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EMERGENCY HUMAN CAPITAL PROJECT

Additional Financing (YEHCP AF) (P176570)

Environmental and Social Management Plan (ESMP)

COMPONENT 2

Improving Access to Water Supply and Sanitation (WSS) and Strengthening Local Systems

SUB-COMPONENT 2.1

Restoring Access and Improving Quality to WSS Services in Selected Urban and Rural Areas

Supply, Delivery and Install Solar energy system for 5 subprojects

15 February, 2024

# Table of Contents

[Table of Contents 1](#_1fob9te)

[List of Tables 3](#_3znysh7)

[List of Figures 4](#_2et92p0)

[Abbreviations 5](#_tyjcwt)

[Summary Sheet 6](#_1t3h5sf)

[1 Introduction 7](#_17dp8vu)

[2 Sub-Project Description 9](#_3rdcrjn)

[2.1 Overview 9](#_26in1rg)

[2.2 Facilities Summary 11](#_lnxbz9)

[2.3 Scope of Work 19](#_3as4poj)

[2.4 Sub-project implementation period 23](#_2p2csry)

[3 Environmental And Social Baseline 24](#_147n2zr)

[4 Environmental and Social Screening Process Applicability: 34](#_4f1mdlm)

[4.1 Environment and Social Responsiveness 34](#_2u6wntf)

[4.2 Applicability of Implementation 34](#_19c6y18)

[4.3 Eligibility: 34](#_3tbugp1)

[5 Environmental and Social Screening 36](#_nmf14n)

[6 Risk Level and Mitigation Instruments 39](#_2lwamvv)

[6.1 Labor Management: 40](#_3l18frh)

[6.2 Gender: 41](#_2zbgiuw)

[6.3 Gender-Based Violence GBV, Sexual Exploitation and Abuse SEA and Sexual Harassment SH 41](#_1egqt2p)

[6.4 Land Acquisition 42](#_3ygebqi)

[6.5 Community health and safety 42](#_2dlolyb)

[6.6 Grievance Mechanism for Workers 44](#_sqyw64)

[7 Environmental and Social Risks Impact and Mitigation Measures 46](#_3cqmetx)

[8 Environmental and Social Monitoring Plan 59](#_4bvk7pj)

[9 Public Consultation 68](#_3q5sasy)

[10 Grievance Mechanism GM 69](#_34g0dwd)

[*10.1.1 Available Channels 70*](#_43ky6rz)

[*10.1.2 Tracking, Investigating and Resolving Complaints 70*](#_2iq8gzs)

[*10.1.3 Steps to handle GM 71*](#_xvir7l)

[11 Reporting of ESMP 72](#_3hv69ve)

[Annex:1 Environmental and Social Requirements for Contractors 74](#_4h042r0)

[Annex 3: Sample for GM communication and awareness materials 85](#_39kk8xu)

# List of Tables

[Table 1: Summary Sheet vii](#_4d34og8)

[Table 2: Facilities Summary 11](#_35nkun2)

[Table 3 : Exclusion List 28](#_28h4qwu)

[Table 4 : Environmental and Social Screening Form 29](#_1mrcu09)

[Table 5:Roles and Responsibilities of Key Role Player for Implementation of ESMP 30](#_46r0co2)

[Table 6 : Potential Environmental and Social Risks ‎Impact and Mitigation Measures 40](#_1rvwp1q)

[Table 7 : Monitoring Plan 51](#_2r0uhxc)

[Table 8: Public consultations data 59](#_25b2l0r)

[Table 9: Public consultations concerns raised and their Responses 59](#_kgcv8k)

[Table 10: Type of expected grievances 60](#_1jlao46)

[Table 11 :Reporting Plan 63](#_1x0gk37)

# List of Figures

[Figure 1: Satellite Image of Well 3 - Maabar City (EHC-AF-WS-DHAM-006) Location 13](#_2jxsxqh)

[Figure 2:Satellite Image of Well 5 - Maabar City (EHC-AF-WS-DHAM-006) Location 13](#_z337ya)

[Figure 3:Satellite Image of Well 10 - Bajel City (EHC-AF-WS-HOD-022) Location 14](#_3j2qqm3)

[Figure 4: Satellite Image of Al Senafah Well - Matnah City (EHC-AF-WS-SAN-008) Location 14](#_1y810tw)

[Figure 5:Satellite Image of Bait Alshabi W.P.S - Matnah City (EHC-AF-WS-SAN-008) Location 15](#_4i7ojhp)

[Figure 6:Satellite Image of Al Dhafer Well - Al Dhafer (Alwaleed City) (EHC-AF-WS-SAN-008) Location 15](#_2xcytpi)

[Figure 7:Satellite Image of Al Najd Well - Alribat Village (EHC-AF-WS-SAN-008) Location 16](#_1ci93xb)

[Figure 8:Satellite Image of Glades Well - Hobeish (EHC-AF-WS-IBB-007) Location 16](#_3whwml4)

[Figure 9:Satellite Image of Faramat Well - Hobeish (EHC-AF-WS-IBB-007) Location 17](#_2bn6wsx)

[Figure 10:Figure 9: Satellite Image of Al Hamam Well – Ridah City (EHC-AF-WS-AMR-003) Location 17](#_qsh70q)

# Abbreviations

| C-ESMP | Contractor Environmental and Social Management Plan |
| --- | --- |
| COC | Code of Conduct |
| CSO | Civil Society Organization |
| ESF | Environmental and Social Framework of the World Bank |
| ESHS | Environment, Social (including labor), Health, and Safety |
| ESMF | Environmental and Social Management Framework |
| ESMP | Environmental and Social Management Plan |
| ESS | Environmental and Social Standard |
| GBV | Gender Based Violence |
| GM | Grievance Redress Mechanism |
| HSSE | Health, Safety, Social and Environment |
| IDP | Internally Displace Person |
| LC | Local Corporation |
| LMP | Labor Management Procedures |
| MoWE | Ministry of Water and Environment |
| OHS | Occupational Health and Safety |
| PMU | Project Management Unit |
| SCMCHA | Supreme Council for Management and Coordination of Humanitarian Affairs |
| SEA | Sexual Exploitation and Abuse |
| SEP | Stakeholder Engagement Plan |
| SH | Sexual Harassment |
| WSLC | Water and Sanitation Local Corporations |
| W.P.S | Water Pumping Station |
| TPM | Third Party Monitoring |
| UNOPS | United Nations Office for Project Services |
| UW-PMU | Urban Water Project Management Unit |
| UWSSP | Urban Water Supply and Sanitation project |
| WASH | Water, Sanitation and Hygiene |
| YEHCP | Yemen Emergency Human Capital Project |
| PSEA/SH | Protection from Sexual Exploitation and Abuse/Sexual Harassment |
| IP | Implementing Partner |

# Summary Sheet

This sub-project is a part of YEHCP AF subcomponent 2.1: Restoring Access and Improving Quality to WSS Services in Selected Urban and Rural Areas which falls under the component 2: Improving Access to Water Supply and Sanitation (WSS) and Strengthening Local Systems.

***Table 1: Summary Sheet***

| **Subproject Name** | |
| --- | --- |
| EHC-AF-WS-DHAM-006 | Supply and Installation of Two (2) Solar Power Systems in Maabar City |
| EHC-AF-WS-HOD-022 | Supply, Delivery and Install Solar Energy System for one well in Bajel |
| EHC-AF-WS-SAN-008 | Supply and Installation of Three (3) Solar Power Systems in Matnah City |
| EHC-AF-WS-IBB-007 | Supply and Installation of Two (2) Solar Power Systems for wells in Hubaysh City |
| EHC-AF-WS-AMR-003 | Supply and Installation of Solar Pumping System with accessories for Al Hamam Well |
| **Subproject Location** | |
| EHC-AF-WS-DHAM-006 | Maabar City- Jahran District- Dhamar Governorate |
| EHC-AF-WS-HOD-022 | Bajel City- Bajel District- Hodeida Governorate |
| EHC-AF-WS-SAN-008 | Matnah City- Bani Matar District- Sana’a Governorate |
| EHC-AF-WS-IBB-007 | Hubaysh District- IBB Governorate |
| EHC-AF-WS-AMR-003 | Ridah City- Ridah District- Amran Governorate |
| **Implementing Partner** | Urban Water Supply and Sanitation Project (UWSSP) |
| **Name of consultant preparing the ESMP** | Eng. Rasheed Mohammed Al-Saidi |
| **Risk level (low or moderate)** | Moderate |
| **Date of the field visit** | |
| EHC-AF-WS-DHAM-006 | 04/03/2023 |
| EHC-AF-WS-HOD-022 | 29/04/2023 |
| EHC-AF-WS-SAN-008 | 01/04/2023 |
| EHC-AF-WS-IBB-007 | 01/05/2023 |
| EHC-AF-WS-AMR-003 | 10/05/2023 |
| **Estimated Total ESMP Cost** | |
| EHC-AF-WS-DHAM-006 |  |
| EHC-AF-WS-HOD-022 |  |
| EHC-AF-WS-SAN-008 |  |
| EHC-AF-WS-IBB-007 |  |
| EHC-AF-WS-AMR-003 |  |
| **Implementation Modality** | Directly implemented by UWSSP through Local Contractors |
| **Consultation date and name of consultant** | Eng. Rasheed Mohammed Al-Saidi |
| **Observations/Comments** | Indicated below |
| **Signature of responsible ESSO** |  |
| **Date** |  |

# Introduction

The Environmental and Social Management Plan (ESMP) for Supply, Delivery and Install Solar energy system for 5 subprojects, under component 2 YEHCP AF was prepared in accordance with the [Environmental and Social Management Framework (ESMF](https://documents1.worldbank.org/curated/en/099535005302223184/pdf/P17657004944f30b0b3c005bafa0859d1b.pdf)) for YEHCP AF. The ESMF was prepared by UNOPS to meet the requirements of the World Bank’s Environmental and Social Framework (ESF), UNOPS requirements and the national environmental laws and regulations requirements.

The World Bank is financing the Yemen Emergency Human Capital Project (YEHCP- P176570), under the provisions of World Bank OP 10.00, paragraph 12, Projects in Situations of Urgent Need of Assistance or Capacity Constraints. The Project will be implemented by the United Nations Office for Project Services (UNOPS), the World Health Organization (WHO), and the United Nations Children’ Fund (UNICEF) in which UNOPS will implement Component 2 of the project, in partnership with local Implementing Partners.

The YEHCP AF ESMF will guide UNOPS and its implementing partners, to ensure that all subprojects are in accordance with the ESF (Environmental and Social Framework) requirements, including the preparation and implementation of subproject specific Environmental and Social Management Plan (ESMP). For this purpose, the ESMF (Environmental and Social Management Framework) details how UNOPS will screen each subproject to assess its environmental and social risks and impacts, identify the mitigation measures, and monitor ESMP implementation, most particularly the environmental and social performance of project contractors.

UNOPS has in parallel prepared a Labor Management Procedures (LMP) to meet the requirements of ESS2, and a GBV/SEA/SH Plan and a Security Management Plan (SMP) to meet the requirements of ESS4, and a Resettlement Framework (RF) to meet the requirements of ESS5, and a Stakeholder Engagement Plan SEP, to meet the requirements of ESS10.

The relevant Environmental and Social Standards for this subproject are Environmental and Social Standards (ESS1) (Assessment and Management of Environmental and Social Risks and Impacts), ESS2 (Labor and Working Conditions), (ESS3) (Resource Efficiency and Pollution Prevention and Management), (ESS4) (Community Health and Safety), and (ESS10) (Stakeholder Engagement and Information Disclosure). As a result, this subproject will follow the requirements of the LMP for labor working conditions and OHS (Occupational Health and Safety), the GBV (Gender Based Violence) action plan for any GBV issues and the SMP to manage any potential security risks and SEP for Stakeholder Engagement

The overall objective of the YEHCP AF is to provide essential health, nutrition, water and sanitation services to the population of Yemen. The targeted services cover four components: (i) Improving Access to Healthcare, Nutrition, and Public Health Services; (ii) Improving Access to Water Supply and Sanitation (WSS) and Strengthening Local Systems; (iii) Project Support, Management, Evaluation and Administration; and (iv) Contingent Emergency Response

The ESS5is not relevant because the subproject does not include any land acquisition, restrictions on land use, or involuntary resettlement, also the ESS6 is not relevant because the subproject does not include and will not impact any kind of biodiversity or living natural resources; in addition, the ESS7, ESS8, and ESS9 are not relevant because there are no indigenous peoples, cultural heritage in the subprojects' area, and the subproject does not involve financial intermediaries. As a result, these subprojects must follow the requirements of the LMP for labor working conditions and OHS, the GBV action plan for any GBV issues, SEP for consultation and information disclosure, and the security situation is stable in all the subprojects’ locations so SMP isn’t required in these subprojects.

It is worth to mention that this ESMP will be translated into Arabic and distributed to stakeholders and published on UNOPS and WB websites.

# Sub-Project Description

## Overview

The residents of target areas depend on two water distribution systems to meet their water needs, which are the public network water supply system, and water trucks from private wells water supply system

The entire public network water supply system in the target areas covered only 62% of the total population lives.

The public network water supply system is managed and operated by Local Water and Sanitation Corporations (LWSCs), and this system is characterized by the following:

* Closed and protected from any external pollutants or contaminants.
* Saves time and effort to the consumers, especially children and women, because the water supply service reaches to their facilities / houses
* lower water tariff per unit of water

The water is supplied by this system (Public Network) through three water distribution paths lines. The first path, in which water is pumped from the well/s, passing to the distribution network. The second path, in which water is pumped from the well/s to the water tank/s and then to the distribution network is by gravity and the third path in which water is pumped from the tanks to the houses. All three paths are connected to each other and interdependent, . and this project is related to the three paths.

Before the conflict in March 2015, LWSCs relied mainly on the public electricity grid to operate the water utilities (wells and pump stations). When the conflict escalated, the infrastructure of the public electricity grid was damaged, causing the cutoff of electricity to the LWSCs water utilities. LWSC has depended mainly on generators to operate the water utilities and provide beneficiaries with water to meet their needs. LWSCs face a genuine challenge in relying on and obtaining an adequate amount of fuel for the operation of generators. The frequent disruptions in the fuel supply chain and high cost of fuel directly affected the capacity of supplying drinking water and, in some cases, led to a total shutdown of the service, which immensely and directly impacted the residents' lives.

Using solar energy systems ensures a more reliable power supply source, optimal fuel economy, lowers pollution emissions from diesel generators which will be kept in locations as back-ups only, prevents beneficiaries from using polluting alternative systems, and helps consumers, particularly women and children, save time and effort.

The subprojects activities will be solar energy systems for ten facilities with a total capacity of 749.3 kw, supply seven pumps, implement three control rooms, and construction of a fence with a length of 1423 meters. The subproject activities for each facility are provided in Table 2. The subprojects will provide access to safe and adequate water for 141,749 beneficiaries. Although the amount of water per person varies from subproject to subproject, it averages around 27 liters per capita.

**The subprojects are:**

| EHC-AF-WS-DHAM-006 | Supply and Installation of Two (2) Solar Power Systems in Maabar City |
| --- | --- |
| EHC-AF-WS-HOD-022 | Supply, Delivery and Install Solar Energy System for one well in Bajel |
| EHC-AF-WS-SAN-008 | Supply and Installation of Three (4) Solar Power Systems in Matnah City |
| EHC-AF-WS-IBB-007 | Supply and Installation of Two (2) Solar Power Systems for wells in Hubaysh City |
| EHC-AF-WS-AMR-003 | Supply and Installation of Solar Pumping System with accessories for Al Hamam Well |

## Facilities Summary

The total number of subprojects under this ESMP is five, in ten facilities (nine well facilities and one water pumping station (W.P.S)), distributed across five governorates as detailed in table 2 below.

