



Yemen Sustainable Fishery Development in Red Sea and Gulf of Aden (SFISH) (P178143)

Environmental and Social Management Plan (ESMP No.3)

For the

Rehabilitation and Development of Rowkub Fish Landing Site

September 9, 2024

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Abbreviations

CC	Community Committee
CoC	Code of Conduct
CHM	Complaint Handling Mechanism
C-ESMP	Contractor-Environmental and Social Management Plan
E&S	Environmental and Social
EHS	Environmental, Health, and safety
EPA	Environmental Protection Authority
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESSs	Environmental and Social Standards
GAF	General Authority for Fisheries
GBV	Gender Based Violence
GNI	Gross National Income
HQ	Head Quarter
ICE	ICE factory
IDs	Personal Identifications Cards
IDP	Internal Displaced Persons
IPs	Interested Parties, UNICEF, other Clusters such as WASH
LMP	Labor Management Procedure
MSDSs	Material Safety Data Sheets
O&M	Operation and maintenance
OHS	Occupational Health and Safety
PPEs	Personal Protective Equipment's
PTW	Permit to Work
PWP	Public Works Project
SEA/SH	Sexual Exploitation and Abuse/Sexual Harassment
SFD	Social Fund for Development
TRE	Technical Resident Engineer
UNDP	United Nation for Development Programme
UNICEF	the United Nations International Children's Emergency Fund
UNOPS	The United Nations Office for Project Services
WASH	Water, Sanitation, and Hygiene
WB	The World Bank
WHO	World Health Organization

1 Introduction

The current Environmental and social management plan (ESMP) for the Rehabilitation and Development of Rowkub Fish Landing Center is prepared based on Sustainable Fishery Development in Red Sea and Gulf of Aden (SFISH) Environmental and Social Management Framework (ESMF)¹. The ESMF was prepared by the United Nations Development Programme (UNDP) to meet the requirements of the World Bank's Environmental and Social Framework (ESF), and the national regulations. The SFISH project ESMF will guide Public Works Project (PWP) to ensure that all subprojects are prepared and implemented in accordance with the ESF requirements, including the preparation of subproject specific site ESMP. For this purpose, the ESMF details how PWP will screen each activity to assess its potential environmental and social risks and impacts and Occupational Health and Safety (OHS) risks and impacts, identify the mitigation measures, and monitor the ESMP implementation, most particularly the environmental and social and OHS performance of subprojects contractors.

According to the World Bank Environmental and Social Standards, the following standards are applicable to the project: 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), ESS5 (Land Acquisition, Restrictions on Land Use and Involuntary Resettlement), ESS6 (Biodiversity Conservation And Sustainable Management Of Living Natural Resources), ESS8 (Cultural Heritage) and ESS10 (Stakeholder Engagement and Information Disclosure). These instruments were prepared and approved by the WB for the parent project, the Sustainable Fishery Development in Red Sea and Gulf of Aden.

The subproject falls under the Fish sector and consists of rehabilitation of fish landing site in Rowkub area that will be implemented in Hadhramaut governorate in Yemen. The subproject involves the rehabilitation of the fish landing site, which was damaged by Cyclone Chapala in 2015 and is currently working with minimum service. The project aims to improve the functioning of the landing center, improve the livelihoods, contributing to economic growth, raising incomes, improving food security for the local community. The scope of work includes the construction and rehabilitation of the auction hall, administration building, toilets, , guard room, electricity and water connections, paving, and afforestation.

The preliminary environmental and social screening of the landing site (Annex 1 Environmental and Social Screening Checklist) has been carried out by Public Works Project (PWP²) during a field visit by the environmental marine experts' team to the site area in February 2023. Based on the anticipated environmental and social risks and impacts of the current subproject, and the classification of the projects that are funded by the WB, the present risk category of the subproject is Moderate. During the field visit, the technical, Social, and environmental teams have collected important information from the concerned stakeholders in the area, including fishermen community and local authorities (local council, Director of Fish Landing Projects, *etc.*). The filed visit included also an inspection of the already existing condition of the landing site constructed buildings and needed interventions to get it ready for fishing activities.

The major anticipated adverse impacts during the rehabilitation and construction activities of the landing site are considered to be reversible and temporary. Pollution that could be generated by the production of solid wastes during construction and rehabilitation, as well as generation of dust, chemicals and noise could be avoided by following a proper environmental management accordingly with the WB's Environmental and

¹ <https://www.pwp-yemen.org/index.php/en/media-center-en/publications/category/14-sustainable-fishery-development-in-red-sea-and-gulf-of-aden-sfish>

² PWP: is UNDP's implementing partner, who responsible to prepare and implement SFISH subprojects.

Social Framework (ESF). Regarding the stakeholder engagement and public consultation, PWP established the community committee in the targeted area by sending the social consultants' teams (male and female) and conducting focal groups discussion including women and men to enable participation in the electing of the community committee. The elected community committee and their members including women and men participated in the decision-making, need assessment, and public consultation. Also, they will participate in the monitoring of implementation, receiving the subproject, as well as operation and maintenance.

The Rowkub area has a population of around 28,208 people, with 4,795 households. social composition of the region consists of many tribes with good relationships between them, and women play important roles in childbearing, child care, and housework. The targeted area currently has access to clean water from the public network, but there is no governmental sewage network, and the residents use covered cesspits. Rowkub area has two basic schools and two general secondary schools, a governmental health unit, and some private health and dental clinics.

PWP will invest US \$ 454,000 to complete the civil works of this sub-project. The sub-project will be implemented by the contractor. PWP completed its field visits in February 2023, during which stakeholders and the public were engaged and consulted to discuss their feedback and concerns about the subproject and to ensure the sustainability of the intervention. The risk level of the sub-project has been rated as Moderate under this ESMP, based on the primary screening and the study of the anticipated risks and impacts. Table 1 below presents the general information relating to the sub-project.

Table 1: Shows the introduction general information

Name of the Subproject:	Rehabilitation and Development of Rowkub Fish Landing Site
Subproject ID:	07-9-16078
Subproject Locations	Rowkub area, Al-Mukalla District_ Hadhramaut Gov.
Department Implementing Subproject	Fish sector
Subproject Implementer:	Public Works Project (PWP)
Estimated Cost of Subproject:	\$ 454,000
Estimated Cost of ESMP	\$31700
Implementation period	12 months
Field Visit (Yes/No; Include Date):	Yes- February 07 th 2023
Was Consultation Carried out? (Yes/No):	Yes, Refer to Public Consultation Section (see public consultation section 7)
Beneficiaries	28,208 persons of which (14,954 are men and 13,254 are women) (557 fishermen) (refer to targeted beneficiaries in section 1.12)
Proposed Class of Subproject (Low to High):	Moderate

2 Project Description

The proposed subproject will involve rehabilitation and developing Rowkub site, Al-Mukalla district Which administratively belongs to Hadhramaut Governorate. The aim of this project is to improve effective fishery production and value chain in Yemen, as well as improve the existing facilities to help fishermen and fishing communities develop their fishing processes and create new opportunities for beneficiaries which will provide them additional income. The subproject will enhance the living environment conditions for targeted communities. Furthermore, the subproject will provide temporary employment opportunities for skilled and unskilled workers from local communities during implementation. Long term results will also include generating new fishermen and raise the fishermen income.

Rowkub landing established in 2008³ with an approximately area of 42,000 m² and was a source of fish supply for the region with commercial fish and a source of income for fishermen, fish sellers and workers in the fish sector. The present condition of the construction at the landing site has deteriorated because of the effects of the harsh climatic condition and it has to be rehabilitated. It consisted of several facilities and equipment such as a general administration room and warehouse and a fish auction hall and a fence with a guard room and an electric engine room and all the electrical, sanitary and sewage pipes. The center suffers from a lack of facilities to provide fishermen with ice and adequate cold storage for fish products. It also lacks a suitable auction hall that meets the needs of fishermen and protects them from sunlight while practicing their profession, instead of the old dilapidated hall, administrative buildings to run the center, and public bathrooms to serve the fishermen's needs and offer sanitation facilities. Therefore, the intervention aims to develop the center by establishing facilities such as a new auction hall, administrative building, guard room, public bathrooms with wastewater sedimentation and soakaway pits. The intervention will include demolition of the old auction hall and rebuild new one. Later on, cold chain components of the landing site will be considered in future funding opportunities.

The subproject serves 4 residential neighborhoods in Rowkub area, the total number of direct and indirect beneficiaries that will be benefited from this subproject are **28,208** persons of which (**14,954** are men and **13,254** are women), also, the number of families is **5,553**, and the number of households is **4,795**. The subproject will be implemented through a contracting modality and the implementation period is twelve months. The total estimated cost of sub-project is **\$ 454,000**, The estimated cost of ESMP implementation will be 31,700 US\$.

The contractor will be responsible to protect its workers and communities during implementation and apply the E&S mitigation measures and provide the required training, tools, and necessary PPEs for workers. Contractor will hire and equip the workforce from the targeted area and only when not available, the contractors will hire skilled laborers from surrounding areas. Given the fact that some parts of the activities require skilled laborers, thus these tasks will be undertaken by appropriately skilled workers from the targeted areas and only when not available, the contractors will hire skilled laborers from nearby areas⁴. In coordination with PWP and community committee⁵, the contractor can finish the existing buildings such as guard's rooms

³ Yemeni Law No. 2 for the year 2006 encouraging the government to support fishermen communities by developing their villages as well as establishing the infrastructure including landing sites, taking into consideration the protection of coastal and marine environment.

⁴ The project will require accommodation since it expects that workers will come from the surrounding areas and need accommodation (which will be approximately 79 skilled workers over the duration of implementation period according to activities). In coordination, with PWP and community committee, the contractor will provide a suitable accommodation for them to settle in during the implementation period. The contractor also will bring tents and toilets to be used for workers accommodation in terms of minimum space 4m² per worker.

⁵ CC is elected committee which participate in the decision-making, need assessment, and public consultation. Also, they will participate in the monitoring of implementation.

and toilets to be used for workers accommodation during construction phase, as well as the contractor will bring tents to cover minimum space 4m² per worker according to International Finance Corporation (IFC) and the European Bank for Reconstruction and Development (EBRD) guidance note. Contractor will provide worker's accommodation with beds, blankets, and suitable kitchen facilities.

The required construction materials for the subproject in Rowkub will be provided from local markets and there is not a need to use of quarries. PWP will ensure minimal impacts on the surrounding environment for the subproject area by ensuring and activating the monitoring of activities' progress during implementation stages and applying the ES mitigation measures.

The PWP will ensure that the proposed subproject incorporates the proper environmental and social risk management principles and practices as outlined in the present ESMP, and thus ensure compliance with the Environmental and Social Framework (ESF) of the World Bank, as well as with the applicable environmental and social policies and legal requirements of the Government of Yemen.

