



**Government of The People's Republic of Bangladesh
Ministry of Local Government, Rural Development and Co-operatives
Department of Public Health Engineering (DPHE)**

**Environment and Social (E&S) Screening Report
on
Construction of Mini Piped Water Supply Scheme at Toitong including O&M**



**Location: Toitong Union, Pekua Upazila, Cox's Bazar
Sub-project: Work Package # EMCRP/AF/WD-22**

Emergency Multi-Sector Rohingya Crisis Response Project (GoB-WB)



Department of Public Health Engineering (DPHE)



Abbreviation and Acronyms:

AF	Additional Finance
BBS	Bangladesh Bureau of Statistics
BHH	Beneficiary Household
BD	Bangladesh
BMD	Bangladesh Meteorological Department
DC	Deputy Commissioner
DO	Dissolved Oxygen
DoF	Department of Forest
DPD	Deputy Project Director
DPHE	Department of Public Health Engineering
DRP	Displaced Rohingya Population
EC	Electrical Conductivity
EMCRP	Emergency Multi-sector Rohingya Crisis Response Project
ERP	Emergency Response Plan
ESMF	Environmental & Social Management Framework
ESMP	Environmental and Social Management Plan
FGD	Focus Group Discussion
GBV	Gender-Based Violence
GoB	Government of The People's Republic of Bangladesh
GRC	Grievance Redress Committee
GRM	Grievance Redress Mechanism
GPS	Global Positioning System
GW	Groundwater
HC	Host Community
HDPE	High Density Polyethylene
IEF	Important Environmental Feature
ISCG	Inter Sector Coordination Group
IUCN	International Union for Conservation of Nature
NGO	Non-Government Organization
LGED	Local Government Engineering Department



LGIs	Local Government Institutes
MPWSS	Mini Piped Water Supply System
PD	Project Director
PM	Particulate Matter
PMU	Project Management Unit
PPE	Personal Protective Equipment
PSC	Project Steering Committee
PTW	Production Tube well
PVC	Polyvinyl Chloride
ROW	Right of Way
RRRC	Refugee Relief and Repatriation Commission
SAE	Sub–Assistant Engineer
SMC	Scheme Management Committee (MPWSS)
SW	Surface water
TDS	Total Dissolved Solids
TSS	Total Suspended Solids
TTW	Test Tube Well
UN	United Nations
UNFPA	United Nations Fund for Population Activities
UNHCR	United Nations High Commissioner for Refugees
uPVC	Un plasticized Polyvinyl Chloride
WASH	Water, Sanitation and Hygiene
WB	World Bank
WDZ	Water Distribution Zone
WFP	World Food Programme



EMCRP (DPHE part)

Environmental and Social Screening Form

Sub-Project Description Form

Introduction: Under additional financing (AF) of Emergency Multi Sector Rohingya Crisis Response Project (EMCRP) 31 nos. of MPWSS will be constructed at different locations of Host communities at seven (07) Upazilasin Cox's Bazar district. In Pekuaupazila of Cox's Bazar around 03 (three) MPWSS has been proposed to be constructed under package *EMCRP_AF/WD_22_HC*, aiming to provide safe water to the doorstep of targeted local host communities.

Under EMCRP ESMF-AF, scheme wise separate E&S screening report will be prepared for Mini Piped Water Supply Scheme. Under the screening process, the concerned E&S safeguard team along with local DPHE officials and LGIs representatives adopted sequential screening process ie. proposed area survey – transect walk, stakeholders & community consultation, preparing meeting resolution. Information was collected on required HH water supply coverage, water quality and availability, electricity facilities, access road, socio economic condition of the area etc. and update screening format accordingly. As land is one of the most important parts for the water supply scheme. So, the required six decimals of land have been arranged (as per ESMF-AF) to construct five-storied pump house building (PTW, scheme office, bill collection booth, reservoir solar system etc.) as top priority of the screening process.

All necessary establishments (PTW, Pump House, Reservoir, space for Solar panel systems etc.) are plan to be constructed in a five storied building that will require at least six (06) decimals of land. As EMCRP neither has the provision of land purchase nor get rent so the required land should be provided by Someone/ institution from his/her own. Providing suitable land is a must requirement of the scheme. The issue was clearly spelt out during stakeholders and community consultations meeting and some local land owner elites committed to donate the land for the scheme following government legal & formal land donation process. Local DPHE, PMU and E&S team visited those committed sites of Toitong, along with UP Chairman, councilors & representatives of different group of community peoples and “*Pondithpara*” location was found as the most suitable among all sites. Later on, the E&S team have conducted several stakeholders' consultation on feasibility and potentiality of this proposed MPWSS scheme over there. Through the consultation session and spot visit, water quality, scarcity, community eagerness it has been revealed that the area is quite feasible to establish the MPWS scheme. The proposed scheme pipe line setup related authorization has been taken from respective land office and LGED and other concerned authorities.

In case of required land provision, the Toitong UP Chairman including all of his members agreed on providing required (around six decimal) land space from UP possessed land located at Toitong area (*Land Ref. BS Ledger - 536; Dhag-589*) to establish this MPWSS pump house & allied five storied structures at this premises. Noted that the land has been officially and legally donated by Mr. Kabir Chowdhury. The E&S team, Local DPHE and UP representatives have discussed with potential elites and WATSAN Committee to arrange the required land as a donation in favor of UP for scheme establishment. This site has been selected for the scheme on the recommendation of all. The E&S screening team facilitated the land allocation process following all required legal procedures of PMU & ESMF criteria of land issue. The UP-consent paper on providing land for Toitong Water Supply Scheme (ward #02) was prepared as a resolution (**document attached**). The land will be utilized for construction of five-storied building as an establishment of MPWSS including pump house, PTW, Reservoir, bill collection booth office, Solar panel installation. To establish the scheme no significant negative impact was found as exists.



The wild life existence and their movement (like Birds, Turtle habitat, Elephant movement corridors and other wild animals etc.) were observed and found neither any negative impact on normal and natural livelihoods nor any social cohesiveness for implementation of the sub project. The area is natural hazards (Cyclone, Flash floods) prone and two (02) active Cyclone Shelter is existing at the proposed areas.

Name of Sub-project: Construction of Toitong Mini Piped Water Supply Scheme (MPWSS) including Operation and Maintenance under (AF/WD_22) for the local Host Community (HC) at Pondithpara Toitong Union (ward # 02) Pekua Upazila, Cox's Bazar District. Noted that the sub-project is going to install the pipelines under the existing ROW.

Implementing Agency/Agencies: Department of Public Health Engineering (DPHE)

Estimated total cost of seven (07) MPWSS sub-project Work Package (in Taka): 250,00,000.00

Estimated construction period duration: 12 (Twelve) months.

Estimated Operation and Maintenance (O&M) period (life of sub-project): The Scheme Management Committee, Local DPHE & Contractor team and Toitong Union Parishad will responsible for Operation and Maintenance. During the project (EMCRP) period operation and maintenance will be borne by the Contractor firm and local DPHE. The households who will get water connection from the water supply scheme will have to pay monthly tariff (defined by SMC) which will be deposited to the scheme's account for operation & maintenance of the scheme in future (after end of the project duration). Noted that the Project Design of MPWSS life is more than 10 (ten) to 15 (Fifteen) years.

District: Cox's Bazar **Sub-District (Upazila):** Pekua **Union:** Toitong

Name of Community/Local Area: Pondithpara village (Ward # 02) areas of Toitong Union, Pekua Upazila, Cox's Bazar District.

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

In the proposed sub-project area of Toitong Mini Piped Water Supply Scheme (MPWSS) activities following interventions would be taken place:

- One Exploratory drilling & Test Tubewell (TTW)
- Installation of one Production Tubewell (PTW)
- One set solar panel Installation (Pump house Roof Top based)
- Five - storied (RCC) building (Pump House, office cum store, water reservoir) construction (The OHS management, labor influx has discussed in details at social screening section)
- One Submersible pump Installation
- Roof top based RCC water reservoir tank (70,000 Lit) Installation
- Iron removal Plant (if needed)
- HDPE pipe networking
- Community house level water collection points, etc.

Estimated footprint / land area for this sub-project: People around 2.00 sq. km (Water Distribution area) of the project area will be benefitted through implementing the scheme. Under the scheme area around 800 nos. house connections will be provided through construction of around 5,000-meter transmission and distribution pipelines for water supply networking system. As per the ESMF E&S screening process the figure of water tank and water collection point or Tap stand is estimated and will be finalized during detailed design stage.



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

Toitong (ward # 02) entire scheme area is observed as a densely habitated communities with different religions and ethnicity. Most of the household pattern of the scheme area were found densely located while some scattered households were found. It is revealed that, both densely & scattered inhabitant will be benefitted from the proposed MPWSS territory. At present the local HC people meets up their daily water requirement from hand tube wells (shallow/ deep) which are mostly iron contaminated.

Minimum 06 decimal of lands to establish PTW, Pump House, Bill collection booth, Reservoir, space for Solar panel systems etc. is essential prerequisite for the scheme. Considering the land as one of the most important parts of the scheme due attention was provided to any sorts of discussion at every stage of the MPWSS. The local DPHE, PMU E&S team representatives visited Toitong union parishad and three (03) consultation meetings conducted with UP Chairman, councilors and Local Elite persons on feasibility and potentiality of this proposed MPWSS scheme over there. Through the consultation and discussion session and proposed spot visit, it has been revealed that the area is quite feasible to establish the Mini Piped Water Supply scheme. In case of required land, UP Chairman including all of his members agreed to provide required (around six decimal) land space from UP possessed land located at Toitong Pondithpara area. (*Land Ref. BS Ledger-536; Dhag-589*) premises. The E&S team, Local DPHE and UP representatives have discussed with potential elites and WATSAN Committee to arrange the required land as a donation in favor of UP for scheme establishment. In this union, in the presence of the union chairman, members, female members and prominent people of the area, it is known that the water level in this area is very low during the dry season, then it is very difficult to get water or water has to be collected from far away. Moreover, the water in this area has a lot of iron and there are many problems in using the water. So, it was decided to do the scheme in this area with everyone's consent. The E&S screening team facilitated the land allocation process following all required legal procedures of PMU & ESMF criteria of land issue. The UP-consent paper on providing land for establishing Toitong Water Supply Scheme was prepared as a resolution (copy attached). Toitong union area is 10.00 sq. km. To establish the scheme no significant negative impact was found.

In the proposed Toitong MPWSS locality 6 Mosques, 2 Madrasas, 1 High School, 4 Primary Schools, 3 KG School, 4 Cyclone shelters, 2 Local Bazars, Grocery shops, Big Trees, Union parishad complex etc. are existed in the scheme area. Apart from those some natural and planted forest land, Beneficiaries household habitat, 11 culverts, HBB and pucca /RCC road (details at Location Map attached) etc. are also found.

Existing Population and household of the scheme area is respectively around 4200 & 800. Herringbone bond/ RCC road (12-15 feet width) and 3 phased electric line are existed very close to the proposed sub-project pump house area. No important Environmental Features (IEFs) were found near to the scheme site. No existing trees, bushes, shelters, wild animal – insect habitat or structures will be affected or removed for implementing of the project.

Overall summary:



The targeted local host community (HC) people of the sub-project area are very much optimistic about the success of the MPWSS sub-project. The sub-project is environmentally sustainable and socially acceptable. The local DPHE, along with PMU Social & Environmental Consultant has conducted **03 (three)** consultation meetings (total 77, M-68, F-9, Disable -0) with host communities and their community representative, WATSAN committee, DPHE SAE & Mechanic, and relevant stakeholders. The outcome of the consultation meeting was getting approval for construction of the Mini Piped Water Supply scheme. During the discussion the participants requested to involve the local community during the construction- installation work. The pump house land has been officially and legally donated by Mr. Kabir Chowdhury in favor of Toitong UP authority. During community consultation meetings, monthly bills for water usage are discussed with local people. In the discussion, the local people agreed to pay the required monthly bills for water use.

In terms of natural, ecological features of the area, it was observed that the territory is surrounded by some low dense scattered forest area. No further significant negative impact is expected on the ecosystem and biodiversity. There is agricultural land/ activities or fish farming, turtle, birds and other wild animals' habitat which will not be disturbed due to establishment of the MPWSS sub-projects. The said scheme construction works (pump house) would be completely restricted within the proposed location of Pondithpara (*Land Ref. BS Ledger-536; Dhag-589*) premises, Toitong union area.



Figure_01: Proposed site of MPWSS PTW & Pump house construction at Toitong Union, Pekua Upazila, Cox's Bazar (Land GPS: Lat 21.852043; Long 91.943131)

Sub-project site selection process:

The E&S team and local DPHE representatives, along with LGIs have conducted feasibility survey through transect walk, FGD, and series of consultation sessions with stakeholders and local targeted communities. During the consultation sessions Detail features of the MPWSS like- Both social & Environmental impact, cost benefit analysis, usefulness, merits, demerits, requirement of Land, monthly tariff for O&M cost to be paid by the users etc. were clearly spelt out among the stakeholders. The Environmental and Social Consultants of PMU engaged for the Scheme, local DPHE Officials along with LGI- UP representatives have visited the proposed area recurrently (Pondithpara) to conduct the MPWSS sub-project screening process. The team visited primarily selected land and location of scheme to construct TTW, PTW, Pipe Line (5000 meter), Pump House, Iron Removal Plant (if needed), Solar panel, Water Reservoir and allied establishments, etc. (Map & drawing attached). Union Parishad meeting discussed land use issues related to pipe line construction. It is said that the permission to use the place through which the pipe line will be taken while making the pipe line and if it is necessary to cut the road, written permission must be obtained from the authority of that road.



The major indicators of site selection criterion for the MPWSS are safe water scarcity territory, ambient GW quality in respect of Fe, As, soil topography, salinity (content & dose illustrated at environmental screening section), targeted population minimum 4200, availability of 6 decimal of land (freely donated by someone or institutions in favor of the scheme management committee and union parishad etc. The site selection has been accomplished following existing site selection criteria of the Government (DPHE). Representative of mass people (irrespective of religion, income level, education, profession, caste etc.) Union parishad, concerned WATSAN committee members, local elites etc. participated in the process along with technical support of local DPHE. Union Parishad meeting discussed land use issues related to pipe line construction. It is said that the permission to use the place through which the pipe line will be taken while making the pipe line and if it is necessary to cut the road, written permission must be obtained from the authority of that road.

Toitong Union MPWSS Management (HC) and WATSAN Committee is the scheme operating focal agency. DPHE is implementing the project with the financial assistance of The World Bank and The Government of Bangladesh. After establishing the proposed Mini Piped Water Supply Scheme in the area about 4200 people will be benefitted through meet up their safe water requirements.

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

During construction phase solid and liquid wastes will be generated due to construction activities. The types of wastes are uPVC pipe, HDPE pipe, concrete, iron, earth, liquid drilling mud, lubricants, chemicals, etc.