***Table 2: Facilities Summary***

| subprojects | Facility Name | Coordinates | Governorate | District | Area’s target | No. of Population | No. of LWSC beneficiaries | No. of beneficiaries in subproject | PV Capacity kW | Panels installation location | Steel Mounting Structure type | Pumps | Control Rooms | Fencing (m) |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| EHC-AF-WS-DHAM-006 | Well # 3 | 14.797242  44.296270 | Dhamar | Jahran | Maabar City | 52,657 | 38,160 | 6,200 | 57 | LWSC Property | Ground-Type 2 | --- | --- | 130 |
| Well # 5 | 14.797244  44.296261 | 6,500 | 57 | State Property-leased by LWSC | --- | --- | 72 |
| EHC-AF-WS-HOD-022 | Well # 10 | 15.081456  43.281242 | Hodeida | Bajel | Bajel City | 120,000 | 66,479 | 66,479 | 83.2 | LWSC Property | Ground-Type 1 | --- | 1 | 150 |
| EHC-AF-WS-SAN-008 | Al Senafah Well | 15.245904  44.011625 | Sana’a | Bani Matar | Matnah City | 23,000 | 15,530 | 15,530 | 75 | LWSC Properties | Ground-Type 1 | 1 | 1 | 189 |
| Bait Alshabi W.P.S | 15.25206  44.01018 | 90 | 1 | -- | 230 |
| Al Dhafer Well | 15.483170 43.950426 | Al Dhafer – Alwaleed City | 700 | 700 | 700 | 61.6 | 1 | -- | 147 |
| Al Najd Well | 15.19614  44.059953 | Alribat Village | 500 | 500 | 500 | 76.5 | 1 | 1 | 190 |
| EHC-AF-WS-IBB-007 | Glades well | 14.047387  44.077273 | IBB | Hobeish | Jabal Eamiqa-Shubae- Bani Moain -Bani Aldahatayn- Jabal Khadra'- Altafadi | 50,972 | 30,680 | 30,680 | 72 | LWSC Property | Ground-Type 1 | 1 | --- |  |
| Faramat well | 14.093834  44.116532 | 60 | School Property – agreed to put PV in school’s roof and ground | Roof-Tops | 1 | --- | 147 |
| EHC-AF-WS-AMR-003 | Al Hamam Well | 15.814033 44.042188 | Amran | Ridah | Ridah  City | 21,679 | 15,160 | 15,160 | 117 | School Property – agreed to put PV in school’s roof and ground | Roof-Tops | 1 | --- | --- |
| **Total** | | | | | | **269,508** | **167,209** | **141,749** | **749.3** |  |  | **7** | **3** | **1423** |



***Figure 1: Satellite Image of Well 3 - Maabar City (EHC-AF-WS-DHAM-006) Location***

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***Figure 2:Satellite Image of Well 5 - Maabar City (EHC-AF-WS-DHAM-006) Location***



***Figure 3:Satellite Image of Well 10 - Bajel City (EHC-AF-WS-HOD-022) Location***



***Figure 4: Satellite Image of Al Senafah Well - Matnah City (EHC-AF-WS-SAN-008) Location***



***Figure 5:Satellite Image of Bait Alshabi W.P.S - Matnah City (EHC-AF-WS-SAN-008) Location***



***Figure 6:Satellite Image of Al Dhafer Well - Al Dhafer (Alwaleed City) (EHC-AF-WS-SAN-008) Location***



***Figure 7:Satellite Image of Al Najd Well - Alribat Village (EHC-AF-WS-SAN-008) Location***



***Figure 8:Satellite Image of Glades Well - Hobeish (EHC-AF-WS-IBB-007) Location***



***Figure 9:Satellite Image of Faramat Well - Hobeish (EHC-AF-WS-IBB-007) Location***



***Figure 10:Figure 9: Satellite Image of Al Hamam Well – Ridah City (EHC-AF-WS-AMR-003) Location***

## Scope of Work

**Nature of work**

Some of the PV panels will be installed on the rooftops with a height that does not exceed 1.5 m, while others will be installed on the ground with two types: type 1 with a height that does not exceed 1.5 m and type 2 with a height of 2.5 m, as provided in Table 2. and the HIAB may be used to lift the PV panels during the installation. The PV structure will be installed or fixed with bolts and nuts, eliminating the need for welding.

The earthing system and cable trenches will be excavated to a depth of less than 60 cm. Excavation areas will be appropriately secured with barricades, fences, and precaution tapes. The contractor will place safety signs, and the waste will be removed and transferred to an approved landfill. The excavation equipment (excavators, dumpers) will be used to finish the excavation works, and manual excavation will be used by using hand tools such as Shovel, pick Axe, Digging Fork and so on.

The contractors have to carefully dismantle and remove all the existing equipment inside the well hole (pump, motor, riser pipes, cables, etc.) and any parts on well site and inside control room have to be removed and delivered as instructed by the engineer. The work shall also include all needed equipment (crane, trucks, tools ... etc.) to complete the work as required. The contractor will be required to replace any item which will get damaged during the work process by an equal one at no extra cost to the owner or UNOPS. The work includes delivery of dismantled material to client (WSLCs) storage area. All works should be done in close coordination with client (WSLCs) and the engineer.

All the activities in the subproject will be done according to the technical specifications and OHSSE regulations (lifting safe work practices, working in high areas, WB guidelines, and UNOPS HSSE System).

There will be no increase in the water abstraction rate and it will stay as it is in all targeted areas as shown the table below:

| Facility Name | Governorate | District | Area’s target | Current water flow rate to tank (m3/hr) |
| --- | --- | --- | --- | --- |
| Well # 3 | Dhamar | Jahran | Maabar City | 17 |
| Well # 5 | 19 |
| Well # 10 | Hodeida | Bajel | Bajel City | 20.5 |
| Al Senafah Well | Sana’a | Bani Matar | Matnah City | 17 |
| Al Dhafer Well | Al Dhafer – Alwaleed City | 18 |
| Al Najd Well | Alribat Village | 23 |
| Glades well | IBB | Hobeish | Jabal Eamiqa-Shubae- Bani Moain -Bani Aldahatayn- Jabal Khadra'- Altafadi | 22 |
| Faramat well | 21 |
| Al Hamam Well | Amran | Ridah | Ridah  City | 17 |

**The scope of work shall include the following activities:**

* Supply, install, test and commission a new solar-powered pumps with all accessories they need to get a working system for (7) facilities as provided in Table 2
* Dismantling, removing, delivering the existing equipment and delivery of dismantled material to client (WSLCs) storage area.
* Supply, install, testing, and commissioning PV MODULES with total capacity 749.3 kw for ten facilities as provided in Table 2
* Supply and install ground level mounting structures (rooftop and ground type 1&2 as provided in Table 2)

The item shall include the following:

* Site preparation for the ground PV systems (clearing, pruning the unwanted weeds, excavation), etc.; using shovels and mattocks
* Supplying, fabricating, delivering at site, hoisting and fixing in position, including all temporary staging and supporting work and making all structural steel work as per in the shop drawings and technical specifications of mounting structures
* For ground structures: Supply and implementation of (0.6x0.6x0.6) m reinforced concrete C25 for all mountings foundations, including anchor bolts, the excavation works and all necessary related works according to the shop drawings, technical specifications and the instructions of the supervising Engineer.
* Fabrication and erection in position structural steel sections for base plates, columns, rafters, eaves, bracing, galvanized purlins and others made out of plates, IPE Sections, Angles, glva HSS and other structural steel sections complete as per drawing and as per the direction of supervising engineer.
* Providing and applying a coat of approved zinc chromite primer and two coats of synthetic enamel paint over all as specified and directed.
* Implementation of an electrical control room (4x4) m the work includes following:
* Providing a 40 cm height of mixture concrete C18 with stones (1:1) under the footing, 50x40 cm Foundation and all necessary according to the specifications and shop drawings.
* Providing and laying cast in-situ Reinforced Cement Concrete (RCC) C30 for plinth beam, roof slab and all necessary according to the specifications and shop drawings.
* Supply and install 20 cm solid cement block (40x20x20), automatically manufactured, 3.5 meters height and all necessary related work according to specifications and the instructions of the supervising engineer.
* Providing 15mm cement sand 1:3 plastered & floated smooth internally and externally on walls.
* Prepare and apply one coat of wall primer, putty, one undercoat and 3 coats of semi-gloss enamel white paint on smooth finish cement and all necessary related work according to the instructions of the supervising engineer.
* Cement tiles for the room floor, the type of tiles should be very good quality and approved before used and all necessary according to the specifications and the instructions of the supervising engineer.
* Supply and install Aluminum window (1.2 x 1 m) with 6 mm dark glass, complete with two sliding leave complete, glazing, silicone sealant, ironmonger, and hardware, all and anywhere else, needed, and all necessary related work.
* Supply and install iron grille for the window and all necessary related work.
* Supply and install Galvanized Steel Door - 2.00x1.00 one leave with all required works according to the instructions of the supervising engineer.
* Providing and laying Screed concrete in 1:2:4 with 20mm and down-graded stone aggregates wherever to required thickness, slope and trowel finished smooth as directed including levelling, compacting, all leads and lifts with necessary curing and shuttering etc. complete at all levels. and all necessary related work according to the instructions of the supervising engineer.
* Supply and install concrete side walk 70 cm width, and all necessary according to the specifications and the instructions of the supervising engineer.
* Supply, install, testing, and commissioning PV Combiner boxes
* Supply, install, testing, and commissioning Main DC connecting Panel
* Supply, install, testing, and commissioning Solar Pump Inverter (Controller)
* Supply, install, testing, and commissioning Submersible AC panel / Box
* Supply, install, testing, and commissioning Genset/Main Junction Box
* Supply, install, testing, and commissioning DC and AC Cabling
* Supply, install, testing, and commissioning Submersible AC cable
* Supply, install, testing, and commissioning Solar Street Lighting Systems
* SECURITY FENCE (METALCHAIN LINK FABRIC).
* Supply and install Chain Link Metal Fence with Barbed wires as per in the shop drawings and the technical specifications (3.3), the work includes the following:
* Survey and conduct all site settlement and levelling such as cut and backfill in any type of soil, and clear all planned areas for the work from materials, debris, trees, chairs and disposal of debris to authorized area prior to the commencing of work.
* Provide materials and construction of 2.50-meter-high chain Link Fence made from galvanized /or anticorrosion iron Post 50 & 65mm DN that shall be embedded in concrete footings (30x30x60) cm C20 and pressed at end. The panels width is 3 meters. The chain link 50mmx50mm opening and 3.15mm dim the work includes installing of three lines of Barbed Wires above and with all requirements according to the technical specifications, shop drawings and instruction of supervising engineer.
* Provide materials and construction of Double leaf gate 3m with width of 3m, poles DN 65mm 2.5-meter height with BRC link 75mmx75mm spaces with all requirement according to the technical specifications and instruction of supervising engineer.
* Supply, install, testing, and commissioning Earthing & Grounding System
* Supply of cleaning set for PV
* Supply, install, test and commissioning 5kg Carbon Dioxide (CO2) Extinguisher
* Supply, install, testing, and commissioning Fire Extinguisher Powder extinguisher Supply, install, test and commissioning 6kg Powder extinguisher
* All structures should be protected against wind

## Sub-project implementation period

| **Sub-Project** | **Implementation Period** |
| --- | --- |
| EHC-AF-WS-DHAM-006 | Five months |
| EHC-AF-WS-HOD-022 | Four months |
| EHC-AF-WS-SAN-008 | Six months |
| EHC-AF-WS-IBB-007 | Five months |
| EHC-AF-WS-AMR-003 | Four months |

# Environmental And Social Baseline

1. **Dhamar**

Dhamar governorate is located 100 kilometers to the south of the capital Sana’a and shares borders with Sana’a and Raymah governorates in its north, Al-Hodeidah in its west, and Ibb and Al-Dhalea in its south. The governorate is divided into 12 administrative districts, with Dhamar City as the capital of the governorate. According to the 2014 Household Budget Survey, the poverty rate in Dhamar was 31.1%. With the decline of economic conditions in Yemen, this number has likely increased.

**Temperature** [[1]](#footnote-0)

The summers are short, warm, arid, and mostly cloudy and the winters are cool, dry, and mostly clear. Over the course of the year, the temperature typically varies from 4°C to 27°C and is rarely below 1°C or above 29°C.

The warm season lasts for 1.8 months, from May 20 to July 14, with an average daily high temperature above 26°C. The hottest month of the year is June, with an average high of 27°C and low of 12°C. The cool season lasts for 3.3 months, from October 28 to February 9, with an average daily high temperature below 22°C. The coldest month of the year is December, with an average low of 4°C and high of 21°C.

**Rainfall**

Rain falls throughout the year in Dhamar. The month with the most rain is August, with an average rainfall of 10 millimeters. The month with the least rain is November, with an average rainfall of 2 millimeters.

**Wind**

The windier part of the year lasts for 5.6 months, from May 20 to November 6, with average wind speeds of more than 2.9 meters per second. The windiest month of the year is July, with an average hourly wind speed of 3.2 meters per second. The calmer time of year lasts for 6.4 months, from November 6 to May 20. The calmest month of the year is December, with an average hourly wind speed of 2.6 meters per second.

**Solar Energy**

The brighter period of the year lasts for 3.8 months, from February 25 to June 20, with an average daily incident shortwave energy per square meter above 7.1 kWh. The brightest month of the year is May, with an average of 7.3 kWh. The darker period of the year lasts for 1.1 months, from July 15 to August 18, with an average daily incident shortwave energy per square meter below 6.3 kWh. The darkest month of the year is December, with an average of 6.2 kWh.[[2]](#footnote-1)

**Air Quality and Noises**

There is a severe lack of information on the state of the air in Yemen in general and in the sub-project area in particular. There was no air quality monitoring data for the sub-project area found.

During the field visit, numerous sources of air pollution have been observed. Emissions from diesel generators and vehicles, additionally dust generation as result of vehicles passing on un-asphalted roads.

Diesel generators and traffic movement are a source of noise in the sub-project location.

**Biodiversity**

Endemic, near-endemic and threatened species of plants and animals are not existing in the sub-project area. So, there is no impact on Biodiversity in the sub-project area during the implementation

**Hydrology**

The average depth of the groundwater in the subproject area is 216 meters and there is no surface water in the subproject area. the subproject activities will be the supply, delivery and installation of solar energy system, and will not change the ground level or the runoff in the subproject area

In the current situation, the LWSC is operating the pumps of wells by using generators, and thus the intervention will not have a role in increasing the water abstraction‎ and a decrease in the groundwater levels in the sub-project area.

**Socioeconomic data**

Estimated Dhamar‎ governorate's population is about 2,299,288 in 2022. Women represent 50.1% of Dhamar Governorate's population, and the total IDPs 194,207.

Agriculture is the main economic activity in Dhamar governate, which is the fifth largest agricultural producer in Yemen, accounting for 5.3% of total production. The most important crops are vegetables, cereals, and fodder. Dhamar is one of the main sources for construction stones and minerals in Yemen, and quarrying and mining of a scoria, zeolite, and agate make it a center of Yemen’s small and largely artisanal mining sector.

The poverty rate in Dhamar was 31.1%. With the decline of economic conditions in Yemen, this number has likely increased.

The subproject in the Dhamar (urban region) and are easily accessible through asphalted roads. The areas targeted in the sub-projects are residential areas.   
The majority of families work in the government sector, with some working in the private sector. The targeted locations have four health care facilities and seven educational facilities.

1. **AlHudaydah**

AlHudaydah governorate is located in the far west of the Republic of Yemen along the Red Sea coast. It is 226 kilometers west of the capital city of Sana’a. The governorate is divided into 26 districts, and the city of AlHudaydah is the governorate’s capital. Al-Hodeidah port, alongside Aden port, is one of the main commercial ports of the country. According to the 2014 Households Budget Survey, 58.1% of residents of the governorate were under the poverty threshold. Since Al-Hodeidah has been a site of active fighting with hundreds of thousands displaced, this rate has dramatically increased during the past few years of the war. Current estimates suggest that the poverty rate may well have reached 80-90% in the governorate.

**Population**

Estimated AlHudaydah ‎ governorate's population is about 3,244,192 in 2023. Women represent 48.8% of AlHudaydah ‎ Governorate's population, and the total IDPs 562,957

**Temperature** [[3]](#footnote-2)

The summers are long, hot, and partly cloudy; the winters are warm and mostly clear; and it is oppressive and dry year-round. Over the course of the year, the temperature typically varies from 22°C to 35°C and is rarely below 20°C or above 37°C.

The hot season lasts for 4.7 months, from May 18 to October 8, with an average daily high temperature above 34°C. The hottest month of the year is July, with an average high of 35°C and low of 31°C.The cool season lasts for 3.3 months, from December 3 to March 12, with an average daily high temperature below 30°C. The coldest month of the year is January, with an average low of 22°C and high of 28°C.

**Rainfall**

The rainy period of the year lasts for 3.7 months, from July 1 to October 24, with a sliding 31-day rainfall of at least 13 millimeters. The month with the most rain is August, with an average rainfall of 30 millimeters. The rainless period of the year lasts for 8.3 months, from October 24 to July 1. The month with the least rain is December, with an average rainfall of 2 millimeters.

**Wind**

The windier part of the year lasts for 6.6 months, from October 13 to May 1, with average wind speeds of more than 3.3 meters per second. The windiest month of the year is March, with an average hourly wind speed of 3.7 meters per second. The calmer time of year lasts for 5.4 months, from May 1 to October 13. The calmest month of the year is May, with an average hourly wind speed of 3.0 meters per second.