2.1 Scope of Work⁶

- The proposed onshore works in the Rowkub Center are aimed at increasing and upgrading the center facilities and infrastructure (Auction Hall, administration buildings, public toilets, connect water network to the landing center from the public network, etc.) to conserve fish quality and improve the income of fishermen in Rowkub area while improving the hygienic conditions. Activities will include but not limited to the following:
 - Demolishing deteriorated old buildings (auction hall, admiration building) including collecting and transporting construction waste to areas appointed by local authorities⁷.
 - Site levelling works for an area of about 450 m².
 - Excavation works for foundation of auction hall which will be about 362 m³, length*width about 2.1*2.1 m and depth about 1-1.5 m.
 - Backfilling works in layers using the extracted soil or proper materials in all part of works.
 - Supply the construction materials such as stones⁸, sand, and gravel.
 - Construction of stone buildings for auction hall facades with height is 3.5 m, a length of about 90 m, a width is 40 cm, the height is about 0.9 m.
 - **Plain concrete works including:**
 - Under the foundation for an area of about 235 m².
 - For the floors of the buildings, about 542 m².
 - **Reinforced concrete works including:**
 - For foundations, necks, and ground beams which have a total size of about 113 m³.
 - For columns, stairs and lintels about 22 m³.
 - For beams, slabs, about 156 m³.
 - Implement concrete block building in the auction hall with 20cm thick and the height is 3.1 m.
 - Cement plastering works for interior, and external walls and roofs.
 - Epoxy paint 500 micron thick for walls of auction hall.
 - Epoxy paint 5 mm thick for floors of auction hall.
 - Bitumen (asphalt) to paint the foundation of auction hall.

⁶ For Typical Drawings please see (Annex 1).

⁷ construction residues will be collected and transported and disposed to the authorized location in coordination with the local authorities.

⁸ The standard stones dimensions are (25*25*25) cm. Equipment will be used as List of equipment and tools used in all activities are: excavator, dump truck, stone cutter, concrete mixing machine, vibrators, wheelbarrow, screeds, shovel, and hammers, masonry tools, safety equipment, cranes, Ladders, Scaffolds, etc. List of materials such as stones, cement, sand, and water.

- **Tile works including:**
 - Supply and installation of Mosaico tiles, 25 x 25 x 3 cm, white, automatic pressure.
 - Supply and installation of granular ceramic tiles 30 x 30 cm.
 - Supply and installation of ceramic tiles 20 x 25 cm.
 - Supply and installation of Mosaico automatic pressure stairs.
 - Supply and installation of 10 cm ceramic skirting.
 - Supply and installation of colored sidewalk tiles.
 - Concrete ramp, about 18.3 m².
- Installation of two durable, and Corrosion Resistance steel gates, about 32.9 m² including the welding works.
- Installation of good-quality Aluminum doors, about 24.1 m².
- Installation of high-quality aluminum windows, about 16.4 m².
- Supply and installation of a metal board with the name of the project, sponsor and the GM hotlines.
- **All sanitary works include:**
 - Supply and Installing 6 toilets, 6 washbasins, 9 floor siphons, 6 flush faucets, 10 valves 2" diameter, 6 gate valves 2" diameter, 34 water taps 1/2".
 - Supply and Installations sanitary pipes of 8 inches in diameter (UPVC- 10 bar - With Rubber Ring), 56m length.
 - Supply and installation of polyethylene pipes with a diameter of 2, 1, and 0.75 inches, 274 m length.
 - Supply and Installations rainwater drainage pipes UPVC, 6 and 4 inches in diameter, 183 m length.
 - Supply and Installations of 9 Valves chamber rooms (100X100) cm.
 - Supply and installation of high-density polyethylene drainage channel, 69 m length.
 - Supply and installation of a 10,000-gallon wastewater sedimentation tank made of polyethylene, and two soakaway pits⁹ which is 1.2 meters in diameter, and 2 meters in depth, one for auction hall with discharging directly and the other from bathrooms to septic tank then to another soakaway pit.
 - Supply and installation of 5 fiberglass water tanks with size 1.5 m³, 4 with size 2 m³, and 2 with size 3 m³, and fill them with water for supply water to the fish landing's auction hall.
 - Drilling an artesian salty well with a diameter of 18 inches, 13-meter depth and installing the submersible pump 1.5 kw, and testing the productivity and analyzing a water sample which will be used only for washing, cleaning the auction hall and during fish preparation.
- **All electrical works.**
 - Supply and installation of the main electrical distribution board and sub electrical distribution boards.
 - Supply and installation lighting fixtures, 11 LED 12Watt, 10 LED 20Watt, 19 LED 18Watt, 12 LED 100Watt.
 - Supply, installation, and testing of 15 single-phase electrical roof mounted fan.
 - Supply, installation and commissioning of a high quality 220V 50Hz 100 CFM wall suction fan.
 - Supply, installation and commissioning of a high quality 220V 50Hz 400 CFM wall suction fan.
 - Supply, installation and commissioning of a high quality 220V 50Hz 1000 CFM wall suction fan.
 - Supply, installation, and testing of 68 electric sockets, 16-amp, 230-volt.
 - Supply, installation and testing of 4 single-phase switches, 32-amp, 230-volt.
 - Installation and testing of 36 electrical internet and data sockets.

⁹ A soakaway pit is a dry well or leach pit that is used for the disposal of wastewater, usually from septic tanks. It works by allowing the wastewater to slowly soak into the ground (soakaway) instead of contaminating nearby water sources.

- Supply, installation, testing, operation and programming of a control panel for the FACP fire system.
- Supply, installation, testing, operation and programming of 12 multi-sensor detectors of the MULTI-SENSOR DETECTOR type.
- Supply, installation, testing and operation of 2 glass-breaking compressor switch for the MANUAL CALL POINT fire alarm system.
- Supply, installation, testing and operation of 2 FIRE ALARM BELL.
- Supply, installation and operation of 2 split air conditioners, 220-volt, 50 Hz, high quality, economical inverter type, 12,000 BTU (1 Ton).
- Supply, installation and operation of 5 split air conditioners, 220-volt, 50 Hz, high quality, economical inverter type, 18,000 BTU (1 Ton).
- Supply and installation earthing system.
- Planting 50 native non-invasive trees around the sub-project area.
- Collecting and transporting the construction waste residues to areas appointed by local authorities¹⁰.

The following table shows some of the subproject data:

Table 2: Subproject Data

Subproject ID	Subproject Name	Governorate	Sub-project Estimated Cost USD	ESAP Implementation estimated Cost USD ¹¹	Estimated/ planned No. of Labor ¹²
07-9-16078	Rehabilitation and Development of Rowkub Fish Landing Site	Hadhramaut	454,000	31,700	238

2.2 Location:

The targeted landing site is located on the southern coast of the Republic of Yemen on the Arabian Sea. It belongs to the Al-Mukalla Directorate administratively and is 17 km away from it. The Rowkub area has a sandy coast of 1.8 km in length, bordered on the eastern side by Wadi Huwayrah, and on the western side, by Khor Rowkub. The fish landing center is located on the southwestern side of the Rowkub area, and it is considered one of the important landing centers in Hadramout Governorate and was a source of supply for the region with commercial fish and a source of income for fishermen, fish sellers and workers in the fish sector. The sub-project will be implemented in the Rowkub area, Al-Mukalla district, Hadhramaut Governorate. The following table shows the location, coordinates, and links to the Google map site and uploaded file with photos of the project site. The landing site area is not prone to flooding events and erosion events.

¹⁰ Construction waste will be collected and transported and disposed to the authorized location in coordination with the local authorities.

¹¹ Some of estimated costs of ESMPs implementation will be part of the subproject-contracted cost such as PPEs, first aid box, and providing latrines in sites; other cost, staffing, transportation, administration, and consultations will be covered from the safeguarding budget that is mentioned in the ESMP.

¹² Number of workers is calculated as follows: 15% of estimated project cost of all projects / (daily wages for each worker (11\$))/No of working days per month (22) = 238; Skilled labours is estimated as 1/3 (79) of total no of labours; non-Skilled labour is estimated as 2/3 (159) of total no of labours

Table 3: Shows the subproject location coordinate and Map link

Governorate	Sub-project ID	Sub-project title	N	E
Hadhramaut	07-9-16078	Rehabilitation and Development of Rowkub Fish Landing Site	14.566935	49.2132827

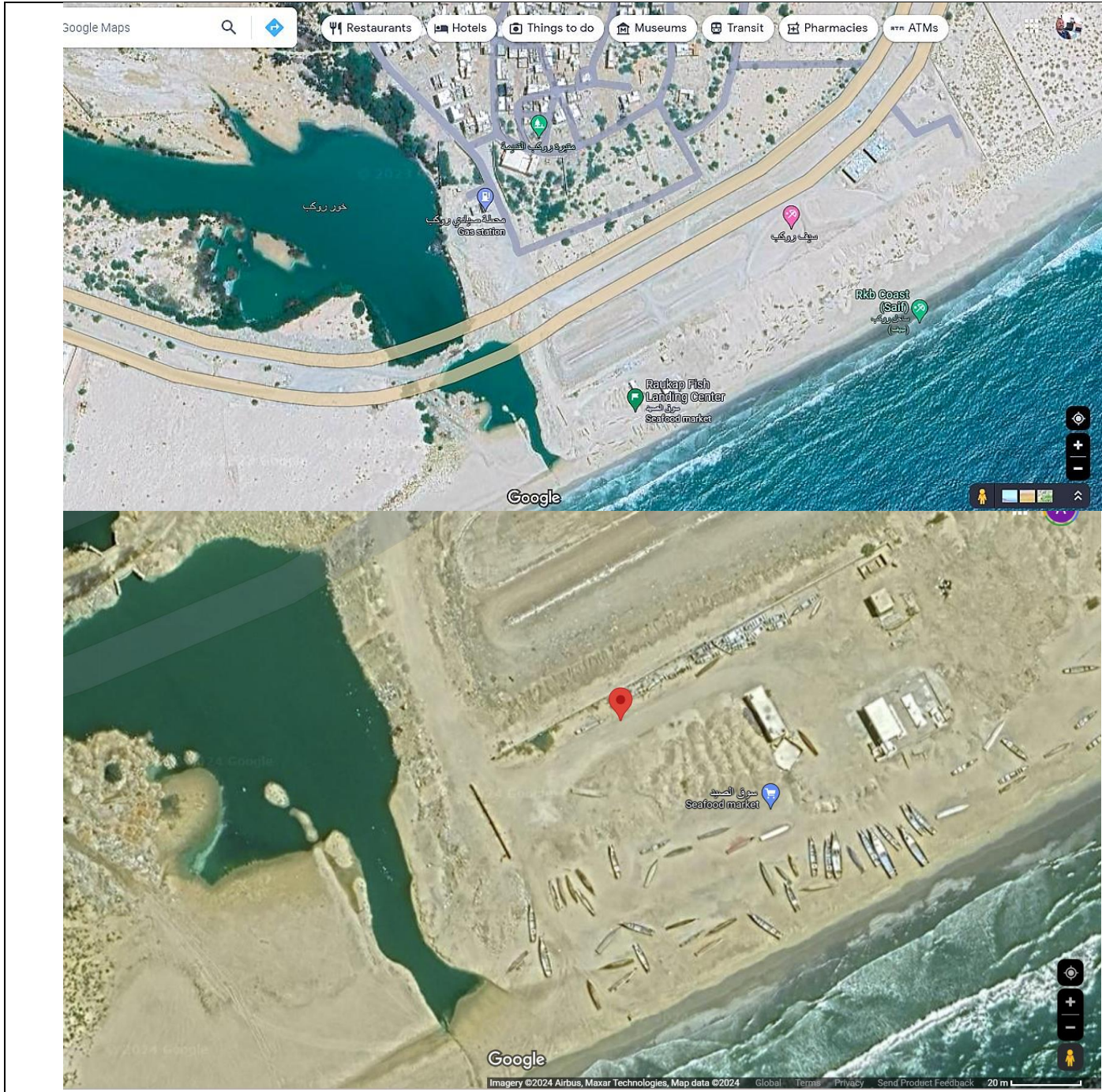


Figure 1 Photos Showing the Map of the location for Rowkub landing site and seashore

3 Environmental and Social Baseline conditions:

3.1 Introduction

PWP technical team conducted socio-economic surveys such as demographics, livelihoods, income, access to basic services, and civil society organizations in the sub-project area.

