waste generated (e.g., Solids wastes, liquid wastes, etc.):

**Solid waste:** Metal, wood, plastic, rubber, copper wires, etc.

**Quantity:** It is difficult to give exact figures of construction waste produced on a typical construction site. Nonetheless, this site is not subject to pure construction works rather renovation works is needed. In order to approximate the quantity, it is estimated that nearly 1 kg of waste would be generated each working day, which are mainly renovation wastes. Some plastic, paper and organic waste will be generated from the use of workers, though a very negligible amount.



**Liquid waste**: Paint chemicals as paint thinners which contains Volatile Organic Compounds (VOCs) will come out as leftovers. Leftover oils or spills from machinery can be a high probability generating liquid waste.

## Type and quantity of raw materials used (wood, bricks, cement, water, etc.):

**Type:** i) Paints ii) Sand iii) cement iv) bricks/aggravates v) metals vi) water vii) Bamboo & wood viii) clay are the most common type of building material used in construction.

**Quantity**: It is difficult to give exact figures of construction or renovation waste produced on a typical construction site.

## Approx. area (in square meters) of vegetation and soil in the right-of-way, borrow pits, waste dumps, and equipment yards:

Around 1172.48 sq. feet area is needed for this project.

No vegetation is present in targeted footprint area. Specific soil amount is not needed for the project. The current condition explains that there is no aggregated soil on the site. On the other hand, vegetation was found around the proposed area. The vegetation will not be affected by renovation work since scope of works is confined within pre-existing area.

## Possibility of stagnant water bodies in borrow pits, quarries, etc., encouraging for mosquito breeding and other disease vectors: (High/Medium/Low with explanation)

Low. No borrow pit or quarries will be required to dig out during this period in or around/ adjacent to the proposed area.

## Disturbance or modification of existing drainage channels (rivers, canals) or surface water bodies (wetlands, marshes): (High/Medium/Low with description).

Drainage and a small water channel are present on the east side of the location that is not subject to any disturbance from the small-scale works needed for the project.

## Destruction or damage of terrestrial or aquatic ecosystems or endangered species directly or by induced development: (High/Medium/Low with description)

**Low.** The site is free from any aquatic ecosystems or habitats of endangered species. There are some terrestrial flora species around the project site, which will not be affected by the renovation works. So, overall potential effect is very low or absent for this specific sub project.

### Activities that can lead to landslides, slumps, slips and other mass movements in road cuts:

The soil in the proposed site is largely flat, so there is almost no chance to trigger the landslide or any type of mass movement of soil moreover no major construction plan is needed that may induce such incident.

## Erosion of lands below the roadbed receiving concentrated outflow carried by covered or open drains: (High/Medium/Low with description)

N/A

## Describe possible traffic movement impacts on (unwanted) light, noise and air pollution:

No traffic movement impact on light is anticipated.

High = Likely to cause long-term impacts or over large area (>1sqkm); Medium = Likely to cause temporary damage or over moderate area (0.5 to 1sqkm); Low = Likely to cause little, short-term damage and over small area (<0.5sqkm)



### **B.4: Operation Phase**

## Activities leading to health hazards and interference of plant growth adjacent to roads by dust raised and blown by vehicles:

During the operation phase of this project, small amount of dust might be produced by the human traffic through adjacent road; the quantity of dust is expected to be bit high only for a small period. So, causing any health hazards and interference of plant growth is not very likely to happen by such activities for short duration.

Chance of long-term or semi-permanent destruction of soils: (High/Medium/Low with description)
There is no chance of activities during the operation period, which can lead to any long-term or semi-permanent destruction of soils.

## Possibility of odor and water, soil quality impacts from SWM and FSM disposal system: (High/Medium/Low with description)

Low. The proposed WFS will be equipped with full facilities for conducting consultation with women and assisting socially challenged group. It will also be including separate toilets to use as latrine and bathroom for female group only. Moreover, water supply and filtration, storage and other facilities will be ensured. No fecal sludge will be produced for transferring to any disposal system during the operation period. However, to avoid any potential nuisance regular monitoring on sludge management (including toilet and sewage) and periodic cleaning plan must be established and followed. Further, very little amount of solid waste consisting of mainly paper, plastic, polythene, and organic stuffs is likely to be produced in a typical service day and fair number of wastes including organic kitchen wastes will be produced. All these wastes will be stored in covered plastic bins temporarily and later collected and transferred by the agency responsible for waste management services in the proposed area. Therefore, no odor, water and soil quality impacts are generated. Plastic, polythene and other non-biodegradable wastes must be separated from the organic/biodegradable wastes before disposing off underneath the soil and fire service authority should be made aware of this separation and disposal procedure.

## Possibility of stagnant water bodies in borrow pits, quarries, etc., encouraging for mosquito breeding and other disease vectors: (High/Medium/Low with explanation)

There is no possibility for creating borrow-pits, quarries, etc. during the operation phase.

## Likely direct and indirect impacts on economic development in the project areas by the subproject:

Implementation of this WFS substantially contributes to the development of the women community in the project area. It will surely improve the technical skills and psychosocial capacity of women to get them feeling more protective, independent and inspire them participating in different economic and social activities running around them. It in turn increases the chances of business and income of female community in/around the areas and ensures better living conditions with better practical knowledge for their health and offer health facilities. Thus, the direct and indirect impacts on economic development in the project areas for women would be enormous by this facility.

## Extent of disturbance or modification of existing drainage channels (rivers, canals) or surface water bodies (wetlands, marshes): (High/Medium/Low with description)

Drainage channels and a small stream is found on the east side of the project area, but no such effect is anticipated.

Extent of destruction or damage of terrestrial or aquatic ecosystems or endangered species directly or by induced development: (High/Medium/Low with description)



Low. There are no protected areas in or around project sites, and no known areas of ecological interest which can be affected by the daily activity of this facility.

Activities leading to landslides, slumps, slips and other mass movements in road cuts:

N/A

Erosion of lands below the roadbed receiving concentrated outflow carried by covered or open drains: (High/Medium/Low with explanation)

N/A

Describe possible traffic movement impacts on (unwanted) light, noise and air pollution:

The proposed site is located inside camp area. There is a camp road which connects with the location. The location in only accessed during daytime and not heavily used as regular village road so operation period traffic congestion is not expected.

High = Likely to cause long-term impacts or over large area (>1sqkm); Medium = Likely to cause temporary damage or over moderate area (0.5 to 1sqkm); Low = Likely to cause little, short-term damage and over small area (<0.5sqkm)

## **Environmental Screening Form for WFS (Camp 8W)**

Name of Sub-Project: Camp-8W, Block-E, Sub-Block-A 54, Women Friendly Space

Implementing Agency/Agencies: Mukti Cox's Bazar

District: Cox's Bazar Sub-District: Ukhiya Union: Palongkhali

Name of Community/Local Area: Palongkhali, Ward No.-01, Camp-8W, Block-E, Sub-Block-A 54

## Description of proposed sub-project activities (incl. type of activities, footprint area, natural resources required, etc.):

The Sub-Project is categorized as single storied building with tin roof. Proposed structure will have Meeting room, Counselling Room, Mid-Wife Room, Office Room, Corridor, etc. The total area needed for these facilities is around 1440 square feet. However, an existing structure containing a space of 994.19 sq. feet in total is already available at the proposed site which is as spacious as 2471.8 sq.ft. So, additional construction is possible there, if required.

Estimated footprint / land area for this sub-project component is 1440 sq. feet (max.) Available open space including the space for the existing structure: 2471.8 sq. feet

## Brief description of sub-project site: (e.g., present land use, Important Environmental Features (IEFs) near site, etc.:

Proposed WFS is situated within the catchment area of Camp-8W in palongkhali union of Ukhiya Upazila under Ward 1. The proposed location is a pre-built bamboo structure with no environmentally significant concerning feature which may be harmed from the placement of WFS. It falls in camp-8W area having Rohingya settlements in the surrounding area. Few mosques and non-permanent establishments are also present within 500-meter area majority are DRP settlements and learning facilities of different organizations. Most of the surrounding space of this intervention used to be covered with forests. However, migration of these displaced Rohingya population has resulted in barren space and there are no significant eco-sensitive features on the footprint area. No socioeconomic facility as agriculture fields or fish farm are present near this location. The location is set on plane land but on high elevation.

### **Overall Comments**

The proposed WFS is not located within any remarkable environmentally sensitive area and will not cause any severe affect to the environmental settings of the area, thus not going to create intimidation to important environmental features. No drainage congestion/water loggings have been observed in the area. No agricultural productive soil will be used for the purpose. The inputs will be mainly at renovation phase and limited within existing boundary.

People of the project area are very much optimistic about the success of the project and are also eager to participate in the project activities. The subproject is environmentally sustainable and socially acceptable. The local and Rohingya community attended in the participatory public consultation meeting. Their community representatives have no objection to the construction this infrastructure in the proposed site; the community also appreciated the initiative of Mukti Cox's Bazar to ensure safe and secure facility for women community. The public consultation meeting



results confirmed that establishment of this WFS will increase socio security in female communities and make lives easier for these people.

## Types of waste to be generated during construction and operation phase:

The construction period will see minor renovations and small-scale repairing works. Other than that, no major construction is included in any phase of this project. As a result, types of wastes will be limited to plastics, unused wires, wood chips, etc. Amount will be negligible and come as residue. Liquid waste will include chemicals of paint leftovers, thinners, used oil, degreasing solvents etc. Domestic solid wastes will be produced in kitchen of WFS during the operation period; besides, sludge from sewage and fecal wastes will also be generated during both the construction and operational period of the WFS/WGSS.

## Sensitive environmental, cultural, archaeological, religious sites near (within 1km) of site including elephant migration routes and remaining forests:

Within the influence area of the subproject no historical sites were identified. Sensitive environmental, cultural, archaeological, religious sites within half a kilometer. To the North there BRAC Learning Center (50m), BRAC Learning Center (80m), to the South there are Mosque (25m), BRAC Learning Center (100m), Rizda School (100m), Mosque (250m), to the East there are Mosque (200m), BRAC Adolescent Center (200m), BRAC Learning Center (200m NE) and to the west there are BRAC Adolescent Center (100m), and a Mosque (250m). Apart from these structures no other sensitive environmental, cultural, archaeological, religious sites exists.

Mostly Rohingya settlements are found around the proposed area. No disturbance is anticipated due to construction activities to those environmental components. In this sub-project area, no elephant migration routes exist (ref. IUCN). No disturbance is anticipated due to construction activities to those social and environmental components.

## Completed environmental and social screening forms are given below Section A: Sub-Project Overview

Description of sub-project/component interventions:			
This intervention v	vill include the follov	ving items;	
Item	Size (sq.ft)	Item	Size (sq.ft)
Meeting room	329.53	Guard room	35
Counseling room	80.50	Latrine	20
Mid wife room	86.60	Bath room	20
Office room	121.60		
Corridor	111.96		
Open Space	105		
Store room	84		
Also, one tube wel	ll and One water filte	er are included for ensuring s	afe drinking water.