**Solar Energy**

The brighter period of the year lasts for 2.0 months, from March 6 to May 5, with an average daily incident shortwave energy per square meter above 6.6 kWh. The brightest month of the year is April, with an average of 6.8 kWh. The darker period of the year lasts for 2.1 months, from November 21 to January 25, with an average daily incident shortwave energy per square meter below 5.7 kWh. The darkest month of the year is December, with an average of 5.4 kWh.

**Air Quality and Noises**

There is a severe lack of information on the state of the air in Yemen in general and in the sub-project area in particular. There was no air quality monitoring data for the sub-project area found.

During the field visit, numerous sources of air pollution have been observed. Emissions from diesel generators and vehicles, additionally dust generation as result of vehicles passing on un-asphalted roads.

Diesel generators and traffic movement are a source of noise in the sub-project location.

**Biodiversity**

Endemic, near-endemic and threatened species of plants and animals are not existing in the sub-project area. so, there is no impact on Biodiversity in the sub-project area during the implementation.

**Hydrology**

The average depth of the groundwater in the subproject area is 190 meters and there is ot surface water resources in the subproject area. the subproject activities will consist of the supply, delivery and installation of solar energy system, and will not change the ground level or the runoff in the subproject area

In the current situation, the LWSC is operating the pumps of well by using generator, and thus the intervention will not have a role in increasing the water abstraction‎ and a decrease in the groundwater levels in the sub-project area.

**Socioeconomic data**

Agriculture constitutes the main economic activity in the Governorate of Al-Hodeidah. The governorate is the biggest agricultural producer in the country, accounting for more than one quarter of total agricultural production. The most important crops produced in Al-Hodeidah are vegetables, fruits, and fodder. In addition, the Red Sea fisheries provide an important source of income to the governorate’s inhabitants. Al-Hodeidah is a transportation and trading hub, and import and export businesses belong to the governorate’s most important economic actors. Al-Hodeidah also hosts a number of industries, including the Bajil Cement Factory and food and drinks manufacturing. The most important minerals found in the governorate are granite, black sand, dyes, ceramics, rock salt, gypsum, and some other clay minerals. The governorate is famous for its historic, heritage, and tourism sites, in addition to sea tourism.

Al-Hodeidah derived 91% of its 2014 budget from grants and central subsidies, while local revenues accounted for 9% of the budget – a comparatively high figure reflecting the economic importance of Al-Hodeidah port and large agricultural businesses in the governorate. The most significant sources of local income were local shared revenues and taxes, particularly zakat, taxes on goods and services, income, profits, and capital gains. There are also revenues from the administration’s sale of goods and services, as well as fines and penalties. These revenues were negatively affected by the war, which has closed the port to all but humanitarian traffic, causing major economic challenges for the governorate. The establishment of a central zakat body in areas under the control of the de facto authorities and the transfer of zakat revenue to a central revenue has also caused the governorate to lose a very important source of income.

According to the 2014 Households Budget Survey, 58.1% of residents of the governorate were under the poverty threshold. Since Al-Hodeidah has been a site of active fighting with hundreds of thousands displaced, this rate has dramatically increased during the past few years of the war. Current estimates suggest that the poverty rate may well have reached 80-90% in the governorate. The Interim Food Security Classification for 2019 ranks Al-Hodeidah as the governorate with the highest levels of poverty in Yemen.

According to OCHA 2.33 million people are in need of assistance in Al-Hodeidah in 2022, or nearly 72% of the population. Out of these, 66% are in acute need.

Fighting in Al-Hodeidah exacerbated the humanitarian situation in the governorate and led to mass displacement. Between June and October 2018, nearly 425,000 people were forced to flee their homes. Since the beginning of the war, almost 10,000 people have been killed in Al-Hodeidah,7 and in January 2019, the number of displaced persons in Al-Hodeidah likely reached close to one million people. Currently, Al Hodeida hosts an IDP population of 563.000 (status December 2022).

Eleven health facilities in the governorate have closed, and large numbers of doctors have left the governorate due to lack of salary payments and the deteriorating security situation. Even nominally functioning health facilities were working at minimum capacity. Health services provided in hospitals and health centers rely mainly on support by donor organizations.

At least 21 schools have been damaged by the war. This has disrupted education. Many households fear sending their children to school for security reasons, and the displacement of many teachers from the city to other areas has led to staff shortages.

Currently, the status of security in the city is stable, the skilled and unskilled labors are the available in Al-Hodeidah city.

1. **Sana’a**

Sana’a governorate surrounds the capital city of Sana’a and is divided into 16 administrative districts. According to the 2014 Household Budget Survey, the poverty rate in Sana’a governorate was 42%. With the high inflation rate and economic disruption, the governorate has faced in the past years, this rate has likely increased a great deal.

**Population**

Estimated Sana’a ‎ governorate's population is about 3,244,192 in 2023. Women represent 48.8% of Sana’a ‎ Governorate's population, and the total IDPs 562,957

**Temperature** [[4]](#footnote-3)

The summers are short, hot, arid, and mostly cloudy and the winters are cool, dry, and mostly clear. Over the course of the year, the temperature typically varies from 10°C to 32°C and is rarely below 7°C or above 34°C.

The hot season lasts for 2.1 months, from May 18 to July 20, with an average daily high temperature above 31°C. The hottest month of the year is June, with an average high of 32°C and low of 20°C. The cool season lasts for 3.0 months, from November 17 to February 18, with an average daily high temperature below 26°C. The coldest month of the year is December, with an average low of 10°C and high of 25°C.

**Rainfall**

The sliding 31-day quantity of rainfall does not vary significantly over the course of the year, staying within 2 millimeters of 4 millimeters throughout the year.

**Wind**

The average hourly wind speed experiences mild seasonal variation over the course of the year. The windier part of the year lasts for 2.0 months, from June 20 to August 20, with average wind speeds of more than 2.5 meters per second. The windiest month of the year is July, with an average hourly wind speed of 2.9 meters per second. The calmer time of year lasts for 10 months, from August 20 to June 20. The calmest month of the year is May, with an average hourly wind speed of 2.0 meters per second.

**Solar Energy**

The average daily incident shortwave solar energy experiences some seasonal variation over the course of the year. The brighter period of the year lasts for 1.5 months, from May 12 to June 27, with an average daily incident shortwave energy per square meter above 6.9 kWh. The brightest month of the year is June, with an average of 7.1 kWh. The darker period of the year lasts for 2.0 months, from November 21 to January 20, with an average daily incident shortwave energy per square meter below 6.1 kWh. The darkest month of the year is December, with an average of 5.9 kWh.

**Air Quality and Noises**

There is a severe lack of information on the state of the air in Yemen in general and in the sub-project area in particular. There was no air quality monitoring data for the sub-project area found.

During the field visit, numerous sources of air pollution have been observed. Emissions from diesel generators and vehicles, additionally dust generation as result of vehicles passing on un-asphalted roads.

Diesel generators and traffic movement are a source of noise in the sub-project location.

**Biodiversity**

Endemic, near-endemic and threatened species of plants and animals are not present in the sub-project area therefore, there is no impact on Biodiversity in the sub-project area during the implementation

**Hydrology**

The average depth of the groundwater in the subproject area is 200 meters and there are no surface water resources present in the subproject area. the subproject activities will consist of supply, delivery and installation of solar energy system, and will not change the ground level or the runoff in the subproject area

In the current situation, the LWSC is operating the pumps of wells by using generators, and thus the intervention will not have a role in increasing the water abstraction‎ and a decrease in the groundwater levels in the sub-project area.

**Socioeconomic data**

According to OCHA’s 2018 Humanitarian Response Plan for Yemen, there are nearly 1.1 million people in need of assistance in Sana’a governorate, which constitutes approximately 80% of the population. Thirty percent of them are in dire need.

Agriculture is the main economic activity in Sana’a governorate. Coffee, fruits, and vegetables are the main crops. Sana’a is the second most important agricultural producer, accounting for 16% of total agricultural production in Yemen.

**Population**

The majority of residents within the subproject areas are farmers dependent on rainwater with a minority of traders, public workers. 2023-Estimated population in the governorate district is below:

|  | **Total IDP** | **Total Population** | **Total Females** | **Total Males** |
| --- | --- | --- | --- | --- |
| Sana’a governorate | 107,522 | 1,522,586 | 745,373 | 777,214 |

While the total number of beneficiaries already mentioned in the table 2

1. **Ibb**

Ibb governorate is located 193 kilometers south of Sana’a, in the central part of the Republic of Yemen. The governorate is also known as the “green province” for its verdant mountains and agriculture. The governorate is divided into 20 administrative districts. The city of Ibb is the capital of the governorate. According to the 2014 Household Budget Survey, the poverty rate in Ibb was 56.6%. With the economic decline and military confrontations of the past years, this rate has likely increased significantly.

**Population;**

Estimated Ibb ‎ governorate's population is about 3,294,418 in 2023. Women represent 52.7.8% of Ibb ‎ Governorate's population, and the total IDPs 228,123.

**Temperature** [[5]](#footnote-4)

The summers are short, warm, and overcast; the winters are short, cool, and mostly clear; and it is dry year-round. Over the course of the year, the temperature typically varies from 9°C to 29°C and is rarely below 6°C or above 31°C.

The warm season lasts for 2.2 months, from May 14 to July 21, with an average daily high temperature above 27°C. The hottest month of the year is June, with an average high of 29°C and low of 16°C. The cool season lasts for 2.8 months, from November 21 to February 13, with an average daily high temperature below 23°C. The coldest month of the year is January, with an average low of 9°C and high of 22°C.

**Rainfall**

The rainy period of the year lasts for 6.0 months, from April 4 to October 3, with a sliding 31-day rainfall of at least 13 millimeters. The month with the most rain is August, with an average rainfall of 30 millimeters. The rainless period of the year lasts for 6.0 months, from October 3 to April 4. The month with the least rain is December, with an average rainfall of 4 millimeters.

**Wind**

The average hourly wind speed experiences mild seasonal variation over the course of the year. The windier part of the year lasts for 1.6 months, from June 28 to August 15, with average wind speeds of more than 2.7 meters per second. The windiest month of the year is July, with an average hourly wind speed of 3.2 meters per second. The calmer time of year lasts for 10 months, from August 15 to June 28. The calmest month of the year is September, with an average hourly wind speed of 2.2 meters per second.

**Solar Energy**

The brighter period of the year lasts for 3.1 months, from February 17 to May 19, with an average daily incident shortwave energy per square meter above 6.8 kWh. The brightest month of the year is March, with an average of 7.1 kWh. The darker period of the year lasts for 1.5 months, from July 9 to August 23, with an average daily incident shortwave energy per square meter below 5.7 kWh. The darkest month of the year is July, with an average of 5.6 kWh.

**Air Quality and Noises**

There is a severe lack of information on the state of the air in Yemen in general and in the sub-project area in particular. There was no air quality monitoring data for the sub-project area found.

During the field visit, numerous sources of air pollution have been observed. Emissions from diesel generators and vehicles, additionally dust generation as result of vehicles passing on un-asphalted roads.

Diesel generators and traffic movement are a source of noise in the sub-project location.

**Biodiversity**

Endemic, near-endemic and threatened species of plants and animals are not present in the sub-project area, therefore, there is no impact on Biodiversity in the sub-project area during the implementation

**Hydrology**

The average depth of the groundwater in the subproject area is 160 meters and there is no surface water resources present in the subproject area. the subproject activities will consist of the supply, delivery and installation of solar energy system, and will not change the ground level or the runoff in the subproject area

In the current situation, the LWSC is operating the pumps of wells by using generators, and thus the intervention will not have a role in increasing the water abstraction‎ and a decrease in the groundwater levels in the sub-project area.

**Socioeconomic data**

Agriculture is the largest employer in the governorate and a cornerstone of its economy. Ibb produces 5.6% of the total agricultural production of the Republic of Yemen, making it the fourth-largest agricultural producer after Al-Hodeidah, Sana’a, and Marib. Cereals and vegetables are the most important crops. The governorate is also home to minerals used in manufacturing cement, basalt quarries and zeolite.

According to the local authority’s 2014 budget, 95% of Ibb’s total revenue came from central subsidies, while local revenues accounted for 5%. The most significant local revenues were local shared revenues, especially zakat, taxes (on goods, services, income, and profit), the sale of goods and services, and fines and penalties.2 Local revenues have decreased due to the war. Military confrontations have occurred in some districts, disrupting trade and agriculture. The establishment of the General Zakat Authority and the transfer of zakat to a central revenue has caused the governorate to lose income.

1. **Amran City**

Amran City is a district in Amran Governorate that is situated north of Sana’a and away from Sana’a City by roughly 50 km. It is bordered by Saada Governorate from north, Sana’a Governorate from South, Hajjah and Al Mahweet from west, Al Jawf and Sana’a from east.

**Climate and Weather**

The warm season lasts for 2.5 months, from May 19 to August 1, with an average daily high temperature above 27.5°C. The hottest month of the year in ‘Amran is June, with an average high of 28.3°C and low of 16°C.

The cool season lasts for 3.2 months, from November 8 to February 14, with an average daily high temperature below 22.8°C. The coldest month of the year in ‘Amran is December, with an average low of 6.2°C and high of 21.5°C.

**Precipitation**

‘Amran does not experience significant seasonal variation in the frequency of wet days (i.e., those with greater than 0.04 inches of liquid or liquid-equivalent precipitation). The frequency ranges from 1% to 3%, with an average value of 2%.

Among wet days, we distinguish between those that experience rain alone, snow alone, or a mixture of the two. The month with the most days of rain alone in ‘Amran is August, with an average of 0.9 days. Based on this categorization, the most common form of precipitation throughout the year is rain alone, with a peak probability of 3% on July 30.

[**Rainfall**](https://weatherspark.com/y/103163/Average-Weather-in-Sanaa-Yemen-Year-Round#Sections-Rain)

The sliding 31-day quantity of rainfall in Amran does not vary significantly over the course of the year, staying within 2.54 mm of 2.54 mm throughout.

[**Wind**](https://weatherspark.com/y/103163/Average-Weather-in-Sanaa-Yemen-Year-Round#Sections-Wind)

This section discusses the wide-area hourly average wind vector (speed and direction) at 10 meters above the ground. The wind experienced at any given location is highly dependent on local topography and other factors, and instantaneous wind speed and direction vary more widely than hourly averages.

The average hourly wind speed in ‘Amran experiences mild seasonal variation over the course of the year.

The windier part of the year lasts for 2.0 months, from June 23 to August 22, with average wind speeds of more than 5.7 miles per hour. The windiest month of the year in ‘Amran is July, with an average hourly wind speed of 6.8 miles per hour.

The calmer time of year lasts for 10 months, from August 22 to June 23. The calmest month of the year in ‘Amran is December, with an average hourly wind speed of 4.5 miles per hour.

**Solar energy**

The brighter period of the year lasts for 1.6 months, from May 15 to July 1, with an average daily incident shortwave energy per square meter above 7.1 kWh. The brightest month of the year in ‘Amran is June, with an average of 7.4 kWh.

The darker period of the year lasts for 2.1 months, from November 19 to January 23, with an average daily incident shortwave energy per square meter below 6.2 kWh. The darkest month of the year in ‘Amran is December, with an average of 5.9 kWh.

**Air Quality and Noise**

During implementation, air pollution is expected to be minor due to the nature and scope of activities.

Likewise, the noise is caused by traffic volume as well as the commercial activities. Limited noise is expected during the implementation due to the use of non-heavy equipment.

**Economy**

Agriculture is the most important activity for the population of the governorate. The most important crops are cereals and vegetables. Livestock breeding is also an important economic activity. Agricultural production has been declining since the outbreak of the war as high fuel prices and falling household purchasing power have increased costs and reduced income for farmers. The governorate is home to the Amran Cement Factory, which uses locally mined scoria and perlite.

In 2014, Amran governorate derived 94% of its total general revenue from grants and central subsidies, while local revenues accounted for 6%. The most significant local sources of revenue are local shared revenues, zakat, revenues from goods and services, and fines. The war has damaged the governorate’s economy and the establishment of the General Zakat Authority and the transfer of zakat to central revenue has caused the governorate to lose an important source of income.

In 2014, the poverty rate in Amran was already very high at 76%.[4](about:blank) this rate has likely increased significantly during the past few years and may exceed 80-90%. The Interim Food Security Classification for 2019 ranks Amran as the governorate with the third-highest levels of poverty, after Al-Hodeidah and Hajjah.

**Population**

Amran City population is about 1,052,000 estimated in 2017 according to Yemen Central Statistical Organization projections. They are distributed administratively into 20 districts, and Amran City is the capital of Yemen.

# Environmental and Social Screening Process Applicability:

## Environment and Social Responsiveness

The sub-projects are responsive to the environment and social criteria according to YEHCP AF ESMF, and all the environmental and social impacts are limited to the scope of the sub- projects areas /activities and can be mitigated as provided in section7.