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

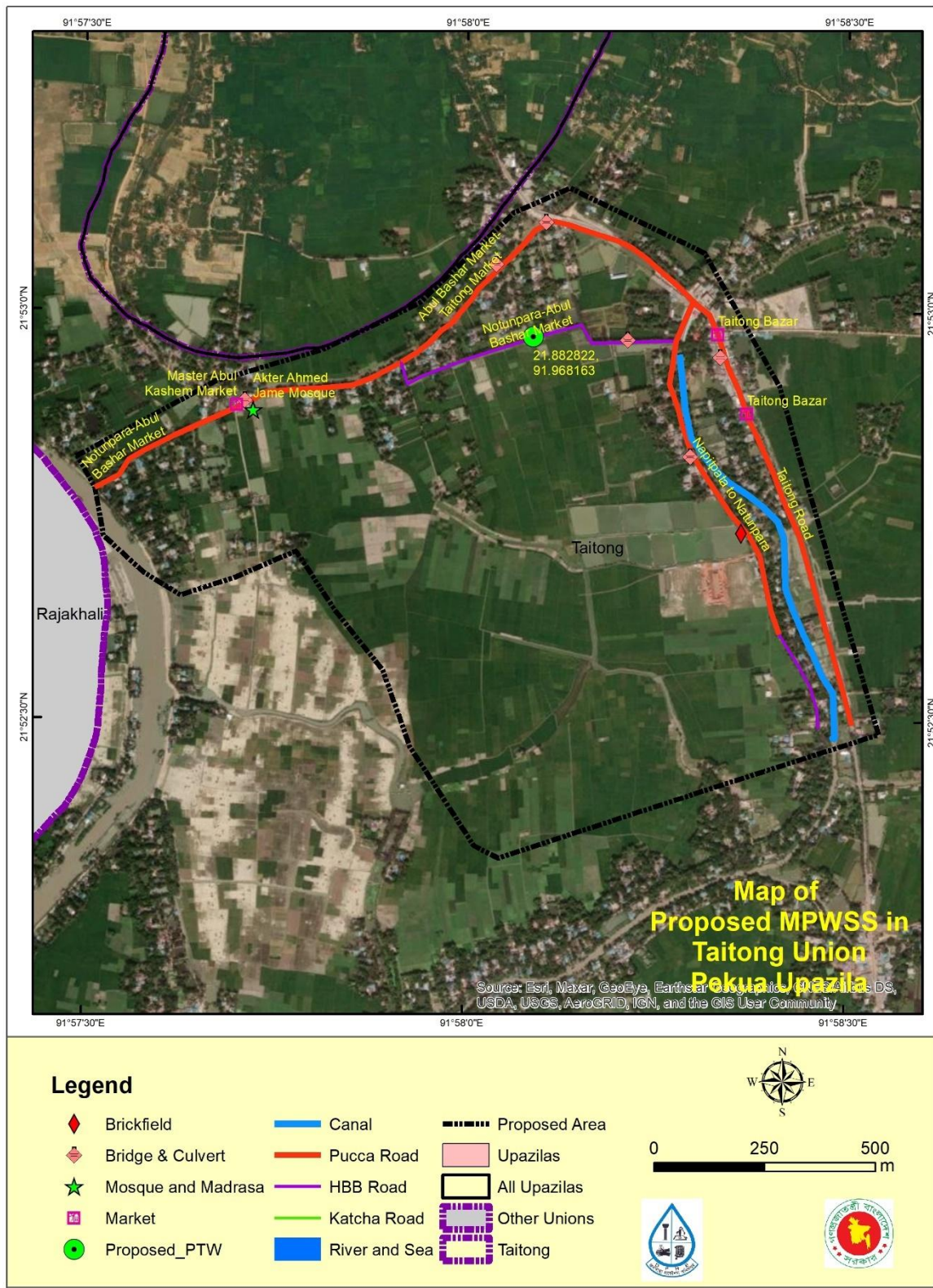
In the proposed Toitong MPWSS locality 6 Mosques, 2 Madrasa, 1 High School, 4 Primary Schools, 3 KG School, 4 Cyclone shelters, 2 Local Bazars, Grocery shops, Big Trees, Union parishad complex etc. are existed in the scheme area. Apart from those some natural and planted forest land, Beneficiaries household habitat, 11 culverts, HBB and pucca /RCC road (details at Map attached) etc. are also found. Kutubdia Channel five (05) km away from proposed scheme areas and local small canal are also exists. Noted that, there is no any possibilities to appear any traffic jam during the construction period which may affect this community property. However, none is going to be affected due to project intervention. No significant environmental or social disturbance is anticipated due to construction activities. In this scheme area, no elephant migration routes exist.



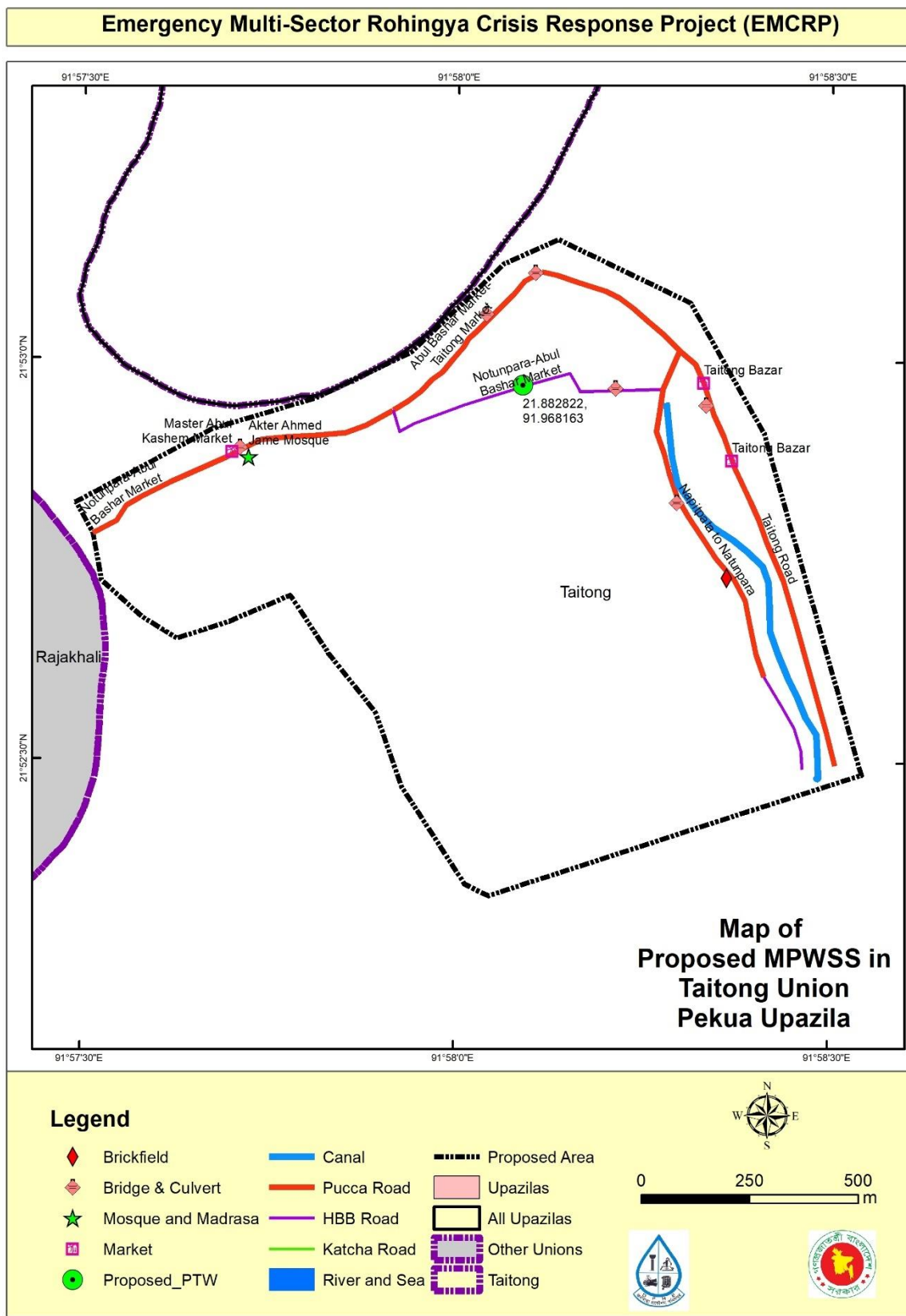
Map_01: Proposed location Map- MPWSS-ToitongUnion, Pekua, Cox's Bazar



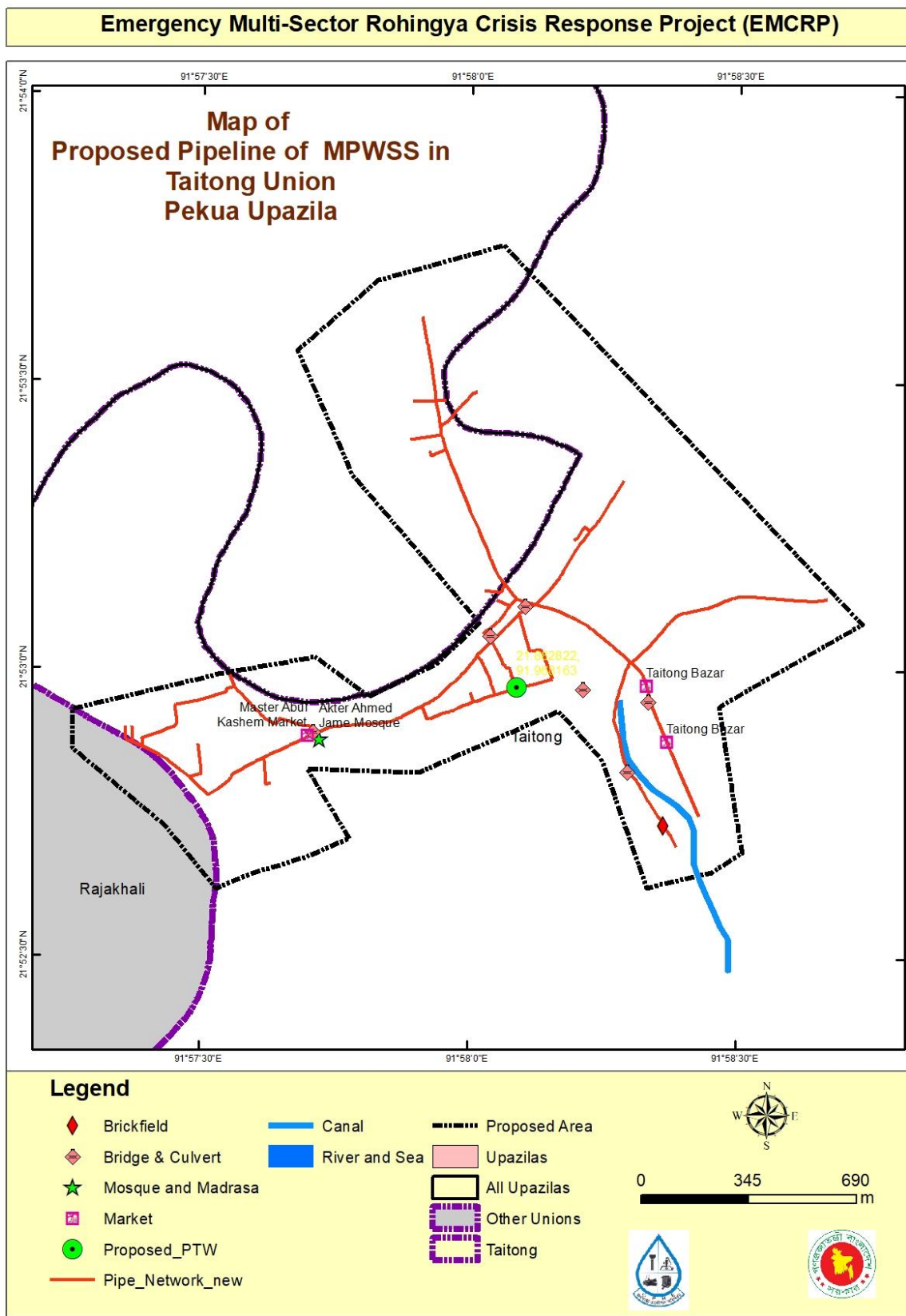
Emergency Multi-Sector Rohingya Crisis Response Project (EMCRP)



Map_02: Proposed location Map (Satellite view) of MPWSS at Taitong Union, Pekua, Cox's Bazar



Map_03: Proposed location Map for MPWSS (PTW & Pump House) at Taitong Union, Pekua, Cox's Bazar



Map_04: Proposed pipeline Map for MPWSSbatToitongUnion, Pekua, Cox's Bazar



Work Package:AF/WD-22(Mini Piped Water Supply Scheme)

Environmental and Social Screening Form

Section A: Sub-Project Overview

Description of sub-project/component interventions:

- One Exploratory drilling & Test Tubewell (TTW)
- Installation of one Production Tubewell (PTW)
- One set solar panel Installation (Pump house Roof Top based). Its contribution to GHG reduction 16.06 Tons per year. (Read more at: [https://www.solarmango.com/in/tools/CO₂-emission-reduction-results/](https://www.solarmango.com/in/tools/CO2-emission-reduction-results/).)
- Five - storied (RCC) building - Pump House, office cum store, water reservoir, solar system construction
- One Submersible pump Installation
- Iron removal Plant (if need)
- Roof top based RCC water reservoir tank(70000 Lit)Installation
- HDPE pipe networking
- Community house level water collection points, etc.

Sub-project Location:

This MPWSS sub-project area is situated at ToitongPondithparaherringbone road side (Land Ref. BS Ledger - 536; Dhag-589) of Toitongunion (ward # 02)for pump house complex construction and the proposed land is legally maintained by the Toitong union parished. Local area covered – Pondithpara (ward # 02)areas ofToitong union, PekuaUpazila, Cox's Bazar District.This selected land is plain and close to the exists herringboneroad (12-15 ft. width).Scheme location surrounds: North- road;South, West &East: Paddy field.

Land ownership:

The required06 decimal Land (for PTW, Pump house)is right now possesses by the Toitong union parished, and was officially and legally donated by Mr. Kabir Chowdhury in favor of Toitong UP authority to establish said sub-project MPWSS. The E&S screening team have been facilitating the land allocation process following all required legal procedures as per PMU & ESMF-AF criteria regarding land issue. The UP-meeting resolution consent paper as meeting resolution (*Annex -03*)on land to provide water supply for Toitong (ward # 02)areas. The required land issue processing was completed as per EMCRP ESMF-AFand formalsystemofUP maintained (Government)land.Noted that a noofficialand use permission/allocation related resolution- Consent note has been accomplished by the UP authorities and Union WATSAN committee.

Expected construction period:12 (Twelve) months.



Description of project intervention area and project influence area with schematic diagram(when relevant, indicate distance to sensitive environmental areas such as elephant corridors, water bodies, etc. and historical or socio-cultural assets):

- i) Adjacent of the scheme site under the project intervention area: Pondithpara(ward # 02) Toitong union, PekuaUpazila, Cox's Bazar district.
- ii) Impacted area: approx.25,000sq. meter (625 decimal),no structures, trees and livelihood willbe affected. As the site allocated for the scheme is flat and elevated, this site will not have any impact on displacement or structure. Do not impact trees or other resources in this area.
- iii) Host community owned structures, habitat relocation is not required.
- iv) Influence area: is within the scheme area of 50,000 sq. meter (Map-2)
- v) Environmental sensitivity: Within the influence area of the sub-project no historical sites were identified. There is no evidence of presence of wild animals(elephants), turtle, birds in the sub-project influence area(cheked with local IUCN representative).

Section B: Environmental Screening

B.1: Environmental feature of sub-project location

Description of cultural properties (if applicable, including distance from site):

The surrounding location status of the pump house site:This selected land is plain low land and close to the exists herringboneroad (10-12 ft. width). Scheme location surrounds: North- road; South, West & East: Paddy field. In the proposed Toitong MPWSS locality exists -6 Mosques, 2Madrasha, 1 High School, 4 Primary Schools, 3 KG School,4 Cyclone shelters, 2 Local Bazars, Grocery shops, Big Trees, Union parished complex etc. are existed in the scheme area. Apart from those some natural and planted forest land, Beneficiaries household habitat, 11 culverts, HBB and pucca /RCC road (details at Location Map attached) etc. are also found. Bay of Bangla five (05) km away from scheme area and there are no other sensitive environmental, cultural, archaeological sites exists within the catchment area of the sub-project.

Location of environmentally important and sensitive areas:

Bay of Bangla five (05) km away from scheme area and Kutubdia Channel Launch Ghat 5.50 km away from scheme area. It is situated on a populous area.Small local canalis very close to the project location. The impacts are negative but small scale, site-specific within a relatively small area and adjustable by mitigation measures.

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



No. There is no existence of Elephant corridor/route of sub-project area. We have been checking the elephant migration route map (map attached) established by UNHCR/IUCN.

(2) Potential impacts on remaining forests in/around unions Yes/No*:

No. At present the area has no natural forest. Some plantation is seen under newly started forestation activities of different organizations.

(3) Other issues:

Nomore mentionable issues raised.