## **Sub-project Location:**

Important Features	
District	Cox's Bazar
Upazila	Ukhiya
Union	Palongkhali
WARD	01
Proposed area size	2,471.80 Sq. ft.
Distance from Upazila HQ	9km
Coordinates	21.19983 <sup>0</sup> N
	92.15229 <sup>0</sup> E

### Land ownership

**Government Land** 

**Expected construction period:** 6 months

Description of project intervention area and project influence area with schematic diagram (where relevant, indicate distance to sensitive environmental areas such as elephant corridors, water bodies, etc. and historical or socio-cultural assets): Please also explain any analysis on alternative location was conducted:

To the North there BRAC Learning Center (50m), BRAC Learning Center (80m), to the South there are Mosque (25m), BRAC Learning Center (100m), Rizda School (100m), Mosque (250m), to the East there are Mosque (200m), BRAC Adolescent Center (200m), BRAC Learning Center (200m NE) and to the west there are BRAC Adolescent Center (100m), and a Mosque (250m). Within the influence area of the proposed location no historical sites were identified. Also, there is no evidence of elephant movement close to subproject location (confirmed by the participants in the consultation meeting).

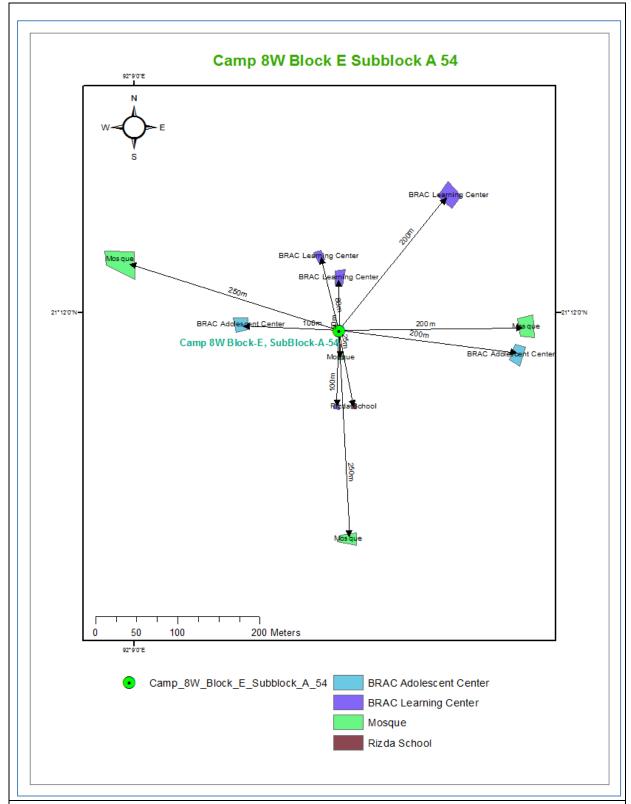
### **Section B: Environmental Screening**

### **B.1**: Environmental feature of sub-project location

Description of cultural properties (if applicable, including distance from site): Sensitive environmental, cultural, archaeological, religious sites near (within the catchment area) of site including elephant migration routes and remaining forests:

To the North there BRAC Learning Center (50m), BRAC Learning Center (80m), to the South there are Mosque (25m), BRAC Learning Center (100m), Rizda School (100m), Mosque (250m), to the East there are Mosque (200m), BRAC Adolescent Center (200m), BRAC Learning Center (200m NE) and to the west there are BRAC Adolescent Center (100m), and a Mosque (250m). There are no other sensitive environmental, cultural, archaeological sites within the catchment area of this sub-project.

A sketch of the project surrounding area with several features at relatively distant places and locations of sensitive institutions in the project surrounding areas are shown below.



## Location of environmentally important and sensitive areas:

There are no environmentally important or sensitive features found in the footprint area. Several mosques, learning centers and DRP settlement were found during the survey. It will not be affected by the renovation works, as the activities will be carried out within the existing proposed area boundary and necessary preventive and mitigation measures will be followed during the entire construction period.



### (1) Within/near Elephant Migration Routes Yes/No\*

No. This have been checked based on elephant migration route map established by UNHCR/IUCN (latest updated maps as of 22 February 2018 and later June 05, 2018).

## (2) potential impacts on remaining forests in/around camps Yes/No

N/A (This activity will be confined within the proposed location)

### (3) Other issues: N/A

\*This question needs to be answered by checking the elephant migration route map established by UNHCR/IUCN

## Baseline air quality and noise levels:

Ascertaining distinctively the baseline air and noise quality level in respect to any sites at different parts of Cox's Bazar district is nearly impossible because of the huge burden of physical developmental works including roads, bridges, culverts, building structures, markets, jetties, etc. being carried out simultaneously across the areas. Therefore, the apparent baseline of the predevelopment period can only be anticipated and results of visual observation are worth to be presented here.

#### **Dust:**

Ambient air quality data was not readily available, but quality is apparently good due to the appearance of rural vegetative settings around. Dust is slightly generated through movement of pedestrians. Natural air action, over the road surface which causes dust circulation.

### Noise:

Noise in the Sub-project area is not a major concern because noise level is within the tolerance limit. No vehicles movement can be reported adjacent to proposed location throughout the day generating noise.

## Baseline soil quality:

The Sub-project area is located mainly on red, alluvial, muddy and sandy soil. The soil developing from the weathered sandstones tend to be sandy to clay loams. Presence of Organic matter content in the soil is moderate.

### Landslide potential (high/medium/low, with explanation):

The nominated location is found to be on plane land. There is no condition found around the selected site which might give reasons for landslides.

## Baseline surface water and groundwater quality (FE, TDS, fecal coliform, pH):

Groundwater is the main source of potable water in the Sub-project area. The shallow depth is about 100 feet to 120 feet and deep tube well depth is 700 to 850 feet. In the sub-project area, deep groundwater is fresh and potable, and arsenic free. Water from the shallower aquifers contains medium concentration of iron. Deep groundwater table (drinkable) varies from 600-800ft (Field survey, 2021). Local people usually use deep tube-well water for drinking and other domestic purposes. There should have been deep tube well which pump water from the confined aquifer.

Groundwater quality: pH-5.17 to 8.51, DO-2.26 to 8.14mg/l, TDS-23.40 to 320 mg/l, EC -25.7 to 681µs/cm, Fe-0.5 to 7.0 mg/l and As-Nil (IWM Study Report, 2019)



## Status of wildlife movement:

N/A (None of the information was found about the wildlife movement in or across the area)

### State of forestation:

No major vegetation containing vegetable crops and small trees found in target location but in surrounding area vegetation coverage was found.

Summary of water balance analysis (For water supply scheme only):

N/A

#### **B.2: Pre construction Phase**

## Information on Ancillary Facilities (e.g., status of access road or any other facility required for subproject to be viable):

4 feet BFS road on the east is available near the site but this road does not connect with location directly. Material delivery is possible but overhead delivery will be needed from at least 200 meters away.

## Requirement of accommodation or service amenities (toilet, water supply, electricity) to support the workforce during construction:

Toilet and water supply facilities will be ensured by Mukti Cox's Bazar in the vicinity of the renovation area for all the components of the project, electric connection will be established with the accommodation facility.

Electricity is not available in the area. Generator or Solar lamp will need installation

## Possible location of labor camps:

Labor camp will not be necessary for this work.

## Requirement and type of raw materials (e.g., sand, stone, wood, etc.):

No material is necessary in this period of the development.

## Identification of access road for transportation (Yes/No):

4 feet wide BFS road on the east is available connecting different blocks in the camp area and only overhead material supply is possible. This location will be accessible through a new camp which is under construction.

### Location identification for raw material storage:

Separate location other than nominated site was not found. Material storage will have to adjust in the selected vicinity.

## Possible composition and quantities of wastes (Solids wastes, demolition materials, sludge from old latrines, etc.):

There is no pre-existing structure which will face demolition. Here, demolition waste will not have to be accounted for. Few leftovers from soil clearing, plastics or residual clearing, and site clearing may be generated.

High = Likely to cause long-term impacts or over large area (>1sqkm); Medium = Likely to cause temporary damage or over moderate area (0.5 to 1sqkm); Low = Likely to cause little, short-term damage and over small area (<0.5sqkm)

## **B.3: Construction Phase**

## Type and quantity of waste generated (e.g., Solids wastes, liquid wastes, etc.):

**Solid waste:** Metal, wood, plastic, rubber, copper wires, etc.

Quantity: It is difficult to give exact figures of construction waste produced on a typical construction



site. Nonetheless, this site is not subject to pure construction works rather renovation works is needed. To approximate the quantity, it is estimated that nearly 1 kg of waste would be generated each working day, which are mainly renovation wastes. Some plastic, paper and organic waste will be generated from the use of workers, though a very negligible amount.

**Liquid waste**: Paint chemicals as paint thinners which contains Volatile Organic Compounds (VOCs) will come out as leftovers. Leftover oils or spills from machinery can be a high probability generating liquid waste.

## Type and quantity of raw materials used (wood, bricks, cement, water, etc.):

**Type:** i) Paints ii) Sand iii) cement iv) bricks/aggravates v) metals vi) water vii) Bamboo & wood viii) clay are the most common type of building material used in construction.

**Quantity**: It is difficult to give exact figures of construction or renovation waste produced on a typical construction site.

## Approx. area (in square meters) of vegetation and soil in the right-of-way, borrow pits, waste dumps, and equipment yards:

Maximum of 1821 sq. feet area is needed for this sub-project component.

No vegetation is present in targeted footprint area. Specific soil amount is not needed for the project. The current condition explains that there is no aggregated soil on the right of way. On the other hand, vegetation was found around the proposed area. The vegetation will not be affected by construction work since scope of works is confined within planned area.

## Possibility of stagnant water bodies in borrow pits, quarries, etc., encouraging for mosquito breeding and other disease vectors: (High/Medium/Low with explanation)

Low. No borrow pit or quarries will be required to dig out during this period in or around/ adjacent to the proposed area.

## Disturbance or modification of existing drainage channels (rivers, canals) or surface water bodies (wetlands, marshes): (High/Medium/Low with description).

No pre-existing water body or natural drainage is present

## Destruction or damage of terrestrial or aquatic ecosystems or endangered species directly or by induced development: (High/Medium/Low with description)

**Low.** The site is free from any aquatic ecosystems or habitats of endangered species. There are some terrestrial flora species around the project site, which will not be affected by the renovation works. So, overall potential effect is very low or absent for this specific sub project.

## Activities that can lead to landslides, slumps, slips and other mass movements in road cuts:

The soil in the proposed site is largely flat, so there is almost no chance to trigger the landslide or any type of mass movement of soil moreover no major construction plan is needed that may induce such incident.