## Applicability of Implementation

Based on risks assessment, the sub-projects may trigger some HSSE impacts such as Occupational Health and Safety impact. and HSSE impacts were considered in the design, tender documents and bill of quantities and the mitigation measures will be implemented.

## Eligibility:

These sub-projects are eligible for support because they do not have any of the attributes in the following exclusion list, which is presented in Table 3.

***Table 3 : Exclusion List***

| **#** | **Question** | **Answer** | |
| --- | --- | --- | --- |
| **Yes** | **No** |
| 1 | Production or activities involving harmful or exploitative forms of forced labor/harmful child labor; |  | X |
| 2 | Production or trade in any product or activity deemed illegal under host country laws or regulations or international conventions and agreements; |  | X |
| 3 | Production or trade in weapons and munitions; |  | X |
| 4 | Gambling, casinos and equivalent enterprises; |  | X |
| 5 | Trade in wildlife or wildlife products regulated under CITES; |  | X |
| 6 | Production or trade in radioactive materials; |  | X |
| 7 | Production or trade in or use of un-bonded asbestos fibers; |  | X |
| 8 | Production or trade in wood or other forestry products from unmanaged forests; |  | X |
| 9 | Production or trade in products containing PCBs; |  | X |
| 10 | Production, trade, storage, or transport of significant volumes of hazardous chemicals, or commercial scale usage of hazardous chemicals; |  | X |
| 11 | Production or trade in pharmaceuticals subject to international phase outs or bans; |  | X |
| 12 | Production or trade in pesticides / herbicides subject to international phase outs or bans |  | X |
| 13 | Production or trade in ozone depleting substances subject to international phase out; |  | X |
| 14 | Production or activities that impinge on the lands owned, or claimed under adjudication, by indigenous peoples, without full documented consent of such people. |  | X |
| 15 | Landfills and waste transfer stations, |  | X |
| 16 | Power plants, |  | X |
| 17 | Large-scale transport infrastructure such as highways, expressways, urban metro-systems, railways, and ports, |  | X |
| 18 | Investments in extractive industries; commercial logging, |  | X |
| 19 | Dams, or projects involving allocation or conveyance of water, including inter-basin water transfers or activities resulting in significant changes to water quality or availability, |  | X |
| 20 | Activities that would convert natural habitats or significantly alter potentially important biodiversity and/or cultural resource area, |  | X |
| 21 | Activities that would require the relocation of residential households and/or significant involuntary land acquisition, |  | X |
| 22 | Activities in disputed area. |  | X |

# Environmental and Social Screening

Environmental and social screening was conducted using the YEHCP AF ESMF screening form, which is provided in Table 4. The sub-projects activities will be done within LWSCs properties and government ‎ properties (school and land) as provided in Table 2‎, and does not involve activities that have a high potential environmental and social impacts.

OHS, Environmental and Social and requirements for prevention measures will be included in the contract and tender documents in order to not cause disturbance to the community.

**The environmental and social impacts will be positive** when completing implementation of subproject activities which will ensure the continuity of supplying water to the beneficiaries, and will ensure the presence of more reliable power supply source, optimal fuel economy and reduce the environment pollution emissions from diesel generator and improve the quality of life.

***Table 4 : Environmental and Social Screening Form***

| **Question** | **Answer** | | **ESS relevance** | **Due diligence/**  **Actions** |
| --- | --- | --- | --- | --- |
| **Yes** | **No** |
| Does the sub-project involve civil works including new construction, expansion, upgrading, or rehabilitation of existing infrastructure? | X |  | ESS1 | ESMP, SEP |
| Does the sub-project involve the land acquisition and/or restrictions on land use? |  | X |  |  |
| Is the sub-project associated with any external waste management facility‎ such as a sanitary landfill, incinerator, or wastewater treatment plant? |  | X |  |  |
| Does the sub-project have an adequate system in place (capacity, processes, and management) to address waste? | X |  | ESS1, ESS3 | ESMP |
| Does the sub-project involve the recruitment of workers including direct, contracted, primary supply, and/or community workers? | X |  | ESS2 | LMP, SEP, ESMP |
| Does the sub-project have appropriate OHS procedures in place and an adequate supply of PPE (where necessary)? | X |  | ESS2 | LMP, ESMP |
| Does the sub-project have a GM in place, to which all workers have access, designed to respond quickly and effectively? | X |  | ESS10, ESS2 | SEP, LMP |
| Does the sub-project involve the use of security or military personnel during the construction and/or operation of the related activities? |  | X |  | ESMP, SEP |
| Does the Sub-project establish and implement an appropriate quality management system to anticipate and minimize risks and impact that services may have on community health and safety? | X |  | ESS4 | ESMP, SEP |
| Does the sub-project apply the concept of universal access were technically and financially feasible? | X |  | ESS4 | ESMP, SEP |
| Is the sub-project located within or in the vicinity of any ecologically sensitive areas? |  | X |  | ESMP, SEP |
| Is the sub-project located within or in the vicinity of any known cultural heritage sites? |  | X |  | ESMP, SEP |
| Do the sub-project area present potential Gender-Based Violence (GBV) and Sexual Exploitation and Abuse (SEA) risk? | X |  | ESS1, ESS4 | ESMP, SEP/GBV Action Plan |

**Implementation Arrangements**

The roles and responsibilities of key role players under Project Management are given in the table 5

***Table 5:Roles and Responsibilities of Key Role Player for Implementation of ESMP***

| **Position** | **Responsibility** | **The organization** |
| --- | --- | --- |
| Project Manager | * Ensure ESMP Implementation; * Supervise procurement and hiring of staff; and * Overall supervision of project. | * Implementing Partner (UWSSP) |
| Environment and Social Safeguards Officer  (assisted by Implementing Partner supervision consultant (Supervisor) and contractor HSSE officer) | **Environmental Aspects**   * Ensure that the contracts include clauses for ESMP implementation; * Ensure implementation of the ESMP during various phases of design and implementation ; * Certify timely and robust environmental and social monitoring in the field by local facilitators and technical resource persons; * Ensure that environmental and social trainings are planned and implemented; * Overall monitoring and reporting of environmental and social impacts; * Coordinate and ensure development of awareness material; * Prepare environmental and social Progress Reports including monitoring reports for the project. * Monitor and check the proper implementation of all occupational health and safety, and Sexual Exploitation and Abuse, Sexual Harassment mitigation measures as suggested in ESMP through field visits as well as site records; * Ensure that environmental and social trainings regarding occupational health and safety and SEA/SH are planned and implemented; * Overall monitoring and reporting of occupational health and safety issues; and * Prepare Progress reports regarding compliance of   mitigation measures for occupational health and safety for the project. | * UNOPS |
| **Social Aspects**   * Monitor and check the proper implementation of all social mitigation measures as suggested in ESMP; * Monitoring and evaluation of social related matters of the project and maintain a social complaint register to document social issues; * Certify timely and robust social monitoring in the field by local facilitators and technical resource persons * Ensure inclusion of ESMP requirements in project designs; * Remain the focal point for managing the project GM, and maintain analysis and reports on types of complaints received, resolved, time taken to action, etc.   Provide technical lead to the field teams regarding gender mainstreaming activities of the project;   * Linkages development with NGOs and public-sector entities working on empowerment of women and marginalized segments of society; * Ensure the GM is gender friendly and has a SEA/SH channel; * Ensure the GBV action plan is implemented; * Provide assistance and advice to field staff for resolving grievances related to gender arising on account of project implementation; and * Prepare Grievance Reports as and when required * basis. |  |
| Site Supervisor (Supervision Consultant) | * Assist UNOPS ESSO in managing and monitoring all HSSE related activities on the ground | * UWSSP |
| HSSE Officer | * Performing all HSSE activities on the ground including toolbox, training, inspections, reporting and etc. | * Contractor |
| Designing Engineer | * Coordination to provide technical data and information for UWSSP designer engineer * Participation in the inspection of supplied materials. * Provide facility‎ in supervision the project's activities (Coordination to enable the contractor to commencing work) * Provide information on the Project 's progress * Participation in the primary receipt of implemented project activities form the contractor * Evaluation project technical performance * Participation in the final receipt of implemented project activities form the contractor * Coordination to remove waste and debris from working sites to the assigned landfill * Coordination to organize and facilitate traffic movement | * UWSSP |
| TPM | * Evaluation of ESMP implementation; * Supervision of implementation contractor; and   Reporting to higher authorities.   * Audit of the ESMP | * Third Party |

# Risk Level and Mitigation Instruments

The sub-projects assigned risk is moderate, Although, there are many activities have low risk only, the working at height is the only activity associated with moderate risk. thus, it requires the preparation of an Environmental and Social Management Plan ESMP as detailed in the Environmental and Social Management Framework ESMF for YEHCP AF. Some environmental and OHS impacts may be triggered. Therefore, UNOPS will include environmental and social requirements for contractor including all OHS requirements, as well as Health and Safety prevention measures from COVID-19 in the contract and tender documents

**Environmental Risk and Impacts:**

* Solid waste produced by work accumulated and pollutes the environment including E-Waste such as cables, batteries (all batteries will be installed in a separate battery room) etc.
* Air and dust pollution due to emissions from equipment/transportation trucks and from excavations for cable trenches Soil and potential groundwater contamination from accidental oil and fuel spills from machineries used
* Ambient noise risks during construction and excavation work
* Pollution from solid waste and chemicals (i.e., cement) impacts due to lack of waste management procedures.
* Soil and potential groundwater contamination from accidental oil and fuel spills from machineries used and from chemicals used such as paint. Batteries may also be a source of soil contamination.

**Social Risk and Impacts:**

* Lack of worker’s awareness and knowledge on social safeguard issues on gender, SEA and GBV.
* Child Labor
* Labor influx
* Sexual harassment, abuse, gender-based violence and discrimination.
* Discrimination against women and persons with disabilities when selecting beneficiaries
* Lack of workers’ awareness and knowledge on respecting local community cultures, and social safeguard issues on gender discrimination, SEA/SH
* Financial exploitation of community or beneficiaries
* Noise and vibration due to project activities and workers' activities and working at night
* Delay in payments and lack of awareness of wages mechanism
* Disruption of water supply in the affected areas during work
* Disruption of school classes if the panels are installed during school days
* Community Health and safety

**OHS Risk and Impacts:**

The majority of the panels will be installed on the ground with a small quantity that will be installed on rooftops which means there is a possibility of lifting operation and using crane to download the equipment

* Falling from height.
* Lifting Operations Impacts:
* Failure of lifting equipment;
* Falling loads;
* Workers being crushed by a moving Load or lifting equipment which all might result in fatalities or injuries.
* Electricity Shock Impacts:
* Thermal burns
* Muscle, nerve and tissues damage due to electrical shock
* Fatalities or injuries.
* Fire risks.
* Manual Handling Impacts and tripping:

Manual Handling Injuries that include:

* Fractures
* Damage to muscles, ligaments and tendons
* Spinal disc injuries
* Trapped nerves
* Abrasions and cuts
* Burns
* Hernias
* Tripping from cables and excavated areas
* Excavation Impacts:
* Dust generated by excavation activities causing breathing difficulty
* Tripping due to presence of excavated grounds less than 100 cm in depth
* Waste generated from the excavation
* Infection by Covid-19 Impacts:
* Transmission of corona virus between site workers
* Site workers lives could be at risk (illness / Death)
* Air pollution due to emissions from equipment/transportation trucks and excavation works that might result in Breathing difficulty Noise pollution from machineries and equipment
* Environmental pressures on workers from bad weather conditions such as heat wave, rainy periods, dust storms etc.
* Road accidents while transporting materials and equipment and waste to and from the site
* Dealing with chemicals including cement and paint that may be potential risks on skin and eye irritation etc.

**Operation and maintenance**

* Operation and Maintenance, risk of potential electric shock to the maintenance staff and other OHS such as dealing with diesel chemical and emissions from diesel generator such as PM, VOCs and NOx which may cause respiratory problems to workers.
* GHG emissions from the generator such as CO.
* Soil contamination from diesel leaks from the generator or chemical storage area
* Lack of maintenance and disfunction of PV system and impacting the community (i.e. water cuts)
* E-waste from solar panels after reaching its lifespan (estimated 25 years on average)

## Labor Management:

The average duration of the worksites activities in all subprojects locations is approximately five months (4-6 months) depending on the subproject, which translates to 125 working days (6 days a week) for 24 employees for each work site and the maximum working hours per day for each employee is 8 hrs. as presented in Table 3

***Table 3 :Expected labor in the sub-project***

| # | Labor | No. |
| --- | --- | --- |
| 1 | Project Manager | 1 |
| 2 | Supervisor | 1 |
| 3 | Electrical Engineer | 1 |
| 4 | Electrical Technician | 3 |
| 5 | Heavy Equipment Driver | 2 |
| 6 | ES Officer | 1 |
| 7 | Paramedic | 1 |
| 8 | Flag Man | 1 |
| 9 | ES Officer Assistant | 1 |
| 10 | HR Officer | 1 |
| 11 | Accountant | 1 |
| 12 | Procurement Officer | 1 |
| 13 | Civil Engineer | 1 |
| 14 | Blacksmith | 1 |
| 15 | Blacksmith Assistant | 2 |
| 16 | Dailly worker | 5 |
| Total | | 24 |

Although there is no need for lodging because the workers will be hired locally, they will use the restrooms that are present in the intervention areas. Additionally, there are two schools that will be utilized by the subprojects to install the PV panels on their rooftops. Accordingly, the mitigation measures for working in the schools will be added to the mitigation table.

**The contractor shall:**

* Ensure all workers are older than 18 Years old.
* Draft and submit their Contractor Environmental and Social Management Plan (C-ESMP) based on this ESMP
* Protect the workers from any risk that may be encountered during the implementation
* Maintain environmental and social safeguard measures, and also occupational health and safety system in the site to protect workers from hazards and risks and provide adequate health and safety training, required PPE, first aid box, and toilets with soap. Despite the fact that there are restrooms on the job sites, the contractor must ensure their usability and cleanliness.
* Provide the workers with potable drinking water, shade during hottest hours, and proper Personal Protection Equipment
* Avoid all forms of forced, involuntary, unpaid or compulsory labor
* Provide life and medical insurance for all employees involved in onsite activities

## Gender:

The sub-projects are a priority to all community’s groups, men and women, and will serve all families living in the targeted areas without exclusion. It will contribute to ensure the access of water to the beneficiaries and improving the health and environment in the area It will assist women and children who are responsible of fetching water from alternative sources such as hand dug water wells during Yemen's periodic fuel crisis.

## Gender-Based Violence GBV, Sexual Exploitation and Abuse SEA and Sexual Harassment SH

The contractors and workers should sign the Code of Conduct and ensure workers respect and adhere to the Code of Conduct. CoC to respect the local community cultures, and adhere to the social safeguard issues on Gender, SEA/SH and GBV. Raise awareness on the GM system and how it can be used to report any GBV cases.

UNOPS, UW-PMU and Contractors should provide the workers with required training and daily toolbox talk in the OHS, GBV and SEA. Contractors should provide the work sites with GM system for all workers including providing complaints box and complaint means.

**UNOPS has already taken the following steps in GBV/SEA/SH:**

* In the stakeholder consultation meetings UNOPS has presented the project GBV SEA/SH action plan and during the meetings we focused on female’s participants and ensured to explain about the GM mechanism and highlighted how it is transparent, secure and confidential to use any of the GM access point.
* UNOPS has developed visibility materials to promote awareness for Protection from Sexual Exploitation and Abuse/Sexual Harassment PSEA/SH in local language (Arabic) the materials and messages used adapted to be suitable for Yemen context and sensitivity of the subject.
* GM focal point received specialized training about SEA/SH cases and the way to deal with it using survivor-centered approach.
* UNOPS developed SOP and protocol for GM in how to deal with SEA/SH cases.
* UNOPS has conducted refresh sessions for Project Personnel in GBV/SEA/SH and trained retainer’s sites engineers as well.
* UNOPS has prepared risk assessment tools for GBV and will require contractors to fill a checklist on GBV/SEA/SH and to prepare code of conduct for their workers/staff.
* AS part of YEHCP AF GBV SEA/SH action plan UNOPS will roll out SEA/SH prevention and response plans for contractors, where the contractors need to prepare the action plan as part of the tender documents, UNOPS is supporting to enhance the contractors capacity in this area looking to the fact that almost they have zero knowledge and capacity, for that UNOPS developed contractors action plan template where it covers the most priority areas and UNOPS conducted induction session for contractors about this requirement and presented to contractors on how to prepare their own GBV SEA/SH prevention and response plans (GBV Action Plans) using the developed template , other in depth training sessions will follow and will continue during project life span.
* UNOPS will train contractors’ PSEA/SH focal points.