Dust:

Ambient air quality data was not readily available, but quality is apparently good. During day time the number of vehicle movement on the road is too high. Dust is generated in through movement of vehicles such as motor cycle, mini truck, tempo, auto rickshaw, CNG, trolley, tractor etc. over the road surface which causes air pollution.

Noise:

Noise in the sub-project area is not a major concern because noise level is within the tolerance level. Vehicles such motor cycle, mini truck, tempo, auto rickshaw, tractor, trolley, tractor etc. move on the road surface adjacent to sub-project during day and night. These vehicles generate noise adjacent to the sub-project area but tolerable limit in most cases.

Baseline soil quality:

The sub-project area is located mainly in greyishlight brown, muddy & sandy soil formation. The soils 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):

Low. Potential Erosion/land slide may occur if sloping terrains would be constructedfor production well, pump houseand pipes line construction. The impacts are negative but very small scale, site-specific within a relatively small area and can be minimizedby the necessary mitigation measures as per EMSF.

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

Surface water quality:

Nearby the sub-project site there is surface water body but the impacts are negative but very small scale, site-specific within a relatively small area and can be minimized by the necessary mitigation measures as per EMSF.



Groundwater quality:

Groundwater is the main source of potable water in the Sub-project area. The shallow depth is about 150 feet and deep tube well depth is 600ft to 920 ft. In the sub-project area, groundwater is free of saline and arsenic. Shallow tube well of surrounding the sub-project area are iron concentration is little high. pH_7.5 to 8.20, Fe_0.5-6.50mg/l, Mn_0.05-0.50 mg/l, Chloride_120-950mg/l, and As Nil to <0.001 mg/l. (Tube well depth: 600 ft. to 920 ft.) Many shallow tube wells have been installed in the union area. Excessive withdrawals of water from the shallow aquifer resulted drying up the wells.

*Data source: DPHE Secondary data and field survey.

Status of wildlife movement:

Within the Toitong Union (ward # 02), Pekua Upazila, Cox's Bazar area, there was no significant wildlife movement and elephant migration route as per UNHCR-IUCN map.

State of forestation:

It has been observed that, at the proposed areas and surrounding locations some scattered natural forest exists. But man-made tree plantation is covered the targeted HC habitats presents over there.

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

Please consider (i) water requirements of newly forested areas for plants' total evapo-transpiration, (ii) new settlements water supply requirement for drinking water, household use, bathing and sanitation, (iii) replenishment rate from annual rainfall etc.

- i) In the sub-project area, some new plantation has been done by local people and forest department.
- ii) 70 liters/person/day water will be allocated to local targeted community people for drinking water, household use, bathing and sanitation. Therefore, daily approx. 294,000-liter water will be required to serve 4200 nos. of beneficiaries (estimated).
- iii) The average Annual rainfall in Cox's Bazar 3,524.1mm, average relative humidity 80%. Record high temperature was 37.2°C and low was 7.8°C (Data source BMD & BBS)

B.2: Pre-construction Phase

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

Herringbone bond Road is very close to the north side of proposed PTW & Pump house construction location. Other than that, HBB and RCC road, pucca/RCC, earth road runs by the sub-project area which is the most feasible way of carrying construction materials (pipes, rigs, bamboo, bricks, cement, rods, gravel, overhead tank, wooden frame and bentonite sacks, etc.) to the construction site.



<p>Requirement of accommodation or service amenities (toilet, water supply, electricity) to support the work force during construction:</p> <p>Prior to commencement of construction work, contractor will arrange accommodation facilities with toilet, water supply, electricity for the associates' working personnel. If there are women labor proper lighting facilities should arrange (during night time), by using solar light, charger light, etc. If there are women with children, then contractor will arrange child care space in the construction site. Noted that there is plan for need based a child-care space in the construction site for women worker over there. It might be great if a private place (using curtains or whatever is feasible) can be arranged in the child space if any worker needs to breastfeed her child.</p>
<p>Possible location of labor camp:</p> <p>Within the scheme area and very close to the sub-projectsites.</p>
<p>Requirement and type of raw materials (e.g., sand, stone, wood, etc.):</p> <p>i) Bricks, ii) Sand iii) Cement iv) uPVC pipe v) Nut & bolt vi) water vii) Bamboo & wood from mobilized materials by and other electro-mechanical equipment (small welding machine, small generator, etc.) are the most common type materials used in construction.</p>
<p>Identification of access road for transportation (Yes/No):</p> <p>Yes.A 12-15ft wide HBB road and LGED Pucca/RCC Roadclose to the proposed production tubewell and pump house sites. (5 storied RCC structure).</p>
<p>Location identification for raw material storage:</p> <p>Adjacent to the pump house &production well location and very close to the construction sites and away from steep slopes.</p>
<p>Type and quantity of waste generated (e.g., Solids wastes, liquid wastes, etc.):</p> <p>Solid type waste:At pre-construction phase, quantity of generation of waste would be minimum. Because except site clearing work there will have no other source of waste generation significantly.</p> <p>Type: i) Bricks, ii) Sand iii) Cement iv) uPVC pipes v) Nut & bolt vi) PVC solvent cement vii)Bamboo & wood.</p> <p>Quantity:It is difficult to give exact figures of pre-construction waste produced on a mini piped water supply construction site. However, 100 kg of waste may be produced.</p>
<p>Approx. area (in square meters) of vegetation and soil in the right-of-way, borrow pits, waste dumps, and equipment yards:</p> <p>Very little presence of weed-type of vegetation within the proposed construction area (approx.250 sq. meter land) There is no privately/public owned trees or vegetation in proposed construction areas.</p>
<p>Possibility ofstagnantwaterbodiesinborrowpits,quarries,etc.,encouragingformosquitobreedingandotherdisease vectors: (High/Medium/Low with explanation):</p>



Low. Very low possibility of stagnant water bodies accumulation in borrow pits reported around or adjacent to the sub-project area.
Disturbance or modification of existing drainage channels (rivers, canals) or surface water bodies (wetlands, marshes): (High/Medium/Low with description): Low. Small canal or surface water bodies in the sub-project area. But it should not be affected due to pre-construction activities.
Destruction or damage of terrestrial or aquatic ecosystems or endangered species directly or by induced development: (High/Medium/Low with description): Low. Under these scheme establishment interventions, the effect of destruction or damage of lives and endangered species ecosystem is very low in the site area. Species and ecosystems have not been reported whose lives or movement may be disturbed (i.e., Insects – Ant, bees, earthworm, reptiles, turtle, birds etc.) by the scheme activities.
Activities that can lead to landslides, slumps, slips and other mass movements in road cuts: In pre-Construction phase, stock piling of raw materials can lead to localized land slips. The impacts can be minimized by careful selection of stock pile locations and ensuring large amounts are not stored in one place.
Describe possible traffic movement impacts on (unwanted) light, noise and air pollution: No traffic movement impacts on light but low effects of noise and air pollution.

High = Likely to cause long-term impacts or over large area (>1.00sqkm); Medium = Likely to cause temporary damage or over moderate area (0.5 to 1.00 sqkm); Low = Likely to cause little, short-term damage and over small area (<0.50 sqkm)

B.3: Construction Phase

Type and quantity of waste generated (e.g., Solids wastes, liquid wastes, etc.): Solid waste: i) Bricks, ii) Sand iii) Cement iv) HDPE pipes v) uPVC pipes vi) Iron nut & bolt vii) PVC solvent cement viii) Gravel ix) Bamboo & wood and x) Solar Panel. Quantity: It is difficult to give exact figures of construction waste produced on a mini pipe water supply construction site. However, 5,500 kg of waste may be produced. Liquid waste: Drilling mud and drilling fluid waste water. During construction period, fecal sludge will be generated from labor camp. It is difficult to give exact figures of construction waste produced on a mini pipe water supply construction site. However, 8,500 kg of waste may be produced.
Type and quantity of raw materials used (wood, bricks, cement, water, etc.):



<p>Raw materials: i) Bricks, ii) Sand iii) Cement iv) HDPE pipes v) uPVC pipes with fittings vi) Nut & bolt vii) PVC solvent cement viii) gravel ix) water x) plastic tanks xi) Bamboo & wood and xii) Solar panel from mobilized materials by and other electro-mechanical equipment by the concerned contractor firm.</p> <p>Quantity: It is difficult to provide exact figures of construction materials that will be used on a mini pipe water supply construction site. However, 20,900 kg of raw materials may be required. Around 5,000m length of HDPE pipes. Approx. 800 nos. house connection.</p>
<p>Approx. area (in square meters) of vegetation and soil in the right-of-way, borrow pits, waste dumps, and equipment yards:</p> <p>No valuable vegetation presence in proposed sub-project construction sites. So, vegetation will not be affected by construction work.</p>
<p>Possibility of stagnant water bodies in borrow pits, quarries, etc., encouraging for mosquito breeding and other disease vectors: (High/Medium/Low with explanation):</p> <p>Low. Trenches for laying of pipelines will be required. These can potentially store stagnant water for short period of time during and after rain events. The top soils in the sub-project area is sandy and the water should drain away quickly.</p>
<p>Disturbance or modification of existing drainage channels (rivers, canals) or surface water bodies (wetlands, marshes): (High/Medium/Low with description):</p> <p>Low. Small canal or surface water bodies in the sub-project area. But it should not be affected due to construction activities.</p>
<p>Destruction or damage of terrestrial or aquatic ecosystems or endangered species directly or by induced development: (High/Medium/Low with description):</p> <p>Low. Under these scheme establishment interventions, the effect of destruction or damage of lives and endangered species ecosystem is very low in the site area. Species and ecosystems have not been reported whose lives or movement may be disturbed (i.e., Insects –ant, bees, earthworm, reptiles, turtle, birds etc.) by the scheme activities.</p>
<p>Activities that can lead to landslides, slumps, slips and other mass movements in road cuts:</p> <p>Construction of the sub-project components can lead to low scale effects of land slide/slips. The impacts are expected to be negative, short-term, site-specific within a relatively small area and can be minimized by mitigation measures.</p>
<p>Erosion of lands below the road bed receiving concentrated outflow carried by covered or open drains: (High/Medium/Low with description):</p> <p>Low. Potential erosion may occur when moderately to highly sloping terrains are disturbed for the construction of Production Tube wells and pipe lines. The impacts are expected to be negative, small scale, site-specific within a relatively small area and minimized by mitigation measures.</p>



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

No traffic movement impacts on light as all vehicular movement will be during day time. Some temporary, localized effects of noise and air pollution can occur due to truck movements.

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:

In Operation phase of mini-pipe scheme, improper use of personal protective equipment (PPE) and lack of safety procedures may cause injuries. Plant growth adjacent to scheme areas can be affected during maintenance of water supply pipelines. However, this will be a localized and temporary activity.

**Chance of long-term or semi-permanent destruction of soils:
(High/Medium/Low with description):**

Low. Some localized semi-permanent destruction of soils may occur during maintenance of water supply pipelines.

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

Low. Sludge from toilet in pump house and office building will be generated. The sludge will be disposed properly in waste management facilities.

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

Low. There are low possibilities of stagnant water occurring in operation period if exists leakages in the scheme, including overflow of overhead tanks.

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

Local labor will be involved in maintenance activities. Safe drinking water supply will be helpful reduce water scarcity crisis of the host community and improve their health condition.

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

Low. Small canal or surface water bodies in the sub-project area. In few places along the proposed pipe line pucca drains are observed. Impact on this drainage channels minimal because unless dispose of waste into the drains there will be no chance of contaminate the drain water as well as clogged the drainage network.



<p>Extent of destruction or damage of terrestrial or aquatic ecosystems or endangered species directly or by induced development: (High/Medium/Low with description):</p> <p>Low. Operation and maintenance activities of mini-pipe scheme will be localized and temporary in nature. Species and ecosystems have not been reported whose lives or movement may be disturbed (i.e., Insects - Ant, bees, earthworm, reptiles, turtle, birds etc.) by the scheme activities.</p>
<p>Activities leading to landslides, slumps, slips and other mass movements in road cuts:</p> <p>Buried pipe channels can form preferential runoff paths, causing localized erosion. Also, leaking pipes can lead to slope instability.</p>
<p>Erosion of lands below the road bed receiving concentrated outflow carried by covered or open drains: (High/Medium/Low with explanation):</p> <p>N/A</p>
<p>Describe possible traffic movement impacts on (unwanted) light, noise and air pollution:</p> <p>Temporary, localized impacts on noise and air pollution from maintenance vehicles movement can occur. All maintenance works will be conducted during daytime – so no light impacts expected.</p>
<p>Type and Chance of hazards affecting sub-project and labor camp location (e.g., flooding, landslides, cyclones, etc.): (High/Medium/Low with description):</p> <p>Low. Hazard Type(s): Cyclone, Flash Floods and the chance of natural hazards affecting MPWSS structure and labor sheds is Low and only possibility as seasonal based.</p>
<p>Accessibility to the closest disaster shelter (Easy/Difficult with description)</p> <p>In the MPWSS operations phase the accessibility to the closest disaster/ cyclone shelter is almost easy for the community. Noted that three active cyclone shelters, fire service center are closer to the sub-project areas.</p>
<p>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)</p>



Section C: Social Screening

C.1 General Labor Influx Screening

Key Screening questions	Aspects to Consider
Will the project potentially involve an influx of workers to the project location, and will the influx be considered significant for the local community?	No. there will be no significant impact of labor influx in this sub project. The number of total skilled Labor is 10-12 and unskilled labor 12-16. All the skilled and unskilled labor will be engaged from the local community. No additional foreign labor will be engaged. All the skilled labor will be staying at labor shed within the area of intervention. The size of the labor shed will be 280 square feet.
Is the project located in a rural or remote area?	Yes. The project location is in a host community area demarcated by the Local Government (Union Parishad) authority and belongs to the Toitong union level semi forward to remote area. The total scheme population is around 4200. The frequency and extent of the contract, communication between the local community and outsiders are normal, and not specially controlled by the respective LGI (union/upazila) authority.
Based on the socioeconomic, cultural, religious and demographic qualities of the local community, population and the incoming workers, is there a possibility that their presence or interaction with the local community could create adverse impacts?	No. It is expected that the presence of the skilled and unskilled local labor (HC) will not create any adverse impacts. The project will benefit the targeted host communities. There will be a code of conduct for the labors to follow, which will be monitored by the PMU and local DPHE on a regular basis.
Consultation with Host Community People and relevant stakeholders (SH)	During screening and site identification local DPHE and PMU has conducted three (03) consultation meetings with primary and secondary stakeholders. The stakeholders include LGIs (UP Chairman, Councilors, WATSAN committee, Local Elites representatives, Contractor team and targeted host community. This site was selected for the scheme on the recommendation of all. In addition to the above-mentioned meetings, the local DPHE has undertaken many consultations with male and female members of the concerned host communities. Through the coordination and linkage activities of the project, the authorities have accomplished some formal exchange meetings, individual household visits, FGD, Tea Stall discussion and other consultation meetings.



C.2 Land acquisition and stakeholder screening

Probable Involuntary Resettlement Effects	Yes	No	Not Known	Remarks
Involuntary Acquisition of Land/ Land Donation/ Land Taking				
1. Will there be any land acquisition?		√		No. The required Land (for PTW, Pump house building) is possessed by the Toitong union parished as Government land category. This land has been officially & legally donated by present Chairman in favor of Toitong UP authority. There will be no need to acquire or rehabilitate the allotted land for carrying out this scheme. In that case there will be no negative impact on livelihood. So, the E&S Safeguard team adopt the land using permission process (meeting resolution) of UP authority for Toitong MPWSS Scheme, Pekuaupazila.
2. Is the project construction site known?	√			Yes, the land has been selected with the recommendation of UP & Local DPHE and Local land settlement department.
3. Who manage the land?	√			Land is owned / possesses by the Toitong union parished (UP) as Government owned land. No any land acquisition has to be done and as per ESMF-AF formal process. The proposed land is currently empty see site location photos).
4. Will easement be utilized within an existing Right of Way (ROW)? CRP (Common Resource Property)	√			In the proposed HC area provision is available be utilized within an existing Right of Way (ROW) within this proposed MPWSS under EMCRP.
5. Will there be loss of Community people house, agricultural carps, trees, and other productive or fixed assets due to project intervention?		√		No habitat/ shelters will be affected. During construction, if any fixed assets are affected, contractors are responsible to mitigate the impacts. The targeted population is 4200 in the catchment area of Toitong union.
6. Will there be loss of businesses or enterprises due to project intervention?		√		No
7. Will there be loss of income sources and means of livelihoods due to project intervention?		√		No



Involuntary restrictions on land use or on access to legally designated parks and protected areas				
8. Will people lose access to natural resources, communal facilities and services?		√		No
Information on Displaced Persons:				
9. Any estimate of the likely number of persons that will be displaced by the Project? [√] No [] Yes If yes, approximately how many?				
10. Are any of them poor, female-heads of households, or vulnerable to poverty risks? [√]No [] Yes				
11. Are any displaced persons from indigenous or ethnic minority groups? [√] No [] Yes				
During Screening, project authority will conduct consultation with the primary and secondary stakeholders and provide their observations in the following sections (12 to 16)				



12: Who are the stakeholders of the project? Please provide a summary of consultation meetings with stakeholders and the affected community.