## Erosion of lands below the roadbed receiving concentrated outflow carried by covered or open drains: (High/Medium/Low with description) N/A

## Describe possible traffic movement impacts on (unwanted) light, noise and air pollution:

No traffic movement impact on light is anticipated, but low effects of noise and air pollution may appear resulting from the movement of vehicles carrying construction materials.

High = Likely to cause long-term impacts or over large area (>1sqkm); Medium = Likely to cause temporary damage or over moderate area (0.5 to 1sqkm); Low = Likely to cause little, short-term damage and over small area (<0.5sqkm)



### **B.4: Operation Phase**

## Activities leading to health hazards and interference of plant growth adjacent to roads by dust raised and blown by vehicles:

During the operation phase of this project, small amount of dust might be produced by the human traffic through adjacent road; the quantity of dust is expected to be bit high only for a small period. So, causing any health hazards and interference of plant growth is not very likely to happen by such activities for short duration.

Chance of long-term or semi-permanent destruction of soils: (High/Medium/Low with description)
There is no chance of activities during the operation period, which can lead to any long-term or semi-permanent destruction of soils.

## Possibility of odor and water, soil quality impacts from SWM and FSM disposal system: (High/Medium/Low with description)

Low. The proposed WFS will be equipped with full facilities for conducting consultation with women and assisting socially challenged group. It will also be including separate toilets to use as latrine and bathroom for female group only. Moreover, water supply and filtration, storage and other facilities will be ensured. No fecal sludge will be produced for transferring to any disposal system during the operation period. However, to avoid any potential nuisance regular monitoring on sludge management (including toilet and sewage) and periodic cleaning plan must be established and followed. Further, very little amount of solid waste consisting of mainly paper, plastic, polythene, and organic stuffs is likely to be produced in a typical service day and fair number of wastes including organic kitchen wastes will be produced. All these wastes will be stored in covered plastic bins temporarily and later collected and transferred by the agency responsible for waste management services in the proposed area. Therefore, no odor, water and soil quality impacts are generated. Plastic, polythene and other non-biodegradable wastes must be separated from the organic/biodegradable wastes before disposing off underneath the soil and fire service authority should be made aware of this separation and disposal procedure.

Possibility of stagnant water bodies in borrow pits, quarries, etc., encouraging for mosquito breeding and other disease vectors: (High/Medium/Low with explanation)

There is no possibility for creating borrow-pits, quarries, etc. during the operation phase.

## Likely direct and indirect impacts on economic development in the project areas by the subproject:

Implementation of this WFS substantially contributes to the development of the women community in the project area. It will surely improve the technical skills and psychosocial capacity of women to get them feeling more protective, independent and inspire them participating in different economic and social activities running around them. It in turn increases the chances of business and income of female community in/around the areas and ensures better living conditions with better practical knowledge for their health and offer health facilities. Thus, the direct and indirect impacts on economic development in the project areas for women would be enormous by this facility.

Extent of disturbance or modification of existing drainage channels (rivers, canals) or surface water bodies (wetlands, marshes): (High/Medium/Low with description)

No pre-existing water body or natural drainage is present.

Extent of destruction or damage of terrestrial or aquatic ecosystems or endangered species directly or by induced development: (High/Medium/Low with description)

Low. There are no protected areas in or around project sites, and no known areas of ecological



interest which can be affected by the daily activity of this facility.

Activities leading to landslides, slumps, slips and other mass movements in road cuts:

N/A

Erosion of lands below the roadbed receiving concentrated outflow carried by covered or open drains: (High/Medium/Low with explanation)

N/A

Describe possible traffic movement impacts on (unwanted) light, noise and air pollution:

The proposed site is located inside camp area. There is a camp road which connects with the location. The location in only accessed during daytime and not heavily used as regular village road so operation period traffic congestion is not expected.

High = Likely to cause long-term impacts or over large area (>1sqkm); Medium = Likely to cause temporary damage or over moderate area (0.5 to 1sqkm); Low = Likely to cause little, short-term damage and over small area (<0.5sqkm)



## **Environmental Screening Form for WFS (Camp 13)**

Name of Sub-Project: Camp-13, Block-G, Women and Girls Safe Space

Implementing Agency/Agencies: International Rescue Committee (IRC)

**District**: Cox's Bazar **Sub-District**: Ukhiya **Union**: Palongkhali

Name of Community/Local Area: Palongkhali, Ward No.- 04, Camp-13, Block-G

## Description of proposed sub-project activities (incl. type of activities, footprint area, natural resources required, etc.):

The Sub-Project is categorized as single storied building with tin roof. Proposed structure will have Meeting room, Counselling Room, Mid-Wife Room, Office Room, Corridor etc. The total area needed for these facilities is around 3,792.08 square feet. Moreover, the compound will be surrounded with boundary made of wood and bamboo.

Estimated footprint / land area for this sub-project is 3,792.08 sq. feet Available land area: 3,792.08 sq.feet

## Brief description of sub-project site: (e.g., present land use, Important Environmental Features (IEFs) near site, etc.:

Proposed WGSS is situated within the catchment area of Camp-13 in Palongkhali union of Ukhiya Upazila under Ward 4. The proposed location is a pre-built bamboo structure with no presence of environmentally significant features which may be harmed from the placement of WFS. It falls in camp-13 area having Rohingya settlements in the surrounding area. Few temporary or non-permanent establishments are also present within 500-meter area; majorities are DRP settlements and learning facilities of different organizations. Most of the surrounding space of this intervention used to be covered with forests. However, migration of these displaced Rohingya population has resulted in barren space and there are no significant eco-sensitive features on the footprint area. No facility of economic activities, such as agriculture fields or fish farm are present near this location. The location is set on low land.

### **Overall Comments**

The proposed WFS is not located within any remarkable environmentally sensitive area and will not cause any severe affect to the environmental settings of the area, thus not going to create intimidation to important environmental features. No drainage congestion/water loggings have been observed in the area. No agricultural productive soil will be used for the purpose. The inputs will be mainly at renovation phase and limited within existing boundary.

People of the project area are very much optimistic about the success of the project and are also eager to participate in the project activities. The subproject is environmentally sustainable and socially acceptable. The local and Rohingya community attended in the participatory public consultation meeting. Their community representatives have no objection to the construction this infrastructure in the proposed site; the community also appreciated the initiative of International Rescue Committee (IRC) to ensure safe and secure facility for women community. The public



consultation meeting results confirmed that establishment of this WFS will increase socio security in female communities and make lives easier for these people.

### Types of waste to be generated during construction and operation phase:

The construction period will see minor renovations and small-scale repairing works. Other than that, no major construction is included in any phase of this project. As a result, types of wastes will be limited to plastics, unused wires, wood chips, etc. Amount will be negligible and come as residue. Liquid waste will include chemicals of paint leftovers, thinners, used oil, degreasing solvents etc. Domestic solid wastes will be produced in kitchen of WFS during the operation period; besides, sludge from sewage and fecal wastes will also be generated during both the construction and operational period of the WFS/WGSS.

## Sensitive environmental, cultural, archaeological, religious sites near (within 1km) of site including elephant migration routes and remaining forests:

Within the influence area of the subproject no historical sites were identified. Sensitive environmental, cultural, archaeological, religious sites within half a kilometer includes: To the North there are STC Learning Center (40m), Mosque (50m), to the South there are MSF hospital (40m), Mosque (50m), PHD Hospital (300m), BDRCS Hospital (500m), to the East there is Hill (10m) and to the west there are Ipsha learning Center (60m), Mukti Learning Center (70m). Apart from these structures no other sensitive environmental, cultural, archaeological, religious sites exists.

Mostly Rohingya settlements are found around the proposed area. No disturbance is anticipated due to construction activities to those environmental components. In this sub-project area, no elephant migration routes exist (ref. IUCN). No disturbance is anticipated due to construction activities to those social and environmental components.

## Completed environmental and social screening forms are given below Section A: Sub-Project Overview

Description of sub-project/component interventions:	
This intervention will include the following	g items;
Facility Room	Dimensions (00' X 00')
Session Room (2)	24'X16' sq.ft
SRH Room (1)	24'X12' sq.ft
Staff Room (1)	15'X16' sq.ft
Outreach Room (1)	15' X16' sq.ft
Counselling Room (3)	12'X8' sq.ft
Sterilization Room (1)	8'X6' sq.ft
General Store (1)	24'X8' sq.ft
Store Room (1)	16'X10' sq.ft
Corridor (1)	6' ft
Corridor (1)	8' ft



## **Sub-project Location:**

Important Features	
District	Cox's Bazar
Upazila	Ukhiya
Union	Palongkhali
WARD	04
Proposed area size	3,792.08 Sq. ft.
Distance from Upazila HQ	13 km
Coordinates	21.17840 <sup>0</sup> N
	92.13669 <sup>0</sup> E

### Land ownership

Private Land

**Expected construction period:** 6 months

Description of project intervention area and project influence area with schematic diagram (where relevant, indicate distance to sensitive environmental areas such as elephant corridors, water bodies, etc. and historical or socio-cultural assets): Please also explain any analysis on alternative location was conducted:

To the North there are STC Learning Center (40m), Mosque (50m), to the South there are MSF hospital (40m), Mosque (50m), PHD Hospital (300m), BDRCS Hospital (500m), to the East there is Hill (10m) and to the west there are Ipsha learning Center (60m), Mukti Learning Center (70m). Within the influence area of the proposed location no historical sites were identified. Also, there is no evidence of elephant movement close to subproject location (confirmed by the participants in the consultation meeting).

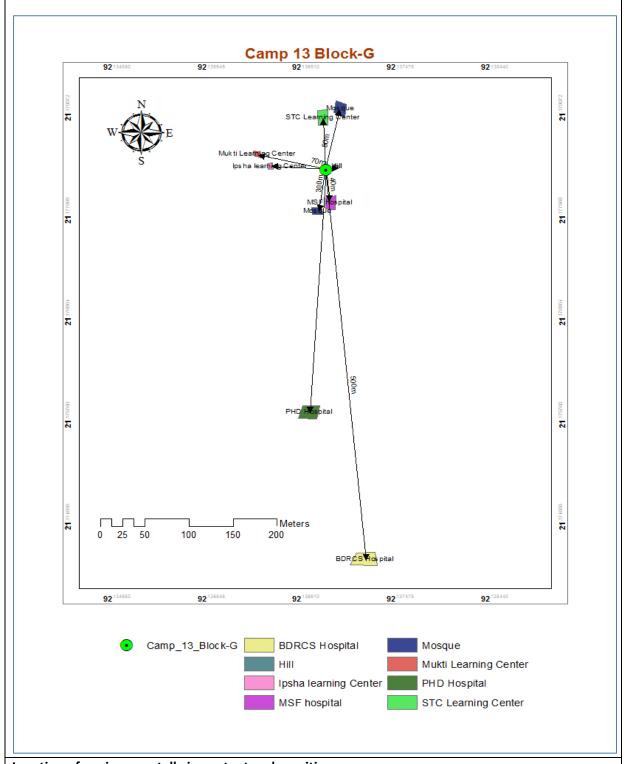
### **Section B: Environmental Screening**

### **B.1**: Environmental feature of sub-project location

Description of cultural properties (if applicable, including distance from site): vSensitive environmental, cultural, archaeological, religious sites near (within the catchment area) of site including elephant migration routes and remaining forests:

To the North there are STC Learning Center (40m), Mosque (50m), to the South there are MSF hospital (40m), Mosque (50m), PHD Hospital (300m), BDRCS Hospital (500m), to the East there is Hill (10m) and to the west there are Ipsha learning Center (60m), Mukti Learning Center (70m). There are no other sensitive environmental, cultural, archaeological sites within the catchment area of this sub-project.