## Land Acquisition

All the sub-projects activities will be carried out within either on LWSCs properties or governmental (state) ‎ properties (school rooftop or/and school groundd) as provided in Table 2 ‎, so there will be no need for land acquisition to carry out the sub-projects.

## Community health and safety

During implementation of subprojects activities, the community may impact on:

* Carrying the subprojects scope of work in worksites and the hazard that the wells/pump station communities will be exposed to.
* Access of public to worksites.
* Interrupting schools’ students and teachers

**These impacts on the community health and safety can be mitigated through:**

* Working hours will be in day hours, except for schools the work will begin as soon as the students leave the schools and the working hours will be 4 hours a day from 13:00 to 17:00
* Install barriers, danger warning signs and restriction signs to only authorized persons and signs showing the potential danger to the public.
* Establish barriers around the working sites. Ensure child labor is not permitted, and all workers are 18 years old and above.
* Ensure a Labor Log is available, and all workers are registered.
* Children are not pressed to drop school to attend other household choirs or farm chores if both parents are working for the project.
* No forced labor will be used, and the contractor will be obligated and monitored to implement the LMP.
* Mandatory and repeated training and awareness raising for the workforce about refraining from unacceptable conduct toward local community members, specifically women and girls.
* Informing workers about national laws that make sexual exploitation and sexual harassment and gender-based violence a punishable offence which is liable to prosecution.
* Raise awareness on grievance mechanism GM system and how it can be used to report any SEA/ SH cases anonymously in the GM.
* All workers to adhere to code of conduct.
* Repeated sensitization of the workers on the local customs and traditions
* Workers to sign the Code of Conduct (CoC).
* Ensure workers respect and adherence to the Code of Conduct CoC to ensure the local community's protection and do no harm.
* GRM system in place to handle any issues on Gender, SEA/SH, and GBV.
* Give priority to the local people affected by the project regarding the unskilled jobs.
* Have a transparent and inclusive hiring process well explained to the affected communities during consultation.
* Contract or subcontract some work to the local service providers.
* Install fences, barriers, dangerous warning/prohibition sites around the construction area and quarries which show potential danger to public people.
* Place appropriate warning and directional signs at areas where construction is taking place.
* Erect removable barriers.
* Implement regular inspection by site guard.
* Awareness of the public about risks and hazards at the project construction areas before the commencement on site
* Publish and inform the communities transparent procedures for the recruitment of workers.
* Raise awareness of beneficiaries that the subproject is free, and they should not pay anyone to get benefits of the subproject.
* Raise awareness of consultants and technical engineers that there is zero tolerance for any cases of financial exploitation, fraud, bribery, and corruption a serious contravention.
* Raise awareness of the community committee, workers, and communities on GM system and how it can be used to report any financial exploitation, fraud, bribery, and corruption a serious contravention.
* Inform consultants, and workers about project regulations that make financial exploitation a serious contravention, fraud, bribery, and corruption a serious contravention.

## Grievance Mechanism for Workers

* Inform the public about GM contact information and the method of submitting complaints and that its use is free of charge.
* Details of complaints received, and their outcome should be incorporated into the audits as part of the monitoring process.
* Complaints should be addressed in a quick and transparent manner.

The Workers must use the general GM system highlighted in section #10 to submit any grievances pertaining to them. These complaints may include, but are not limited to, the following:

* Termination/Summary Dismissal,
* Breach of Employment Contract Terms
* Work Injury
* Discrimination
* Sexual Harassment
* Remuneration
* Wrongful termination
* Suspension
* Waiver of Claims

GM shall adhere to the following principles:

* *Provision of information.* All workers should be informed about the grievance mechanism at the time they are hired, and details about how it operates should be easily available, for example, included in worker documentation or on notice boards.
* *Transparency of the process.* Workers must know to whom they can turn in the event of a grievance and the support and sources of advice that are available to them. All line and senior managers must be familiar with their organization's grievance procedure.
* *Keeping it up to date.* The process should be regularly reviewed and kept up to date, for example, by referencing any new statutory guidelines, changes in contracts or representation.
* *Confidentiality.* The process should ensure that a complaint is dealt with confidentiality. While procedures may specify that complaints should first be made to the workers’ line manager, there should also be the option of raising a grievance first with an alternative manager, for example, a human resource (personnel) manager.
* *Non-retribution.* Procedures should guarantee that any worker raising a complaint will not be subject to any reprisal.
* *Reasonable timescales.* Procedures should allow for time to investigate grievances fully but should aim for swift resolutions. The longer a grievance is allowed to continue, the harder it can be for both sides to get back to normal afterwards. Time limits should be set for each stage of the process, for example, a maximum time between a grievance being raised and the setting up of a meeting to investigate it.
* *Right of appeal.* A worker should have the right to appeal to the World Bank or national courts if he or she is not happy with the initial finding.
* *Right to be accompanied.* In any meetings or hearings, the worker should have the right to be accompanied by a colleague, friend or union representative.
* *Keeping records.* Written records should be kept at all stages. The initial complaint should be in writing, if possible, along with the response, notes of any meetings and the findings and the reasons for the findings. Any records on SEA shall be registered separately and under the strictest confidentiality.
* *Relationship with collective agreements.* Grievance procedures should be consistent with any collective agreements.
* *Relationship with regulation.* Grievance processes should be compliant with the national employment code.

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# Environmental and Social Risks Impact and Mitigation Measures

Mitigation measures have been determined to reduce the impact of potential environmental and social risks during the sub-project’s implementation, which are provided in Table 6.

**The mitigation measures shall include but not limited to the following measures:**

* Inspect existing facility and apply all safety measures to reduce the risk of any injury to the workers during installation or the users during operation before implementation of work.
* Conduct regular awareness sessions about gender, SEA/SH, GBV and GM for workers.
* Provide the required safety and health PPE and hygienic materials to workers to protect workers and ensure their safety and prevent them from Covid-19 infection.
* Prepare and install emergency response plan onsite
* Provide fully insulated PPE, isolated installation tools, instruments and equipment.
* Install security fence and danger signage in the electrical hazard areas and chemical storage areas if any
* Provide safety training to all workers including working at installation, lifting operations, electrical, coating safety before commencing any work
* Provide the necessary first aid equipment in site
* Hiring a flag-man and paramedic
* Work site arrangement
* Maintain good housekeeping measures
* Ensure good management of cables and warning signs are added next to cables and trenches to prevent tripping
* A health and safety training should also be provided to workers to avoid electrocutions and potential electric hazards and wearing proper PPEs.
* Follow the fall prevention and protection measures by:
* Installation of guardrails with mid-rails and toe boards at the edge of any fall hazard area.
* Inclusion of rescue and/or recovery plans, and equipment to respond to workers after an arrested fall and a fall protection plan should be in place which includes the following aspects:
* Training and use of temporary fall prevention devices, such as rails or other barriers able to support a weight of 200 pounds, when working at heights equal or greater than two meters or at any height if the risk includes falling through an opening in a work surface.
* Training and use of personal fall arrest systems, such as full body harnesses and energy absorbing lanyards able to support 5000 pounds.
* Provision of helmets and adhering to wearing them when working at height or standing on ladders
* Follow the slip prevention measures in the same elevation by:
* Use of slip resistant footwear and locating electrical cords, cables and ropes in common areas and marked corridors to prevent risk of slips and fall associated with uncontrolled use of electrical cords and cables on the ground.
* Use of control zones and safety monitoring systems to warn workers of their proximity to fall hazard zones, as well as securing, marking, and labeling covers for openings in floors, roofs, or walking surfaces.
* The impacts on the community health and safety can be mitigated through:
* Working hours will be in day hours.
* Install barriers, danger warning signs and restriction signs to only authorized persons and signs showing the potential danger to the public.
* Establish barriers around the working site

***Table 6 : Potential Environmental and Social Risks ‎Impact and Mitigation Measures***

| **Potential Impact Factor** | **Mitigation Measure** | **Implementation Responsibility** | **Estimated cost (USD)** | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| DHAM-006 | HOD-022 | SAN-008 | IBB-007 | AMR-003 |
| **OHS risks and mitigation measures** | | | | | | |  |
| General OHS issues | The following mitigation measures are applicable to all OHS impacts   * Ensure skilled workers are hired for each job. * Conduct regular awareness sessions and daily Toolbox Talks on OHS requirements before commencing any work. * Periodic inspection to ensure that mitigation measures are implemented and stop any unsafe act or unsafe situation. * Emergency response plan to be in place with details and contact of the nearest hospital or medical center, responsibilities are understood for all works, first aid boxes are available and a list of trained first aiders is posted and known by all workers with available transportation. * Immediately report all accidental occurrences with serious accident potential such as major equipment failures, and exposure to hazardous materials, slides c to UNOPS and to the WBG within 48 hours. * Contractors shall monitor, keep records and report on the following environmental and social issues: * *Safety:* hours worked, lost time injury (LTI), lost workdays, recordable incidents and corresponding Root Cause Analysis (lost time incidents, medical treatment cases), first aid cases, high potential near misses, and remedial and preventive activities required (for example, revised job safety analysis, new or different equipment, skills training, and so forth). * *Major works:* those undertaken and completed, progress against project schedule, and key work fronts (work areas). * *ESHS requirements:* noncompliance incidents with permits and national law (legal noncompliance), project commitments, or other ESHS requirements. * *ESHS inspections and audits:* by Project Company, Independent Engineer, UNOPS and its implementing partners, or others—to include date, inspector or auditor name, sites visited, and records reviewed, major findings, and actions taken. * *Maintaining a record of injuries and accidents specifying cause and location* * *Provide a list of trained workers, who will be checked for their training skills. Measures will be implemented onsite and followed by regular monitoring visits*. * *Ensuring the contractor is taking care of the safety of workers while working in the site and give all necessary vaccines to workers to prevent any infection with epidemic and pandemic diseases.* | Contractors, UWSSP and UNOPS | Part of the daily activities | | | | |
| Working at Height (On the rooftop and on the scaffold which will be utilized to raise those panels that were installed on the ground to a height that will keep them safe from thieves. | * Ensure that the roof is well protected by proper parapet without openings and enough clean space. * Ensure proper use of ladders by trained workers and inspected, tested regularly by competent inspectors, * Use of fall prevention devices, including safety belt and lanyard to prevent access to fall hazard area, or fall protection devices such as full body harnesses and head helmet used in conjunction with shock absorbing lanyards. * Do not move ladders when workers are standing on them. * Installation of guardrails with mid-rails and toe boards at the edge of any fall hazard area. * Inclusion of rescue and/or recovery plans, and equipment to respond to workers after an arrested fall and a fall protection plan should be in place which includes the following aspects: * Training and use of temporary fall prevention devices, such as rails or other barriers able to support a weight of 200 pounds, when working at heights equal or greater than two meters or at any height if the risk includes falling through an opening in a work surface. * Training and use of personal fall arrest systems, such as full body harnesses and energy absorbing lanyards able to support 5000 pounds. | Contractors, UWSSP and UNOPS |  |  |  |  |  |
| Lifting Operations (HIAB to lift solar panels to the rooftop) | * Close the lifting area with fence to prevent access to the lifting area during lifting work.   Install warning signs for lifting activities  Prevent accessibility to non-workers at lifting zones or any construction zone   * Carry out lifting work by well trained, qualified, and certified lifting team and with proper communication means and flag Man. * Provide workers with all necessary Personal Protective Equipment PPEs and safety materials. * Use well-maintained equipment for lifting that is appropriate for the weight; well checked and tested by a third party. * Ensure workers are standing within a safe distance from the lifting zone * Secure loads when lifting and use strong and reliable fixation materials to make sure that the load is well tightened, and no solid parts fall from the load during lifting. * Protect the units against staining, discoloration and other damage until they are installed in their final location. * Lifting device capacity shall be 1.65 times the maximum calculated static load at that point. * An ultimate load shall be ≥ 4 times the maximum static load. * Ensure workers and any person is standing at a safe distance from the lifting area | Contractors, UWSSP and UNOPS |  |  |  |  |  |
| Work Injuries and Electricity Shock | * Inspect existing facility and apply all safety measures to prevent the risk of any injury to the workers by electricity shock during installation or the users during operation and apply Hot Work Permit and Electricity Isolation Certificate subject to written approval by the UNOPS engineer provided before implementation of work. * Carefully design using appropriate technologies to minimize hazards. * Build security fences around electricity areas provide a secure area for chemical storage for potential chemicals. * Contractor electricians should be well trained and provided with appropriate insolated PPE and work tools and should be aware of electricity shocks and avoidance techniques. * Avoid working during rainy times. * Install danger signage in the electrical hazard areas and apply all safety measures to prevent exposures. | Contractors, UWSSP and UNOPS |  |  |  |  |  |
| Fire safety prevention measures and emergency response | * Ensure employees are aware of their responsibility to report dangers * Control sources of ignition * Ensure the availability of firefighting system * Ensure employees are well trained in the fire fighting * Conduct fire drill regularly * Selecting the proper size of cabling compatible with international standards to avoid overloading/overheating of the cables. * Include appropriate size of circuit breakers between the system components to prevent electrical surge. * Batteries are stored in generators ventilated rooms to prevent the buildup of hydrogen gas * Provide Fire Safety training for the facility operation staff and technicians. * Ensure the presence of an emergency Response plan in place | Contractors, UWSSP and UNOPS | BoQ item | | | | |
| Manual Handling | * Provide required information and training on manual handling to the site workers. * Ensure applying safe handling techniques. * Remove space constraints, ensure good housekeeping and providing improved layouts * Keep manual handling to one level, improve floor conditions and improve the environmental conditions. The floor must be clean from any obstacles. * Ensure use of appropriate PPE and safety materials. * Addressing potential use of handling aids with matching safety measures. * Inform workers on safe lifting techniques to prevent back injuries | Contractors, UWSSP and UNOPS | NA | | | | |
| Dust and noise emissions during excavation and while using machineries and equipment (OHS) | * Provide dust masks to workers * Provide ear mufflers to workers working with or near noisy equipment and machines * -Ensure proper maintenance of equipment and machineries * Use dust sweeping methods and limited water for dust suppression | Contractors, UWSSP and UNOPS |  |  |  |  |  |
| Road accidents while transporting equipment and materials | * Ensure drivers received awareness sessions on good driving practices such as maintaining speed limits and wearing seat belts * Conduct drug checkups on drivers. | Contractors, UWSSP and UNOPS | NA | | | | |
| ‘Environmental pressures on workers (heat strokes, dust storms) | * Allow resting breaks in shaded areas and provide workers with enough water * Raise awareness on the importance of drinking enough water * Provide proper PPEs against heat and dust * Do not allow working during bad weather, rain, dust storms | Contractors, UWSSP and UNOPS | NA | | | | |
| Chemicals Hazardous Substances and Wastes including E waste | * Ensure batteries are well placed in a safe and proper ventilated room with appropriate fire extinguisher and conduct regular monitoring. * Ensure proper recycling and disposal paths exist for batteries. * Ensure all chemicals (paint, cement) are handled and stored and disposed according to their material safety data sheets (MSDSs) * Ensure workers are wearing proper PPEs while handling chemicals such as gloves, masks and goggles. | Contractors, UWSSP and UNOPS | NA. | | | |  |
| Infection by Covid-19 | * UNOPS will ensure that contractor will provide health, safety and hygiene awareness and materials to staff, workers and visitors and provide proper training on health and hygiene issues. * Contractor to maintain routine cleaning and disinfecting of surfaces, equipment, and other elements of the work environment. When choosing cleaning chemicals, employers should follow the manufacturer’s instructions for use of all cleaning and disinfection products (e.g., concentration, application method and contact time, PPE).   Workers should wear masks, gloves and goggles at all time in the sites. | Contractors, UWSSP and UNOPS |  |  |  |  |  |
| **Social risks and mitigation measures** | | | | | | |  |
| Lack of workers awareness and knowledge on social safeguard issues on gender, SEA and GBV as well as lack of knowledge about avoiding any forms of encroachment on the nearby cropland during works | * Contractor and workers to sign the code of conduct, and ensure workers respected and adhere to the code of conduct. * Conduct regular awareness session on site in GBV prevention and other social issues * GM system is in place to handle any issue on Gender SEA and GBV or any other issues. * GM system for all workers including providing complaints box and complaint means. | Contractors, UWSSP and UNOPS |  |  |  |  |  |
| Access of public into working site. | * Install barriers, danger warning signs and restriction signs to allow only authorized persons and signs showing the potential danger to the public. And establish barriers around the working site rooftop, equipment area and excavation area. * Do not allow public to access working sites in all cases * Avoid construction work during facility time Ensure proper storage of construction material and fencing the storage area to prevent accessibility. * For working on schools’ sites, the work will begin as soon as the students leave the schools and the working hours in the subprojects that will use schools rooftops/grounds to install the PV panels will be 4 hrs. a day only starting from 13:00 to 17:00 | Contractors, UWSSP and UNOPS |  |  |  |  |  |
| Child Labor | * All workers should be more than 18 years old. * Verifying age of workers by checking IDs and official documents. * Ensure a worker log is available, and all workers are registered. * Verify that labor conditions are compliant with ESS2 and no forced labor is used | Contractors, UWSSP and UNOPS | NA | | | | |
| **Environmental risks and mitigation measures** | | | | | | | |
| Solid waste produced by work accumulates and pollutes the environment. | * designated areas within containers or bags and are segregated by type (solid waste, E-waste) and regularly collected and transported to authorized disposal site and arrange for safe path of last destination of E-waste. * Ensure waste areas are properly fenced and insulated * Ensure good housekeeping measures are kept * Ensure workers dealing with waste are wearing proper PPEs. * Avoiding vegetated areas as much as possible while installing PV. | Contractors, UWSSP and UNOPS |  |  |  |  |  |
| Air pollution due to emissions from equipment/transportation trucks and excavation work. | * Visual observation and applying equipment checklist for inspection to ensure low emission and well-maintained equipment will be only used. * Provide workers with proper PPEs * Use minimal water and preferably grey water for dust suppression * Use dust sweeping methods to minimize use of water in dust suppression | Contractors, UWSSP and UNOPS | NA | | | | |
| Ambient Noise impacts from machineries | * Work will take place during day-time. * Use well maintained equipment and inspect equipment prior usage | Contractors, UWSSP and UNOPS | NA | | | | |
| Soil and groundwater contamination | * Ensure no wastes or excavated materials are stored inappropriately to prevent contamination of ground water and water sources. * Spill prevention kit shall be available on site in case of oil/fuel/diesel spills from machineries used * All chemicals must be stored, in insulated areas handled and disposed, according to their MSDSs by trained workers * PV battery is stored on an insulated area from the ground to avoid soil and groundwater pollution from chemical leaks | Contractors, UWSSP and UNOPS | NA | | | | |
| GHG emissions | * Ensure that panels and related equipment are sought from energy efficient dealers. The requirements for goods supply include Tier 1 financial ability, production quality and Good International Industry Practices GIIP including energy efficiency. | Contractors, UWSSP and UNOPS | NA | | | | |
| Operation and maintenance | | | | | | | |
| Operation and Maintenance (cleaning using water) | * Ensure water is used efficiently while cleaning the panels in order to avoid wasting water. * The solar panel cleaning will be wiper cleaning and water saving practice by using Rubber Blade water sprayers with very little amount of water. | Facility Administration. | NA | | | | |
| Operation and Maintenance; Staff Health and Safety (i.e., for risk of potential electric shock to the maintenance staff and working at height risks that may be caused during cleaning/ inspection or general maintenance of the solar panels system) and community health and safety (i.e at maintenance areas). | * Same mitigation measures for installation will apply for inspection and maintenance as well. * Training by contractor on OHS, environment and social measures before handing over to the facility shall be carried out. | UNOPS, UWSSP Contractors and Facility Administration. | NA | | | | |
| OHS dealing with chemicals and hazardous substances | * Store the diesel fuel according to its Materials Safety Data Sheet (MSDS) and in insulated area to avoid leaks on the soil and in a secure area * Ensure the presence of spill prevention kits on site * Ensure workers who are handling diesel are trained and handle the chemical according to its MSDS. * Ensure diesel containers are properly labeled * Ensure diesel containers are disposed according to their MSDSs * Ensure diesel fuel is stored according to its manufacturer guidelines and shelf life. * Ensure the presence of suitable fire extinguishers | UNOPS, UWSSP and Facility Administration. | NA | | | | |
| Soil contamination from diesel generator and fuel storage | * Store the diesel fuel according to its Materials Safety Data Sheet (MSDS) and in insulated area to avoid leaks on the soil * Ensure the diesel generator is established on concrete base * Carry a spill prevention kit * Regularly monitor any leaks | UNOPS, Facility Administration. | NA | | | | |
| Lack of maintenance and deterioration of the newly added PV system and existing diesel generator | * Ensure regular maintenance of the existing generators and newly established PV system is conducted * Ensure continuous monitoring to detect any malfunction early | Facility Administration. | NA | | | | |
| GHG emissions from generator | * Periodic monitoring of GHG emissions from the generators and recorded to ensure continued compliance with WB ESF | Facility Administration | NA | | | | |
| E-waste from solar panels after reaching its lifespan (estimated 25 years on average | * Extend the lifetime of a product or its constituent parts through repair, reuse and refurbishment * Ensure PV batteries are disposed according to their manufacturer’s guidelines and safety data sheet | Facility Administration | NA | | | | |
| **Total ESMP Cost $** | | |  |  |  |  |  |