Under EMCRP additional Financing MPWSS, sub-project of Toitong union, the key stakeholders are local community, Labors, communities/organizations within the project influence area indirectly affected by project activities. Relevant Government line departments/agencies, Environment and Forest Department, NGOs involved at WASH interventions of the proposed local host communities are also considered as stakeholder. For determining the environmental and social impacts associated with MPWSS sub-project implementation, DPHE, PMU has been providing importance on involving primary and secondary stakeholders of the scheme area. Therefore, to collect local knowledge for baseline conditions, understand perceptions of the community regarding impact significance, propose meaningful mitigation measures during survey of E&S Screening, an attempt has been made to consult with relevant stakeholders and DPHE officials to obtain their views on MPWSS sub-project interventions.

The Community consultation were conducted through a mix of conventional approach which involved as Participatory Community Consultations (PCC), FGD, Key Informant Interview (KII) and one-to one interview, during the environmental and social study of the proposed sub-project in conformity with the WB's ESMF-AF guidelines. However, for better understanding the socio-economic and environmental condition 3 (three) consultations with local community have been conducted in the sub-project study area (**Appendix-2**).

Aiming to establish the MPWSS scheme at UP and DPHE assigned HC area by the respective site management committee, under EMCRP (DPHE part) initially GIS specialist, hydrogeologist located the scheme area, E&S consultants, Local DPHE authority and development partners have conducted a series of consultations with the targeted host community on Social and Environmental safeguard issues, grievance redress mechanism (GRM), possible social environmental and economic effects, livelihoods options, discussions on minimizing the laborer conflict among local host communities, Infrastructure WASH, hygiene, GBV, forestation, elephant corridor, waste, sludge management, benefits of safe drinking water options by establishment of mini piped water supply. Monthly tariff to be provided for O&M cost from whom will get water connection from the Scheme. The respective Local elites, community man & women also participated in the consultations. Code of conduct (CoC) and GRM must be disclosed to all laborers, contractors, adjacent communities before construction starts and orientation must be given on GBV issue, CoC will be monitored by the PMU on a regular basis.

Most of these interventions are to be situated on the HC areas over UP possessed and occupied land. The E&S screening team and local DPHE have followed ESMF-AF and land use and scheme pump house establishment permission note paper are taken from the UP authority followed by formal legal procedure as of PMU consent. As per the HC located MPWSS design six decimals of land (possessed by Toitong UP) is initially proposed as the minimal amount to establish multistoried RCC building structure (5 storied) for PTW, pump house, required solar panels, bill collection booth office, installation / setting up on the spot of proposed Toitong host community.

In the consultation session environmental and social aspects of the project interventions, above-mentioned issues were discussed as potentially occurring at the project sites of the host community. The community welcomed and appreciated the DPHE EMCRP initiatives on WASH sector sub projects. Safe water and improved sanitation were considered as one of their priority needs for secured and better livelihoods aspects. They opined that there is no Elephant corridor and no scope of Elephant/Human conflict over there. Through the consultation meeting, the host community were made aware of and sensitized on E&S safeguard issues, precautions, child safety, any chances of displacement of various structures, relocations of local institutions (mosques, school/ learning centers & others, compensation mechanism if any objection and complaints.

The community consultations were conducted with the following objectives: (i) to intrude awareness of the stakeholders about the MPWSS sub-project and to collect their opinion, suggestions for planning and designing of the sub-project (ii) to identify the need and concern of the local public, (iii) to



13: What social and cultural factors affect the ability of stakeholders to participate or benefit from the proposed policy or project?

None.

14: Are project objectives consistent with their needs, interests and capacity?

Yes, the EMCRP project objectives are consistent with the respective stakeholders, host community, needs, interests and capacity in the project areas.

15: What will be the impact of the project or sub-project on the various stakeholders, especially women and vulnerable groups?

In the whole E&S screening process it has been revealed that a very positive impact would be created by establishing the MPWSS sub-project. The E&S team have considered to reduce the vulnerability of the host community especially the old aged person, disables, children as well the women as the vulnerable group. Under the MPWSS sub-project of the host community, the stakeholder's perception is that the overall project impacts will be positive and they expected to have the project be implemented. The influx is straining existing infrastructure and degrading an already resource-constrained social service delivery system and the environment at HC areas. Access to improved water quality and quantity is a priority. In environmental and social aspects, the adjustment of host communities (HC) in Cox's Bazar. Need based Social Protection system would be organized for the victim vulnerable groups.



16: What social risks might affect project or sub-project success?

As per the visit findings and consultation meeting with targeted host community and different stakeholders, Under the ToitongMPWSS scheme screening process it has been revealed and perceived that some social risks might be occurred to establish the scheme interventions.

Noted that this E&S screening report is prepared exclusively for the proposed ToitongareaMPWSS site for the targeted local host community. In the scheme area around 800 households. Entire area of the scheme is about 2.00sq, km. It is a denselyhabitat host communities with different religions and ethnicity. Most of the household pattern ofthe scheme area were found densely while some scattered households were found. In the proposed areas both densely & scattered inhabitant will be benefitted from the proposed MPWSS. At present the local host community people meets up their daily safe water requirement from hand tube wells (shallow/ deep) to mitigate the scarcity of safe water in this proposed area through installing MPWS scheme. During construction period some social obstacles might be occurred i.e., Road traffic, possibility of theft of construction materials, local and outsider labor or community conflicts etc.

Engagement of laborfrom local hostcommunity may appear as cause of some conflict. In order toimplementthe scheme tasks, additional labor from outside such as technicians will also be engaged which maycause as a risk oflocal social conflict. A complete Gender action plan has already been developed and approved, a full time Social Development consultantfor this project has been assigned to oversee the GBV issues for this MPWSS sub-project. The gender and GBV issues (i.e., human trafficking, eve teasing, etc.) are being addressed through need-basedactivities. As a mitigation measure, the Social Safeguard team and grievance redress committee (GRC)will be developed. The respective ESMF-AF based GRM, is keeping abreast on GBV occurrencesandwill guide the community through consultation meetings and counseling. Given the sensitivities in the HC areas on social, cultural, religious, gender, disabilities, orphaned and vulnerable children. However,byadopting the project E&S safeguard and through community consultation, the LGIs-UP,community leader and local DPHE representatives may determine possible ways and options to overcome and mitigate the constraints and risks during the scheme implementation.



C.3. Social Capital Format

The objective is to list various types of social institutes/bodies working in the host community, intended project influence areas to enlist them for the possible inclusion in the management, and monitoring of the projects. List the name of social institutes/ bodies under the given categorization along with the following information. Use separate sheet for each category of social institute/body. The information can be collected through secondary sources such as LGIs and UN agencies or different development organizations that are involved with the Rohingya crisis projects, etc.

Type of Social Institutes/bodies	Name of Institution	Contact Person and Address	Primary areas of Work	Coverage areas in the communities
Government Organizations	UNO	Purbita Chakma UNO, Pekua Upazila unoPekua@gmail.com	Overall Coordination of GOB dept, LHIs, Dev partners, NGO, INGO, UN Agencies, Volunteer. HH shelter, F/NFIs, WASH facilities, Education, Health, Livelihoods, Social security, power sources, renewable energy.	Synchronizing with Host, E&S aspects, Elephant corridors, conserve NR. Establish proper road communication.
	DPHE	Joy Prakash Chakma Sub-Assistant Engineer, DPHE Pekua upazila, Cox's Bazar, joyprakashdphe@gmail.com		
	DC	Md. Mustafizur Rahman Executive Engineer DPHE, Cox's Bazar, xendphecobazar@gmail.com Md. Mamunur Rashid DC, Cox's Bazar dccobazar@mopa.gov.bd		
LGIs	Upazila Chairman	Jahangir Alam Pekua, UZ Chairman, Cox's Bazar		
	Union Parishad Chairman	Md. Jahidul Islam Chowdhury Chairman, Toitong UP, Pekua Cox's Bazar		



Type of Social Institutes/bodies	Name of Institution	Contact Person and Address	Primary areas of Work	Coverage areas in the communities
National Organizations	Not yet on boarded	the database web link https://www.humanitarianresponse.info/en/operations/bangladesh/document/wash-sector-coxs-bazar-members-contact-list-17-october-2017		
Volunteer Organizations are those, which constitute the members of the community working towards social development.	Not yet involved	N\ A. Prohibited by the GoB.	Ensuring HC HH shelter, F/NFIs, WASH facilities, Education, Livelihoods, Social security, Health, power sources, renewable solar energy.	



SectionD: Environmental and Social Screening Summary

Environmental Screening Summary:

Based on the above environmental and social screening, potential impact for implementing the proposed intervention on different parameters of environment and social with consequence mitigation measures and suggestive monitoring plan with mentioning the responsibilities parties of implementation and supervise the sub-project have been summarized as below:

Section	Main Env. and Social Impacts	Impact Significance*	Suggested Mitigation Measures	Person/ Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
1: Sub-Project Interventions	Air Quality	Under the subproject intervention the overall score is low .	<ul style="list-style-type: none"> Limiting earthworks; Watering of dry exposed surfaces and stockpiles of aggregates at least twice daily, as necessary; (spreading of crushed gravel over backfilled surfaces; Limiting speed of construction vehicles in access roads and work sites to maximum of 20 kph. More details provided in ESMP 	Construction Contractor monitored by Environmental Consultant of PMU	<ul style="list-style-type: none"> Location of stockpiles; Number of complaints from stakeholders; Covering of trucks; Records of air quality inspection; 	Air quality test (CO, PM _{2.5} and PM ₁₀) once in construction period in winter season.
	Soil Erosion	Under the sub-project intervention, the overall score is low .	<ul style="list-style-type: none"> Precautions to be taken when rainstorms are likely, when a rainstorm is imminent or forecast, and actions to be taken during or after rainstorms shall be developed by the Contractor. The earthwork sites where exposed land surface is 	Construction Contractor monitored by Environmental Consultant of PMU	<ul style="list-style-type: none"> No visible degradation to nearby drainages, Khals or water bodies due to soil erosion. 	Weekly, especially after rain events.



Section	Main Env. and Social Impacts	Impact Significance*	Suggested Mitigation Measures	Person/ Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
			<p>vulnerable to runoff shall be consolidated and/or covered.</p> <ul style="list-style-type: none"> Channels, earth bunds, netting, tarpaulin and or sand bag barriers shall be used on site to manage surface water runoff and minimize erosion. The overall slope of the works areas and construction yards shall be kept to a minimum to reduce the erosive potential of surface water flows elsewhere. More details provided in ESMP 			
	Hydrology (surface and groundwater)	Under the sub-project intervention, the overall score is low .	<ul style="list-style-type: none"> All precautions to store chemicals/oil/fuel properly so that no chance of spill. Proper disposal of excess bleaching power and care should be taken to follow the appropriate procedure for chlorination. Monitor water quality according to the environmental management plan. Ensure drilling equipment is cleaned well and will be free 	Construction Contractor and monitored by Environmental Consultant of PMU	<ul style="list-style-type: none"> Areas for stockpiles, storage of fuels and lubricants and waste materials; Records of water quality inspection; Water Quality Test (National Drinking Water Quality Standard Parameters); No visible degradation to 	<p>Water quality test (SW & GW) once in construction period and Operation period.</p> <p>Training records reviewed quarterly</p>



Section	Main Env. and Social Impacts	Impact Significance*	Suggested Mitigation Measures	Person/ Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
			<p>of contaminants such as grease, and chemicals, prior to drilling; and properly dispose of spoils and wastes at the end of each day's work.</p> <ul style="list-style-type: none"> • More details provided in ESMP 		<p>nearby drainages, khals or water bodies due to construction activities.</p> <ul style="list-style-type: none"> • For surface water quality parameters: pH, EC, TSS, FC. • For groundwater quality parameters: pH, TDS, Chloride, As, Fe, Mn • Training records 	
2. Pre-construction Phase	Sanitation, water supply	Under the sub-project intervention, the overall score is low .	<ul style="list-style-type: none"> • Provide suitable housing, adequate supplies of potable water, and toilet and bathing facilities within the housing area for the assigned laborer. • Provide means for disposing of wastewater from toilets, baths and food preparation areas either through a septic tank and soak away, or holding tank with removal by vacuum truck. • More details provided in ESMP. 	Construction Contractor and monitored by Environmental Consultant of PMU	<ul style="list-style-type: none"> • Site-specific H & S Plan; • Records of supply of uncontaminated water; • Record of Health & Safety orientation trainings; • Condition of sanitation facilities for workers 	Visual inspection monthly basis



Section	Main Env. and Social Impacts	Impact Significance*	Suggested Mitigation Measures	Person/ Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
	Transportation	Under the sub-project intervention, the overall score is low .	<ul style="list-style-type: none"> All vehicle movement to be done during the day time. Speed needs to be limited to 20kmph. Contractor's responsibility to verify the suitability carrying, loading and unloading of materials by trucks or others transport and head load arrangement. More details provided in ESMP. 	Construction Contractor and monitored by Environmental Consultant of PMU	<ul style="list-style-type: none"> Check the vehicle pool. Record of regular inspection. Record of accidents/incidents 	Monthly monitoring.
	Storage of construction materials	Under the sub-project intervention, the overall score is low .	<ul style="list-style-type: none"> Obviously orient to the concerned person, team assigned for the construction work. More details provided in ESMP 	Contractor and monitored by Environmental Consultant of PMU	<ul style="list-style-type: none"> List of materials and sources of materials; Location of stockpiling material 	Weekly
	Destruction or damage of terrestrial or aquatic ecosystems	Under the sub-project intervention, the overall score is low .	<ul style="list-style-type: none"> Vegetation clearing work will be done only where subproject intervention will take place. More details provided in ESMP 	Contractor and monitored by Environmental Consultant of PMU	<ul style="list-style-type: none"> Ground openness in the intervention area 	Weekly
3. Construction Phase	Wastes (earth, mud, HDPE cuttings, etc.)	Under the sub-project intervention, the overall score is medium .	<ul style="list-style-type: none"> Prepare and implement drilling mud and water runoff management plan approved by PMU. Wastes must be placed in the designated bins which 	Construction Contractor and monitored by Environmental Consultant of PMU	<ul style="list-style-type: none"> Complaints from community; Regular inspection of waste management activity; 	As work weekly progresses



Section	Main Env. and Social Impacts	Impact Significance*	Suggested Mitigation Measures	Person/ Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
			<ul style="list-style-type: none"> must be regularly emptied. All waste must be removed from the site and transported to a disposal site. More details provided in ESMP 		<ul style="list-style-type: none"> Waste disposal record. 	
	Storage of materials (Creating dust/ air pollution spillage of liquid/ hazardous substance i.e., oil, drilling fluid, chemicals etc., Risk of crime)	Under the sub-project intervention, the overall score is medium .	<ul style="list-style-type: none"> By the union parishad and DPHE to identify the storage site and other requirements, which will be approved by PMU and consultants More details provided in ESMP 	Construction Contractor and monitored by Environmental Consultant of PMU	<ul style="list-style-type: none"> List of materials and sources of materials; 	Monthly basis during implementation phase.
	Noise pollution	Under the subproject intervention the overall score is low .	<ul style="list-style-type: none"> Consultation with affected people; not to operate noisy equipment during working and operations time (17:00 – 06:00); Sound suppression for equipment; Ear protection for workers. Conduct noise quality monitoring as per ESMP. 	Construction Contractor and monitored by Environmental Consultant of PMU	<ul style="list-style-type: none"> Number of complaints from stakeholders; Use of silencers in noise-producing equipment and sound barriers; Noise Level following decibel meter (dB) 	Inspection by PMU and supervision consultants on monthly basis;
	Air pollution	Under the subproject intervention the overall score is low .	<ul style="list-style-type: none"> Water spraying from test tube well for dust control; construction materials with potential for significant dust generation shall be covered; no smoke emitting 	Construction Contractor and monitored by Environmental Consultant of PMU	<ul style="list-style-type: none"> Location of stockpiles; Number of complaints from stakeholders; Records of air 	Air Quality: PM ₁₀ , PM _{2.5} , SPM and SO ₂ test once in construction period.