A sketch of the project surrounding area with several features at relatively distant places and locations of sensitive institutions in the project surrounding areas are shown below.



## Location of environmentally important and sensitive areas:

There are no environmentally important or sensitive features found in the footprint area. Several mosques, hospitals, learning centers, and DRP settlement were found during the survey. Those will not be affected by the renovation works, as the activities will be carried out within the existing proposed area boundary and necessary preventive and mitigation measures will be followed during the entire construction period.



### (1) Within/near Elephant Migration Routes Yes/No\*

No. This have been checked on the basis of elephant migration route map established by UNHCR/IUCN (latest updated maps as of 22 February 2018 and later June 05, 2018).

## (2) potential impacts on remaining forests in/around camps Yes/No

N/A (This activity will be confined within the proposed location)

### (3) Other issues: N/A

\*This question needs to be answered by checking the elephant migration route map established by UNHCR/IUCN

## Baseline air quality and noise levels:

Ascertaining distinctively the baseline air and noise quality level in respect to any sites at different parts of Cox's Bazar district is nearly impossible because of the huge burden of physical developmental works including roads, bridges, culverts, building structures, markets, jetties, etc. being carried out simultaneously across the areas. Therefore, the apparent baseline of the predevelopment period can only be anticipated and results of visual observation are worth to be presented here.

### **Dust:**

Ambient air quality data was not readily available, but quality is apparently good due to the appearance of rural vegetative settings around. Dust is slightly generated through movement of pedestrians. Natural air action, over the road surface which causes dust circulation.

### Noise:

Noise in the Sub-project area is not a major concern because noise level is within the tolerance limit. No vehicles movement can be reported adjacent to proposed location throughout the day generating noise.

### **Baseline soil quality:**

The Sub-project area is located mainly on red, alluvial, muddy and sandy soil. The soil developing from the weathered sandstones tend to be sandy to clay loams. Presence of Organic matter content in the soil is moderate.

## Landslide potential (high/medium/low, with explanation):

681µs/cm, Fe-0.5 to 7.0 mg/l and As-Nil (IWM Study Report, 2019)

The nominated location is found to be on plane land. There is no condition found around the selected site which might give reasons for landslides.

### Baseline surface water and groundwater quality (FE, TDS, fecal coliform, pH):

Groundwater is the main source of potable water in the Sub-project area. The shallow depth is about 100 feet to 120 feet and deep tube well depth is 700 to 850 feet. In the sub-project area, deep groundwater is fresh and potable, and arsenic free. Water from the shallower aquifers contains medium concentration of iron. Deep groundwater table (drinkable) varies from 600-800ft (Field survey, 2021). Local people usually use deep tube-well water for drinking and other domestic purposes. There should have been deep tube well which pump water from the confined aquifer. Groundwater quality: pH-5.17 to 8.51, DO-2.26 to 8.14mg/l, TDS-23.40 to 320 mg/l, EC -25.7 to



## Status of wildlife movement:

N/A (None of the information was found about the wildlife movement in or across the area)

### **State of forestation:**

No major vegetation containing vegetable crops and small trees found in target location but in surrounding areas vegetation coverage was found.

Summary of water balance analysis (For water supply scheme only):

N/A

#### **B.2: Pre construction Phase**

## Information on Ancillary Facilities (e.g., status of access road or any other facility required for subproject to be viable):

18 feet camp-13 connecting HBB road on the west is available for access and material delivery. However, the location is on plain lands and vehicles can access easily having enough space.

## Requirement of accommodation or service amenities (toilet, water supply, electricity) to support the workforce during construction:

Toilet and water supply facilities will be ensured by IRC in the vicinity of the renovation area for all the components of the project, electric connection will be established with the accommodation facility.

Electricity is not available in the area. Generator or Solar lamp will need installation.

## Possible location of labor camps:

Labor camp will not be necessary for this work.

## Requirement and type of raw materials (e.g., sand, stone, wood, etc.):

No material is necessary in this period of the development.

## Identification of access road for transportation (Yes/No):

18 feet camp-13 connecting HBB road on the west is available for access and material delivery. However, the location is on plain lands and vehicles can access easily having enough space.

## **Location identification for raw material storage:**

Separate location other than the nominated site was not found. Material storage will have to adjust in the selected vicinity.

## Possible composition and quantities of wastes (Solids wastes, demolition materials, sludge from old latrines, etc.):

There is no pre-existing structure which will face demolition. Here, demolition waste will not have to be accounted for. Few leftovers from soil clearing, plastics or residual clearing, and site clearing may be generated.

High = Likely to cause long-term impacts or over large area (>1sqkm); Medium = Likely to cause temporary damage or over moderate area (0.5 to 1sqkm); Low = Likely to cause little, short-term damage and over small area (<0.5sqkm)

### **B.3: Construction Phase**

### Type and quantity of waste generated (e.g., Solids wastes, liquid wastes, etc.):

**Solid waste:** Metal, wood, plastic, rubber, copper wires, etc.

**Quantity:** It is difficult to give exact figures of construction waste produced on a typical construction site. Nonetheless, this site is not subject to pure construction works rather renovation works is needed. In order to approximate the quantity, it is estimated that nearly 1 kg of waste would be



generated each working day, which are mainly renovation wastes. Some plastic, paper and organic waste will be generated from the use of workers, though a very negligible amount.

**Liquid waste**: Paint chemicals as paint thinners which contains Volatile Organic Compounds (VOCs) will come out as leftovers. Leftover oils or spills from machinery can be a high probability generating liquid waste.

### Type and quantity of raw materials used (wood, bricks, cement, water, etc.):

**Type:** i) Paints ii) Sand iii) cement iv) bricks/aggravates v) metals vi) water vii) Bamboo & wood viii) clay are the most common type of building material used in construction.

**Quantity**: It is difficult to give exact figures of construction or renovation waste produced on a typical construction site.

## Approx. area (in square meters) of vegetation and soil in the right-of-way, borrow pits, waste dumps, and equipment yards:

Around 3,792.08 sq. feet area is needed for this project.

No vegetation is present in targeted footprint area. Specific soil amount is not needed for the project. The current condition explains that there is no aggregated soil on the area. On the other hand, vegetation was found around the proposed area. The vegetation will not be affected by renovation works since scope of works is confined within pre-existing area.

## Possibility of stagnant water bodies in borrow pits, quarries, etc., encouraging for mosquito breeding and other disease vectors: (High/Medium/Low with explanation)

Low. No borrow pit or quarries will be required to dig out during this period in or around/ adjacent to the proposed area.

## Disturbance or modification of existing drainage channels (rivers, canals) or surface water bodies (wetlands, marshes): (High/Medium/Low with description).

A Drainage channel is found on the northern side of the project area, but with a sufficient distance from the site and the extent of intervention will not have any capacity to pose any negative impacts on those.

## Destruction or damage of terrestrial or aquatic ecosystems or endangered species directly or by induced development: (High/Medium/Low with description)

**Low.** The site is free from any aquatic ecosystems or habitats of endangered species. There are some terrestrial flora species around the project site, which will not be affected by the renovation works. So, overall potential effect is very low or absent for this specific sub project.

## Activities that can lead to landslides, slumps, slips and other mass movements in road cuts:

The soil in the proposed site is largely flat, so there is almost no chance to trigger the landslide or any type of mass movement of soil moreover no major construction plan is needed that may induce such incident.

## Erosion of lands below the roadbed receiving concentrated outflow carried by covered or open drains: (High/Medium/Low with description) N/A

## Describe possible traffic movement impacts on (unwanted) light, noise and air pollution:

No traffic movement impact related to light, noise or air pollution is anticipated.

High = Likely to cause long-term impacts or over large area (>1sqkm); Medium = Likely to cause temporary damage or over moderate area (0.5 to 1sqkm); Low = Likely to cause little, short-term damage and over small area (<0.5sqkm)



### **B.4: Operation Phase**

## Activities leading to health hazards and interference of plant growth adjacent to roads by dust raised and blown by vehicles:

During the operation phase of this project, small amount of dust might be produced by the human traffic through adjacent road; the quantity of dust is expected to be bit high only for a small period. So, causing any health hazards and interference of plant growth is not very likely to happen by such activities for a short duration.

Chance of long-term or semi-permanent destruction of soils: (High/Medium/Low with description)
There is no chance of activities during the operation period, which can lead to any long-term or semi-permanent destruction of soils.

## Possibility of odor and water, soil quality impacts from SWM and FSM disposal system: (High/Medium/Low with description)

Low. The proposed WFS will be equipped with full facilities for conducting consultation with women and assisting socially challenged group. It will also be including separate toilets to use as latrine and bathroom for female group only. Moreover, water supply and filtration, storage and other facilities will be ensured. No fecal sludge will be produced for transferring to any disposal system during the operation period. However, to avoid any potential nuisance regular monitoring on sludge management (including toilet and sewage) and periodic cleaning plan must be established and followed. Further, very little amount of solid waste consisting of mainly paper, plastic, polythene, and organic stuffs is likely to be produced in a typical service day and fair number of wastes including organic kitchen wastes will be produced. All these wastes will be stored in covered plastic bins temporarily and later collected and transferred by the agency responsible for waste management services in the proposed area. Therefore, no odor, water and soil quality impacts are generated. Plastic, polythene and other non-biodegradable wastes must be separated from the organic/biodegradable wastes before disposing off underneath the soil and fire service authority should be made aware of this separation and disposal procedure.

## Possibility of stagnant water bodies in borrow pits, quarries, etc., encouraging for mosquito breeding and other disease vectors: (High/Medium/Low with explanation)

There is no possibility for creating borrow-pits, quarries, etc. during the operation phase.

## Likely direct and indirect impacts on economic development in the project areas by the subproject:

Implementation of this WFS substantially contributes to the development of the women community in the project area. It will surely improve the technical skills and psychosocial capacity of women to get them feeling more protective, independent and inspire them participating in different economic and social activities running around them. It in turn increases the chances of business and income of female community in/around the areas and ensures better living conditions with better practical knowledge for their health and offer health facilities. Thus, the direct and indirect impacts on economic development in the project areas for women would be enormous by this facility.