# Environmental and Social Monitoring Plan

The implementation of the mitigation measures will be monitored accordingly through daily, weekly and event-based by the Contractor, LWSCs and UNOPS.

The aspects that will be monitored, which is provided in Table 7, will be updated to accommodate any emergency or updated aspects that may be recommended by the monitoring reports.

***Table 7 : Monitoring Plan***

| **Impact** | **Measurements (incl. methods & equipment)** | **Frequency** | **Implementation responsibility** |
| --- | --- | --- | --- |
| **Community Health and Safety** | | | |
| Public safety during the work. | **Method:**   * Visual observation and photographic documentation of safety measures. * Visual observation for installing of warning signs, barricading of working areas with safety tapes and fencing/barricades to prevent unauthorized access of public and pedestrians to the working areas.   **Indicators**   * Number of project’s recorded injuries and accidents | Daily basis during rehabilitation work and weekly during site inspection visits,  On any complaint | Contractor, UWSSP, UNOPS  (Site management and HSSE team) |
| The risk of employing children for work activities. | **Method:**   * Site inspection, checking and documentation of contractor employee records   **Indicators:**   * Number of recorded employees below the age of 18 | Weekly during site inspection and regularly by TPM | Contractor, UWSSP, UNOPS  (Site management and HSSE team) |
| Sexual harassment, sexual exploitation, and abuse, i and discrimination | * Mandatory and repeated training and awareness raising for the workforce about refraining from unacceptable conduct toward local community members, specifically women and girls. * Informing workers about national laws that make sexual exploitation and sexual harassment and gender-based violence a punishable offence which is liable to prosecution. * Raise awareness on grievance mechanism GM system and how it can be used to report any SEA/ SH cases anonymously in the GM. * All workers to adhere to code of conduct | Weekly during site inspection and regularly by TPM | Contractor, UWSSP, UNOPS  (Site management and HSSE team) |
| Lack of workers’ awareness and knowledge on respecting local community cultures, and social safeguard issues on Gender, SEA/SH and GBV. | * Repeated sensitization of the workers on the local customs and traditions * Workers to sign the Code of Conduct (CoC). * Ensure workers respect and adherence to the Code of Conduct CoC to ensure the local community's protection and do no harm. * GRM system in place to handle any issues on Gender, SEA/SH, and GBV. | Weekly during site inspection and regularly by TPM | Contractor, UWSSP, UNOPS  (Site management and HSSE team) |
| External stakeholder engagement: | * Highlights, including formal and informal meetings, and information disclosure and dissemination—to include a breakdown of women and men consulted and themes coming from various stakeholder groups, including vulnerable groups (e.g., disabled elderly, children, etc.). | Monthly | Contractor, UWSSP, UNOPS (Site management and HSSE team) |
| External stakeholder grievances | * Number of grievances and date submitted, action(s) taken and date(s), resolution (if any) and date, and follow-up yet to be taken grievances listed should include those received since the preceding report and those that were unresolved at the time of that report. Grievance data should be gender disaggregated. | Continuous Monthly | Contractor, UWSSP, UNOPS (Site management and HSSE team) |
| Labor influx | * Give priority to the local people affected by the project regarding the unskilled jobs. * -Have a transparent and inclusive hiring process well explained to the affected communities during consultation. * Contract or subcontract some work to the local service providers | Continuous Monthly | Contractor, UWSSP, UNOPS (Site management and HSSE team) |
| Complaints Handling | **Method:**   * Complaints’ register will be kept on site, and this will feed into the GM. Details of complaints received will be incorporated into the audits as part of the monitoring process   **Indicators:**   * Number of Reported Grievances | Weekly | Contractor, UWSSP, UNOPS (Site management and HSSE team) |
| GBV and SEA issues | **Indicators**   * Number of reported and registered cases of the SEA/SH through project GM. * Number of reported cases of contractors’ noncompliance to PSEA/SH obligation on work sites. | Weekly | Contractor, UWSSP, UNOPS (Site management and HSSE team) |
| **General Environmental Impacts** | | | |
| Dust generation during work. | **Method:**   * Visual observation and photographic documentation of equipment induced dust clouds during maintenance/ rehabilitation activities   **Indicator:**   * Visible dust emissions. * Number of GM related to air pollution | Daily | Contractor, UWSSP, UNOPS (Site management and HSSE team) |
| Increased level of noise and vibration. | **Method:**   * Site supervision/inspection and documentation to ensure compliance with the noise mitigation measures   **Indicator**   * Percentage of workers comply with PPE procedures * The noise level measurements using the noise meter * Number of GM and complaints related to noise. | Weekly during site inspection. | Contractor, UWSSP, UNOPS (Site management and HSSE team) |
| Air pollution due to emissions from equipment/transportation trucks. | **Method:**   * Visual observation and photographic documentation of equipment induced emissions from vehicles and transport trucks and excavation work during implementation of activities.   **Indicators**   * Quantity of consumed fuel. * Visible dust cloud | Weekly during rehabilitation works and site inspection | Contractor, UWSSP, UNOPS (Site management and HSSE team) |
| Production, proper disposal and disposal of work’s debris and waste materials. | **Method:**   * Inspection and photographic documentation   **Indicators:**   * Records of presence of wastes stored in open areas or near drainage areas and at undesignated areas and increase in waste pollution * Visible records of pests (insect vectors and rodents) | Daily during rehabilitation works and site inspection | Contractor, UWSSP, UNOPS (Site management and HSSE team) |
| Soil and groundwater contamination | **Method:**   * Inspection and photographic documentation   **Indicators:**   * Visible change in soil color * Presence of visible leaks of chemicals * Battery stored in insulated area from the ground | Monthly | Contractor, UWSSP, UNOPS (Site management and HSSE team) |
| **Occupational Health and Safety** | | | |
| Working at Height Activities | **Method:**   * Visual inspection to ensure that all working at height activities are monitored and all safety associated instructions are implemented according to OSH requirements.   **Indicator:**   * records and number of injuries from height activities * Workers adhere to safety measures and fall prevention PPEs | Daily | Contractor, UWSSP, UNOPS (Site management and HSSE team) |
| Lifting Operations | **Method:**   * Visual inspection to ensure that all lifting activities in the work site are executed safely and as per the standard lifting safety rules. * Visual inspection that safety distance from lifting sites is adhered to OHS reports   **Indicators:**   * records and number of lifting accidents | Daily | Contractor, UWSSP, UNOPS (Site management and HSSE team) |
| Electricity Operation | **Method:**   * Visual inspection to Ensure that all electricity safety rules are implemented, followed, and communicated. * Ensure that only skilled workers are authorized to perform any electrical operations through qualification inspections.   **Indicators**:   * Unqualified workers performing electric work * Records and number of workers not adhering to suitable PPEs. * Records of hazardous wastes and E-wastes in undesignated zones | Daily | Contractor, UWSSP, UNOPS (Site management and HSSE team) |
| Manual Handling | **Method:**   * Visual inspection to ensure that all manual handling activities are performed according to the OSH manual handling safety rules and instructions. Record any noncompliance * Ensure that the implementation of the safety techniques to control the manual handling risk is monitored continuously.   **Indicators**:   * Number of injured workers from manual handling | Daily | Contractor, UWSSP, UNOPS (Site management and HSSE team) |
| Excavation | **Method:**   * Visual inspection to ensure that all excavation activities are executed safely, and all safety rules are implemented. Record any noncompliance.   **Indicators**:   * Presence of visible dust cloud * Presence of workers not wearing masks and adhering to PPEs * Number of workers tripping from excavated zones | Daily | Contractor, UWSSP, UNOPS (Site management and HSSE team) |
| Chemicals and Hazardous Substances and Wastes | **Method:**   * Visual inspection to ensure batteries are well placed in a safe and proper ventilated room with appropriate fire extinguisher and conduct regular monitoring. * Visual inspection to ensure proper battery recycling and disposal procedures are implemented. * Record any noncompliance and take photographic proof.   **Indicators**:   * Records of hazardous wastes and E-wastes in undesignated zones * Chemicals, wastes and hazardous substances are not labelled * Number of workers not wearing suitable PPEs while handling chemicals and wastes | Daily | Contractor, UWSSP, UNOPS (Site management and HSSE team) |
| Infection by Covid-19 | . **Method:**   * Visual inspection to ensure that health safety and hygiene awareness are followed and communicated. * Visual inspection to ensure that all health safety and hygiene materials are provided.   **Indicator:**   * Number of sick workers * Number of workers adhering to wearing PPEs through visual Inspection. | Daily | Contractor, UWSSP, UNOPS (Site management and HSSE team) |
| Work related accidents and injuries. | **Method:**   * Inspection and photographic documentation   **Indicator:**   * The record of injuries and accidents indicating the number of injured workers in the project report specifying cause and location. | Daily | Contractor, UWSSP, UNOPS (Site management and HSSE team) |
| Poor onsite housekeeping, toilet and water supply, leading to illness and disease. | **Method:**   * Visual inspection * Site inspection   **Indicator**:   * Presence of clean water and soap * Presence of pests * Presence of wastes at undesignated areas * Reports on illness and diseases. | Weekly during site inspection and regularly by TPM | Contractor, UWSSP, UNOPS (Site management and HSSE team) |
| Fire incident | **Indicator**:   * Number of firefighting system inspection * Number of reported incidents/fire events | Daily | Contractor, UWSSP, UNOPS (Site management and HSSE team) |
| Workers dissatisfaction/issues | **Method:**   * GM reports   **Indicators:**  Number and type of GM and solved GM related to work issues | Continuous/daily | Contractor, UWSSP, UNOPS and TPM |
| **Operation and Maintenance** | | | |
| Operation and Maintenance (Staff Health and Safety and community health and safety) | **Method:**   * Ensure same monitoring measures are implemented during operation and maintenance   **Indicator:**   * Number of complaints due to misfunctions of PV * Number of water cuts * Number of maintenance times | Continuous daily | Contractor and Facility Administration |
| Operation and Maintenance  (Training to facility staff) | **Method:**   * Training on how to handle solar panels, clean them, proper PPEs, and safety measures, etc.   **Indicators:**   * Number of trainings received by facility workers. | Prior to handing the project to the facility administration. | Contractor and Facility Administration |

***‎***

# Public Consultation

Public consultations conducted by UWSSP ESSO in the targeted subprojects areas, total public consulted is 99 persons (79 male and 20 female) as provided in Table 8.

***Table 8: Public consultations data***

| **Sub-Project** | **Public** **consulted** | | | **Date** | **Method** |
| --- | --- | --- | --- | --- | --- |
| **M** | **F** | **Total** |
| EHC-AF-WS-DHAM-006 | 16 | 4 | 20 | 06-09 /03/2023 | Phone call |
| EHC-AF-WS-HOD-022 | 12 | 2 | 14 | 03-11/05/2023 |
| EHC-AF-WS-SAN-008 | 20 | 7 | 27 | 04-07/04/2023 | Interviewed persons and Phone call |
| EHC-AF-WS-IBB-006 | 9 | 2 | 11 | 06-10/05/2023 | Phone call |
| EHC-AF-WS-AMR-003 | 12 | 3 | 15 | 011-14/05/2023 |
| **Total Public consulted** | **79** | **20** | **99** |  |  |

**Topics of the consultations are:**

* Inform beneficiaries about the activities to be undertaken and the sub-projects timetable.
* Ensure participation of sub-projects beneficiaries both females and males with awareness on their rights to give feedback including GM contacts, anonymous complaints and escalation of grievances if not satisfied with the resolution and action taken.
* Discuss the positive impacts that the sub-projects will have and the sub-projects potential negative impacts and proposed mitigation measures to avoid possible impacts.
* Raise the awareness on the GBV issues.
* The Sub-projects activities were discussed with the consulted people.
* The sub-projects environmental and social impacts and the planned mitigation measures discussed with the consulted people in details.
* The work in these sites will increase the employment and business opportunities for the locals

**Consultation Findings and Feedback**

The various concerns raised related with their responses are given in table 9:

***Table 9: Public consultations concerns raised and their Responses***

| **#** | **Concerns Raised** | **Responses** |
| --- | --- | --- |
| Minimize the effects of noise, dust, vibration, traffic associated with excavation and other work activities on the nearby communities living along the subprojects’ areas. | | If the contractor encounters a solid, challenging rock, he may use a variety of machineries to speed up the process, but he will keep them in good working order, properly tuned, and maintained to reduce exhaust emissions and vibration issues. The Contractor will also ensure that the suggestions made in this ESMP are implemented. |
| The Contractor shall dispose solid waste on regular basis. | | It was briefed that the Contractor will be bound to  safely dispose all the solid waste generated in demarcated waste disposal sites. |

# Grievance Mechanism GM

UNOPS GM will be used in the sub-project.