PWP technical team also surveyed the site of the landing center and the coastal area adjacent to the site of the fish landing center, as well as the marine environment such as water quality, geology, hydrology, plant and animal diversity, marine habitats and ecosystems such as (coral reefs, mangroves, etc.).

Hadhramaut governorate is located in the southeastern part of the Republic of Yemen, 794 kilometers east of the capital of Sana'a, between Al-Mahra to the east and Al-Jawf, Marib, Shabwah to the west, Al-Rub' Al-Khali to the north, and the Arabian Sea to the south. The governorate is divided administratively into 28 districts, with the city of Al Mukalla as its capital. Hadhramaut is the largest governorate in Yemen by area. According to 2017 Yemen Central Statistical Organization projections based on the 2004 census, the population of Hadhramaut governorate, reached (1,424,036) people, with a population annual growth of (3.08%), based on the 2021 Humanitarian Needs Overview Yemen, OCHA, the total of population of Hadhramaut governorate, reached (1,551,347) people with include (825,461) male and (725,885) female. Socioeconomic profile in Hadhramaut is represented by agriculture, animal husbandry, fishing, and bee farming.

Rowkub is located on the southern coast of the Republic of Yemen, on the Arabian Sea. It belongs to the Al-Mukalla Directorate administratively and is 17 km away from it. The Rowkub area has a sandy coast of 1.8 km in length, bordered on the eastern side by Wadi Huwayrah, on the western side, by Khor Rowkub, on the north by mountainous heights, and on the south, the Arabian Sea. The fish landing center is located on the southwestern side of the Rowkub area, and it is considered one of the important landing centers in Hadramout Governorate. It was established in 2008 with an area of 8,160 m², and was a source of supply for the region with commercial fish and a source of income for fishermen, fish sellers and workers in the fish sector.

In the intervention area, there are around 5,553 houses and buildings, the nature of construction differs in the Rowkub area. Some houses are made of stones and some of them are made of cement bricks. The subproject serves 4 residential neighborhoods in Rowkub area for the rehabilitation of fish landing center as namely (Al-A'awsiah, Old Rowkub, Boiysh Rowkub, and Almughtaribin) neighborhoods. According to the population projections for 2022 which is based on census of 2004, the population of the Rowkub area was (28,208) people, including (14,954) males and (13,254) females, also the number of households about (4,795) households.

There are no sources of surface water in the Rowkub area, and there is no mention of groundwater in the area either. Drinking water in the city of Rowkub comes from Falak wells area through a public water network, as well as there is no governmental sewage network in the Rowkub area, but residents use covered cesspits. Regarding hygiene practice, Residents of the Rowkub area collect household and shop rubbish, throw it in designated places.

In the education sector in the city of Rowkub, there are (2) basic schools and (2) general secondary schools. In the Health sector in the Rowkub area, there is a governmental health unit that has been rehabilitated into a health center with the support of UNICEF. As for the health facilities of the private sector, there are (2)

private clinics, which are the Al Hanan Center for Obstetrics and Gynecology, and the Ba shkhaif Clinic. In addition, there are (3) dental clinics, which are Al-Jawhara Clinic, Layan Clinic, and Jude Clinic.

The road from Mukalla to the Rowkub area is an asphalt road to the Rowkub fishermen station, and from the station to the fish landing project, a dirt road. Because the road leading to the landing center passes through the city center of Rowkub, there is the possibility of noise or accidents occurring during the implementation and operation periods of the sub-project as a result of the passage of trucks transporting construction materials or the contractor's vehicles or trucks transporting fish. Regarding the electricity services, there is a government network connected to all homes. For communications services, there are mobile communication services such as Yemen Mobile, Saba Phone, YOU, and landline telephone.

The fishing activity is considered one of the main activities in Rowkub area. In addition, fisheries sector is considered an important source of employment and income generation for coastal communities. This area has natural biological marine which represent important economic activity in the region. The most target species included in this landing center are more than 15 types of fish, the most famous of which are Indian Mackerel, Tuna, Octopus, Shrimp, Sardine, and others. The type of fishing gears that used by the fishers in Rowkub area is diverse and varies according to the target fish species. The most common fishing gear include handlines, trolling lines, Surface long lines, traps, cast nets, beach seine-nets, gill nets and round hawl nets which are used in small scale is compatibility with good fishing standards and during cleared fishing seasons and subject to GAF supervision and regulations related to combating overfishing.

Hadhramaut Sea fisheries production has increased to reach the peak point in 2014 which amounted about 217,896 tons According to the Central Statistical Organization, which pointed that is the highest level recorded in history of fisheries production. Since 2014, current observations indicate that Hadhramaut Sea fisheries production has decreased significantly compared to the highest production in the years preceding the war¹³. Uncertainty dominates the status of fish stock in the Arabian Sea and Gulf of Aden as there is no official records nor accurate statistics nor formal reports that detail volumes or specific species of production after 2014. Nonetheless, the observed status according to feedback from stakeholders in the sector note that catch production from the Yemeni national waters decreased dramatically. Due to conflict and institutional fragmentation, lack of fish stock management and governance measures. Potential improvement of the landing sites will contribute to reduction of value loss with the current available fish catch.

According to consultation with fishermen, the current amounts of fish reaching Rowkub fishing area per day is approximately 15 to 30 tons per day and this is from October to May, while the amount ranges between 8 to 12 tons from June to September. Fish are sold individually or by bundles. Some landings are not recorded, and some fishery products are not recorded as they are processed and sold directly to traders for export markets. Only shrimps are sold by weight (both at landing sites and wholesale markets).

3.2 Physical Environment

3.2.1 Rainfall, Climate, and Weather:

The climate in the region of Hadramout is a coastal climate, with hot summers and mild winters, The Hadhramaut region is considered one of the hottest regions of the Republic during the summer season, where maximum temperature rates range between 28 - 36 degrees Celsius during the months of January to

¹³ <https://sanaacenter.org/ar/publications-all/main-publications-ar/9509>

November and between 35 - 36 degrees Celsius during the months of June to August¹⁴. Regarding relative humidity, the daily averages of relative humidity vary slightly throughout the seasons, ranging from 70% - 80% in areas close to the sea and 60% - 70% for inland areas.

The surface winds in the Gulf of Aden are influenced by the Indian monsoon system and reverse seasonally from northeasterly during the northeast monsoon (from November to April) to southwesterly during the southwest monsoon (from June to September). During summer, the Gulf of Aden experiences much weaker surface winds than the Arabian Sea because it is located off the axis of the strongest southwest monsoon¹⁵. The speed of the winds in the Hadhramaut region is calmer compared to other regions, with its monthly averages ranging from 0.5 - 1.2 meters/second.

As for rainfall, amounts of rainfall are modest, up to 100 mm/year, with 80% of this rain falling between January and June. The quantity of evaporation-transpiration ranges from 3 - 4 mm/day during the cold season, 4.5 - 5 mm/day during the months of May to June and an annual average of 1400 to 1600 mm/year¹⁴¹⁶.

Table 4 Rainfall, Climate, Temperature, and Weather

Governorate	Subproject ID	Climate	Annual Rainfall Average	Monthly Temperature Average	Monthly Humidity Average
Hadhramaut	07-9-16078	In generally characterized by a coastal climate, the summers are hot to moderately hot, with rainy, and cold winters, with high humidity and wind, during the autumn and summer seasons.	100mm or less	38°C - 25°C	40 - 80%

3.2.2 Hydrology:

Wells: wells are located 5-8 kilometer away from landing site, where the average values of the measured water resistance were consistent with the drinking water standards stipulated in the Yemeni standard. The landing center depends on the well located in the center, which is brackish and salty and used for cleaning purposes. There is a local network extending from the wells to the town, which is about 7 kilometers away (Al-Falak Field), through a water collection tank, and from there, distributing water by gravity to the internal networks to the Rowkub city, and by water trucks to the landing center which are using for drinking and personal demands in the landing center. During the rehabilitation period, the water network will be connected to the landing center from the public network and only for drinking purposes, public bathrooms and the administration building, with normal consumption as currently used in the center by water trucks. There will not be impacts on the water source.

Turbidity

The major source of turbidity in the coastal water is typically phytoplankton, particulates, silts from shoreline erosion, resuspended bottom sediments, and organic detritus. In comparison with the open oceans, the water

¹⁴ National Research Center. (2015). <https://yemen-nic.info/gover/hathramoot/brife/>. Retrieved from National Research Center.

¹⁵ Fengchao Yao, & Ibrahim Hoteit. (2015). Thermocline regulated seasonal evolution of surface chlorophyll in the Gulf of Aden

¹⁶ Stone, E. C. 1963. The Ecological Importance of Dew; The Quarterly Review of Biology;

turbidity in the coastal region is highly dynamic and closely associated with the atmosphere, and ocean variability, such as cyclones¹⁷.

During our study, the mean values of the Turbidity were 0.2 NTU. Seasonal values showed that the higher turbidity was through August and September. Turbidity in the coast was characterized by low turbidity values and significant temporal variability. The total surface turbidity in the Hadhramaut coast was between 0.2 and 3.5 NTU.

Sea level

The sea level at the Gulf of Aden rises between September and May and falls during June-July to reach the minimum in August. The seasonal oscillations in the mean sea level are attributed to astronomical effects, effects of evaporation, very low to negligible precipitation and river discharge, atmospheric pressure, and steric sea-level effects.

Tides

The tide of the Indian Ocean and Gulf of Aden does not enter the Red Sea, where a different tidal regime is found. In the Gulf of Aden tides are generally diurnal, or a mix of diurnal and semi-diurnal tide. The maximum spring range at Aden is 2.7 m and at Djibouti is 3.0 m. At the eastern end of the Gulf of Aden the tide becomes more semidiurnal, with an extreme range of around 2.7 m. Tidal streams in the Gulf of Aden are generally weak and masked by the current^{Error! Bookmark not defined.}.