## Extent of disturbance or modification of existing drainage channels (rivers, canals) or surface water bodies (wetlands, marshes): (High/Medium/Low with description)

A small drainage channel is found on the northern side of the project area, but no such effect is anticipated.

Extent of destruction or damage of terrestrial or aquatic ecosystems or endangered species directly or by induced development: (High/Medium/Low with description)



Low. There are no protected areas in or around project sites, and no known areas of ecological interest which can be affected by the daily activity of this facility.

Activities leading to landslides, slumps, slips and other mass movements in road cuts:  $\ensuremath{\text{N/A}}$ 

Erosion of lands below the roadbed receiving concentrated outflow carried by covered or open drains: (High/Medium/Low with explanation) N/A

## Describe possible traffic movement impacts on (unwanted) light, noise and air pollution:

The proposed site is located inside the camp area. There is a camp road which connects with the location. The location in only accessed during daytime and not heavily used as regular village road so operation period traffic congestion is not expected to be significant.

High = Likely to cause long-term impacts or over large area (>1sqkm); Medium = Likely to cause temporary damage or over moderate area (0.5 to 1sqkm); Low = Likely to cause little, short-term damage and over small area (<0.5sqkm)



## **Environmental Screening Form for WFS (Camp-Noyapara NRC)**

Name of Sub-Project: Camp-Noyapara NRC, Block-C, Women Friendly Space

Implementing Agency/Agencies: Mukti Cox's Bazar

**District**: Cox's Bazar **Sub-District**: Teknaf **Union**: Hnila

Name of Community/Local Area: Camp-Noyapara NRC, Block-C, Noyapara, Teknaf

## Description of proposed sub-project activities (incl. type of activities, footprint area, natural resources required, etc.):

The Sub-Project is categorized as semi-pacca bamboo made structured. Proposed structure will have Meeting room, Counseling Room, Mid-Wife Room, Office Room, Corridor etc. The total area needed for these facilities is around 1720.98 square feet. Apart from these, Store room, generator room, Kitchen, Latrine, Bathroom and Psycho Social Support (PSS) room are added in the plan which accounts for 381 square feet area. Moreover, the compound will be surrounded with boundary made of wood and bamboo.

A grandiose area of 7885 Sq. feet has been allocated from the CiC to establish the facility in the area, which offers an opulence space for the WFS facility and to execute their plan of actions.

This selected location will need adjustments if all the service rooms are to be included. This location already has pre-established rooms which will suffice the goal of a WFS facility.

## Brief description of sub-project site: (e.g., present land use, Important Environmental Features (IEFs) near site, etc.:

Proposed WFS is situated within the catchment area of Camp- Noyapara NRC, Block-C in Hnila union of Teknaf Upazila under Ward No. 09. The proposed location is a space with pre-existing structure called Adolescent and Women Safe Space with no environmentally significant concerning feature which may be harmed from the placement of WFS. The facility will be turned to be used as WFS and no demolition is needed. It falls in Camp Noyapara NRC, Block-C area having Rohingya settlements in the surrounding area. Few mosques and non-permanent establishments are also present, within 500-meter area majority are DRP settlements and learning facilities of different organizations. No socio-economic facility as agriculture fields or fish farm are present near this location. The location is situated on low grounds in the camp area.

### **Overall Comments**

The proposed WFS is not located within any remarkable environmentally sensitive area and will not cause any severe affect to the environmental settings of the area, thus not going to create intimidation to important environmental features. No agricultural productive soil will be used for the purpose. The inputs will be mainly at construction phase and limited within project boundary.

People of the project area are very much optimistic about the success of the project and are also eager to participate in the project activities. The subproject is environmentally sustainable and socially acceptable. The Rohingya community attended in the participatory public consultation meeting. Their community representatives have no objection to the construction this infrastructure



in the proposed site; the community also appreciated the initiative of Mukti Cox's Bazar to ensure safe and secure facility for the women community. The public consultation meeting results confirmed that establishment of this WFS will increase social security in female communities and make lives easier for those people.

### Types of waste to be generated during construction and operation phase:

During construction period solid waste will be generated due to construction activities. The types of wastes are brick pit, unused sand, wood, gravels, copper wires, concrete, iron, plastic etc. Negligible amount of plastic will come as residue. Moreover, liquid waste will include chemicals of paint leftovers, motor oils, used oil, degreasing solvents etc. Sludge from sewage and fecal wastes will also be generated during both the construction and operational period of the WFS.

## Sensitive environmental, cultural, archaeological, religious sites near (within 1km) of site including elephant migration routes and remaining forests:

Within the influence area of the subproject no historical sites were identified. Sensitive environmental, cultural, archaeological, religious sites within half a kilometer includes: to the North there are Mosque (400m), Pond (415m), to South there are BRAC Learning Center (200m), Block Mosque (150m), to the East there are Primary Health Care (300m), NGO Offices (320m), CiC office (350m), Police Check post (400m), Muchni Bazar (420m), Teknaf highway (450m), High School (460m), Salt Field (475m), to the North-East there are Madrasah (300m), UNHCR Water Treatment Plant (315m), and to the west there are Pond (15m), Household (25m), Chora (150m), Teknaf Hill (160m). Apart from these structures no other sensitive environmental, cultural, archaeological, religious sites exists.

Mostly Rohingya settlements are found around the proposed area. No disturbance is anticipated due to construction activities to those environmental components. In this sub-project area, no elephant migration routes exist (ref. IUCN). No disturbance is anticipated due to construction activities to those social and environmental components.

## Completed environmental and social screening forms are given below Section A: Sub-Project Overview

Description of sub-project/component interventions:			
This intervention will include the following items;			
Item	Size (sq.ft)	Item	Size (sq.ft)
Meeting room	790.49	Guard room	35
Counseling room	113.83	Generator room	42
Mid wife room	113.83	Phyco-Social Support (PSS) activities	120
Office room	113.83	room	
Corridor	228	Latrine	40
Store room	84	Bath room	40
Also, one tube well and One water filter are included for ensuring safe drinking water.			



## **Sub-project Location:**

Important Features	
District	Cox's Bazar
Upazila	Teknaf
Union	Hnila
WARD	09
Proposed area size	7885 Sq. ft.
Distance from Upazila HQ	13 km
Coordinates	20.954330 N
	92.249510 E

### Land ownership

Private Land

**Expected construction period:** 6 months

Description of project intervention area and project influence area with schematic diagram (where relevant, indicate distance to sensitive environmental areas such as elephant corridors, water bodies, etc. and historical or socio-cultural assets): Please also explain any analysis on alternative location was conducted:

To the North there are Mosque (400m), Pond (415m), to South there are BRAC Learning Center (200m), Block Mosque (150m), to the East there are Primary Health Care (300m), NGO Offices (320m), CiC office (350m), Police Check post (400m), Muchni Bazar (420m), Teknaf highway (450m), High School (460m), Salt Field (475m), to the North-East there are Madrasah (300m), UNHCR Water Treatment Plant (315m), and to the west there are Pond (15m), Household (25m), Chora (150m), Teknaf Hill (160m). Within the influence area of the proposed location no historical sites were identified. Also, there is no evidence of elephant movement close to subproject location (confirmed by the participants in the consultation meeting).

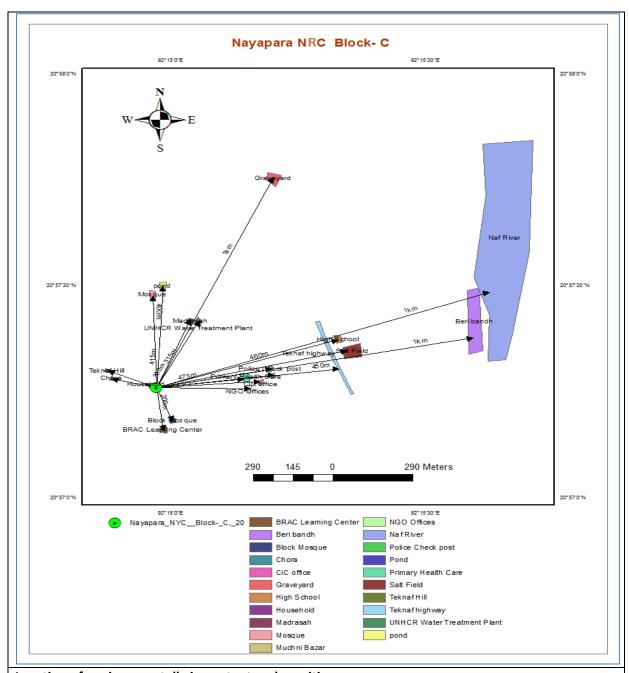
## **Section B: Environmental Screening**

## **B.1**: Environmental feature of sub-project location

Description of cultural properties (if applicable, including distance from site): Sensitive environmental, cultural, archaeological, religious sites near (within the catchment area) of site including elephant migration routes and remaining forests:

To the North there are Mosque (400m), Pond (415m), to South there are BRAC Learning Center (200m), Block Mosque (150m), to the East there are Primary Health Care (300m), NGO Offices (320m), CiC office (350m), Police Check post (400m), Muchni Bazar (420m), Teknaf highway (450m), High School (460m), Salt Field (475m), to the North-East there are Madrasah (300m), UNHCR Water Treatment Plant (315m), and to the west there are Pond (15m), Household (25m), Chora (150m), Teknaf Hill (160m). There are no other sensitive environmental, cultural, archaeological sites within the catchment area of this sub-project.

A sketch of the project surrounding area with several features at relatively distant places and locations of sensitive institutions in the project surrounding areas are shown below.



## Location of environmentally important and sensitive areas:

There are no environmentally important or sensitive features found in the footprint area. Several mosques and local settlement were found during the survey. It will not be affected by the construction works, as the activities will be carried out within the existing proposed area boundary and necessary preventive and mitigation measures will be followed during the entire construction period.

## (1) Within/near Elephant Migration Routes Yes/No\*

No. This have been checked on the basis of elephant migration route map established by UNHCR/IUCN (latest updated maps as of 22 February 2018 and later June 05, 2018).

## (2) Potential impacts on remaining forests in/around camps Yes/No

N/A (This activity will be confined within the proposed location)

## (3) Other issues: N/A

\*This question needs to be answered by checking the elephant migration route map established by UNHCR/IUCN

### Baseline air quality and noise levels:

Ascertaining distinctively the baseline air and noise quality level in respect to any sites at different parts of Cox's Bazar district is nearly impossible because of the huge burden of physical developmental works including roads, bridges, culverts, building structures, markets, jetties, etc. being carried out simultaneously across the areas. Therefore, the apparent baseline of the predevelopment period can only be anticipated and results of visual observation are worth to be presented here.

### **Dust:**

Ambient air quality data was not readily available, but quality is apparently good due to the appearance of vegetative settings around. Dust is slightly generated through movement of vehicles such as motor cycle, tempo, trolley, tractor around the area.