The grievance redress mechanism will focus on the following during the implementation Process:

* Record grievances, both written and oral, categorizing and prioritizing them, and providing solutions within an agreed timeframe;
* Discuss the grievances on a regular basis with relevant authorities and identify decisions/actions for issues that can be resolved at that level;
* Informing the project management of any more serious issues;
* Reporting to the aggrieved parties about the developments regarding their grievances and the decisions;
* All information about grievance procedures, grievance forms, and responses will be available in languages readily understandable to the locals.

The following Table 10 shows the expected grievances in these subprojects

***Table 10: Type of expected grievances***

| Categories of Grievances |
| --- |
| 1. Basic information |
| − Access to subproject information |
| − Correction and deletion of untrue or misleading information that affects the person |
| 2. Ethics and conduct |
| − Government entities and staff |
| − Implementing Partner staff |
| 4. Violation and breach of codes of ethics |
| − Violation of codes of ethics; |
| − Breach of the code of ethics by government officers: |
| − Breach of Code of Conduct and Ethics by staff of Implementing Partners |
| 5. Violation of human rights and fundamental freedoms |
| − Gender equality and general equality matters. |
| − Equality and freedom from discrimination (Equality -every person; Equality of men and women  to opportunities in political, economic, cultural and social) |
| − Non-discrimination of special needs groups |
| 6. Corruption and Economic crimes |
| − Unethical conduct |
| 7. Labor and working conditions |
| − Termination/Summary Dismissal, |
| − Breach of Employment Contract Terms |
| − Work Injury |
| − Discrimination |
| − Sexual Harassment |
| − Remuneration |
| − Wrongful termination |
| − Suspension |
| − Waiver of Claims |
| 8. Environmental compliance violations |
| − Violation of environmental standards laid out in the ESMPs, and ESMF , including complaints about noise, dust, pollution, waste accumulation, debris, damages to the  eco system etc. |
| 9. Occupational Health and Safety (OHS) |
| − Violation of occupational health and safety measures and standards laid out in the ESMF, ESMPs  − Issues of Community Health and Safety |
| 11. Gender-Based Violence (GBV) / Sexual Exploitation and Abuse (SEA) / Sexual Harassment (SH) |
| − Gender based violence committed by project personnel or any worker on the Project, or GBV  committed in relation to the Project |
| − Sexual Exploitation and Abuse committed by Project staff or any worker of an IP associated to these  subproject |
| − Sexual Harassment committed by subproject staff or any worker associated to these subproject |

### Available Channels

* **A phone number for a hotline operator:** The phone number of a grievance hotline operator must be widely distributed among subproject stakeholders. The Hotline Operator is available every day from 8 a.m. to 5.00 p.m. via a toll-free number. Anyone with a concern can call the hotline number and file a complaint with the Project. Operators will respond in either Arabic or English.
* **A phone call and/or a WhatsApp message:** The GM officer will accept complaints 24 hours a day, seven days a week via the WhatsApp number provided to all stakeholders.
* **A Complaint box** must be installed on the sub-project sites. Complaint boxes provide a more anonymous way of filing a grievance or for providing feedback. Grievances or feedback submitted to the Complaint Box must be expressed in writing. Boxes are clearly marked as Complaint box and grievance mechanism.

### Tracking, Investigating and Resolving Complaints

The GM log maintained by UNOPS will track the date the complaint was received, date responded to, the type of response, and if the complaint was resolved to the satisfaction of the plaintiff.

The ESSO will coordinate with local partners, local field staff and local government officials to ensure prompt follow up action in response to each complaint. More specifically, the GM focal point wills forename complaints:

Inform the plaintiff if the complaint is accepted or rejected within 3 days from receiving the complaint; any technical input from project engineers; if necessary, the response will require input from project engineers.

If the complaint is accepted, send the plaintiff an officially stamped review card indicating:

* Plaintiff name or legal representative
* Plaintiff address
* Complaint title
* Review date
* List of annexes submitted with the complaint

Work with engineers, local partners, and contractors to resolve the complaint within 28 days of its submission.

### Steps to handle GM

* Publicizing: stakeholder’s consultation, printed materials;
* Receiving and registering complaints: staff at local and central level who will be responsible for receiving registering and tracking complaints;
* Acknowledging: The GM staff (team) acknowledges receipt of the complaint within 2-3 working days. Inform the complainant on the eligibility of his/her complaint;
* Anonymous complaints: To be studied as well;
* Reviewing and investigating, collect, review and analyze related documents;
* Conducting interviews of the involved persons, officers and staff;
* Analyzing the related national legislations & regulations, World Bank Policies & Guidelines and UNOPS standards;
* Summarizing the facts and findings;
* Developing resolution options: based on the collected evidence, the GM staff (team) will draw conclusions, make recommendations for solutions, and present it to the complainant;
* If the solution is not accepted, complaint will be presented to the Program Manager as a second level to appeal who can make the resolution and/or can delegate an arbitrary to investigate on the complaint and propose recommendations for resolution;
* Implementing resolution: If the solution is accepted, then will be implemented;
* Monitoring and closing: the complaint should be monitored for a reasonable period of time to make sure that the complainant does not express additional concerns, and then the complaint could be closed.

Reporting (recording): prepare concise summary reports of the complaints received, with the resolutions taken and status of resolutions implementation, and filled in the database with detailed records.

# Reporting of ESMP

The ESSO will report on monthly basis the implementation of the ESMP and UNOPS will report the ESMP implementation to the WB. There will be also irregular reports based on the situation and updates. The Supervision Consultant will monitor and report weekly and irregularly on the level of mitigation measures implementation and environmental issues. The contractor shall monitor, keep records and report on the following environmental and social issues: safety, Environmental incidents and near misses, major works, ESHS requirements, ESHS inspections and audits: workers, training on ESHS issues, footprint management, external stakeholder engagement, details of any security risks, worker grievances, external stakeholder grievances, major changes to Contractor environmental and social practices, deficiency and performance management.

The following table (11) provides indicative reporting plan.

***Table 11 :Reporting Plan***

| What | How | Who | When |
| --- | --- | --- | --- |
| Compliance level to the ESMP including environmental and social issues, OHS, GM, etc. | Based on monitoring and inspections, log, the consultant reports, GM log | ESSO (UWSSP &UNOPS) | Weekly and monthly from ESSO and quarterly from UNOPS to WB. |
| Compliance level to the ESMP and environmental and social issues: safety, environmental incidents and near misses, major works, ESHS requirements, ESHS inspections and audits: workers, training on ESHS issues, footprint management, external stakeholder engagement, details of any security risks, worker grievances, external stakeholder grievances, major changes to Contractor environmental and social practices, deficiency and performance management. | Consultant based on monitoring, inspection, records, logs, contractor reports. | Supervision Consultant (appointed by the implementing partner). | Weekly |
| Environmental and social issues: safety, environmental incidents and near misses, major works, ESHS requirements, ESHS inspections and audits: workers, training on ESHS issues, footprint management, external stakeholder engagement, details of any security risks, worker grievances, external stakeholder grievances, major changes to Contractor environmental and social practices, deficiency and performance management. | Contractor ESSO based on monitoring, inspection, records, logs. | Contractor | Weekly |

# Annex:1 Environmental and Social Requirements for Contractors

Contractors shall meet the following Environmental, Health, Safety and Social (including labor) requirements – thereafter called ESHS requirements1.

The ESHS requirements include 9 sections

1. Contractor Environmental and Social Management Plan (C-ESMP)
2. ESHS Training
3. Construction Site Management
4. Occupational Health and Safety (OHS)
5. Chance Find Procedures
6. Emergency Preparedness and Response
7. Stakeholder Engagement
8. Code of Conduct
9. Contractor Environmental and Social Reporting

**Contractor Environmental and Social Management Plan (C-ESMP)**

* + Prepare and submit to UWS-PMU / UNOPS for approval a Contractor Environmental and Social Management Plan (C-ESMP).
  + Include in the C-ESMP a detailed explanation of how the contractor’s performance will meet the ESHS requirements
  + Ensure that sufficient funds are budgeted to meet the ESHS requirements, and that sufficient capacity is in place to oversee, monitor and report on C-ESMP performance.
  + Put in place controls and procedures to manage their ESHS performance.
  + Get prior written approval from UWS-PMU Engineers before starting construction or rehabilitation activities.

***ESHS Training***

* + Determine ESHS training needs in collaboration with UWS-PMU/ UNOPS
  + Maintain records of all ESHS training, orientation, and induction.
  + Ensure, through appropriate contract specifications and monitoring that service providers, as well as contracted and subcontracted labor, are trained adequately before assignments begin.
  + Demonstrate that its employees are competent to carry out their activities and duties safely. For this purpose, the Contractor shall issue a Competence Certificate for every person working on site (relative to trade and aspect of work assignment) that specifies which tasks can be undertaken by which key personnel.
  + Training should include occupational health and safety measures, GBV HS and social health and safety measures, Environmental health and safety measures, waste management and hazardous materials management.

***Orientation Training***

* + Provide ESHS orientation training to all employees, including management, supervisors, and workers, as well as to subcontractors, so that they are apprised of the basic site rules of work at/on the site and of personal protection and preventing injury to fellow employees.
  + Training should consist of basic hazard awareness, site-specific hazards, safe work practices, and emergency procedures for fire, evacuation, and natural disaster, as appropriate. Any site-specific hazard or color coding in use should be thoroughly reviewed as part of orientation training.

***Visitor Orientation***

* + Establish an orientation program for visitors, including vendors that could access areas where hazardous conditions or substances may be present.
  + Visitors shall not enter hazard areas unescorted.
  + Ensure that visitors shall always be accompanied by an authorized member of the contractor, or a representative of UNOPS or UWS-PMU, who has successfully fulfilled the ESHS orientation training, and who is familiar with the project site construction hazards, layout, and restricted working areas.

***New Task Employee and Contractor Training***

* + Ensure that all workers and subcontractors, prior to commencement of new assignments, have received adequate training and information enabling them to understand work hazards and to protect their health from hazardous ambient factors that may be present. The training should adequately cover the step-by-step process that is needed for Project activities to be undertaken safely, with minimum harm to the environment, including:
  + Knowledge of materials, equipment, and tools
  + Known hazards in the operations and how they are controlled
  + Potential risks to health
  + Precautions to prevent exposure
  + Hygiene requirements
  + Wearing and use of protective equipment and clothing
  + Appropriate response to operation extremes, incidents and accidents

**Construction Site Management**

***Vegetation***

* + Prevent any unnecessary destruction, scarring, or defacing of the natural surroundings in the vicinity of the construction site
  + Protect all trees and vegetation from damage by construction operations and equipment, except where clearing is required for permanent works, approved construction roads, or excavation operations
  + Revegetate damaged areas on completion of the Works, and for areas that cannot be revegetated, scarifying the work area to a condition that will facilitate natural revegetation, provide for proper drainage, and prevent erosion
  + Use, as much as possible, local species for replanting and species that are not listed as a noxious weed
  + Repair, replant, reseed or otherwise correct, as directed by UNOPS or UWS-PMU, and at the Contractor’s own expense, all unnecessary destruction, scarring, damage, or defacing of the landscape resulting from the Contractors operations
  + Transport labor and equipment in a manner to avoid as much as possible damage to grazing land, crops, and property

***Protection of the Existing Installations***

* + Safeguard all existing buildings, structures, works, pipes, cables, sewers, or other services or installations from harm, disturbance or deterioration during construction activities
  + Coordinate with local authorities to identify existing infrastructure that might not be visible
  + Repair any damage caused by the Contractor’s activities, in coordination with concerned authorities.
  + Take all reasonable precautions to prevent or reduce any disturbance or inconvenience to the owners, tenants or occupiers of properties to the construction activities, and more generally to the public
  + Maintain safe access to public and private properties that might be affected by construction activities. If necessary, provide acceptable alternative means of passage or access to the satisfaction of the persons affected.
  + Avoid working during night hours

***Waste from Construction Activities***

* + Collect and properly store and manage all solid wastes and hazardous wastes resulting from the construction activities, including construction debris and spoils, to prevent the contamination of soil and groundwater. In case chemicals are present they should be stored and disposed according to their Material Safety Data Sheets (MSDSs)
  + Remove unneeded excavation material from construction sites as soon as possible
  + Agree with relevant municipalities about construction waste disposal
  + Carefully select waste disposal sites, to be approved by UNOPS or UWS-PMU.
  + Minimize littering of roads by ensuring that vehicles are licensed and loaded in such a manner as to prevent falling off or spilling of construction materials, and by sheeting the sides and tops of all vehicles carrying mud, sand, other materials or debris
  + Transfer construction waste to assigned places in the selected waste disposal sites with documented confirmation.
  + Properly dispose of solid waste and debris and hazardous waste at designated permitted sites waste disposal sites allocated by the local authorities and obtain a receipt of waste from the authorized landfill authority.

***Hazardous and Toxic Materials***

Toxic and deleterious wastes resulting from the Project Company's activities require special attention in order to forestall their introduction into the natural environment which could result in harm to people, aquatic life or natural growth of the area. The Contractor shall take precautions relative to the conditions specified herein.

* + Train workers regarding the handling of hazardous materials
  + Store hazardous materials as per the statutory provisions of the Manufactures, Storage and Import of Hazardous Chemicals Rules (1989), under the Environment (Protection) Act, 1986.
  + Provide adequate secondary containment for fuel storage tanks and for the temporary storage of other fluids such as lubricating oils and hydraulic fluids,
  + Use impervious surfaces for refueling areas and other fluid transfer areas
  + Train workers on the correct transfer and handling of fuels and chemicals and the response to spills
  + Provide portable spill containment and cleanup equipment on site and training in the equipment deployment
  + Deposit or discharge toxic liquids, chemicals, fuels, lubricants and bitumen into containers for salvage or subsequent removal to off-site locations.
  + Treat hazardous waste separately from other waste
  + Avoid the storage or handling of toxic liquid adjacent to or draining into drainage facility‎.
  + Keep absorbent materials or compounds on Site in sufficient quantities corresponding to the extent of possible spills

***Area Signage***

* + Appropriately mark hazardous areas.
  + Install warning signs
  + Ensure that signage is in accordance with international standards and is well known to, and easily understood by workers, visitors and the general public as appropriate.
  + Demarcate work sites with safety tape, fencing or barricades, as appropriate, to prevent unauthorized access to the construction sites
  + Safeguard public safety by covering holes and by installing guardrails along temporary pathways.

***Decommissioning of Worksites and Plant***

* + Clear construction sites of any equipment or waste, and ensuring that the sites are free from contamination.
  + Dispose of or recycle any equipment or waste in an appropriate and environmentally sound manner.
  + Hand construction sites over to the original owners, taking into account his/her wishes and national legislation.

**Health and Safety**

***Severe Weather and Facility Shutdown***

* + Design and build work place structures to withstand the expected elements for the region and designate an area designated for safe refuge, if appropriate.
  + Develop Standard Operating Procedures (SOPs) for project or process shut-down, including an evacuation plan.

***Lavatories and Showers***

* + Provide adequate lavatory facility‎ (toilets and washing areas) for the number of people expected to work at the construction sites, and make allowances for segregated facility‎, or for indicating whether the toilet facility is “In Use” or “Vacant”.
  + Provide toilet facility‎ with adequate supplies of hot and cold running water, soap, and hand drying devices.
  + Where workers may be exposed to substances poisonous by ingestion and skin contamination may occur, provide facility‎ for showering and changing into and out of street and work clothes.

***Potable Water Supply***

* + Provide adequate supplies of potable drinking water from a fountain with an upward jet or with a sanitary means of collecting the water for the purposes of drinking
  + Ensure that water supplied to areas of food preparation or for the purpose of personal hygiene (washing or bathing) meets drinking water quality standards

***Clean Eating Area***

* Where there is potential for exposure to substances poisonous by ingestion, make suitable arrangements to provide clean eating areas where workers are not exposed to the hazardous or noxious substances

***Personal Protective Equipment (PPE)***

* Identify and provide at no cost appropriate PPE to workers, the workers of subcontractors, as well as to visitors, which gives adequate protection without incurring unnecessary inconvenience to the individual
* Ensure that the use of PPE is compulsory.
* Provide sufficient training in the use, storage and maintenance of PPE to its workers and workers of its subcontractors.
* Properly maintain PPE, including cleaning when dirty and replacement when damaged or worn out;
* Determine requirements for standard and/or task-specific PPE based on of Job specific Safety Analysis (JSA);
* Consider the use of PPE as a last resort when it comes to hazard control and prevention, and always refer to the hierarchy of hazard controls when planning a safety process.