3.2.3 Soil and Geology:

Hadhramaut coast as coastline of Hadhramaut province constitute nearly 14% of the Yemeni total coast and more than 20% of the North Gulf of Aden coast¹⁸. Along the north coast of the Gulf of Aden from Bab el Mandeb to the border with Oman at the eastern end of the Gulf, the coastline largely consists of sandy beaches, with some exceptions where rocky headlands are interspersed with sandy beaches. The coast is sand around Rowkub. Depths of the Gulf in the corresponding part of the coast of Hadhramaut are characterized by a considerable disparity as a result of a series of mountainous ridges and crossing trenches lies from the northeast towards the southwest.

According to study (An Environmental Impact Study of Rehabilitating Some Fish Landing Centers in Hadhramaut Governorate) was conducted by PWP including the site of the fish landing center in Rowkub and the coastal area and marine environment overlooking the center. The center overlooks a narrow coastal slope of medium slope (the distance between the highest tide point and the lowest point of the jetty does not exceed 25 meters). The level of the landing center is higher than sea level, but waves reach it during the autumn season (during high sea agitation). The components of the intervention were determined to be more than 80 meters away from the shoreline. This arrangement satisfies the national regulations of Yemeni Law No. 2 for the year 2006¹⁹.

¹⁷ Shi, X., Y. Wang, & X.D., X. (2008). Effect of mesoscale topography over the Tibetan Plateau on summer precipitation in China

¹⁸ Mukhaysin, A. A., Inna I, S., Salem R, B., Tatyana F, K., & Bogatoz M, N. (2018). State of Seasonal Environmental Factors of the Hadhramout Coast, Gulf of Aden. The Egyptian Society for the Development of Fisheries and Human Health (ESDFHH).

¹⁹ Yemeni Law No. 2 for the year 2006 encouraging the government to support fishermen communities by developing their villages as well as establishing the infrastructure including landing sites, taking into consideration the protection of coastal and marine environment.

3.2.4 Cultural Heritage:

The sub-project will be implemented within the existing landing center for which there is no record of any archaeological or historical sites. The sub-project will be limited to improving and building new facilities. There are no potential impacts on the cultural heritage at the site.

3.2.5 Air Quality and Noise:

Data on air and noise quality in Yemen in general and in the areas within the subproject are extremely scarce. According to study for subproject area, no air and noise quality monitoring data for the subproject area were found. In general, the air quality around the proposed landing site project is of strong sea breeze and clear with no pollution. Possible air pollution, noise emissions, and traffic accidents may be limited only during the implementation of the subproject, through excavation work and movement of trucks when transporting materials and machinery, while potential air pollution or noise during the operation and maintenance phase may occur by the movement of fish transport trucks, in addition to the emissions from the fishing boat engines, but these impacts will be very slight if there is management and organization of the implementation works and the movement of trucks and equipment during the construction and operation phases of the subproject.

3.3 Biotic Environment

3.3.1 Flora and Fauna

In general, the geographical position of Yemen and the diverse topographical features, which resulted in different ecosystem types, have given the country a great diversity of natural environments and a high level of biodiversity. Yemen is very rich in its flora and has a wide range of natural vegetation types²⁰.

In this area, there are no mangrove trees nor dwarf shrubs around. No medicinal plants in the region are found or documented. However, medicinal and aromatic plants are of great importance and use to Yemenis. No rare trees were mentioned or observed according to environmental study for subproject area. But the most important trees for the local people are coconut trees, palm trees, corn plants and alfalfa plants which are not close to the project site.

In general, Yemen has a population of 71 recorded land mammal species including the bats. About one third of the mammals are relatively large-sized species some of which are rare in other parts of Arabia²¹. In Rowkub region, there are no well-documented rare mammal species. There are only livestock there that families care about to raise, such as sheep, cows, and camels.

In general, Yemen has a very rich bird fauna with more than 363 species thus far recorded representing 18 orders, 61 families and 177 genera. The biological richness of the Gulf of Aden, the Red Sea and the Yemeni offshore islands combine to form an ideal feeding and breeding area for seabirds, particularly the Red-billed Tropicbird (*Phaethon aethereus*), the Masked Booby (*Sula dactylatra*), the Brown Booby (*Sula leucogaster*), the Sooty Gull (*Larus hemprichii*) and possibly the White-cheeked Tern (*Sterna repressa*). The white-eyed gull (*Larus leucophthalmus*) may breed there. All these species, as well as many others, feed in the relatively shallow inshore waters along the coast of Yemen. However, according to the Bird Life International website, sub-project is not located within the Important Bird Area, as well as the Rowkub region is not reported as a

²⁰ Al-Khulaidi, A. A., & El-Ghoury, M. (1996). Main Natural vegetation and protected areas in Yemen. Sanaa, Yemen: EPC & MAWR.

²¹ Al-Jumaily, M. M. (1998). Review of the mammals of the Republic of Yemen.

migratory bird sanctuary, some common gulls were observed during the visit of the area by the PWP technical team.

Figure 2 The bird life observed in subproject area



Coral Reefs:

In general, the coral reefs of the Region are composed of approximately 200 species of stony corals, representing the highest diversity in any section of the Indian Ocean. The warm water and absence of freshwater input provide very suitable conditions for coral reef formation adjacent to the coastline. They provide food and shelter for a large and diverse fauna and flora. Most fishing activities in the Region occur in shallow waters in the vicinity of coral reefs. Physical destruction, changes in water quality—such as raised nutrient levels, and changes in salinity and temperature—high levels of sedimentation, and changes in water currents can all damage coral reefs.

However, during the initial survey of the area under the intertidal zone by snorkeling in the area adjacent to the descent center, no coral colonies were observed. At that time, the fishermen stated that the coral reefs are not immediately adjacent to the coast, as they are more than 2 nautical miles offshore towards the open sea. In addition, there are no activities or interventions in the coast. The project does not take place in an area where any locally, globally threatened or endemic marine species are found at the project site.

Turtles

Coastal beaches of the Gulf of Aden are of great importance to survival of two threatened species of sea turtles the green turtle (*Chelonia mydas*), and the hawksbill turtle (*Ertochelys imbricata*). Ras Sharma and the neighboring areas are characterized as are one of the most important turtle nesting areas remaining in the

world, in accordance to the exploring surveys and studies that carried out a long time ago by Environmental Protection Authority (EPA)- Hadhramaut. This area is located about 115 kilometers from the project site. According to the survey conducted on February through May 2023 by the PWP team and feedback of fishermen association members, no marine turtles were previously or currently sighted at the project site.

3.4 Socio-Economic Conditions

Most population in Hadhramaut is engaged in agriculture, fishing, and livestock rearing. The governorate produces around 5% of Yemen's total agricultural production, notably dates, onions, cereals, and cash crops. Hadhramaut's coast includes rich fisheries in the Arabian Sea. Alongside Marib and Shabwah, the governorate is home to the main oil-producing region of Yemen. According to Hadhramaut's 2014 budget, grants and central subsidies constituted 89% of the total revenue for the governorate, while local revenues accounted for 11%. The most significant sources of local revenue were local shared revenues, taxes, income from the sale of goods and services. According to the 2014 Household Budget Survey, the poverty rate in Hadhramaut was 60% of the total population. This number has likely increased since.

According to the public consultation in Rowkub, the vast majority of the people in the subproject area are fishermen, some populations are daily laborers. A few as government employees, but their living conditions are difficult primarily due to the devaluation of the Yemeni Ryal. Hence, it is estimated that about 70% of the citizens in the area are considered poor, followed by the middle-income class 20%, while the more financially capable class represent lowest percentage in the region of less than 10%.

There are no agricultural lands in the Rowkub area, and the residents depend mainly on fishing as a source of their income. More than 557 fishermen work on 143 fishing boats in Rowkub area. Therefore, the fishermen of the Rowkub area suffer from the lack of mooring for their boats, which makes their boats vulnerable to destruction due to the strong waves that hit the coast, especially in the autumn season. So, the fishermen are forced to shelter their boats in the Al-Sharj landing center, which is about 12 km away from Rowkub, and this distance costs the fishermen time, effort, and money. In addition, there is a loss of value due associated with the sale of catch in the Al-Sharj center, where fish may end up being sold at unfavorable prices by the fishermen since it cannot be preserved it with the refrigerators in the Rowkub center.

There are markets in Rowkub area such as groceries, supermarkets for foodstuffs, as well as sell fish shops and clothes shops. Most of the residents of the area depend on the Rowkub market instead of going to the Mukalla markets. There is one association in Rowkub called the Rowkub Fishermen Association, the registered fishermen in Rowkub are around 557 fishermen who are members of Rowkub Fisheries Association. Of the 143 boats (between small and medium), 114 are functional, 6 are rented, and 23 boats are dysfunctional.

3.5 Existing situation of the subproject site

The area of the landing site project is approximately 8,160 m² out of 42,000 m². The existing condition of the landing site construction is including a wall encircling the site area, an incomplete guard's room of about 20m² in area, incomplete fish auction yard of approximately 435m² in area, an incomplete admin office, the mosque building with baths, and there is fuel station near to landing site. According to public consultation, the landing site lacks a dock for fishing boats, which exposes their boats to destruction due to strong winds during the autumn season.

Fish auction shed consist of steel that is mostly damaged and does not protect the catch from the sun during the sale at auction which led to decrease the quality of catch and increase the postharvest loses. In landing site there is a well dumped because of Cyclone Chapala. The office/administration building consists of four small rooms and lacks all the facilities and services. The landing site and office buildings lack toilets.

The Rowkub Fish Landing Center is an essential fish source for the coastal region and an economic resource for fishermen, sectoral and retail fishmongers. Therefore, the center had to be rehabilitated and reactivated for several reasons such as following:

- The number of fishermen from the Rowkub area is more than 577 fishermen, working on a total of 143 boats. They are currently working under the Al-Sharj landing center in Mukalla, and they suffer from the long distance between their homes (in Rowkub) and the area where their boats are sheltered in the Al-Sharj area.
- Fishermen suffer from the poor marketing of the fish caught because they do not belong to the Al-Sharj association, and this is what forces them to sell their fish themselves to wholesale buyers at any price, as they cannot keep the fish in the coolers.
- The financial cost of moving from their homes to the area of sheltering their boats in the Al-Sharj is expensive, and this is what made some of the fishermen of Rowkub leave the fishing profession for other professions.
- Increasing the time taken by the fishermen until they reach the boat shelter area, and this is what prompts them to leave early to reach the boat shelter area at dawn in order to sail with other fishermen at the same time.

The intervention, will generate positive impact on the economy and health and enhance the community's protection and resilience. The below figure shows the subproject situation and description in Rowkub area.