Conducting works at dry season and moving large quantity of materials may create dusts and increase in concentration of vehicle-related pollutants which will affect people who live and work near the sites. The impacts are negative but short-term, site-specific within a relatively small area and reversible/ preventable by mitigation measures.

### Noise:

Noise in the Sub-project area is not a major concern because noise level is within the tolerance limit. Vehicles such as tempo, auto rickshaw, motorbikes, cars, trailer, etc. move around the sub-project location throughout the day generate noise but within tolerable limit in most cases.

### Baseline soil quality:

The Sub-project area is located mainly on red, alluvial, muddy and sandy soil. The soil developing from the weathered sandstones tend to be sandy to clay loams. Presence of Organic matter content in the soil is moderate.

### Landslide potential (high/medium/low, with explanation):

The existing facility is selected as WFS. Few renovation works may be needed which do not induce landslide potentials.

## Baseline surface water and groundwater quality (FE, TDS, fecal coliform, pH):

Supply water by DPHE is the main source of potable water in the Sub-project area. The shallow depth is about 200 feet to 300 feet and deep tube well depth is 600 to 800 feet. In the sub-project area, deep groundwater is fresh and potable, and arsenic free. Water from the shallower aquifers contains medium concentration of iron. Deep groundwater table (drinkable) varies from 600-800ft (Field survey, 2022). Local people usually use deep tube-well water for drinking and other domestic purposes. There should have been deep tube well which pump water from the confined aquifer.

Groundwater quality: pH-5.17 to 8.51, DO-2.26 to 8.14mg/l, TDS-23.40 to 320 mg/l, EC -25.7 to 681µs/cm, Fe-0.5 to 7.0 mg/l and As-Nil (IWM Study Report, 2019)



## Status of wildlife movement:

N/A (None of the information was found about the wildlife movement in or across the area)

### State of forestation:

Patches of vegetation containing vegetable crops and small trees found in target location and in surrounding area of the proposed location which are within 200m radial distance.

Summary of water balance analysis (For water supply scheme only):

N/A

#### **B.2: Pre construction Phase**

Information on Ancillary Facilities (e.g., status of access road or any other facility required for subproject to be viable):

5 feet wide WFS connected BFS road joining with 18 ft. wide NRC Camp Road is available.

Requirement of accommodation or service amenities (toilet, water supply, electricity) to support the workforce during construction:

Toilet and water supply facilities are already present and no major workforce is necessary for that little renovation/construction work.

Electricity is available.

## Possible location of labor camps:

Separate location for labor camp is not needed.

Requirement and type of raw materials (e.g., sand, stone, wood, etc.):

No construction is needed so raw materials as bricks or cement is not needed.

### Identification of access road for transportation (Yes/No):

4.5 feet wide WFS connected BFS road joining with 12 ft. wide NRC Camp Road is available.

## Location identification for raw material storage:

Separate location for raw material is not needed because no construction will take place.

Possible composition and quantities of wastes (Solids wastes, demolition materials, sludge from old latrines, etc.):

No demolition work is needed therefore no waste to be considered. Small renovation will take place which might generate few leftover wires and plastics.

High = Likely to cause long-term impacts or over large area (>1sqkm); Medium = Likely to cause temporary damage or over moderate area (0.5 to 1sqkm); Low = Likely to cause little, short-term damage and over small area (<0.5sqkm)

## **B.3: Construction Phase**

## Type and quantity of waste generated (e.g., Solids wastes, liquid wastes, etc.):

No major construction will take place which may induce waste.

Type and quantity of raw materials used (wood, bricks, cement, water, etc.):

No construction material is needed here.

Approx. area (in square meters) of vegetation and soil in the right-of-way, borrow pits, waste dumps, and equipment yards:

Around 1720.98 sq. feet area is needed for this project which is set by the design by Mukti Cox's Bazar. But this location has sufficient space. Since 7885 sq. feet area is available which is previously established. No vegetation and soil in the right-of-way which should be considered.



Possibility of stagnant water bodies in borrow pits, quarries, etc., encouraging for mosquito breeding and other disease vectors: (High/Medium/Low with explanation)

Low. No borrow pit or quarries will be required to dig out during any phase of this facility.

Disturbance or modification of existing drainage channels (rivers, canals) or surface water bodies (wetlands, marshes): (High/Medium/Low with description).

No pre-existing water body or drainage is present

Destruction or damage of terrestrial or aquatic ecosystems or endangered species directly or by induced development: (High/Medium/Low with description)

No construction site will be arranged which might damage terrestrial or aquatic ecosystems or endangered species. As a matter of fact, there are no terrestrial or aquatic ecosystems or endangered species which might have been in harm's way.

Activities that can lead to landslides, slumps, slips and other mass movements in road cuts:

The existing facility will be used as WFS and no new construction needed. Therefore, no landslide or slips are expected.

Erosion of lands below the roadbed receiving concentrated outflow carried by covered or open drains: (High/Medium/Low with description)

N/A

Describe possible traffic movement impacts on (unwanted) light, noise and air pollution:

No traffic movement impact on light is anticipated, but low effects of noise and air pollution may appear resulting from the movement of vehicles

High = Likely to cause long-term impacts or over large area (>1sqkm); Medium = Likely to cause temporary damage or over moderate area (0.5 to 1sqkm); Low = Likely to cause little, short-term damage and over small area (<0.5sqkm)

#### **B.4: Operation Phase**

# Activities leading to health hazards and interference of plant growth adjacent to roads by dust raised and blown by vehicles:

During the operation phase of this project, small amount of dust and exhaust gas might be produced by the vehicles bound to or passing by the facility through adjacent road; the quantity of dust is expected to be bit high only for a small period of time. So, causing any health hazards and interference of plant growth is not very likely to happen by such activities for a short duration.

Chance of long-term or semi-permanent destruction of soils: (High/Medium/Low with description)
There is no chance of activities during the operation period, which can lead to any long-term or semi-permanent destruction of soils.

# Possibility of odor and water, soil quality impacts from SWM and FSM disposal system: (High/Medium/Low with description)

Low. The proposed WFS will be equipped with full facilities for conducting consultation with women and assisting socially challenged group. It will also be including separate toilets to use as latrine and bathroom for female group only. Moreover, water supply and filtration, storage and other facilities will be ensured. No fecal sludge will be produced for transferring to any disposal system during the operation period. However, to avoid any potential nuisance regular monitoring on sludge management (including toilet and sewage) and periodic cleaning plan has to be established and followed. Further, very little amount of solid waste consisting of mainly paper, plastic, polythene, and organic stuffs is likely to be produced in a typical service day and fair number of wastes including



organic kitchen wastes will be produced. All these wastes will be stored in covered plastic bins temporarily and later collected and transferred by the agency responsible for waste management services in the proposed area. Therefore, no odor, water and soil quality impacts are generated. Plastic, polythene and other non-biodegradable wastes must be separated from the organic/biodegradable wastes before disposing off underneath the soil and fire service authority should be made aware of this separation and disposal procedure.

Possibility of stagnant water bodies in borrow pits, quarries, etc., encouraging for mosquito breeding and other disease vectors: (High/Medium/Low with explanation)

There is no possibility for creating borrow-pits, quarries, etc. during the operation phase.

Likely direct and indirect impacts on economic development in the project areas by the subproject:

Implementation of this WFS substantially contributes to the development of the women community in the project area. It will surely improve the technical skills and psychosocial capacity of women to get them feeling more protective, independent and inspire them participating in different economic and social activities running around them. It in turn increases the chances of business and income of female community in/around the areas, and ensures better living conditions with better practical knowledge for their health and offer health facilities. Thus, the direct and indirect impacts on economic development in the project areas for women would be enormous by this facility.

Extent of disturbance or modification of existing drainage channels (rivers, canals) or surface water bodies (wetlands, marshes): (High/Medium/Low with description)

No existing drainage channels or surface water bodies found in the project area; therefore, no such effect can be anticipated

Extent of destruction or damage of terrestrial or aquatic ecosystems or endangered species directly or by induced development: (High/Medium/Low with description)

Low. There are no protected areas in or around project sites, and no known areas of ecological interest which can be affected by the daily activity of this facility.

Activities leading to landslides, slumps, slips and other mass movements in road cuts: N/A

Erosion of lands below the roadbed receiving concentrated outflow carried by covered or open drains: (High/Medium/Low with explanation) N/A

Describe possible traffic movement impacts on (unwanted) light, noise and air pollution:

The proposed site is located inside camp area. There is a camp road which connects with the location. The location in only accessed during day time not heavily used as regular village road, so traffic congestion in operation period is not expected in high intensity. But it will be wise to have a traffic management incentive.

High = Likely to cause long-term impacts or over large area (>1sqkm); Medium = Likely to cause temporary damage or over moderate area (0.5 to 1sqkm); Low = Likely to cause little, short-term damage and over small area (<0.5sqkm)

### **Appendix-04: Elephant Presence Map**

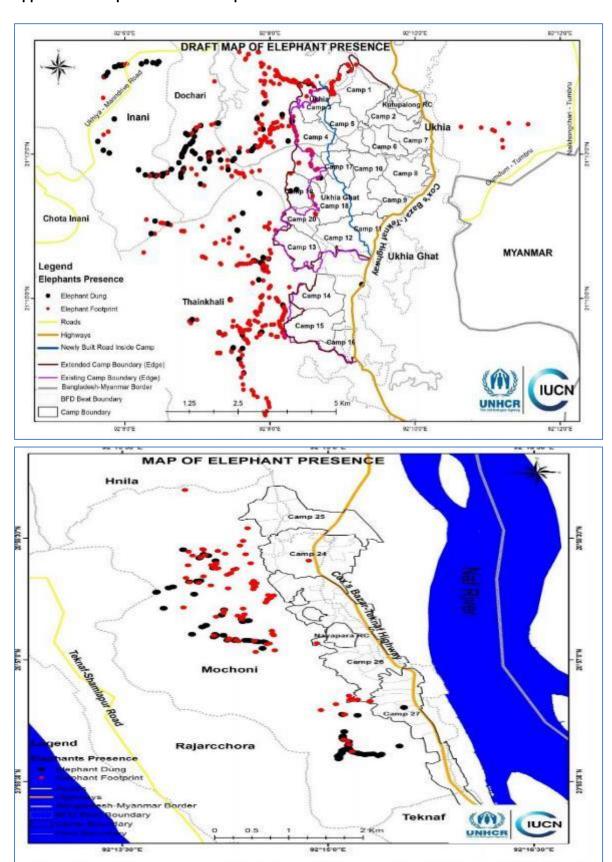


Figure: Elephant presence map (latest information published on 24 May 2018)



Appendix-05: Environmental Screening Summary of the WFS/WGSS works

Section	Main Environmental	Impact Significance*	Suggested Mitigation Measures	Person/Institution Responsible	Monitoring Su	ggestions
	Impacts	5.g			Indicators	Frequency
1: Sub-	Air Quality	Under the	Handling materials in confined	Construction	Location of	Visual
Project		project	spaces so that unnecessary	Contractor;	materials;	monitoring of
Interventions		intervention	dusting does not occur.	monitored by	Number of	air quality and
		the overall	Watering of dry exposed	Mukti Cox's Bazar	complaints from	if requires, air
		score is <b>low</b> .	surfaces and stockpiles of	and IRC	stakeholders;	quality test (CO,
			aggregates at least twice daily,		Covering of trucks;	PM <sub>2.5,10</sub> ) once in
			if necessary.		Records of air	construction
			Requiring vehicles delivering		quality inspection	period in winter
			renovation materials to have			season.
			tarpaulin cover and limiting			
			speed of these vehicles in			
			access roads and work sites.			