Section	Main Env. and Social Impacts	Impact Significance*	Suggested Mitigation Measures	Person/ Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
			<p>equipment; and limiting speed of construction vehicles in access roads and work sites to maximum of 20 kph.</p> <ul style="list-style-type: none"> • More details provided in ESMP 		quality inspection; Air quality test report	
	Health & Safety issue	Under the subproject intervention the overall score is Medium.	<ul style="list-style-type: none"> • Construction laborers should use Proper PPEs during working time. • Pipe laying trenches should not keep open long time. After pipe laying, contractor should backfill trenches as quickly as possible. • Open trench (required for thrust block & valve chamber) should be protected with safety tape. • During pipe trenching & earthwork for valve pit construction, working area should protect with marking tap • First aid boxes will be made available at each construction site. • Adequate fire safety protection must be taken. • More details provided in 	Construction Contractor and monitored by Environmental Consultant of PMU	Construction area	Site inspection daily/weekly basis.



Section	Main Env. and Social Impacts	Impact Significance*	Suggested Mitigation Measures	Person/ Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
			ESMP			
4. Operational Phase	Odor& waste disposal of sludge from toilet at Pump House Shed	Under the issue the overall score is low .	<ul style="list-style-type: none"> Use bin covers and/or tarpaulins during transport of wastes and end products (compost). Post Commissioning Operation & Maintenance (O&M) work. 	Construction Contractor for first 2 years monitored by Environmental Consultant and PMU Long-term responsibility to be determined by DPHE	<ul style="list-style-type: none"> Complaints from communities 	Site inspection daily/weekly basis.
	Erosion of land	Erosion/land slide may occur in small scale near distribution pipes due to runoff from rainstorms or from pipe leakages and the overall score is low .	<ul style="list-style-type: none"> Protection to be taken at any time of year when rainstorms are likely, actions to be taken when a rainstorm is imminent or forecast, and actions to be taken during or after rainstorms. 	Construction Contractor for first 2 years monitored by Environmental Consultant and PMU Long-term responsibility to be determined by DPHE and PMU	<ul style="list-style-type: none"> No visible degradation to nearby drainages or water bodies due to soil erosion in scheme area. 	Site inspection weekly and monthly basis.
	Air Pollution and Noise from Traffic Movement	Temporary, localized impacts. Low .	<ul style="list-style-type: none"> Properly maintained vehicles to be used. Limit speed to 20kmph at/near work sites 	Maintenance Contractor, DPHE (XEN)	<ul style="list-style-type: none"> Complaints by nearby HCs 	During maintenance works
	Stagnant water	From leaking pipes Low	<ul style="list-style-type: none"> Ensure monthly inspections of pipelines for leakages 	DPHE Staff, Upazila Office	<ul style="list-style-type: none"> Water pooling along, community taps, pipe alignment, overhead towers and production well. 	Monthly
5: Potential	Cyclone	Seasonal or weather	<ul style="list-style-type: none"> Protection to be taken at any 	Construction	<ul style="list-style-type: none"> Weather 	Site inspection



Section	Main Env. and Social Impacts	Impact Significance*	Suggested Mitigation Measures	Person/ Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
Natural Hazards		depression and the overall score is medium .	time of year when cyclone is likely, actions to be taken when a cyclone is imminent or forecast and actions to be taken during or after cyclone.	Contractor for monitored by Environmental Consultant and PMU Long-term responsibility to be determined by DPHE and PMU	Forecasting procedure/ Depression	weekly and monthly basis.
	Flash Flooding	May occur due to runoff from rainstorms and the overall score is low .	<ul style="list-style-type: none"> Protection to be taken at any time of year when rainstorms are likely, actions to be taken when a rainstorm is imminent 	Long-term responsibility to be determined by DPHE and PMU Long-term responsibility to be determined by DPHE and PMU	<ul style="list-style-type: none"> Weather Forecasting procedure, Rainstorms 	Site inspection weekly and monthly basis on rainy season or during heavy rainfall.
	Land sliding	Land slide may occur due to runoff from rainstorms and the overall score is low .	<ul style="list-style-type: none"> Protection to be taken at any time of year when rainstorms are likely, actions to be taken when a rainstorm is imminent or forecast, and actions to be taken during or after rainstorms. 	Construction Contractor for first 2 years monitored by Environmental Consultant and PMU Long-term responsibility to be determined by DPHE and PMU	<ul style="list-style-type: none"> Visible sliding prone Land (Hill or Tilla) area to nearby sites scheme area. 	Site inspection weekly and monthly basis on rainy season or during heavy rainfall.

* 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



Social Screening Summary:

In developing the details of social screening, the ESMF-AF has been followed focusing on major social impacts and significance of the sub-projects (Equity, labor influx, population coverage, easy access, GBV, impact mitigation measures, referral, monitoring suggestions. No land acquisition is required for this MPWSS sub-project. Provision of utilizing existing Right of Way is available for MPWSS sites within this area. The sub-project location was selected with the support of UP Chairman, WATSAN Committee and local DPHE. Consultation meeting was also conducted with local representatives who will be direct or indirectly related in the sub-project. The assigned consultants and local DPHE, UP Chairman and member's team have visited the proposed site location and prepared the screening report. Initially the team surveyed the locality and primarily sorted (2-3) sites to establish the scheme. It has been sorted out the exact situation on safe water provision through consultation meeting with them. The targeted households are being using almost unsafe water for their daily water purposes. As per SDG -6 Bangladesh Govt is committed to ensure Safe water for all within 2030 where the proposed MPWSS will help the government to achieve the SDG.

Construction induced impact issues:

Land Issues:

Regarding the land provision for the ToitongMPWSS UP authority have provided and dedicated six (06) decimal of fare land at near to ToitongPondithpara area(*Land Ref. BS Ledger-536; Dhag-589*).The E&S team, Local DPHE and UP representatives have pursued with potential elites and WATSAN Committee of proposed area to be organized the required piece of land as a donation modality in favor of UP, obviously for scheme establishment. The E&S screening team have been facilitating the land allocation process following all required legal procedures as per PMU & ESMF-AF criteria regarding land issue. As a result of stakeholders and community consultations. been revealed that some local land owner elites agreed on land donation (donor to UP custody) following government legal & formal land donation process. The UP-consent paper (*Appendix -3*) on land to provide water supply for Toitong (ward # 02) areas.The requiredsix decimals of Land (for five storied building with PTW, Pump house complex with Overhead Reservoir,Scheme Office, Solar panel)has been provided bythe Toitong union parished authorityas per PMU decision and ESMF –AF formal process. Requiredmore land to be used for the rest activities of MPWS scheme (to set up Pipe line,house connections etc.) at local road side. The proposed scheme pipe line setup related authorization has been taken from respective land office and LGED and other concerned authorities. In the sub-project interventions, no significant negative impact will be appeared. During construction, movements of heavy vehicles or construction materials may cause damages to the assets. If any damages are reported, local DPHE will hold consultations with the LGIs or WATSAN committee representatives along with contractors to take mitigation measures according to ESMF-AF.



By the active participation of concerned Scheme stakeholders, community consultation meeting was conducted by the E&S Safeguard team and stakeholder engagement. All of the MPWSS structures are situated at selected local host community of Toitong union areas.

Labor issues:

The Mini Piped Water Supply Scheme executing contractor will involve skill & unskilled labors. Around 12-16 unskilled and 10-12 skilled laborers will be engaged from the local/host community/other places of Bangladesh. No foreign labor will be needed to implement the MPWSS sub-project. As the number of incoming workers will be very few and will be working for short periods of time (more than 6 months), so usually there will have no competition in using resources amongst the host communities. Thus, the sub-project will not be created any influx of workers. The unskilled labors will be hired from the local areas. The skilled labors will be accommodated in the proposed site by the contractors. The contractor will prepare two labor sheds (15ftX30ft) for males and 15ftX20ft for females, if necessary. All laborers (skilled and unskilled) must be giving appropriate training and capacity development to entail a multitude of codes of conduct, E&S Safeguard pertaining to conflict, GBV and other issues.

Linkage with other stakeholders:

The team has provided emphasis to keep better linkage with related stakeholders (*i.e.*, LGIs, Toitong UP, Local Host Community, INGO & Local NGO, Elites etc.). The team conducts three (03) consultation meeting with them group/individually for any social issues.

GBV issues:

The GBV risk for the project is assessed as moderate at host community. The proposed project activities will involve major civil works through skilled and unskilled laborer from the local host community. Although a strict labor code of conduct will be enforced, a key concern is the potential exposure to sexual exploitation and abuse (SEA), sexual harassment (SHA) and GBV for females in the area. During the construction of the pipelines many women and vulnerable groups in the project location may be exposed to male laborers, which may lead to sexual harassment of varying degrees. A GRM will be established to deal with related issues. The team will conduct consultation meetings with the Host communities, contractors and labor to address GBV. In this meeting, another topic of discussion was the 'do's and don'ts' during implementation of the sub-project intervention to mitigate all the cross-cutting issues. The expected impact of the sub-project on the various stakeholders, women and vulnerable groups is expected to be positive and will create a friendly socioeconomic climate to implement the intervention. If any odd situation appears, the GRC will minimize the issue following the ESMF GRM guideline. On the other hand, if any private land/land leases issues required, the team will be conducted consultation meeting with the owner and related stakeholder according the ESMF & resettlement guideline.

This project is a part of the Gender Component of the UNFPA 9th Country Program and will contribute to achieve the CP outcome 3 "Advanced gender equality, women's and girls' empowerment, and reproductive rights, including for the most vulnerable and marginalized women, adolescents and youth". In case of any GBV it will be communicated with UNFPA through proper channel to resolve the issue as earliest possible. In this project,



WFS will be fully operationalized, providing comprehensive GBV case management services such as lifesaving information, community and outreach initiatives, community-based psycho-social support, community engagement in GBV prevention activities through SASA, community engagement in safety audit, and strengthening of community-based support mechanism for women and girls through women support groups and adolescence support groups. The staff's capacity will be developed to adequately handle GBV case management, coaching, mentoring, supervision, GBVIMS and GBVIMS+ to ensure comprehensive case management services through proper supervision. Capacity development will also focus on inclusion of people with disability into response and prevention work for GBV. Various tools will be developed/adapted to facilitate GBV services, MHPSS services and engaging men and boys into GBV prevention work. Along with the GBV case management services mentioned above, GBV and labor code of conduct awareness programs will be implemented, where all stakeholders including the host communities, labor engaged for the project, site management, the WB and project clients such as DPHE and LGD can participate. They will also implement the preparedness/ contingency plans for any and upcoming disasters. Finally, close monitoring and supervision initiatives will be in place to ensure any arising issues are averted and to facilitate smooth project processes.

Consultations and Future Consultations:

Under the EMCRP, the DPHE has initiated elaborate consultations with various stakeholders of this project for the Scheme site management. These include GIS specialist (initially), hydrogeologist located in the scheme area, E&S consultants, local DPHE authorities, other development partners such as UN and local community. These sessions covered topics such as E&S safeguard issues, GRM, possible social, environmental and economic effects, livelihoods options, discussions on minimizing the laborer conflict among and local host communities, Infrastructure, WASH, hygiene, GBV, forestation, waste management. Most importantly, the benefits of safe water options through installing the mini pipelines were discussed. It was also determined that there is no Elephant corridor and no scope of Elephant/Human conflict in the site area. The local community were made aware of and sensitized on E&S safeguard issues, precautions, child safety, avoid resettlement, relocations of local institutions (mosques, schools& others), any restrictions for the host community, compensation mechanism if any objection and complaints. As a result of these consultations, the targeted local host community welcomed and appreciated the DPHE, EMCRP initiatives on WASH sector MPWSS sub projects. As per their opinion, the safe water and improved sanitation is considered one of the priorities needs for them for secured and better livelihoods aspects.

Thus, future consultations during the lifetime of the project are expected to ensure that negative E&S impacts are being mitigated and community needs and opinions are being considered. Consultations will involve determining with the site management team whether proper signage is being used (e.g., for occupational hazard) and whether a properly GRM system is being implemented through an efficient GRC. The GRM will be developed to serve as an integral tool of engaging various stakeholders during project activities and its implementation. A complaints book will be kept for stakeholders and institutionalization of GRM with qualified personnel having adequate training in handling relevant complaints should be ensured. Each and every complaint and way of addressing the complaints will clearly be spelt out in the complaint book. The GRM will be available for a wide array of issues such as malpractice, labor issues and GBV.

Labor and Contractors management during COVID-19:



For projects involving construction/civil works, contractors will develop specific procedures or plans so that adequate precautions are in place to prevent or minimize an outbreak of COVID-19, and what should be done if a worker gets sick.:

- Assessing the characteristics of the workforce, including those with underlying health issues or who may be otherwise at risk
- Confirming workers are fit for work, to include temperature testing and refusing entry to sick workers
- Considering ways to minimize entry/exit to site or the workplace, and limiting contact between workers and the community/general public
- Training workers on hygiene and other preventative measures, and implementing a communication strategy for regular updates on COVID-19 related issues and the status of affected workers
- Treatment of workers who are or should be self-isolating and/or are displaying symptoms
- Assessing risks to continuity of supplies of medicine, water, fuel, food and PPE, taking into account international, national and local supply chains
- Reduction, storage and disposal of medical waste
- Adjustments to work practices, to reduce the number of workers and increase social distancing
- Expanding health facilities on-site compared to usual levels, developing relationships with local health care facilities and organize for the treatment of sick workers
- Building worker accommodations further apart, or having one worker accommodation in a more isolated area, which may be easily converted to quarantine and treatment facilities, if needed
- Establishing a procedure to follow if a worker becomes sick (following WHO guidelines)
- Implementing a communication strategy with the community, community leaders and local government in relation to COVID-19 issues on the site.
- All the labors and project staff must maintain the OHS and Covid management guidelines.

For supporting health facilities, plans or procedures will be in place to address the following issues:

- Obtaining adequate supplies of medical PPE, including gowns, aprons, curtains; medical masks and respirators (N95 or FFP2); gloves (medical, and heavy duty for cleaners); eye protection (goggles or face screens); hand washing soap and sanitizer; and effective cleaning equipment. Where relevant PPE cannot be obtained, the plan should consider viable alternatives, such as cloth masks, alcohol-based cleansers, hot water for cleaning and extra handwashing facilities, until such time as the supplies are available
- Training medical staff on the latest WHO advice and recommendations on the specifics of COVID-19
- Conducting enhanced cleaning arrangements, including thorough cleaning (using adequate disinfectant) of catering facilities/canteens/food/drink facilities, latrines/toilets/showers, common areas, including door handles, floors and all surfaces that are touched regularly



- Training and providing cleaning staff with adequate PPE when cleaning consultation rooms and facilities used to treat infected patients
- Implementing a communication strategy/plan to support regular communication, accessible updates and clear messaging to health workers, regarding the spread of COVID-19 in nearby locations, the latest facts and statistics, and applicable procedures.

Recommendation for further environmental and social assessment and/or site specific environmental and social management plan: Yes/No
 (*If yes, please specify what assessments/plans would be required. Mention some recommendation on E&S assessment ESMP)

Yes. If site specific environmental and social management plan (ESMP) is followed, any negative impacts can be mitigated and monitored. ESMP is attached.