Figure 3 Photos Showing subproject situation and description in Rowkub area





The current auction hall



The current auction hall



The admin office



Rowkub beach



The current auction hall



Storage room

3.6 Targeted Beneficiaries:

The selection of the community beneficiaries is based on transparent eligibility criteria and consultations with communities and local leaders. Through transparent allocation of funds that is based on national statistics indicators in the governorate and district levels, followed by coordination with local actors and inclusive

participatory process, PWP will be reducing conflict over resources. Before implementation and during the participatory consultations with local communities to define the interventions, PWP's teams confirm the priority of the need between the society and ensure that the intervention is in its suitable place. The activities of the subproject will serve the local community that is considered direct beneficiaries. The table (7) below shows the total number of beneficiaries segregated by gender:

Table 5 Total number of beneficiaries segregated by gender

Subproject ID	Subproject Name	Benefited Neighborhoods	Direct Beneficiaries (Fishermen)		Indirect Beneficiaries		
			Male	Female	Male	Female	Total
07-9-16078	Rehabilitation and Development of Rowkub Fish Landing Site	4	557	0	14,954	13,254	28,208

Before the sub-project handing over, PWP sub-area manager invites the beneficiaries' representative to participate in this occasion. The beneficiaries' representative could be the head of the community committee, local council member, district manager, or any entity representing the beneficiaries. The site handing over ends with minutes of subproject handing over between PWP sub-area manager and the contractor with signing of the beneficiaries' representative. During this occasion, the sub-area manager makes awareness to the attended beneficiaries about the importance of the sub-project maintenance to ensure the sustainability of the intervention.

4 Environmental and Social Impacts Assessment:

4.1 Applicability:

The relevant standards of the World Bank's Environmental and Social Framework (ESF) have been applied to the project. As a result of the screening process, a number of Environmental and Social Standards are considered to be more relevant, namely:

- ESS1: Assessment and Management of Environmental and Social Risks and Impact,
- ESS2: Labor and Working Conditions,
- ESS3: Resource Efficiency and Pollution Prevention and Management,
- ESS4: Community Health and Safety
- ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement
- ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources
- ESS10: Stakeholder Engagement and Information Disclosure.

SFISH ESMF has been applied because this sub-project may pose moderate environmental and social impacts such as but not limited to residual wastes, child labour, and occupational health and safety (OHS) impacts.

4.2 Eligibility (Exclusion List)

This subproject is eligible for support as per the PWP Environmental and Social Responsiveness (ESR) Criteria, see Annex 3.

4.3 Environmental and Social Screening

An Environmental and Social screening has been conducted by PWP ES safeguards consultant and designer engineers through a site visit to subproject site, using the screening checklist (see Annex 2).

4.4 Potential Environmental Impacts

The environmental and social impacts could be categorized into two distinct phases. These two phases are the construction phase and the operational phase. The impact significance of the anthropogenic activities that are going to be faced in the proposed landing site on the surrounding environment during both phases are going to be predicted and evaluated. The prediction will be based on the available environmental baseline information of the project area. The construction phase is considered temporary with short term effects, while the operation phase is considered to affect the environment for a long term.

PWP will ensure adding the mitigation measure listed in section 6 in the tender documents to ensure proper management of the environmental and social aspects as well as occupational health and safety. Moreover, the contractor code of conduct, list of environmental and social requirements, and contractor liabilities have been prepared and added to the subproject bidding documents to ensure full adherence to the environmental and social requirements. Specific training for all contractors has been designed and assigned for each contractor before starting the implementation.

PWP will monitor the environmental and social issues during the implementation of the subproject with the support of the community committee which will be involved in the monitoring, as well as following up the complaints system to ensure that all complaints are received, reported, and resolved quickly.

4.4.1 Potential Environmental Impacts during Construction Phase²²

The construction works have the potential to cause hindrances and nuisances and temporary disruptions of local activities on the proposed site. It would also cause interferences on the water body within the coastal area. The environmental considerations include the risks of pollution by the construction wastes from the yard, and the risks of accidents during the construction. The construction related impacts could be:

4.4.1.1 Noise Pollution

A minor noise pollution may be anticipated during construction, rehabilitation and operations phases due to the moving vehicles and machines, trucks that transport construction materials to the site, workers' activities, as well as other activities related to construction. And the most sensitive environmental aspect is predicted to be the noise level. As heavy construction machines such as bulldozers, leveling graders, roller compactors,

²² All mitigation measures can be seen in section 5.1

loaders, trucks, water tanks, and pavers will cause short-term increases in noise levels. The rehabilitation/construction works on the subproject may potentially slightly impact or temporarily disrupt wildlife due to noise-related issues if any.

4.4.1.2 Air Quality and Dust Generation

Given the nature of the construction/rehabilitation activities, the impact on the air environment will be of little effect. Emission of particulate matter is expected to be generated during the rehabilitation and construction of the site. Transportation, loading, and unloading of the raw materials and construction waste are going to aggregate dust in the air. However, this will be mitigated by spraying sea water to reduce volatile dust and ensure that workers are always wearing dust masks, also, the contractor's machineries should be maintained to reduce the dust.

4.4.1.3 Solid, Liquid, and Chemical Waste Generation

Civil works would generate solid, liquid, and chemical wastes from the construction sites. Earth and rubbles from site preparation, excavations, foundations, drained oils from engines, Bitumen, paint containers, epoxy, etc. are the major sources of wastes generation. As the landing site is already constructed and only preparations are required for developing it, there would be limited waste generation from site preparatory activities. However, a fair amount of construction wastes produced from constructing new offices, rooms, toilets, etc. is expected. The wastes resulting from the construction/rehabilitation activities are big threats to the surrounding environment and water bodies. The hygiene and health of the adjacent communities could severely be damaged due to such activities. It is the same way with the manipulation of fine materials such as cement and sand which could have moderate impact on the body. The materials normally used for the construction of infrastructure (concrete, embankment stones) have little negative effects on the environment.

Piles of solid waste that are going to be generated during the construction of the project. Those wastes may include concrete remaining, metal cutting, paper bags, cartons, empty paints containers, broken glass, etc. If solid wastes are not managed properly, there would be a potential for diseases to spread due to the suitable breeding conditions for vectors of diseases. So, all wastes that will be generated from the demolition of old structures, construction, and rehabilitation activities will be disposed of at an allocated waste disposal location by local authorities (Landfill) and according to Waste Management Plan (WMP). Please see the mitigation measures in section 5.1.

4.4.1.4 Soil, Water Resources, and Seawater Contamination From waste and liquid waste

Construction waste may pollute the coastal area and the sea environment during the implementation period as a result of the Liquid waste including accidental oil spills may also pollute the soil and seawater environment, maintaining of vehicles and equipment in the subproject site, but this effect will be slight. Additionally, sediment particles from construction may get disposed into the seawater causing sea water turbidity and a reduction in visibility.

The contractors will take control of construction waste that will be generated and will properly collect it, then transfer it to the government landfill in the Rowkub. The contractor can finish the existing buildings such as guard's rooms and toilets including the cesspit to be used for workers, or he will provide temporary toilets for his = workers and will connect the toilets with cesspit a well-insulated underground pit which will be away from water resources. Then, at the end of the work, the pit will be buried. Finally, toilets will be demolished at the end of construction activities or handed to the fish landing center officially.

4.4.1.5 Risks on coastal and marine habitats and related biodiversity

Solid waste and liquid waste (including chemicals) and sediment particles may disturb biodiversity. The construction/rehabilitation works will be onshore in the coastal area and the work site will be isolated by a protection fence, the project impact on the natural/terrestrial Flora and Fauna is insignificant. In addition, the marine environment shall be safeguarded from contamination resulting from those activities. Work processes shall be followed to ensure there is no contamination of the environment.

4.4.2 Potential Environmental Impacts during the Operational Phase

Several activities concerning the daily operations on the landing sites including fish processing facilities could generate negative impacts. Those impacts could be:

4.4.2.1 Liquid discharge to sea water reducing water quality and disturbing biodiversity.

The most concern about negative impacts that could be generated from the landing site during the operation phase is the discharge of polluted substances into seawater which could lead to marine pollution and deteriorate marine life and habitats. This includes waste and wastewater discharges, spillage caused by fuel and used oil could be major sources of pollution. The major quantity of liquid waste that would be generated daily during the operation phase at the landing site includes sewage and wastewater from fish processing and washing of the marketing yard has the potential to pollute marine water or the soil of the landing site if not managed properly and disposed of untreated. Additionally, fuel storage that are relevant or used by the contractor trucks, and equipment may also contribute to soil and water contamination from leaks.

Leaking petrol, oil derivatives, liquid chemicals or other liquids could be emitted from boats and the fuel storage site and could lead to contaminate the marine waters. This kind of pollution could cause harmful effects and adversely jeopardize the health of human beings as a result of consuming contaminated aquatic fauna. Liquid wastes generated from boats as a consequence of cleaning cisterns and loading holds as well as engine maintenance are other sources of marine pollution, if discharged directly to sea water. Waste management at the landing site must be taken very seriously by the landing site management, beneficiary and users. Please see the mitigation measures in section 5.1.

4.4.2.2 Solid Waste Disposal

Fisheries sector produces qualitatively and quantitatively variable wastes according to several activities conducted during the operation phase. Domestic wastes, commercial packaging, and fermented stuff, as well as wastes that are generated from maintenance and repair activities. Fishing processing activities generate adverse impacts on the surrounding environment and public health. Organic waste and by-products could find their way to the coastal sea water and need to be managed daily in order to avoid adverse impacts on the environment and public health. Unused and broken fishing gears usually disposed to the shore of the landing sites such as hooks, nets, traps, etc. causing solid waste pollution in the area and disturbing aquatic fauna which may consume solid waste and get trapped in nets. Some measures have to be recommended in the ESMP that would help to reduce the production of solid wastes and by-product. Please see the mitigation measures in section 5.1.

4.4.2.3 Overfishing and targeting the wrong species

The subproject may increase risks of overfishing, wrong fishing techniques, and using non-sustainable fishing gear and methods may pose a risk on biodiversity and threatened species. Additionally, fishing during the wrong seasons such as spawning seasons may also decrease the number of fish in the area. Furthermore, improper maintenance of boats and accidental oil and fuel leaks may impact the biodiversity in the area.

Moreover, anchorage of fishing boats in the landing site shore may cause disturbance of marine life habitats. Traditional anchors may damage animals and plants on the seabed, either temporarily by increasing suspended sediments from the disturbance of the bottom or through direct contact with dragging anchors. Disturbance from anchoring depends upon the frequency, magnitude and location of activity, type of sediments, and the sensitivity of benthic communities. Damage caused by anchoring is likely to be minimal and any disturbance is generally temporary. However, when the area where boats are anchoring is inhabited with sensitive communities, e.g. seaweed/coral reefs the effects may be more damaging.

4.4.2.4 Air Emissions

Odor is often the most significant form of air pollution in fish processing. Major sources include storage area of organic wastes, fish drying processes, and odor emitted in the marketing yard if not washed properly on daily basis. Odor control and prevention measures will need to be applied of the purpose of mitigation.

4.4.2.5 Lack of maintenance

Lack of maintenance through operation phase which will lead environmental risks.