Section	Main Environmental	Impact Significance*	Suggested Mitigation Measures	Person/Institution Responsible	Monitoring Su	uggestions	
	Impacts				Indicators	Frequency	
	Soil impacts	Under the subproject intervention, the overall score is low.	<ul> <li>Precautions might be taken when rainstorms are likely or is imminent by forecast, and actions to be taken during or after rainstorms.</li> <li>The earthwork sites where exposed land surface is vulnerable to runoff shall be consolidated and/or covered as required.</li> <li>The material stockpile sites shall be far away from surface water bodies and areas prone to surface run-off. Loose materials shall be bagged and covered.</li> <li>Channels, earth bunds, netting, tarpaulin and or sand bag barriers shall be used on site to manage surface water runoff and minimize erosion.</li> <li>The overall slope of the work areas and construction yards shall be kept to a minimum to reduce the erosive potential of</li> </ul>	Construction Contractor monitored by Mukti Cox's Bazar and IRC	No visible degradation to nearby drainages, khals or water bodies due to soil erosion.  Rain storms in construction phase.	Monitoring on weekly basis.	

Section	Main Environmental	Impact Significance*	Suggested Mitigation Measures	Person/Institution Responsible	Monitoring Su	ggestions	
	Impacts				Indicators	Frequency	
			surface water flows elsewhere.				
			WFS site in Camp 18 will be				
			constructed in a valley at the				
			toe of surrounding hillocks.				
			Threreore, slope protection				
			and other potential hazards				
			during the rainy season have to				
			be kept in mind while				
			constructing the structure				
			there, and also for the				
			operational phase.				

Section	Main Environmental	Impact Significance*	Suggested Mitigation Measures	Person/Institution Responsible	Monitoring Su	ggestions
	Impacts	,		·	Indicators	Frequency
	Hydrology	Under the	All precautions to store	Construction	(i)Areas for	Water quality
	(surface and	subproject	chemicals/oil/fuel properly so that	Contractor	stockpiles, storage	test (mainly
	groundwater)	intervention	no chance of spill.	monitored by	of fuels and	GW) twice
		the overall		Mukti Cox's Bazar	lubricants and waste	during the
		score is <b>low</b> .	Workers must specify waste dump	and IRC	materials	construction
			locations to avoid littering which in		(ii) Records of water	period in six
			turn might negatively affect surface		quality inspection;	months
			and ground water.		Water Quality Test	interval.
					(National Drinking	
			Monitor water quality according to		Water Quality	
			the environmental management		Standard	
			plan.		Parameters) if	
					requires;	
					(iii) No visible	
					degradation to	
					nearby drainages,	
					<i>khals</i> or water	
					bodies due to	
					construction	
					activities.	
					(iv)Records should	
					be kept and logged.	
2: Pre-	Sanitation and	Under the	Provide adequate supplies of	Construction	Site-specific H&S	Visual
construction	water supply	subproject	potable water, and toilet for the	Contractor	Plan;	inspection by
Phase		intervention	assigned labors. Labors can use	monitored by	Records of supply of	PIU and

Section	Main Environmental	Impact Significance*	Suggested Mitigation Measures	Person/Institution Responsible	Monitoring Su	ggestions
	Impacts				Indicators	Frequency
		the overall score is <b>low</b> .	existing toilet facilities of the proposed structure, till to the end of the renovation work.  Records for any type of training or awareness building sessions must be kept at site.	Mukti Cox's Bazar and IRC	uncontaminated water; Record of Health & Safety orientation trainings; Condition of sanitation facilities	supervision consultants on monthly basis
	Transportation	Under the subproject intervention the overall score is low.	Contractor should verify vehicles for the suitability of carrying, loading and unloading of materials.	Construction Contractor monitored by Mukti Cox's Bazar and IRC.	<ul> <li>for workers.</li> <li>Record of regular inspection.</li> <li>Record of accidents/incident s</li> </ul>	Monthly monitoring.
	Storage of construction materials	Under the subproject intervention the overall score is <b>low</b> .	Train concerned person and team assigned for the construction work to ensure items are stored properly and away from steep slopes.	Construction Contractor monitored by Mukti Cox's Bazar and IRC	<ul> <li>List of materials and sources of materials.</li> </ul>	During implementation phase, as necessary through discussion with UNFPA, Consultant.
3: Construction Phase	Wastes	Under the sub- project intervention, the overall	Sludge produced from sewage and toilet must be cleaned properly (if required) and disposed in a controlled sanitary	Construction Contractor monitored by Mukti Cox's Bazar	Complaints from community; Regular inspection of waste	weekly as work progresses

Section	Main Environmental	Impact Significance*	Suggested Mitigation Measures	Person/Institution Responsible	Monitoring Su	ggestions
	Impacts	· ·		•	Indicators	Frequency
		score is <b>low.</b>	way to a designated place with	and IRC	management	
			full consent from Environmental		activity;	
			Specialist of PIU and direct		Waste disposal	
			supervision of EIC during or		record.	
			immediately after the			
			construction period.			
			• Wastes must be placed in the			
			designated bins which must be			
			regularly emptied. These shall			
			remain within demarcated areas			
			and shall be designed to prevent			
			wastes from being blown out by			
			wind.			
			All waste must be removed from			
			the site and transported to a			
			disposal site.			
	Storage of	Protected and	With the assistance from site	Construction	-List of materials	Monthly basis
	materials	safety storage	management committee in Camp	Contractor	and sources of	during
		to be needed	or UNFPA representative to	monitored by	materials;	implementation
		for construction	identify the storage site and other	Mukti Cox's Bazar	-Storage areas for	phase, as
		materials	requirements, following sets of	and IRC	materials and	necessary with
		storage. Not	requirements shall be taken into		equipment.	discussion with
		interrupt	consideration:			UNFPA.
		natural land	Storage area will be sufficiently			
		contours,	spacious so that unloading			

Section		Impact Significance*	Suggested Mitigation Measures	Person/Institution Responsible	Monitoring Su	uggestions
	Impacts	0.8		Порелолого	Indicators	Frequency
		disturbance in	works can be performed inside			
		natural	the area and materials must			
		drainage	not be rest on road side, near			
		patterns and	the water bodies, or trees and			
		logging of	bushes, and will not be located			
		water and the	in any crowded place.			
		overall score is	• Storage area must be well			
		low.	fenced with guard posted at			
			the entrance and at least 30 m			
			distant from any water bodies.			
			Construction materials must			
			not interrupt land contours,			
			natural drainage pattern, and			
			create water logging or			
			depression.			
			Chemicals and hazardous			
			materials including oil, grease,			
			bitumen, etc. shall be kept in a			
			Cement concrete bunded area			
			or on wooden stage covered			
I			with polythene/tarpaulin.			

Section	Main Environmental	Impact Significance*	Suggested Mitigation Measures	Person/Institution Responsible	Monitoring Su	ggestions
	Impacts	5.g		nespensiere	Indicators	Frequency
	Removal of Vegetation (May cause soil erosion and their deposition on nearby crop field, affecting soil quality and	Under the sub- project intervention, the overall score is low.	<ul> <li>If during detailed design cutting of trees is required, compensatory plantation for trees lost at a rate of 5 trees for every tree cut.</li> <li>Prevent workers or any other person from removing and damaging any flora (plant/vegetation) and fauna.</li> </ul>	Construction Contractor monitored by Mukti Cox's Bazar and IRC.	Complaints from community;	Daily
	productivity).  Noise pollution	Under the subproject intervention the overall score is <b>low.</b>	<ul> <li>Consultation with affected people; not to operate noisy equipment during working period;</li> <li>No noisy work after 5.00 pm.</li> <li>Sound suppression for equipment;</li> <li>Ear protection for workers.</li> <li>Conduct noise quality monitoring as per EMP.</li> </ul>	Construction Contractor monitored by Mukti Cox's Bazar and IRC	Number of complaints from stakeholders; Use of silencers in noise-producing equipment and sound barriers.	Inspection by UNFPA and supervision consultants on monthly basis;
	Air pollution	Under the subproject intervention the overall score is <b>low.</b>	Water spraying for dust control; construction materials with potential for significant dust generation shall be covered; no smoke emitting equipment; and	Construction Contractor monitored by Mukti Cox's Bazar and IRC	Location of stockpiles; Number of complaints from stakeholders;	Visual observation and monitoring of air quality during

Section	Main Environmental	Impact Significance*	Suggested Mitigation Measures	Person/Institution Responsible	Monitoring Su	ggestions
	Impacts			•	Indicators	Frequency
			limiting speed of construction vehicles in access roads and work sites to maximum of 20 kph.		Records of air quality inspection, if any.	construction period.
4. Post	Safety/Location signage	Under the issue the overall score is <b>low</b> .	The contractor shall provide, erect and maintain informatory/safety signs written in local language, wherever required or as suggested by the Safety/safeguards personnel of UNFPA.	Construction Contractor monitored by Mukti Cox's Bazar and IRC	Location signage and safety instruments at suitable locations and chainage	Immediately after the construction work is over.
Construction	Tree re plantation, if required	Under the issue the overall score is <b>low</b> .	<ul> <li>Plantation of trees during monsoon period</li> <li>Maintain of trees properly</li> <li>Check survival of trees and replant the dead trees.</li> </ul>	Construction Contractor monitored by Mukti Cox's Bazar and IRC	Number of complaints from stakeholders; Records of trees number and tree plantation inspection.	Immediately after the construction work is over.
5. Operational Phase	Maintenance of facilities and assets	Under the issue the overall score is <b>low</b> .	<ul> <li>Regular maintenance and cleaning of assets shall be undertaken.</li> <li>Sludge produced from sewage and toilet must be cleaned and disposed properly in a periodic and controlled sanitary manner</li> </ul>	Mukti Cox's Bazar and IRC	Number of complaints from stakeholders.	Daily throughout the operational period. Quarterly for Sludge management.



Section	Main Environmental	Impact Significance*	Suggested Mitigation Measures	Person/Institution Responsible	Monitoring Suggestions	
	Impacts	<b>3</b>			Indicators	Frequency
			and under the direct			
			supervision of responsible			
			official from UNFPA/Mukti/IRC.			