Appendix -01

Environmental and Social Management Plan (ESMP) of this Sub project (site-specific)

Considering the intervention wise construction activities of proposed site potential impact with consequence mitigation measures have been designed (as ESMP) in the following table for Host Community Mini-Piped Water Supply System (MPWSS): Toitongunion, Pekuaupazila, Cox's Bazar.

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
Pre-Construction Stage	Loss of land/and other physical assets	<ul style="list-style-type: none"> No land acquisition will be required. As, there were no any mitigation measures according to this impact. 	PMU	Social and Hygiene Promotion of PMU Development Consultant
Pre-Construction Stage	Loss of livelihoods	<ul style="list-style-type: none"> Under this sub-project, there is no scope of negative impact of HC livelihoods. 	PMU& Contractor	Social and Hygiene Promotion of PMU Development Consultant
Pre-Construction Stage	Stakeholders Engagement	<ul style="list-style-type: none"> All the project stakeholders will be engaged in consultation process Individual/Separate community level 	PMU& Contractor	Social and Hygiene Promotion of PMU Development Consultant



Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
		<p>consultation meeting will be held with the potential targeted HHs</p> <ul style="list-style-type: none"> • Consultation meeting with HC male and female about the project safeguard documents will be disclosed to the stakeholders • Targeted HC people will be involved with the GRM, formed GRC 		of PMU
Pre-Construction Stage	Loss of Access rights	<ul style="list-style-type: none"> • Project to ensure thorough analysis of alternatives that access enjoyed by the community remains intact. • In case of unavoidable circumstances, alternative access will be provided. 	PMU	Social Development and Hygiene Promotion Consultant of PMU
Pre-Construction Stage	Site Selection & implementing interventions: Human-elephant conflict	Selection of sub-project sites will be outside of the elephant route/corridor/influenced area.	PMU	Environmental Consultant of PMU
Pre-Construction Stage	Site Preparation: Soil Erosion; Alteration of natural drainage	<ul style="list-style-type: none"> • Selected site will be far away from any water bodies or natural water flow path to avoid the flash flood or any kind of surface runoff. • For production tube well sinking a minimum 10 meters distance from latrines' soak well to be maintained. • A minimum aerial distance 200 - 250 meters to be maintained among deep tube wells installation for cone depression and optimizing the production of wells etc. • Minimize cut & fill operations, the site clearing and grubbing operations should be limited to specific locations only. • Always try to avoid any disruption of socially sensitive areas with regard to human and biodiversity. • The existing slope and natural drainage 	PMU& Contractor	Environmental Consultant of PMU, SAE, DPHE



Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
		<p>pattern on the site should not be significantly altered.</p> <ul style="list-style-type: none"> If trees on private lands are damaged during construction operations, compensation shall be paid to the owner as determined by the appropriate authority. The contractors shall ensure that site preparation activities not lead to disruption of activities for the local residents and biodiversity. 		
Pre-Construction Stage	Sanitation & Water Supply	<ul style="list-style-type: none"> The contractors shall provide suitable housing, adequate supplied of potable water, toilet and bathing facilities with in the housing area for the assigned laborer. Safe drinking water will be made available at site for drinking purpose of laborer. The contractors shall provide the disposing of waste water from toilets, baths and food preparation areas either through a septic tank and soak away, or holding tank with removal by vacuum truck. 	PMU & Contractor	Environmental Consultant of PMU, SAE, DPHE
Pre-Construction Stage	Transportation	<ul style="list-style-type: none"> Contractors to provide transportation management plans to be approved by relevant authorities. All vehicle movement to be done during the day time. Speed needs to be limited to 20kmph. Adequate road signs to be planted on access roads signs to limit vehicular speeds. Contractors' responsibility to verify the suitable carrying, loading and unloading of materials by trucks or others transport and head load arrangement. 	PMU & Contractor	Environmental Consultant of PMU, SAE, DPHE
Pre-Construction	Storage of construction	<ul style="list-style-type: none"> Obviously orient to the concerned person, 	PMU & Contractor	Environmental



Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
Stage	materials	<p>team assigned for the construction work.</p> <ul style="list-style-type: none"> The constructors will control unauthorized entry to the site area is completely prohibited and the site will be properly fenced with a single entry, for these purposes. The contractors will properly maintain and control store house, storages instruments as well as hazardous materials on the site. 		Consultant of PMU
Construction Activity	<p>Construction Waste: Generated wastes (earth, mud) from drill of pump may cause of degrade the quality of nearby water quality (if any) and surrounding environment</p> <p>-Hazardous waste i.e., waste oil, grease from vehicle maintenance also can decline the nearby water quality and surrounding environment if these are not properly managed</p>	<p>Preparation of a waste management plan covering the following aspects:</p> <ul style="list-style-type: none"> Ring slab septic tank will be installed before starting construction works in order to provide a better sanitation facility to the workers and staffs. A set of designated toilets in the present office building can be used by the labor, instead. Working areas are kept clean and tidy at all times. Construction site is to be checked for spills of substances i.e., chemical, oil, paint, etc. Bins and/ or skips should be emptied regularly and waste/ debris should be disposed of at waste disposal areas and/ or at the site. Hazardous waste viz. waste oil etc. will be collected and stored in the paved and bounded area and subsequently sold to authorized recyclers. 	Contractor	Environmental Consultant and Social Development & Hygiene Promotion Consultant of PMU, and DPHE
Construction Activity	Stagnant water risk	<ul style="list-style-type: none"> Water stagnant area should fence with marking tape. The top soils in the sub-project are sandy, the water should drain away quickly. Contractor should arrange proper water facilities <p>Proper PPEs are essential during construction</p>	Contractor	Environmental Consultant and Social Development & Hygiene Promotion Consultant of PMU, and DPHE



Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
		work.		
Construction Activity	Storage of materials (Creating dust/ air pollution spillage of liquid/ hazardous oil, drilling fluid, chemicals., Risk of crime)	<ul style="list-style-type: none"> The contractor shall submit a method statement and plans for the storage of hazardous materials (fuels, oils, and chemicals) and emergency procedures. Proper stockpiling/ storage of construction materials at the site proposed by the contractor & approved by the Environmental Consultant of PMU. Proper covering of dust producing materials with polythene sheet, Spills/ hazardous substances should be disposed off at the site proposed by the contractor & approved by the Environmental Consultant of PMU to avoid soil/ water contamination. Proper manage or storage of drilling fluid at the site proposed by the contractor & approved by the Environmental Consultant of PMU. 	Contractor	Environmental Consultant of PMU, and DPHE
Construction Activity	Impact on Drain & Aquatic Environment by discharging solid & liquid wastes from construction site & labor camp into nearby drain & through the drain those wastes can fall into canal water.	<ul style="list-style-type: none"> Generated waste and construction debris shall be properly disposed in accordance with the approved designated disposal site(s); Acceptable quality of excavated soil shall be mostly reused for the backfilling, with the surplus portion, if any, disposed in the approved designated disposal site(s). Separate waste collection bins, for organic and inorganic wastes, shall be provided throughout the construction sites, whereby all waste collection bins be regularly emptied and cleaned; Contractor will be responsible to control the workers from discharging of construction waste into water bodies. 	Contractor	Environmental Consultant of PMU, and DPHE



Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
Construction Activity	Erosion of land	<ul style="list-style-type: none"> During construction work (especially for earth excavation) proper slope protection is essential. During backfilling work proper compaction is essential (as per spec.) Avoid earthwork during monsoon Proper PPEs are essential during construction work. No visible degradation to nearby drainages or water bodies due to soil erosion at/near sub-project site. 	Contractor	Environmental Consultant of PMU, and DPHE
Construction Activity	Noise pollution will occur due to use of diesel-based construction equipment/ vehicles movement	<ul style="list-style-type: none"> Construction activity will be at daytime Contractor will confirm proper measures for avoiding any disturbance of residents as well as biodiversity. Ensure use of the personal protective equipment's (helmet, goggles, gloves, safety boot) during cutting and welding of the reinforcement and during drilling work; Availability and access to first-aid equipment and medical supplies in case of any accidents. Contractor will confirm proper measures for avoiding any disturbance of residents as well as biodiversity. All construction activities which cause noise pollution, should be stopped during prayers. 	Contractor	Environmental Consultant of PMU and DPHE
Construction Activity	Air quality will degrade due to dust blowing from earthwork, transportation of waste or fine material and emission of construction vehicles.	<ul style="list-style-type: none"> Construction machinery shall be properly maintained to minimize exhaust emissions of CO, particulate matter (SPM, PM_{2.5}, PM₁₀) and Hydrocarbons. Provision of using water sprinklers to 	Contractor	Environmental Consultant of PMU and DPHE



Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
		<p>dustcontrol.</p> <ul style="list-style-type: none"> Construction materials should be covered properly while carrying in vehicles to the site. Vehicle movement will be controlled on haul roads/access roads for limiting dust generation. 		
Construction Activity	Safety Issues/ impact may be decline if construction management not works rightly	<ul style="list-style-type: none"> Unauthorized entry to the site area is completely prohibited and the site will be properly fenced with a single entry, for this purpose Properly maintained and control store house, storages instruments as well as hazardous materials on the site Health and safety training will be arranged for the communities' labors before project intervention started. Labor will bring their proper IDs and wear when they will work at sites. Child labors will not allowed for any kind of activities Site shall be secured by fencing and maintained at entry points 	Contractor	Environmental Consultant of PMU and DPHE
Construction Activity	Traffic Management	<ul style="list-style-type: none"> Contractors will discuss with traffic management authorities and take site specific traffic management measures to avoid traffic jam and any unwanted incidents or accidents. 	Contractor	Environmental Consultant of PMU and DPHE
Construction Activity	Conflicts with existing users due to the scarcity of resource base.	<ul style="list-style-type: none"> A detailed assessment of the available resources and consent of the local representative for withdrawal of water from existing surface water sources shall be taken. If ground water is withdrawn, adequate 	Contractor	Environmental Consultant and Social Development & Hygiene Promotion Consultant of PMU,



Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
		<p>approvals essential from the appropriate department/authorities before setting up bore wells.</p> <ul style="list-style-type: none"> Local community must be consulted before any construction works started. 		DPHE
Construction Activity	Increase in road accidents	<ul style="list-style-type: none"> The movement of heavy machinery and equipment will be restricted to defined routes. Proper signage to be displayed at major junctions. Road diversions and closures to be informed well in advance to the local community. The vehicular movement will be controlled near sensitive locations viz. schools, colleges, hospitals, mosques, identified along designated vehicular tra nsportation routes. Local community will be trained up about traffic management and awareness. 	Contractor	Environmental Consultant of PMU and DPHE
Construction Activity	Social conflict may arise between workers and local residence due to different behavior or custom of outsider worker (if any) as well as consumption of natural resource by the worker	<ul style="list-style-type: none"> An alternate arrangement for fuel wood, heating and cooking required to meet fuel requirement of the labor sheds. Alternating cooking arrangement for the HHs living in this place (HC) should be arranged by the contractor; Contractor will closely monitor all workers so that workers do not involve with local politics as well as sexual harassment, trafficking of women and children. Contractor will be arranged a awareness building training for the workers about nutrition, 	Contractor	Social Development & Hygiene Promotion Consultant of PMU



Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
		<p>disaster risk resilience or mitigation, adoption of clean energy for cooking; and prevention of child abuse, child marriage, GBV, sexual harassment, trafficking of women and children as well as illegal drug trade.</p> <ul style="list-style-type: none"> • Work force should be prohibited from disturbing the flora, fauna including hunting of animals, wildlife hunting, poaching and tree felling. 		
Construction Activity	<p>Health & Safety Risks:</p> <ul style="list-style-type: none"> • 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. • Exposure to health events during construction activities such as manual handling and musculoskeletal disorders, hand-arm vibration, temporary or permanent hearing loss, heat stress, and dermatitis. 	<ul style="list-style-type: none"> • All construction equipment will be properly inspected timely. • The risk assessment will be prepared time to time for all types of work activities on site. • Proper walkways that are clearly designated as a walkway; all walkways shall be provided with good conditions underfoot; signposted and with adequate lighting. • Proper signpost any slippery areas will be ensured in construction site. • Carry out fire risk assessment for the construction areas, identify sources of fuel and ignition and establish general fire precautions including, means of escape, warning and fighting fire. • A system to alert for workers will be setup on site. This may be temporary or permanent mains operated fire alarm. • Fire extinguishers will be located at identified fire points around the site. The extinguishers will be appropriated to the nature of the potential fire. • This sub-project has Proper communicative emergency response plan (ERP) with all parties, the ERP to consider such things as 	Contractor	Environmental Consultant and Social Development & Hygiene Promotion Consultant of PMU



Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
		<p>specific foreseeable emergency situations, organizational roles and authorities, responsibilities and expertise, emergency response and evacuation procedure, in addition to training for personnel and drills to test the plan.</p> <ul style="list-style-type: none"> • Electrical equipment must be safe and properly maintained; works shall not be carried out on live systems. • Only competent authorized persons shall carry out maintenance on electrical equipment, adequate Personal Protective Equipment (PPE) for electrical works must be provided to all personnel involved in the tasks. • An adequate number of staff and first aiders shall be on site in accordance with Bangladesh Labor Law requirements. • First aid kit with adhesive bandages, antibiotic ointment, antiseptic wipes, aspirin, non-latex gloves, scissors, thermometer, etc. shall be made available by the contractor on site. • Emergency evacuation response shall be prepared by the contractor and relevant staff shall be trained through mock-up drills. • Ensure all equipment is suitable for jobs (safety, size, power, efficiency, ergonomics, cost, user acceptability etc.), provide the lowest vibration tools that are suitable, can-do works. • All safety equipment will be available in sub-project site (safety, size, power, efficiency, ergonomics, cost, user acceptability etc.), the lowest vibration tools will be provided that are suitable and can do the works. 		



Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
		<ul style="list-style-type: none"> Regulated noise exposure assessments and noise level surveys of noisy areas, processes and equipment shall be carried out in order to form the basis for remedial actions when necessary. Contractor will provide Awareness training to all personnel involved during the construction phase in order to highlight 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 different locations within the sub-project area. Provision to maintain proper PPE wherever necessary and to ensure that there are satisfactory washing and changing facilities. Adequate fire safety protection must be taken. Provision to ensure all workers exposed to a risk are aware of the possible dangers and also given thorough training in how to protect themselves and there should be effective supervision to ensure that the correct methods are being used. 		
Operation & Maintenance	Health & Safety Hazard to operation and maintenance workers	<ul style="list-style-type: none"> Ensure proper training given to all staff Ensure PPE used by all staff 	<p>Contractor: up to contractor's liability period.</p> <p>Long-term responsibility to be determined by DPHE</p>	Environmental Concern of DPHE
Operation & Maintenance	Construction clean-up (Damage due to debris,	<ul style="list-style-type: none"> Remove all spoils wreckage, rubbish, or temporary structures (such as buildings, 	Contractor: up to contractor's liability	Environmental Concern of DPHE



Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
	spoils, excess construction materials)	shelters, and latrines) which are no longer required; <ul style="list-style-type: none"> All affected structures rehabilitated / compensated; The contractor must arrange the cancellation of all temporary services; Contractor will dispose the generated waste regularly in designated waste dump site. 	period. Long-term responsibility to be determined by DPHE	
Operation & Maintenance	Erosion and land degradation due to leakage of water supply line	<ul style="list-style-type: none"> Preventative maintenance to be undertaken at regular intervals by the Contractor to ensure there are no leaks causing erosion. 	Contractor: up to contractor's liability period. Long-term responsibility to be determined by DPHE	Environmental Concern of DPHE
Operation & Maintenance	Odor & Waste disposal management	<ul style="list-style-type: none"> Use bin covers and/or tarpaulins during transport of wastes. Due attention to be provided in both Faecal sludge/liquid waste& Solid waste management through proper coordination with Coxbazar Development Authority(CDA)/ relevant agency. 	Local DPHE/ Union Parishad/others relevant agency	Environmental Concern of DPHE
Operation & Maintenance	Drawdown of groundwater due to excessive withdrawals	<ul style="list-style-type: none"> Coordination with other development agencies for groundwater extraction rates will be monitoring. Regular third-party will be monitoring of groundwater levels 	Contractor for first 2 years. Long-term responsibility to be determined by DPHE	Environmental Consultant of PMU
Operation & Maintenance	Drinking water parameter test	<ul style="list-style-type: none"> drinking water (before use or during operation with defined frequency and essential parameters) will be tested. 	Contractor for first 2 years. Long-term responsibility to be determined by DPHE	Environmental Consultant of PMU
Potential Natural Hazards	Cyclone	<ul style="list-style-type: none"> Protection to be taken at any time of year when cyclone is likely, actions to be taken when a cyclone is imminent or forecast and 	Contractor: up to contractor's liability period.	Environmental Concern of DPHE



Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures/indicators	Institutional Responsibilities	Supervision Responsibility
		actions to be taken during or after cyclone.		
	Flash Flooding	<ul style="list-style-type: none"> Protection to be taken at any time of year when rainstorms are likely, actions to be taken when a rainstorm is imminent 	Long-term responsibility to be determined by DPHE	Environmental Concern of DPHE
	Land sliding	<ul style="list-style-type: none"> Protection to be taken at any time of year when rainstorms are likely, actions to be taken when a rainstorm is imminent or forecast, and actions to be taken during or after rainstorms. 	Contractor: up to contractor's liability period.	Environmental Concern of DPHE



Appendix-02: Consultation Meeting Photos and Participants list with ToitongUP Chairman,Councilor,Host Community, Local Elites & WATSAN Committee



Figure_02:
meeting with



Consultation
host UP, WATSAN

Committeecommunity, &elites



EMCRP Environment and Social Screening Report (DPHE)

Government of the People's Republic of Bangladesh
Department of Public Health Engineering (DPHE)
Office of the Project Director
Emergency Multi-Sector Rohingya Crisis Response Project (EMCRP)
DPHE Bhaban (9th floor), 14 Shahid Captain Monsur Ali Sharani, Kakrail, Dhaka-1000
Phone: 55130517, Email: pddphe.emcrp@dphe.gov.bd

Title of the event : Orientation Workshop of WATSAN Committee for dissemination of key information and implementation modality of EMCRP

Venue : Upazila Auditorium, Pekua

Name of the Upazila : Pekua

Date : 21-03-2022

Attendance Sheet Orientation Workshop, Pekua Upazila

Sl. No.	Name and Designation	Organization	Email Address and cell phone no.	Signature
1.	Purbita Chakma Upazila Nirbahi Officer	Pekua	unopekua@gmail.com 01740590470	
2.	Ummei Kulsoom Vice chairman	Pekua upa Zilla	Ummei Kulsoom 501@gmail.com 01721683173	
3.	Azizul Hossain Vice chairman	Pekua upa Zilla	01985213926	
4.	Md. Salamati Ullah Upazila Education Officer	Upazila Education Office	01813970042	
5.	Anwarul Azam	C.P.P U.P. Gahar	01712202671	
6.	Md. Zafaruddin	Reporters Daily sunpost.gov	01836241092	



Attendance Sheet Orientation Workshop, Pekua Upazila

Sl. No.	Name and Designation	Organization	Email Address and cell phone no.	Signature
07	Dr M. Ashel Ullah	Enticorprofin- Sectoral Pekua Upazila	01819897275	
08	Md. Amrinal Islam PIO	DDM	01722-855013	
09	Omar Jami M. V. P.	M. V. P. Garr Gar-	01813332383	
10	Abdus samad	M. V. P. Garr Gar-	01817777631	
11	Mohsin Uddin Ahmed	Up Secretary Pekua Up	01816441311	
12	Abu Tufub	UP Secretary Barabara	01814774328	
13	MD: Jakir Hossain	U W A O	01719006568	
14	Ittekhon Alam Rahat	DPHE	01753845380	
15	Jey Prakash chakma SAE	SAE, DPHE	01515671314	



Attendance Sheet Orientation Workshop, Pekua Upazila

Sl. No.	Name and Designation	Organization	Email Address and cell phone no.	Signature
16	Dr. Md. Mujibur Rahman	UHC, Pekua	mujibur.5707@gmail.com	
17	MD. Nazim Islam Shikder - Badul.	Chairman Raja Khali, P.O.P. Pekua. 602580		
18	Col. A. L. C.	Member, Magon Union		
19	Mahbubul Alam Hydrogeologist & Environmental Control	EMCRP DPHE	alam.mahbubul@gmail.com	 21.03.22
20.	Md. Shahidur Rahman Training Consultant	EMCRP, DPHE	shahidurshahid@gmail.com	 21.03.22
21	MD. Mainul Atisam	Youth Development Office	Atisammainul@gmail.com	 21.3.22
22	Saifunnahar upazilla anzar and v.o.p officer.	Ansar and v.o.p office	Saifunnahar1979@gmail.com	 21.03.2022.
23	Shakhat Ali mechanic	DPHE Pekua	01814-782836	 21.03.22
24	ABU Sadek makmil	DPHE Pekua		



Attendance Sheet Orientation Workshop, Pekua Upazila

Sl. No.	Name and Designation	Organization	Email Address and cell phone no.	Signature
25	MD. Anish	DPHE Pekua	mdanish9595@gmail.com 01818542622	Anish
26	Anisul Islam	DPHE Pekua	AnisulIslam@gmail.com 01877756702	Anisul
27	M. Abdul Kalam	DPHE, Pekua CCT	01861212481	M. Abdul Kalam
28	Bahadur Karim CCT	DPHE, Pekua	bahadurkarim1990@gmail.com	Bahadur Karim
29	A212UR Rahman	URDO Pekua	a212URRahman141@gmail.com 01814940043	A212UR Rahman
30	Shafiqul Alam Ex MOP	উপজেলা পরিদপ (সরকারি)	01815-335550	Shafiqul Alam
31	MD. SHAH JALAL Sub-Assistant Engineer	সরকারি, উপজেলা এনজিনিয়ারিং	01717684186	MD. SHAH JALAL
32	Ulsat Jahan chy	USEO	01814788878	Ulsat Jahan chy
33	S.M. MOSTAFIGUR RAHMAN	EMCRP DPHE	01723 433 929	S.M. MOSTAFIGUR RAHMAN



EMCRP Environment and Social Screening Report (DPHE)

EMCRP (DPHE part) Additional Financing (AF) Consultation Meeting (ESMF) Attendance Sheet

Topic: Union level community consultation Meeting Place: Mini Pipe, Udzila: Pakna
Scheme site, Taitung Union date:

sl	Name	Designation	Organization, address	Mobile no / Email	Signature
	Delowara Bagum	Member 1,2,3	Taitung Union	01825258457	মুহাম্মদ
	Md. Faruque	Water User Elder Person	Pondit para, Ward-2	01828364611	মো: ফারুক
	Md. Shafiq Hossain	DO	DO	01880651452	মো: শফিক হোসেন
	Md. Akel Kasham	DO	Pon, Dittara, Ward no-2	01846738680	Abul dushhem
	Md. Akel Hossain	DO	DO	01880329723	মো: অকেল হোসেন
	Md. Abbas Uddin	DO	DO	01827602678	মো: আব্বাস উদ্দিন
	Md. Janal Hossain	DO	DO	01833824112	মো: জালাল হোসেন
	Md. Shomwer	DO	DO	01836592432	মো: শমুвер
	Md. Shahadat Hossain	DO	DO	-	মো: শাহাদাত হোসেন
	Zamratul Ferdous	DO	DO	01856604664	মো: জামরাতুল ফেরদাউস
	Kamal Hossain	DO	DO	01811228444	মো: কামাল হোসেন
	Jaker Hossain	DO	DO	018295866124	মো: জাকের হোসেন
	Noman	DO	DO	01 -	মো: নোমান
	Tashokul islam.			01880627256	মো: তাক্কুল ইসলাম



EMCRP Environment and Social Screening Report (DPHE)

EMCRP (DPHE part) Additional Financing (AF) Consultation Meeting (CMMF) Attendance Sheet

Topic: Union Level community consultation Meeting Place: Mini Pipe School, Pabna
Side Tating Union date:

Sl	Name	Designation	Organization, address	Mobile no / Email	Signature
	MD. Azim	Water User local people	Panditpara, Ward 2	01870354715	
	Hakim Begum	Do	Do	01864149136	
	Hakim Begum	Union Promoter	Shadhinia	01862149136	
	SM Rahman	SDS	TWU / DPHE	01825635707	
	Md. Jubaer Jumaad	student	Will. Panditpara, Ward 2	01882125093	
	Md. BRs Alam	Water User local people	Do	-	
	Md. Farid Uddin	ARE / TWU	1 TWU	01913742618	
	Md. Abul Atamul	Water User local people	Panditpara, Ward 2	-	
	Md. Sahel	Do	Do	01823600541	

বিছমিল্লাহির রাহমানির রাহিম
২নং টইটং ইউনিয়ন ওয়াটসান কমিটির সদস্যবৃন্দ,
পেকুয়া উপজেলা, কক্সবাজার।




জনাব মোঃ জাহেদুল ইসলাম চৌধুরী
চেয়ারম্যান
মোবাইল নং- ০১৮১৯-৮৩৮০৭০

জনাব মোঃ আবদুল আলিম
সচিব
মোবাইল নং- ০১৮৮২-৩৩৮৫৪৭

ক্রমিক নং	নাম	পদবী	ওয়ার্ড নং	মোবাইল নং	স্বাক্ষর
০৩	দিলোয়ারা বেগম	সদস্য	১,২,৩	০১৮২৫-২৫৮৪৫৭	
০৪	রোজিনা আক্তার	সদস্য	৪,৫,৬	০১৯৬৬-২৯৪৩৩৬	
০৫	আয়েশা খাতুন	সদস্য	৭,৮,৯	০১৮২০-১৪৮০৬২	
০৬	আবদুল জলিল	সদস্য	১	০১৮১৫-৫১৯৩০৭	
০৭	আবুল কালাম	সদস্য	২	০১৮৮১-৫৯৭৭৫১	
০৮	মনজুর আলম	সদস্য	৩	০১৭১৫-৭৯৮৫৯৫	
০৯	মুহাম্মদ আবদুল হক	সদস্য	৪	০১৮৬৯-৮৩৮৫৭৩	
১০	আবু ওমর	সদস্য	৫	০১৮৭৮-৭৮৪৭৮৮	
১১	ফয়সাল আকবর	সদস্য	৬	০১৮৩২-৬১৬৬০৬	
১২	হাজী শাহাব উদ্দিন সিকদার	সদস্য	৭	০১৮২৭-৯০২৩৪৬	
১৩	কায়সার মোহাম্মদ ইলিয়াস	সদস্য	৮	০১৮১৭-০০০৭১৫	
১৪	নুরুল আবছার	সদস্য	৯	০১৮৩৪-৪৬৬৮৯৬	
১৫	আবদুল খালেক	গণ্যমান্য	-	০১৮১৪-৮৮৬৭১৯	
১৬	মনিরুল ইসলাম চৌং	গণ্যমান্য	-	০১৮৮১-৩১৬০৬০	
১৭	কামাল হোছাইন	গণ্যমান্য	-	০১৮৫৮-৪৫২৪১৯	
১৮	হাসিবুল ইসলাম	সমাজকর্মী	-	০১৮৫২-৮৭৪৩৫৯	
১৯	জামাল হোছাইন	সমাজকর্মী	-		
২০	মৌঃ খাইরুজ্জামান গাজী	ঈমাম	-	০১৭৫৩-৩৭৮২২০	
২১	মোঃ রাসেল	উপ.স.কৃষি	-	০১৮২৮-০০২৬২৯	

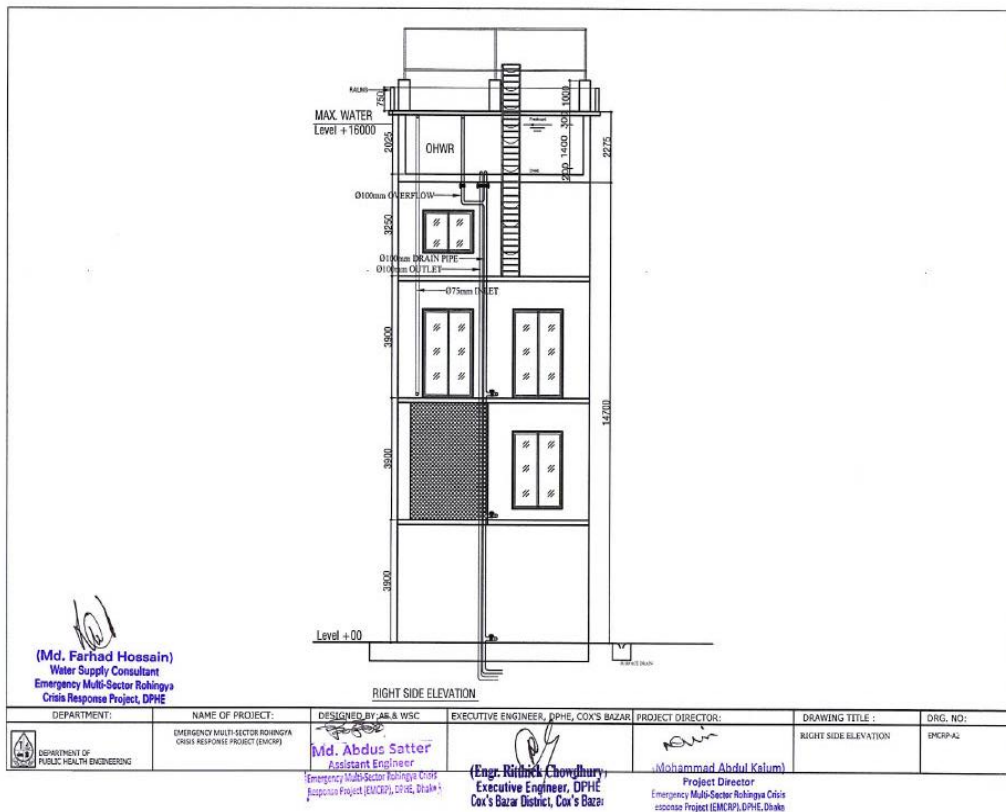
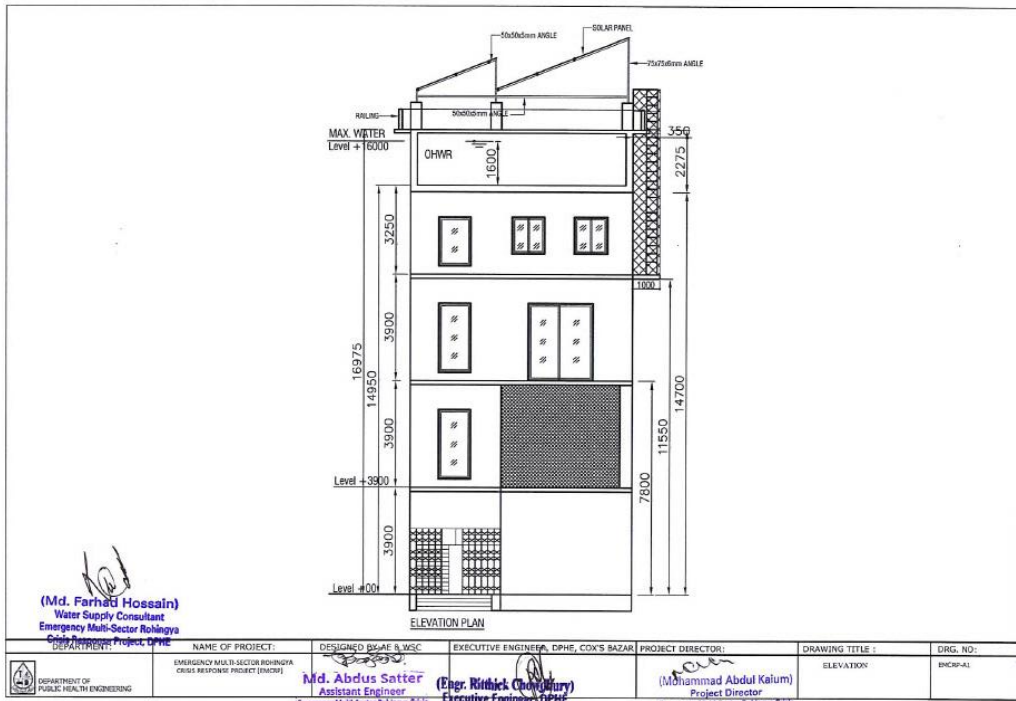
Figure_03: Stakeholders (UP, WATSAN Committee) Consultation participants list on MPWSS, Toitong Union, Pekua, Cox's Bazar