4.4.2.6 Mismanagement in energy usage

Increased Operational Costs: High energy usage can result in significant operational costs for the cold chain factory. The cost of electricity or fuel required to power refrigeration systems can be substantial, impacting the overall profitability of the facility.

Environmental Impact: High energy usage contributes to increased greenhouse gas emissions and environmental degradation. The generation of electricity often relies on fossil fuels, leading to carbon dioxide emissions and contributing to climate change. This can have long-term negative consequences for the environment and sustainability.

4.5 Potential Socio-economic Impacts

The socio-economic impacts of the proposed landing site project will be overall positive in terms of their contributions to development, poverty alleviation and the creation of economic opportunities, particularly in the coastal communities. However, each intervention will need to have a full ESIA based on the type of intervention and the site location. The assessment should look at the social, health, and safety aspects, either during construction or operational phases.

4.5.1 Socio-economic Impacts during Construction Phase

4.5.1.1 Positive impacts:

During the construction phase, temporary employment opportunities will very likely be available for many local individuals, particularly for casual workers, which is important for an area with high unemployment rate. . Employment opportunities are beneficial both in the economic and social sense. Several workers including casual laborers, carpenters, electricians, plumbers, etc. are expected to work in the landing site for a period

that the project will start to the end. Also, semi-skilled and unskilled labour and formal employees are expected to obtain gainful employment during the period of construction.

There will be gains in the local and national economy. Consumption of locally available materials such as cement, rebar, wood, plumbing, electricity tools, etc. will help in increasing the economic situation of local businesses and increase government revenue through taxes.

4.5.1.2 Negative risks and or impacts

Based on the screening of the subproject, the major impacts that could be faced during rehabilitation and construction works of the landing site could be considered reversible and temporary if managed properly. Those negative impacts could be:

4.5.1.3 Economic impact on fisheries

During the rehabilitation phase, there might be some minor temporary restrictions on the use of the landing site, which are addressed to avoid less income to fisheries during that period. This will be mitigated by implementing rehabilitation works during stopped fishing seasons (autumn and winter) as a result of high winds season, as well as work activities will be implemented section by section in coordination with fisheries associations and community committees.

4.5.1.3.1 Accidents and other Occupational Health and Safety Issues

Working close to a large water body, and sometimes, working within the water body itself could expose workers to major health and safety risks associated with the project construction activities. Works in such risky areas must be carefully planned to mitigate the risk of drowning for instance. Emergency response plan should be developed and emergency response equipment, especially those relating to emergency rescue readily made available on site. Strict compliance with the Labor Management Plan; applying and following the mitigation measures of this ESMP which will include measures to address OHS on-site; continuous training and awareness for stakeholders' and workers; and ensuring the use of PPE and security/safety equipment and sites.

OHS measures have been put in place including conducting a risk mitigation to all activities to measure the impacts on the safety of workers and communities. Protection of workers on the construction sites should be supported immediately once the works started. Poor protection for the workers could cause discomfort, and nuisances by noise, dust and emitted gases, does not only lead to deterioration of their health, but also contribute to accidents at work. Lack of training on the use of hand-held tools and providing staff with protective equipment may lead to unfortunate calamities.

Some of the OHS risk on the site such as:

Risks of drowning, breathing problems from dust emissions from excavation and levelling work, handling chemicals (cement, epoxy, Bitumen , oil, and fuel) that may cause skin and eye irritation, physical exhaustion, working during bad weather conditions (heat wave, dust storm, storm periods, rainy, floods), ear disturbance from noisy activities, accidents during materials and equipment transport, lack of toilets and latrines and hygiene, falling from ladder or scaffoldings, work in heights, risk of lifting activities by cranes and falling loads, injuries while performing construction work using tools and machines, and electrical shocks while performing electrical works, falling in excavated zones. Risk during welding works. Vehicles running into workers (pipeline area). Work in closed or confined spaces (Water Tank or Septic Tank), and risks related to tree planting.

The responsible contractor must ensure that all employees are briefed about the potential risks of injuries on site, and also advised to ensure that adequate emergency tools including first aid kits are available on site, in

addition the equipment, machinery and materials stored and operated on site shall be secured in a fenced area and safe guarded by security personnel at all times.

4.5.1.3.2 Increased Traffic

During the construction phase, roads leading to the project site will serve additional vehicles that are going to be used for transportation of raw materials to the site which will increase the chances of traffic accidents within the community, as well as safety and nuisance hazards such as noise, and congestion. Also, may bother the beneficiaries due to the movement of vehicles from/to the worksite and transporting of materials, so organizing the vehicle's movement on the road into the landing center during implementation will be taken, furthermore, PWP will coordinate with contractor, local authorities, and communities to ensure free movement to and from the work site. The work site on the beach area will be barricaded during the activities, and the entry and exit will be regulated by specific gates and guards, and non-workers will not be allowed to pass to/from the work site, also, and ensure the public takes diversion routes that are signposted. This procedure shall be applicable only during implementation phase activities. Adequate safety and warning signage shall be posted around the work sites as a daily reminder to all contractor employees, visitors and the public.

4.5.1.3.3 Financial exploitation

Financial exploitation including bribes, fraud, or some other form of corruption is also an important risk that may happen during the intervention, so, awareness raising amongst the communities on financial exploitation during subproject implementation and the subproject is provided for free, and they should not pay anyone to get benefits of the subproject. Also, raise awareness among PWP consultants and resident engineers that there is zero tolerance for any cases of financial exploitation, also, raise the awareness of the community committee, workers, and communities on the GM system and how it can be used to report for any financial exploitation.

4.5.1.3.4 Management Issues

Risk of social exclusion of the vulnerable groups in the project benefits. Social conflict due to poor labor management and lack of transparent and non-discriminatory recruitment procedures, or absence of workers' GM to address workers grievances.

4.5.1.3.5 Land Acquisition

Rowkub Landing Site was built on public land that belongs to the Fish Association which is part of the Fish Wealth Ministry. The land area of the Fisheries Authority extends to 42,000 m² (700 meters long x 60 meters wide) based on proof of ownership documents, but the existing area of the fish landing center is 8160 m² (140 meters long x 58.3 meters wide). This landing site is fenced surrounding its components that reflect the ownership of the land to the association. So, the intervention does not require any kind of land acquisition as it will be implemented on existing public property, and there are no untitled occupants of the land that may result in economic displacement. Please refer to [Annex 5](#) for the land document.

Through stakeholder engagement and public consultation, PWP reached to social agreements. The social agreement concluded between the Public Works Project on the one hand and representatives of the local community committees (CCs) and the local authority on the other hand. This agreement includes the conditions and responsibilities between the two parties for the purpose of smooth implementation of the subproject without obstacles, with the commitment of the local community representatives to facilitate and resolve any issues that may arise during Implementing the subproject and after implementation as well, such

as facilitating the work of technical and community studies, as well as facilitating implementation procedures after approving the subproject by facilitating the work of the implementing contractor at the agreed upon project site, as well as to operate the subprojects for the purpose which it was created for (Public interest). The signatures and stamps of parties from the targeted communities and local authorities to implement this subproject, are provided in [Annex 5](#) of the same document.

4.5.1.4 Resources and Services' Access Restriction

The subproject will not cause restrictions for the services and resources, fishing activities are suspended in Rowkub because the landing center is now considered out of service after the damage caused by Hurricane Chapla in 2015, except for the few fishing activities of some fishermen, and the most of fishermen are practicing fishing and selling in Al-Sharj and Al Shihr landing centers temporarily until the completion of the rehabilitation of the Rowkub center. However, The PWP and contractor will ensure not causing any restriction for the services and resources available in the area while implement the subproject. The contract specifications would entail that the contractor will provide all possible access with health and safety responsibilities. With collaboration with local authorities, the project management will work towards ensuring the access of local community to services and resources.

4.5.2 Gender and Social Related Issues

Males and females were consulted and participated in developing and designing the subprojects to ensure they respond to the needs of all community groups including men, women, and disabled people. More information in section 9.1 "Public Consultations". The subproject will take into consideration providing local communities with all support that increases their livelihoods and beneficiaries. This will include people with disabilities, females, males, and children.

4.5.2.1 Child Labor/Forced Labor

According to project ESMF and LMP, no child labor/ forced labour will be hired for subproject activities at all work sites including subprojects' quarries. The minimum age of work is 18 years old, and this will be specified in the tender documents for the contractors. Age verification will be done by checking legal documents such as IDs and other available documents before the commencement of any work. A labor log will be kept, and all workers will be registered, according to contract conditions the contractors and workers should be aware of and sign the code of conduct that states that child labour is not allowed. PWP will deliver a warning to the contractor and scale up procedures will be used to prevent the reoccurrence of this issue.

4.5.2.2 Gender Equity

PWP has ensured gender equity in the subproject's cycle as a core principle for the subproject's success. PWP is mainstreaming Gender in all aspects of the subproject cycle as well as raising awareness amongst the communities both male & female on Job opportunities during subproject implementation. The total number of targeted beneficiaries for the sub-project is 28,208 including 14,954 are males and 13,254 are females. The number of beneficiary families are approximately 5,553 families. The total number of fishermen who are benefited from the landing site are 577 individuals. PWP has engaged and involved the beneficiaries in the consultation process to ensure their concerns and feedback are taken into consideration without any discrimination. Women in the village work on housekeeping and animal husbandry.

Both males, females, and people with disabilities were considered beneficiaries when designing the subproject. The subproject will contribute to improving the living standards of about 557 fishermen and their families.

The consultation was conducted on 7th February 2023 with 27 males and 23 females from the local communities. Also, PWP established the community committee in the targeted areas by sending the social consultants' teams (male and female) and conducting focal groups discussions including women and men to enable participation in the electing of the community committee. The elected community committee and their members including 2 women and 5 men, they participated in the decision-making, need assessment, and public consultation. Also, they will participate in the monitoring of implementation, receiving the subproject, as well as operation and maintenance.

Raising awareness of the fishing communities were also conducted through public participation, as well as occupational, social, and health safety. Participation of women in the proposed project and importance of gender in development were also highlighted see Annex 3. The team has elected the fishing community those who important as the Beneficiary representatives.

4.5.2.3 Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH)

The communities were sensitized on the risks of Sexual Exploitation and Abuse/ Sexual Harassment (SEA/SH) during the public consultations and on Grievance Mechanism (GM) processes to address complaints resulting from project activities including incidents of SEA/SH. SH/SEA cases will be treated with the highest level of confidentiality and anonymity of complaints.²³

The awareness-raising sessions were conducted for 27 males and 23 females as well as for members of elected community committees both male and female. Such incidents shall be treated with the highest level of confidentiality and anonymity in a survivor-centered process. Mandatory awareness training and sensitization sessions about refraining from unacceptable conduct towards local community members, specifically women, will be conducted by PWP through supervisor engineer and subarea staff for all contractors and workers throughout the project lifecycle. This also includes informing workers about the national laws that make sexual harassment, and sexual exploitation and abuse, a serious and punishable offense.