<sup>\*</sup> Overall Impact Score: High = Likely to cause long-term E&S impacts; Medium = Likely to cause temporary impacts; Low = Likely to cause little, short-term impacts

<sup>\*\*</sup>Post-construction phase denotes the time period contractor use to clear and clean up the sites after the construction work is ended, perform tree plantation, grass turfing, and minor rectification till the official handing over the site to LGED, or owner of the site.



### Environmental and Social Management Plan (ESMP) for 4 nos. WFS

Project Stage	Potential Environmental &	Proposed Mitigation Measures	Institutional	Supervision
	Social Impacts/Issues		Responsibilities	Responsibility
Pre-Construction Stage	Loss of land / and other physical assets	<ul> <li>No land acquisition is allowed within this sub-project activity so, there is no mitigation measures according to this impact.</li> </ul>	UNFPA	UNFPA
Pre-Construction Stage	Loss of livelihood	Under this subproject, there is no scope of negative impact on livelihoods of the people of catchment area.	Mukti Cox's Bazar and IRC	UNFPA
Pre-Construction Stage	Stakeholders Engagement	<ul> <li>All the project stakeholders will be consulted</li> <li>Consultation meeting with nearby residents about the project objectives and scope of works</li> <li>People living in nearby community will be involved with the GRM</li> </ul>	Mukti Cox's Bazar and IRC	UNFPA
Pre-Construction Stage	Site Selection & implementing interventions: Human-elephant conflict	<ul> <li>Selection of sub-project sites and all implementing interventions must take place outside of the elephant corridor/influence area.</li> </ul>	UNFPA, IRC and Mukti Cox's Bazar	UNFPA
Pre-Construction Stage	Site Preparation: Soil Erosion; Alteration of natural drainage	<ul> <li>Selected site will be away from any water bodies or natural flow path to avoid the flash flood or any kind or surface runoff.</li> <li>Minimize cut &amp; fill operations, the site clearing and grubbing operations should be limited to specific locations only.</li> <li>The existing slope and natural drainage pattern on the site should not be significantly altered.</li> <li>The contractor shall ensure that site preparation activities do not lead to disruption of activities of the local</li> </ul>	IRC, Mukti Cox's Bazar and Contractor	UNFPA

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		residents.  • (In Camp 18) significant considerations should be paid in designing and constructing the WFS structure to avoid any hazardous risks of slope destabilization or water congestion which may cause interruption in operation during and even after a rainy period.		
Construction Activity	Noise from construction works	<ul> <li>Construction activities will be finished at day time within 05 PM. Proper measures will be taken to avoid any disturbances.</li> <li>All Personal Protective Equipment (PPE) will be available in site before starting any kind of construction works.</li> </ul>	Contractor	UNFPA
Construction Activity	Dust	<ul> <li>Construction machinery shall be properly maintained to minimize exhaust emissions of CO, particulate matter (SPM, PM2.5, PM 10) and Hydrocarbons.</li> <li>Provision of using water sprinklers to dust control.</li> <li>Construction materials should be covered properly while carrying in vehicles to the site.</li> </ul>	Contractor	UNFPA
Construction Activity	Safety Issues	<ul> <li>Unauthorized entry to the site area is completely prohibited and the site will be properly fenced with a single entry, for this purpose.</li> <li>It will be ensured that proper training and guidance are provided on general and occupational along with Covid-19 related health and safety, to Contractors' personnel and labor forces, and records of training sessions are to be kept on site.</li> </ul>	Contractor	UNFPA

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		All kinds of Child labor will be completely prohibited.		
Construction Activity	Conflicts with existing users due to the scarcity of resource base.	<ul> <li>If ground water is withdrawn, adequate approvals from the appropriate department need to be undertaken before setting up bore wells.</li> <li>Any type of consent letter or agreement for withdrawing water from either surface or underground sources will be kept on site.</li> <li>Local community must be consulted before any construction work starts.</li> </ul>	IRC, Mukti Cox's Bazar & Contractor	UNFPA
Construction Activity	Labour Management: Conflicts with the local residents (if required)	<ul> <li>Awareness building session will be undertaken about prevention of child abuse, child marriage, GBV, sexual harassment, trafficking of women and children as well as illegal drug trade.</li> <li>Work force should be prohibited from disturbing the flora, fauna including hunting of animals, wildlife hunting, poaching and tree felling.</li> <li>Adequate facilities ensuring sanitation for labors will be put in place.</li> <li>Treated water will be made available at site for drinking purpose.</li> <li>Labor code of conduct is to be disclosed through consultation.</li> </ul>	Contractor	UNFPA
Construction Activity	Waste Management: Improper management and handling of hazardous and	<ul> <li>Waste management issues will cover following aspects:</li> <li>Working areas are kept clean and tidy at all times.</li> <li>Construction site is to be checked for spills of substances</li> </ul>	Contractor	UNFPA

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
	non-hazardous waste during construction.	<ul> <li>i.e. chemical, oil, paint, etc.</li> <li>Bins and/ or skips should be emptied regularly and waste/ debris should be disposed off at waste disposal areas and/ or at the site.</li> <li>Hazardous waste viz. waste oil, etc. will be collected and stored in the paved and bounded area and subsequently sold to authorized recyclers.</li> </ul>		
Construction Activity	<ul> <li>Health &amp; Safety Risks:</li> <li>The potential for exposure to safety events such as tripping, working at height activities, fire from hot works, smoking, failure in electrical installation, mobile plant and vehicles, and electrical shocks.</li> <li>Exposure to health events during construction activities such as manual handling and musculoskeletal disorders, hand-arm vibration, temporary or permanent hearing loss,</li> </ul>	<ul> <li>All construction equipment will be properly inspected timely.</li> <li>The risk assessment will be prepared from time to time for all types of work activities on site.</li> <li>Paint containing harmful substances (e.g., mercury, lead) will not be used for renovation/construction works, and the works will not involve using asbestos containing substances/materials.</li> <li>Fire extinguishers should be located at identified fire points in the site. The extinguishers must be appropriate to the nature of the potential fire.</li> </ul>	IRC, Mukti Cox's Bazar and Contractor	UNFPA

Project Stage	Potential Environmental &	Proposed Mitigation Measures	Institutional	Supervision
	Social Impacts/Issues		Responsibilities	Responsibility
	heat stress, and	All safety equipment will be available in sub-project site		
	dermatitis.	(safety, size, power, efficiency, ergonomics, cost, user		
		acceptability etc.), the lowest vibration tools will be		
		provided that are suitable and can do the works.		
		Awareness training will be given to all personnel involved		
		during the construction phase in order to highlight/make		
		aware of the heat related illnesses of working in hot		
		conditions such as heat cramps, heat exhaustion, heat		
		stroke, and dehydration.		
		Adequate quantities of drinking water will be available at		
		all Sites, on different locations within the site.		
		Provision to maintain proper PPE wherever necessary and		
		to ensure that there are satisfactory washing and		
		changing facilities.		
		Provision to ensure all workers exposed to a risk are		
		aware of the possible dangers and also given thorough		
		training on how to protect themselves and there should		
		be effective supervision to ensure that the correct		
		methods are being used.		
Construction	Pollution of water bodies	Contractor will ensure for taking adequate protective	Contractor	UNFPA
Activity		measures to contain pollutants from reaching any water		
		bodies, and monitoring of nearby surface and		
		underground water bodies for signs of contamination.		

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
Construction Activity	Demobilization of structures, facilities and equipment used during the project implementation period (including site clearance and restoration after the construction). The impacts are similar to those listed in construction stage:  • Pollution from waste materials  • Health & Safety risks to workers and local community.	<ul> <li>Provision to proper measures of mitigation and monitoring to minimize or reduce the environmental and social impacts during demobilization are anticipated to be similar to those identified for the construction phase.</li> <li>Contractor must prepare a waste management plan including relevant directives from "Waste Management Plan Principles" given in next section.</li> </ul>	Contractor	UNFPA
Operation & Maintenance	Odours and pollution caused by leaking latrines and faecal sludge impacting surrounding water bodies, flora and fauna	<ul> <li>Preventative maintenance schedule should be followed.</li> <li>Solid organic wastes should be stored in bins and/ or skips and emptied regularly at a designated waste disposal area away from the site. If no designated site is available within the reach, a dug-hole at a nearby place can be used with periodic filling with soil layer for preventing pollution and generating nutrient rich compost soil over time.</li> </ul>	Mukti Cox's Bazar and IRC	UNFPA
Operation & Maintenance	Maintenance of assets, properties and equipment	<ul> <li>Periodic maintenance of building structures, plumbing, water filtering and electric equipment has to be carried out.</li> </ul>	Mukti Cox's Bazar and IRC	UNFPA

Project Stage	Potential Environmental &	Proposed Mitigation Measures	Institutional	Supervision
	Social Impacts/Issues		Responsibilities	Responsibility
		<ul> <li>Periodic cleaning and maintenance of solar panel, watering to the storage batteries and maintenance/replacing of associated equipment is to be ensured.</li> <li>Fire extinguisher must be kept at each WFS where a kitchen will be operational, and necessary fire related hazard management training and periodic safety drilling should be provided to the employees.</li> <li>Water tanks should be cleaned properly at least once in a quarter.</li> </ul>		

#### **Waste Management Plan:**

The Contractor shall develop a waste management plan for various specific waste streams (e.g., reusable waste, flammable waste, construction debris, food and organic waste etc.) prior to commencing of construction and submit to Mukti Cox's Bazar and IRC for approval. The plans must include following principles or series of actions, which will be carried out/followed by the contractor and supervised by the Field level Safeguards officials from UNFPA.

#### For wastes and renovation debris:

- The quantity of waste materials shall be minimized by 3R (Reduce, Recycle and Reuse) approach, and wastes shall be segregated accordingly, wherever practical; and stored in designated places/facilities in the site.
- Construction site shall be maintained in a cleaner, tidy and safe condition and appropriate facilities shall be provided and maintained as temporary storage of all wastes before transportation and final disposal.
- Hazardous waste viz. waste oil etc. will be collected and stored in a paved and bounded area and subsequently sold to authorized recyclers.
- The scrap material generated from the erection of structures and related construction activities will be collected and stored separately in a separate place and sold to local recyclers. Parts of construction debris (Brick, concrete and masonry) can be recycled as filling materials on the ground or be sold for using as sub-base material or driveway bedding.



- All wastes generated during construction shall be disposed off in an environmentally acceptable manner. This will include consideration of the nature and location of disposal site, so as to cause less environmental impact.
- Other leftover non-hazardous wastes, including construction debris shall be transported to an approved disposal site by pick up tracks or back loaded vehicles with proper care.
- Organic wastes produced in the camp site during the construction period shall be collected and transported in vehicles covered with tarps or nets to prevent spilling waste along the route to the designated disposal site;
- Regular monitoring on sludge management (including toilet and sewage) procedure and periodic cleaning plan has to be established and followed.
- Burning of any type of wastes in the construction site shall be prohibited completely.

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