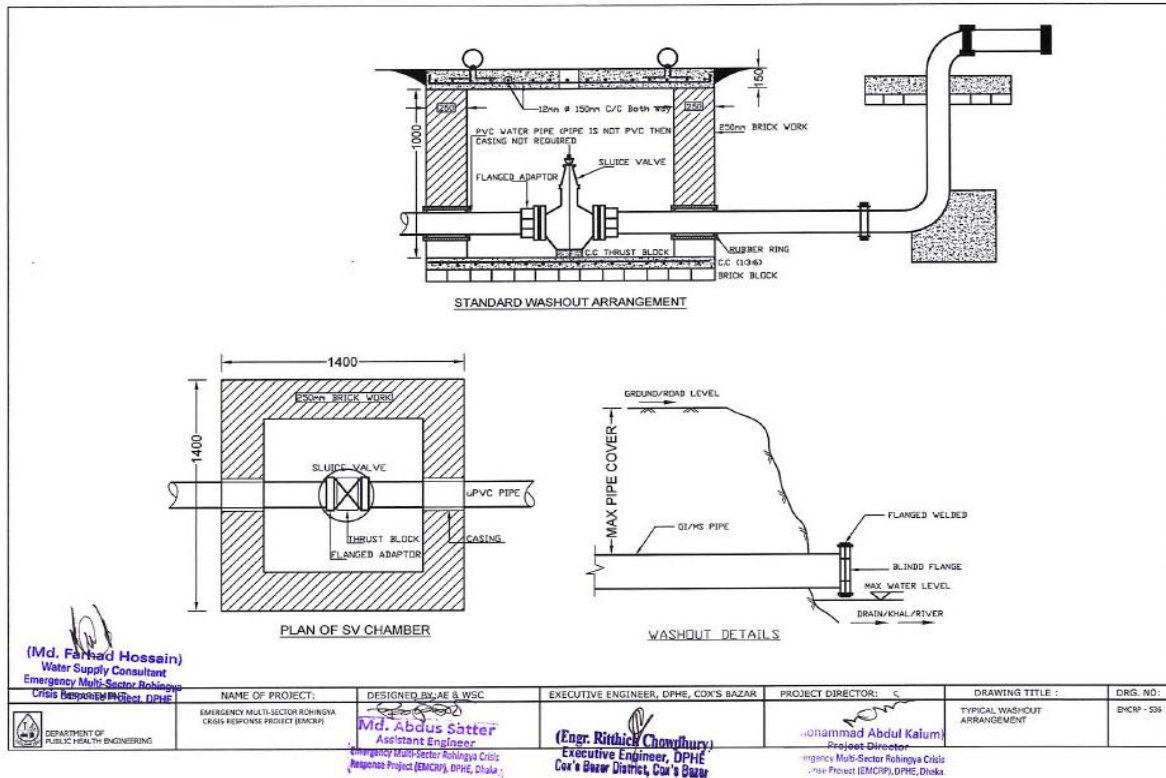
Appendix-03: Land Allocation documents(ConsentPaper Resolution) for MPWSS pump house, Toitong, Pekua, Cox's Bazar

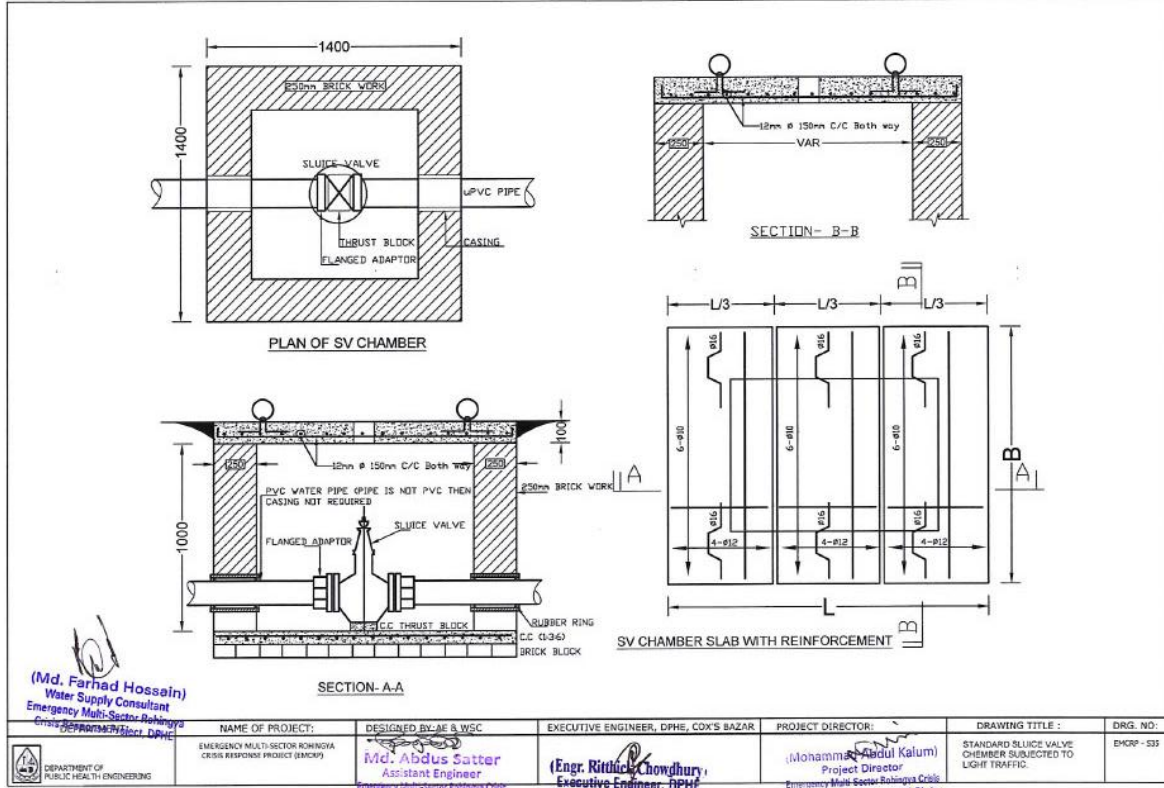
<p style="text-align: center;">গণপ্রজাতন্ত্রী বাংলাদেশ সরকার</p> <p style="text-align: center;">২নং টাইটং ইউনিয়ন পরিষদ</p> <p style="text-align: center;">ডাক: টাইটং, উপজেলা: পেকুয়া</p> <p style="text-align: center;">জেলা: কক্সবাজার, বাংলাদেশ।</p>	<p>বিস্মিল্লাহির রাহমানির রাহিম</p>  <p>চেয়ারম্যান</p> <p>মোঃ জাহেদুল ইসলাম চৌধুরী</p> <p>মোবাইল: ০১৮১৯-৮৩৮০৭০</p>	<p>Govt. People Republic of Bangladesh</p> <p style="text-align: center;">OFFICE OF THE</p> <p style="text-align: center;">TOITONG UNION PARISHAD</p> <p>P.O: Toitong, Upazilla: Pekua</p> <p>Dist: Cox's Bazar, Bangladesh</p> <p>E-mail: toitungup3@gmail.com</p>
<p>স্মারক নং: টাইটং ইউপি/ পেকুয়া/ কক্সবাজার- </p>		
<p>তারিখ: ১৫/০৪/২০২২</p>		
<div style="display: flex; justify-content: space-between;"> <div style="width: 20%;">  </div> <div style="width: 80%;"> <p>শ্রদ্ধেয়,</p> <p>চেয়ারম্যান</p> <p>২নং টাইটং ইউনিয়ন পরিষদ</p> <p>পেকুয়া, কক্সবাজার।</p> <p>প্রাপক : নির্বাহী অফিসার</p> <p>জনস্বাস্থ্য প্রকৌশল অধিদপ্তর</p> <p>কক্সবাজার জেলা, কক্সবাজার।</p> <p>বিষয়: জরুরী ভিত্তিতে রোহিঙ্গা সংকট মোকাবেলায় মাল্টি সেক্টর প্রকল্প আওতায় টাইটং ইউনিয়ন পরিষদের PIPE WATER SUPPLY এর জন্য Prw.pump-Huse. overhead Tank and Treatment Plants সংকট নির্মাণের জন্য জমি প্রদান প্রসঙ্গে।</p> <p>জনাব,</p> <p>উপর্যুক্ত বিষয়ের আলোকে আপনার সদয় অবগতি ও কার্যার্থে অতীব সম্মানের সহিত জানানো যাচ্ছে যে, কক্সবাজার পেকুয়া টাইটং ইউনিয়ন পরিষদ সকল সদস্যদের আলোচনা ও সম্মতিক্রমে টাইটং ইউনিয়নে পন্ডিত পাড়া গ্রামের পাইপের মাধ্যমে পানি সরবরাহ প্রকল্প বাস্তবায়নের জন্য ইউনিয়ন পরিষদের নিজস্ব জমি জমির বিএস খতিয়ান নং ৫৩৬, দাগ নং ৫৮৯, ০৭ একর ৯৮ শতক জমির মধ্যে থেকে ৬ শতক জমি উক্ত প্রকল্পের জন্য সর্বসম্মতিক্রমে প্রদান করিলাম।</p> <p>উল্লেখ্য থাকে যে, এই প্রকল্প বাস্তবায়ন না হলে জমি দেওয়া হবেনা। এই প্রকল্প বাস্তবায়নের জন্য সকল সাহায্য ও সহযোগিতা করিব এবং প্রকল্প বাস্তবায়নের জন্য সফলতা কামনা করি।</p> <p>চৌহদ্দি-</p> <p>উত্তরে চলাচল রাস্তা -দক্ষিণে উক্ত দাগের বাকী অংশ,</p> <p>পূর্ব-পশ্চিমে চলাচল রাস্তা।</p> <p>জমির তফসীল-</p> <p>জমির দাগ নং বিএস খতিয়ান নং- ৫৩৬</p> <p>দাগ নং- ৫৮৯</p> <p>মোজা- টাইটং</p> </div> </div>		
<p></p> <p>(মোঃ জাহেদুল ইসলাম চৌধুরী)</p> <p>চেয়ারম্যান</p> <p>টাইটং ইউনিয়ন পরিষদ</p> <p>পেকুয়া, কক্সবাজার।</p>		



Appendix-04: Proposed design of Pump House and WTP at Toitong Union







Appendix 05: Labor's Code of Conduct (CoC):

অঙ্গীকারপত্র

স্থান:

ঠিকাদারী প্রতিষ্ঠান:

আমি..... এইমর্মে অঙ্গীকার করছি যে,
কর্মরত থাকার অবস্থায় নিম্নোক্ত আদেশ, নির্দেশ ও নিষেধসমূহ সর্বদা মেনে চলবো।

১. সকল জনগোষ্ঠীর সাথে সর্বদা নম্রতা, ভদ্রতা ও সন্মানের সাথে ব্যবহার বজায় রাখবো।
২. কোন অবস্থাতেই স্থানীয় নারী, শিশুর সাথে কোন প্রকার সম্পর্ক তৈরী করবো না।



৩. স্থানীয়জনগোষ্ঠীরইচ্ছাকৃতবাঅনিচ্ছাকৃতকোনপ্রকারসাহায্যসহযোগীতানিবোনা।
৪. কোনঅবস্থাতেইস্থানীয়জনগোষ্ঠীদেবকোনপ্রকারআশ্বাসপ্রদানকিংবাঅঙ্গিকারবদ্ধহবোনা।
৫. কর্মক্ষেত্রেকিংবাএলাকায়জীবজন্তু, গাছপালাওপরিবেশেরকোনপ্রকারঅনিষ্টকরবোনা।
৬. কর্মক্ষেত্রেসর্বদানিরাপত্তাপোশাক-আশাকওউপকরণপরিধানওব্যবহারকরবো।
৭. সর্বদানিজনিজপরিচয়পত্র (ID Card) প্রদর্শনওসংরক্ষণকরবো।
৮. কোনঅবস্থাতেইস্থানীয়লোকদেরসাথেকোনপ্রকারঅসামাজিককর্মকান্ডওকোনপ্রকারবিবাদেলিপ্তহবোনা।
৯. যেকোনজরুরীঅবস্থায়সিদ্ধান্তগ্রহণেরক্ষেত্রেসংশ্লিষ্টকর্মকর্তারশরণাপন্নহবো।

উপরোক্তবিষয়সমূহেরযদিকোনব্যতিক্রমঘটেবাঘটাইতাহলেএবিষয়েস্থানীয়প্রশাসনআইনগতযেশাস্তি বাসমাধানগ্রহণকরবেতামেনেনিতেবাধ্যথাকবো।

স্বাক্ষর ও তারিখ



প্রজেক্টসাইটে যা যা অবশ্যই রাখতে হবে-

১. শ্রমিক ও কর্মকর্তা তালিকা
২. হাজিরা খাতা
৩. ছুটির রেজিস্টার
৪. দুর্ঘটনার বিবরণী লিপিবদ্ধ করার রেজিস্টার
৫. অভিযোগ লিপিবদ্ধ করার রেজিস্টার
৬. কাজের বিবরণী
৭. জরুরী অবস্থায় যোগাযোগের জন্য কমপক্ষে ২ জন কর্মকর্তার নাম-
পদবী সহ মোবাইল নম্বর বাংলা ও ইংরেজীতে বড় বড় অক্ষরে দৃশ্যমান স্থানে প্রদর্শনের জন্য স্থাপন।
৮. নিকটস্থ হাসপাতাল,
পুলিশ স্টেশন এবং ডাক্তারের সাথে যোগাযোগের জন্য মোবাইল/টেলিফোন নম্বর বাংলা ও ইংরেজীতে বড় বড় অক্ষরে দৃশ্যমান স্থানে প্রদর্শনের জন্য স্থাপন।
৯. কাজের সাইটে পূর্ণাঙ্গ তথ্য ও কাজের পরিধি ব্যানার আকারে দৃশ্যমান স্থানে প্রদর্শনের জন্য স্থাপন।
১০. নিরাপত্তা চিহ্ন, সতর্কতা তথ্য ও নিরাপত্তা বেস্তনী ব্যবস্থাকরা।
১১. নিরাপত্তা উপকরণ ও সরঞ্জামাদি এবং প্রাথমিক চিকিৎসা ব্যবস্থার রাখা।
১২. জরুরী অবস্থায় ব্যবহারের জন্য গাড়ি কিং বা মোটরসাইকেলের ব্যবস্থার রাখা।
১৩. কাজের ঝুঁকি পূর্ণ স্থান দিনে-রাত্রে সহজে সনাক্ত করা যায় এমন চিহ্ন কিং বা সেফটি লাইটের ব্যবস্থার রাখা।

(বিঃদ্রঃ রেজিস্টার খাতার উপর প্রত্যেক প্রতিষ্ঠানের নাম ও স্থান উল্লেখ করতে হবে।)

পরিবেশগত সতর্কতাসমূহঃ-

- ১) প্রয়োজন ব্যতীত কোন প্রকার আগুন ধরানো যাবে না।
- ২) কখনোই প্রাণীর অনিষ্ট করা যাবে না।
- ৩) সকল প্রকার দূষণ পরিহার করতে হবে।
- ৪) অনুমতি ব্যতীত কোন প্রকার গাছ কাটা যাবে না।
- ৫) যথাযথ সম্পদের ব্যবহার করতে হবে।
- ৬) নবায়নযোগ্য উৎস ব্যবহারের সর্বোচ্চ চেষ্টা করতে হবে।
- ৭) কাজের শেষে পূর্বের পরিবেশ ফিরিয়ে দিতে হবে।



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