4.5.3 Socio-economic Impacts during Operational Phase

Generally, the project is expected to produce significant environmental benefits in terms of resource conservation, pollution reduction, and improvement of public health. The community development and poverty abatement will generate mostly beneficial impacts. Negative impacts are expected to be Minor, localized, reversible, and could be mitigated if appropriate measures and effective control and management are to be followed. The discussion below summarized both the expected beneficial and adverse impacts related to the proposed project during operation stages. It will be a condition of the investment that site management and management of fish stocks through community and administration management are commitments made by the community and the responsible fisheries administration.

²³ World Bank Good Practice Note Addressing Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH) in Investment Project Financing involving Major Civil Works <https://thedocs.worldbank.org/en/doc/6f3d9ddc6010c4221315dd1282958e41-0290032022/original/SEA-SH-Civil-Works-GPN-Third-Edition-Final-October-12-2022.pdf>

4.5.3.1 *Job Opportunities*

The project is expected to create new job opportunities and minimize the unemployment problem for the local people. Employment opportunities are one of the long-term major positive impacts of the project during the operation and maintenance of the proposed project. These will involve security personnel, solid waste management staff, and the persons who are going to be employed within the proposed project.

Also, it will support fishing communities with the required facilities that help them increase their fish quality such as ice storage and clean water network. This will raise their economic income and improve their economic and livelihood situation.

4.5.3.2 *Occupational Health and Safety Issues*

Health and safety of fishermen and other labors working in the landing site should be guaranteed. Working in such unhealthy areas where bacteria and other diseases that are spread all over the landing site must be carefully considered. Outbreaks of infectious disease such as diarrheal diseases and their consequences as cholera and dysentery, in addition to intestinal parasites among fishermen, vendors and other workers are common in such conditions. This is inevitable when unhygienic conditions and poor sanitation are prevailed. Furthermore, risk from drowning and fishing during bad weather and sea storms seasons, as well as the fire risks from fuel storage.

Awareness programs should focus on providing the trainee with knowledge that illustrate the benefits of proper fish handling and its impact on health and economy. Other programs could also help fishermen to acquire and build necessary skills and good practices to raise quality and reduce manifestations of fish spoilage according to scientific and health standards with high efficiency in other components of the SFISH project.

4.5.4 *Conflict sensitivity and Do No Harm*

PWP has its conflict sensitivity manual to manage any conflict cases during the projects cycle. Conflict sensitivity is given high priority and integrated into decision-making criteria in project approval. PWP adopts specific approaches when targeting the beneficiaries and defines their prioritization. Targeted communities provided their consent, acceptance, and satisfaction for the chosen interventions. No concerns were raised by the communities against the subproject activities. Public consultation included ensuring Conflict Sensitivity screening. In case of Conflicts that cannot be resolved, the Subproject will be rejected. Also, Conflict sensitivity is taken into consideration in the monitoring and reporting processes during the implementation. Furthermore, the elected community committees are trained to manage, monitor, and report any conflict that might be generated during the project cycle. Generally, the subproject will help to build the resilience of the communities and improve their living conditions positively.

5 *Environmental and Social Impact Analysis Plan and Mitigation Measures*

This Section consist of a set of mitigation, monitoring, and institutional measures to be taken during the construction and operation of the project to eliminate adverse environmental and social and OHS impacts, offset, or reduce them to acceptable levels. On the other hand, the ESMP is meant for maximizing the positive impacts associated with the project activities. The ESMP for this project is based on the potential impacts that have been assessed during the impacts and risks investigation section above. It defines the responsibilities of contractors and role players towards different environmental and social issues. It is expected that this plan

will be used as the basis for the contractor environmental and social management plan before any activities conducted. The contractor shall develop the plan that is site and activity specific to ensure that impacts identified in this investigation and those that may be identified by the contractor on site are managed.

The environmental and social impact analysis plan and mitigation measures will also include the actions needed to implement these measures, which is illustrated in the below table.

5.1 Environmental and Social Management Plan

Table 6 Environmental and Social Risk Management Plan table

Project phase	Potential Risks /Impacts Factor	Mitigation Measures	Personnel / Institution Responsible For Execution	Estimated Cost
Environmental Impacts				
Implementation	Air pollution due to dust from activities and gas emissions from machines	<ul style="list-style-type: none"> • Spray the work area with water regularly to reduce the dust. Water spray should be done efficiently to avoid wasting water. Water spraying can be carried out by using sea water or greywater if available or rainwater if possible. • Use dust sweeping methods to avoid wasting water in dust suppression. • Avoid working during dust storms and windy days. • Ensure workers wear masks. • Material loads must be suitably secured/covered during transportation to prevent the scattering of soil, sand, materials, or dust²⁴. • Properly cover waste during transportation • Exposed soil and material stockpiles must be protected against wind direction and the location of stockpiles shall take into consideration the prevailing wind direction. • Maintain machinery in good working conditions to minimize emissions including exhaust emissions of CO, NOx, and fumes. • Provide adequate protective wear/gear for workers, and equipment must be maintained regularly to avoid any emissions. • Offer good practice awareness to workers to turn off vehicles and machinery when not in use. 	Contractors	N. A

²⁴ WBG General EHS Guidelines as good practice references are used during the implementation as Guidelines.

		<ul style="list-style-type: none"> • Limit vehicle speed at critical locations and sandy areas. 		
Implementation	Loud noise and severe vibration are caused by machines and vehicles.	<ul style="list-style-type: none"> • Avoiding or minimizing transportation through or processing material in community areas (like concrete mixing). Machinery must be maintained regularly to avoid exceeding noise emissions from poorly maintained machines. • Limit noisy activities to normal daylight hours. • Limit vehicle speed at critical locations (Limits of 10, 15 or 20 mph may be appropriate depending on the vehicles used, site layout and hazards). • Provide workers with ear muffers. • Measures to reduce noise to acceptable levels must be implemented and could include silencers, mufflers. 	<ul style="list-style-type: none"> • Contractors 	N. A
	Soil contamination from accidental Oil spills and from liquid waste	<ul style="list-style-type: none"> • Properly store all types of waste and hazardous chemicals if any in insulated areas and provide secondary contaminated storage areas to avoid spillage and away from runoff areas and water zones (i.e. oil) • Properly store chemicals (i.e. oil, Bitumen, epoxy, and cement) according to their Material Safety Data Sheets (MSDSs) • Ensure oil change, machine maintenance or mixing cement is done at designated insulated areas by concrete away from the soil, water areas, and drains. • Carry out machine maintenance and oil change at service centers if present. • Only use well maintained equipment to avoid potential leaks and perform regular maintenance and maintain a machine maintenance log. • Oil change and maintenance must be handled by trained personnel. 	<ul style="list-style-type: none"> • Contractor • Resident Engineer 	N. A

		<ul style="list-style-type: none"> • Construction waste should be stored and handled in designated areas away from the soil and water runoffs. • Avoid working during bad weather seasons, and dust storms and during rainy seasons. • Ensure the presence of spill prevention kits and remove any spills immediately. • Provide training on environmental safety measures and hazardous materials and waste management measures. • Ensure the presence of spill prevention kits in case oil spills occur from machinery used. • Store oil in secondary containment. • Properly label the chemicals and materials • Only use trained workers in handling storing and disposing chemicals and materials and disposal should be done via a certified contractor. • Provide training on environmental safety measures and hazardous materials and waste management measures. 		
Implementation	Contamination of water resources, Drain on water resources, Water contamination by construction waste, and Impacts on seawater.	<ul style="list-style-type: none"> • Minimize interference with nearby water sources and seawater. • Application of conservation measures for water • Development of adequate water storage on the site. • Justify processes used in the construction activities that consume the most water (e.g., concrete mixing plant using water closed circuit, vehicles and other equipment washing waters to be reused as far as possible). • Implementing erosion and sediment control measures, such as installing silt fences and erosion control blankets, to minimize soil and water pollution. 	<ul style="list-style-type: none"> • Contractor 	N. A

		<ul style="list-style-type: none"> • Ensure measures for waste generation, soil contamination and emissions and hazardous wastes and chemicals present in this table are followed. • The contractor can finish the existing buildings such as guard's rooms and toilets including cesspit to be used for workers during implementation period. • The pit will be buried in the end of implementation. • Toilets will be demolished at the end of construction activities or hand it to the landing center officially. 		
	Solid and liquid waste produced by workers (trash and plastic bags) accumulates and pollutes the environment and waste accumulation and soil excavation.	<ul style="list-style-type: none"> • Ensure that workers regularly collect all solid trash in enclosed bags at inaccessible areas to animals and transport them to the designated landfill or dispose of it in a proper way that does not impact the environment in coordination with the local authority. • Ensure good housekeeping practices at latrines. • Ensure no wastes are stored near wadis or runoffs and ensure regular disposal by certified contractors. • An appropriate mechanism was agreed upon with the local authority for the management of waste resulting from the excavation to be transported to pre-designated areas. Dust residues that may be produced are moved to the designated areas. • Attach the waste receipt from the relevant landfill authorities. • The Contractor's staff should be trained on waste handling and ensure trained personnel handle hazardous chemicals and wastes. • Properly covering trucks that transport collected waste to avoid spillage during transportation. • 	<ul style="list-style-type: none"> • Community Committee • Contractor • Resident Engineer 	N. A
Implementation	Hazardous materials/waste	<ul style="list-style-type: none"> • Ensure proper storage of hazardous materials and wastes. Any potentially hazardous materials or wastes will be stored, handled, and disposed of according to their Material Safety Data Sheets. 	<ul style="list-style-type: none"> • Contractor • Resident Engineer 	N. A

		<ul style="list-style-type: none"> • Ensure that hazardous wastes (i.e., oil, paint and epoxy containers, etc.) are properly stored and insulated away from drainage areas and runoffs, managed and disposed of safely and legally by certified contractors. • Ensure the presence of spill prevention kits and remove any spills immediately. • Ensure workers do not spend long exposure times to chemicals. • Ensure hazardous wastes and materials are handled by trained workers. • Use well-maintained equipment to avoid leakage. 		
Implementation	<p>liquid pollutions discharge to sea water And Risks on coastal and marine habitats and related biodiversity</p>	<ul style="list-style-type: none"> • Establish a liquid waste management plan from all the landing site components and proper disposal at authorized areas by EPA and other relevant authorities. • Regular monitoring and inspection should be carried out on the temporary latrine. • Ensure providing special containers to dispose of the used oil from the vehicles and equipment at work site, in a safe manner with insulated containers and sell it to be reused or to be returned to manufacturer. The oil will be stored in secondary containment. Spill prevention kits will be available on site. Spills will be removed right away according to manufacturer’s guidelines. • aware contractor and the implementation staff about the sensitivity of the marine environment and the importance of not pollute the sea and the suitable ways and places to dispose the liquid waste to its places. • Ensure regular maintenance by trained workers. • Ensure Designs the fuel station and gas / fuel storage area involve suitable concrete base and far away from water area. 	<ul style="list-style-type: none"> • Community committee, • Local Authority • Fish Association • Contractor • EPA 	N. A