***Noise***

Institute appropriate measures to reduce the exposure of workers to construction noise, including but not limited to:

* Avoid exposure to a noise level greater than 85 dB (A) for a duration of more than 8 hours per day without hearing protection. In addition, no unprotected ear should be exposed to a peak sound pressure level (instantaneous) of more than 140 dB(C).
* Enforce the use of hearing protection should be enforced actively when the equivalent sound level over 8 hours reaches 85 dB(A), the peak sound levels reach 140 dB(C), or the average maximum sound level reaches 110 dB(A).
* Provide hearing protective devices capable of reducing sound levels at the ear to at most 85 dB(A).
* Reduce the “allowed” exposure period or duration by 50 percent for every 3 dB(A) increase in in excess of 85 dB(A).
* Perform periodic medical hearing checks on workers exposed to high noise levels.
* Rotate staff to limit individual exposure to high levels.
* Install practical acoustical attenuation on construction equipment, such as mufflers.
* Use silenced air compressors and power generators
* Keep all machinery in good condition
* Install exhaust silencing equipment on bulldozers, compactors, crane, dump trucks, excavators, graders, loaders, scrapers and shovels.
* Post signs in all area where the sound pressure level exceeds 85 dB(A).
* Shut down equipment when not directly in use
* Provide advance notice to occupants if an activity involving high level impact noise is in close proximity to buildings.

***First Aid and Accidents***

* Ensure that qualified first-aid by qualified personnel is always available. Appropriately equipped first-aid stations should be easily accessible throughout the place of work.
* Provide workers with rescue and first-aid duties with dedicated training so as not to inadvertently aggravate exposures and health hazards to themselves or their co- workers. Training would include the risks of becoming infected with blood–borne pathogens through contact with bodily fluids and tissue.
* Provide eye-wash stations and/or emergency showers close to all workstations where immediate flushing with water is the recommended first-aid response.
* Provide dedicated and appropriately equipped first-aid room(s) where the scale of work or the type of activity being carried out so requires.
* Equip first aid stations and rooms with gloves, gowns, and masks for protection against direct contact with blood and other body fluids.
* Make widely available written emergency procedures for dealing with cases of trauma or serious illness, including procedures for transferring patient care to an appropriate medical facility.
* Immediately report all accidental occurrences with serious accident potential such as major equipment failures, contact with high-voltage lines, and exposure to hazardous materials, slides, or cave-ins to UNOPS and UWS-PMU.
* Immediately investigate any serious or fatal injury or disease caused by the progress of work by the Contractor, and submit a comprehensive report to UNOPS and UWS-PMU.

***Communicable Diseases***

Sexually-transmitted diseases (STDs), such as HIV/AIDS, are the communicable diseases of most concern because of labor mobility. Recognizing that no single measure is likely to be effective in the long term, the Contractor shall implement a combination of behavioral and environmental modifications to mitigate communicable diseases:

* Conduct Information, Education and Consultation Communication (IEC) campaigns, at least every other month, addressed to all construction site staff (including all the Contractor’s employees, all subcontractors of any tier, consultants' employees working on the site, and truck drivers and crew making deliveries to the site for Works and Services executed under the Contract, concerning the risks, dangers and impact, and appropriate avoidance behavior of communicable diseases.
* Ensure ready access to medical treatment, confidentiality and appropriate care, particularly with respect to migrant workers.
* Promote collaboration with local authorities to enhance access of workers families and the community to public health services and ensure the immunization of workers against common and locally prevalent diseases.
* Provide basic education on the conditions that allow the spread of other diseases such as COVID-19, Lassa Fever, Cholera and Ebola. The training should cover sanitary hygiene education.
* Prevent illness in immediate local communities by:
  + Conducting immunization programs for workers in local communities to improve health and guard against infection.
  + Providing health services.

***COVID-19***

In the context of the COVID-19 pandemic, Contractors shall develop and implement measures to prevent or minimize an outbreak of COVID-19, and develop procedures indicating what should be done if a worker gets sick. The measures shall include:

* Assessing the characteristics of the workforce, including those with underlying health issues or who may be otherwise at risk
* Confirming that workers are fit for work, including 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
* Treating 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
* Reducing, storing and disposing of medical waste
* Adjusting work practices, to reduce the number of workers and increase social distancing
* Expanding health facility‎ on-site compared to usual levels, developing relationships with local health care facility‎ 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 facility‎, 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.

***Emergencies***

* Establish and maintain an emergency preparedness and response system, in collaboration with appropriate and relevant third parties including to cover: (i) the contingencies that could affect personnel and facility‎ of the project to be financed; (ii) the need to protect the health and safety of project workers; (iii) the need to protect the health and safety of the Affected Communities. The emergency preparedness and response system shall include:
  + Identification of the emergency scenarios
  + Specific emergency response procedures
  + Training of emergency response teams
  + Emergency contacts and communication systems/protocols (including communication with Affected Communities when necessary)
  + Procedures for interaction with government authorities (emergency, health, environmental authorities)
  + Permanently stationed emergency equipment and facility‎ (e.g., first aid stations, firefighting equipment, spill response equipment, personal protection equipment for the emergency response teams)
  + Protocols for the use of the emergency equipment and facility‎
  + Clear identification of evacuation routes and muster points
  + Emergency drills and their periodicity based on assigned emergency levels or tiers
  + Decontamination procedures and means to proceed with urgent remedial measures to contain, limit and reduce pollution within the physical boundaries of the project property and assets to the extent possible.

***Stakeholder Engagement***

The Project Company will be required to undertake a process of stakeholder engagement with representative persons and communities directly affected by the activities it undertakes, including, if necessary, the public disclosure of its C- ESMP. The Project Company shall also maintain throughout the Project good relations with local communities and will give these communities prior notice of plans and schedules as they might affect local people.

The stakeholder engagement process will also be applicable in the event of land acquisition associated with changes in the footprint of activities.

**Labor Force Management**

***Labor Influx***

* Avoid contamination of fresh water sources
* Provide opportunities for workers to regularly return to their families
* Provide opportunities for workers to take advantage of entertainment opportunities away from rural host communities
* Ensure that children and minors are not employed directly or indirectly on the project, and keep registration and proof of age for all employees on-site.
* Pay adequate salaries for workers to reduce incentive for theft
* Pay salaries into workers’ bank accounts rather than in cash
* Get an appropriate mix of locally and non- locally procured goods to allow local project benefits while reducing risk of crowding out of and price hikes for local consumers
* Establish substance abuse prevention and management programs
* Hire workers through recruitment offices, and avoid hiring “at the gate” to discourage spontaneous influx of job seekers
* Identify authorized water supply source and prohibiting use from other community sources;
* Put in place measures to reduce water and electricity consumption;
* Employ locals to the extent possible;
* Develop and adopt a Gender Action Plan to promote the transfer of construction skills to local women, to facilitate their employment at the Project site, including training and recruitment targets.

***Labor Conditions***

* Implement the measures and commitments defined in the Labor Management Procedures. A copy of the LMP can be found in the Project ESMF
* Provide all workers with terms and conditions that comply with Yemeni Labor Legislation, most particularly Decree 5/1995) and applicable International Labor Organization conventions on workplace conditions.

***Insurance***

* Provide insurance for call employees involved in onsite activities, as indicated by Yemen’s Labor Law
* Compensate any employee for death or injury, except to the extent that liability arises.

***Grievance Mechanism for Workers***

The Contractor will put in place a Grievance Mechanism for its workers and the workers of its subcontractors that is proportionate to its workforce. The GM shall be distinct from the Project level Grievance Mechanism for affected individuals and communities, and shall adhere to the following principles:

* Provision of information. All workers should be informed about the grievance mechanism at the time they are hired, and details about how it operates should be easily available, for example, included in worker documentation or on notice boards.
* Transparency of the process. Workers must know to whom they can turn in the event of a grievance and the support and sources of advice that are available to them. All line and senior managers must be familiar with their organization's grievance procedure.
* Keeping it up to date. The process should be regularly reviewed and kept up to date, for example, by referencing any new statutory guidelines, changes in contracts or representation.
* Confidentiality. The process should ensure that a complaint is dealt with confidentially. While procedures may specify that complaints should first be made to the workers’ line manager, there should also be the option of raising a grievance first with an alternative manager, for example, a human resource (personnel) manager.
* Non-retribution. Procedures should guarantee that any worker raising a complaint will not be subject to any reprisal.
* Reasonable timescales. Procedures should allow for time to investigate grievances fully but should aim for swift resolutions. The longer a grievance is allowed to continue, the harder it can be for both sides to get back to normal afterwards. Time limits should be set for each stage of the process, for example, a maximum time between a grievance being raised and the setting up of a meeting to investigate it.
* Right of appeal. A worker should have the right to appeal to the World Bank or national courts if he or she is not happy with the initial finding.
* Right to be accompanied. In any meetings or hearings, the worker should have the right to be accompanied by a colleague, friend or union representative.
* Keeping records. Written records should be kept at all stages. The initial complaint should be in writing, if possible, along with the response, notes of any meetings and the findings and the reasons for the findings. Any records on SEA shall be registered separately and under the strictest confidentiality.
* Relationship with collective agreements. Grievance procedures should be consistent with any collective agreements.
* Relationship with regulation. Grievance processes should be compliant with the national employment code

***Protection from Sexual Exploitation and Abuse***

* Provide repeated training and awareness raising to the workforce about refraining from unacceptable conduct toward local community members, specifically women
* Inform workers about national laws that make sexual harassment and gender-based violence a punishable offence which is prosecuted.
* Prohibit its employees from exchanging any money, goods, services, or other things of value, for sexual favors or activities, or from engaging any sexual activities that are exploitive or degrading to any person.
* Develop a system to capture gender-based violence, sexual exploitation and workplace sexual harassment related complaints/issues.
* Adopt a policy to cooperate with law enforcement agencies in investigating complaints about gender-based violence.

***Protection from Child Labor***

* Verify that workers are older than 18 when hiring
* Exclude all persons under the age of 18.
* Review and retain copies of verifiable documentation concerning the age of workers

***Code of Conduct***

* Contractors shall ensure that all employees, including those of subcontractors, are informed about and sign Code of Conduct:

**Contractor Environmental and Social Reporting**

Contractors shall monitor, keep records and report on the following environmental and social issues:

* *Safety:* hours worked, lost time injury (LTI), lost workdays, recordable incidents and corresponding Root Cause Analysis (lost time incidents, medical treatment cases), first aid cases, high potential near misses, and remedial and preventive activities required (for example, revised job safety analysis, new or different equipment, skills training, and so forth).
* *Environmental incidents and near misses:* environmental incidents and high potential near misses and how they have been addressed, what is outstanding, and lessons learned.
* *Major works:* those undertaken and completed, progress against project schedule, and key work fronts (work areas).
* *ESHS requirements:* noncompliance incidents with permits and national law (legal noncompliance), project commitments, or other ESHS requirements.
* *ESHS inspections and audits:* by Project Company, Independent Engineer, UNOPS and its implementing partners, or others—to include date, inspector or auditor name, sites visited and records reviewed, major findings, and actions taken.
* *Workers:* list of workers at each site, confirmation of ESHS training, indication of origin (expatriate, local, nonlocal nationals), gender, age with evidence that no child labor is involved, and skill level (unskilled, skilled, supervisory, professional, management).
* *Training on ESHS issues:* including dates, number of trainees, and topics.
* *Footprint management:* details of any work outside boundaries or major off-site impacts caused by ongoing construction—to include date, location, impacts, and actions taken.
* *External stakeholder engagement:* highlights, including formal and informal meetings, and information disclosure and dissemination—to include a breakdown of women and men consulted and themes coming from various stakeholder groups, including vulnerable groups (e.g., disabled, elderly, children, etc.).
* *Details of any security risks:* details of risks the Project Company may be exposed to while performing its work—the threats may come from third parties external to the project.
* *Worker grievances:* details including occurrence date, grievance, and date submitted; actions taken and dates; resolution (if any) and date; and follow-up yet to be taken—grievances listed should include those received since the preceding report and those that were unresolved at the time of that report.
* *External stakeholder grievances:* grievance and date submitted, action(s) taken and date(s), resolution (if any) and date, and follow-up yet to be taken—grievances listed should include those received since the preceding report and those that were unresolved at the time of that report. Grievance data should be gender-disaggregated.
* *Major changes to Contractors environmental and social practices*.
* *Deficiency and performance management:* actions taken in response to previous notices of deficiency or observations regarding ESHS performance and/or plans for actions to be taken should continue to be reported to UNOPS until it determines the issue is resolved satisfactorily.

Annex : GM Complaint and Suggestion Form

| Yemen Emergency Human Capital Project YEHCP  Sample of GM  Complaint and Suggestion Form | استمارة توثيق ومتابعة شكاوى المستفيدين من المشروع الطارئ للخدمات الحضرية المتكاملة – المرحلة الثانية | مشروع رأس المال البشري الطارئ في اليمن  نموذج لألية التظلمات والشكاوى |
| --- | --- | --- |

**"Documenting and Monitoring Complaints Form of**

**Beneficiaries of Yemen Emergency Human Capital Project YEHCP "**

| **الاسم الثلاثي للمستفيد:**  **Beneficiary Name** |  | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| **رقم البطاقة الشخصية:**  **ID No.** |  | | | **رقم الهاتف للمتابعة** Tel Number for follow up | |  |
| **العنوان الدائم:**  **Permanent Address** |  | | | | | |
| **اسم النشاط المنفذ (مركز/وحدة)**  **Name of Activity under implementation** | |  | | | | |
| **مكان تنفيذ النشاط:**  **Place of activity under implementation** | **القرية:**  **Village** | | **المديرية:**  **District** | | **المحافظة:**  **Governorate** | |

| **نوع الشكوى**  **Complaint Type** | **إدارية**  **Administrative** | **فنية**  **Technical** | **مالية**  **Financial** | **أخرى**  **Other** |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |

**موضوع الشكوى:**

**Complaint Subject**

| **الوضع الحالي:**  **Current Situation** |  | | |
| --- | --- | --- | --- |
| أسباب المشكلة:  Reason of the problem |  | |  |
| التاريخ:  Date |  | توقيع صاحب الشكوى:  Complainant Signature |  |

- الجهة التي يجب أن يقدم لها الشكوى:UNOPS – Tool Free No 8000190 Tel: 01 504914/915 - SMS: 739888388 Email: GM.yemen@unops.org........................................................................................

The entity, which the complaint should be forwarded to:

-الرأي في جدية الشكوى:.......................................................................................................

Opinion on the seriousness of the complaint

-الجهة المحول لها الشكوى :.........................................................................................................

The complaint transferred to

- المدة الزمنية اللازمة للبت في الشكوى:...........................................................................................

Time required for response

-مدى رضى المستفيد عن الاستجابة لحل شكواه:..................................................................................

Satisfaction of beneficiary in responding to his/her complaint

| الإجراءات المتخذة :Action taken |  | | |
| --- | --- | --- | --- |
| ما ترتب عليها من نتائج:The results of the action taken |  | التاريخ:Date |  |

اسم مستلم الشكوى ووظيفته: ................................................

Name of person received the complaint and his/her position

التاريخ/ Date : ....................... توقيع الموظف المختص/ Signature……...

# Annex 3: Sample for GM communication and awareness materials





1. Temperature, rainfall, wind and solar energy sourced from: <https://weatherspark.com/y/103142/Average-Weather-in-Dham%C4%81r-Yemen-Year-Round> [↑](#footnote-ref-0)
2. https://weatherspark.com/y/103142/Average-Weather-in-Dham%C4%81r-Yemen-Year-Round [↑](#footnote-ref-1)
3. Temperature, rainfall, wind and solar energy sourced from: <https://weatherspark.com/y/102289/Average-Weather-in-Al-%E1%B8%A8udaydah-Yemen-Year-Round> [↑](#footnote-ref-2)
4. Temperature, rainfall, wind and solar energy sourced from: <https://weatherspark.com/y/102676/Average-Weather-in-Maf%E1%B8%A9aq-Yemen-Year-Round> [↑](#footnote-ref-3)
5. Temperature, rainfall, wind and solar energy sourced from: <https://weatherspark.com/y/103105/Average-Weather-in-Najd-al-Jum%C4%81%E2%80%98%C4%AB-Yemen-Year-Round> [↑](#footnote-ref-4)