		<ul style="list-style-type: none"> • Ensure all chemicals are stored, handled and disposed according to their materials safety data sheets by trained workers. • Carry out regular biodiversity monitoring and inspection on the status of habitats via snorkeling or diving. This could be done in collaboration with the environmental protection agency (EPA) • Carry the construction work outside of biodiversity sensitive seasons (fish spawning seasons etc.) This could be done in collaboration with the environmental protection agency (EPA) 		
Social and community Impacts				
Implementation	Child labor/forced labor risk.	<ul style="list-style-type: none"> • Ensure child labor is not permitted; all workers will be verified to be over 18 years old of age. • Verifying age by checking IDs and other available documents. • Ensure a Labour Log is available, and all workers are registered. • Avoid buying raw material from suppliers that employ children through checking the requirements and policies of the primary supplier, reviewing labor conditions and labor log of the primary supplier and communicating the requirements of PWP and UNOPS regarding child labor to the supplier. • Mandatory and repeated training and awareness-raising sessions for refraining child labor. • Ensure the contractor looks for a different supplier who meets the requirement if current supplier fails to meet the requirements. 	<ul style="list-style-type: none"> • Contractors. • Resident Engineer. • PWP Safeguard Officer. • Community Committee. 	N.A
Implementation	Sexual harassment, sexual exploitation and abuse (SEA/SH)	<ul style="list-style-type: none"> • Mandatory and repeated training and awareness-raising for the workforce about refraining from unacceptable conduct toward local community members, specifically women. 	<ul style="list-style-type: none"> • Contractor • Resident Engineer • Community Committee • Gender Focal Point 	N. A

		<ul style="list-style-type: none"> Informing workers about national laws that make sexual harassment, sexual exploitation and abuse a punishable offense that is prosecuted. Raise awareness of the GM system and how it can be used to report any SEA/SH cases. All workers fully understand and sign the CoC and to adhere to it. 		
	Discrimination against women and persons with disabilities when selecting beneficiaries	<ul style="list-style-type: none"> PWP adopts a non-discrimination policy that ensures a non-discriminatory and inclusive manner, including women and persons with disabilities when selecting subproject. The policy also ensures the inclusion of women in community committees as well. Provides opportunities for women and other vulnerable groups to be consulted in a place and time convenient to them and which allows them to freely express their views. 	<ul style="list-style-type: none"> PWP Subarea Staff Community Committee Gender Focal Point²⁵ 	N. A
Implementation	Lack of workers' awareness and knowledge on respecting local community cultures, and social safeguard issues on SEA/SH.	<ul style="list-style-type: none"> Implement a systematic awareness campaign to increase workers' awareness of local community tradition and cultures and the need to respect them. Contact and its workers to sign the Code of Conduct. Ensure workers respect and adhere to the Code of Conduct (CoC) for the local community's protection and do no harm. GM system in place to handle any complaints on Gender, SEA/SH. 	<ul style="list-style-type: none"> Contractor Resident Engineer Community Committee Gender Focal Point 	N. A
	Financial exploitation of community or beneficiaries	<ul style="list-style-type: none"> Inform the beneficiaries that the subproject is provided for free, and they should not pay anyone to get benefits of the subproject. 	<ul style="list-style-type: none"> PWP Community Committee 	N. A

²⁵ The Gender Focal Point is responsible for conducting Public Consultation, ensuring women participation in the selection of subproject, consensus on the subproject, site location, establishing Community committees including women representatives, resolving complaints related to GBV, SEA issues and monitoring during construction phases. PWP staff participate in the public consultation, discuss details, raise awareness on SEP, and discuss stakeholder concerns vis a vis the subproject community committee's formation and collection of community data / profiles. Community committee is responsible for raising the awareness between society, helping in solving problem and obstacles, accordingly, supporting the monitoring in sites and helping to solve GRM complaints in site as possible.

		<ul style="list-style-type: none"> • Prepare and publicize in the community a transparent recruitment procedure. • Raise awareness among PWP consultants and resident engineers that there is zero tolerance for any cases of financial exploitation. • Raise the awareness of the community committee, workers, and communities on the GM system and how it can be used to report any financial exploitation. • Inform consultants, resident engineers, and the community about PWP regulations that make financial exploitation a serious contravention. • Ensure the GM is operational, and community/beneficiaries are aware of its existence and receive regular training on how to use it so they feel comfortable using it. 		
	No latrines near the project site and workers may have to practice open defecation.	<ul style="list-style-type: none"> • The contractor can finish the existing buildings such as guard's rooms and toilets including cesspit to be used for workers during implementation period, hand-washing basins, and supplying them with water and soap. • Pit will be buried in the end of implementation. • In case the presence of women workers, ensure latrines are separated by gender and with the same facilities and capable of being locked from inside. • Managing and supplying water and soap in the latrine daily. • Ensure latrine areas are properly insulated and waste is managed and removed regularly. 	<ul style="list-style-type: none"> • Contractor • Resident Engineer 	
	Social conflict due to poor labor management and lack of transparent and non-discriminatory recruitment procedures.	<ul style="list-style-type: none"> • Coordination with the community council regarding the employment of skilled and unskilled workers from the community benefiting from the subproject as a priority and in a transparent manner. In the event that 	<ul style="list-style-type: none"> • Safeguard Officer • GM officer 	N.A

		<p>skilled workers are not available, they can be provided from neighboring areas.</p> <ul style="list-style-type: none"> • Prepare and publicize in the community a transparent recruitment procedure. • Ensure the GM is operational, and community/beneficiaries receive regular training on how to use it and of its existence, so they feel comfortable using it. 		
	No skilled workers in the targeted areas for construction works.	<ul style="list-style-type: none"> • Skilled workers will be hired from neighboring areas if not available from targeted area. 	<ul style="list-style-type: none"> • Contractor • Resident Engineer 	N.A
	Temporary restriction on the use of the landing site	<ul style="list-style-type: none"> • This will be mitigated by implement rehabilitation works during stopped fishing seasons (autumn and winter), as well as work activities will be implemented section by section in coordination with fisheries associations and community committees. 	<ul style="list-style-type: none"> • Community Committee • Contractor • Resident Engineer 	N. A
Implementation	Public Health includes risks of public visitors, fishermen and children's access to the worksite.	<ul style="list-style-type: none"> • Install fences, barriers, dangerous warning/prohibition sites signs around the construction area which showing potential danger to public. • Place appropriate warning and directional signs at areas where construction is taking place. • Limit, in coordination with traffic authorities, the movement of heavy vehicles on roads/lanes used by the public during traffic peak hours. • 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. • Ensure all types of wastes are removed appropriately. • Raise awareness on good hygienic practices. 	<ul style="list-style-type: none"> • Community Committee • Contractor • Resident Engineer 	N. A

Implementation	Safety and nuisance hazards such as noise, congestion and increased accidents from higher vehicular traffic from/ to construction sites and transporting of materials.	<ul style="list-style-type: none"> • Contractor Prepare a traffic management plan (TMP) as part of the C-ESMP depending on the traffic volume and the condition/nature of local routes to avoid accidents risk. • Carry out community consultations with local authorities and the community before public works commence. • It is strictly forbidden to transport materials for construction during rush hour. • Do not start any maintenance activities before the installation of traffic safety and control safeguards. • Erect safety signage at appropriate places. • Promote safe driving practices among drivers. • Implement GM. 	<ul style="list-style-type: none"> • Contractors 	N. A
	Community dissatisfaction by Sub-project activities and Community participation	<ul style="list-style-type: none"> • Hold public interviews to address concerns/comments about construction and bypass issues. • Inform public/beneficiaries before activities commencement about GM. • Install an on-site, identification stand, containing how to lodge complaints in the GM. • Ensure that Complaint forms are available on the site. 	<ul style="list-style-type: none"> • PWP • Resident Engineer • Community Committees 	N. A
	Damage to existing infrastructure (phone networks, electricity, etc.)	<ul style="list-style-type: none"> • Coordinate with local authorities on network lines to avoid their disruption. • Any damage will be rehabilitated by the contractor. • Be sure to identify the locations of the ground services extensions and coordinate with the relevant authorities to provide the plans and their delegates to come to the site and put signs on them before starting the excavation work. 	<ul style="list-style-type: none"> • Contractor • Resident Engineer 	N. A
Implementation	Complaints Occurrence	<ul style="list-style-type: none"> • GM should be established by the Contractor and PWP • Inform the public about GM contact information and the method of submitting complaints. 	<ul style="list-style-type: none"> • Contractor • PWP 	N. A

		<ul style="list-style-type: none"> • Details of complaints received should be incorporated into the audits as part of the monitoring process. • All complaints must be addressed quickly within the timeframe given in the GM. 		
Operational and Maintenance Phase				
Operational & maintenance phase	Liquid waste discharge to sea water	<ul style="list-style-type: none"> • Establish a liquid waste management plan for all the landing site components and ensure perfect reflection in the intervention designs like for the selling yard, toilets, ... etc. • Ensure proper disposal of wastewater and other types of wastes at authorized areas in coordination with EPA and other relevant authorities. • Regular maintenance and inspection should be carried out on the septic tank. • Ensure providing special containers to dispose the used oil from equipment and give awareness for the locals about its important. • Fishing boats' engines, Vehicles, and equipment such as petrol pumps must be subjected to regular maintenance to avoid any leakage of hazardous liquids. • Ensure that site machine repair workshops and petrol pump area have impermeable floors to confine pollutants. • Ensure the presence of spill prevention kits near gas station. • Ensure refueling of boats is done in an environmentally safe manner (i.e enclosed surface to prevent leaks from boats into the sea) • Remove spills right away. • Implement a penalty fee for boats/fishermen who release waste into the sea. • Inform the public of maintenance times. • aware fishermen about the sensitivity of the marine environment and the importance of not pollute the 	<ul style="list-style-type: none"> • Community committee, • Local Authority • Fish Association 	N. A

		<p>sea and the suitable ways and places to dispose the liquid waste to its places.</p> <ul style="list-style-type: none"> • Handing the sub-project to the respective local authorities. • Sign an agreement with local authorities on the maintenance requirements. • Ensure regular maintenance of project components and septic tanks. 		
Operational & maintenance phase	Air Emissions	<ul style="list-style-type: none"> • Cleaning regularly the selling yard to avoid the bad odors. • Disposing regularly the organic waste • Maintain machinery in good working conditions to minimize emissions including exhaust emissions of CO, NOx, and fumes. • Provide adequate protective wear for workers, and equipment must be maintained regularly to avoid any emissions. • Offer good practice awareness to fisheries to turn off boat's generators and electric generators when not in use 	<ul style="list-style-type: none"> • Community committee, • Local Authority • Fish Association 	N. A
	Solid Waste Disposal	<ul style="list-style-type: none"> • Insert solid waste management plan form all the landing site components and ensure perfect reflection in the intervention designs like for the selling yard, toilets, ... etc. • Regular maintenance and inspection should be carried out. • Ensure providing special containers to dispose the solid waste and give awareness for the locals about its important. • Inform the public of maintenance times. • Aware fishermen about the sensitivity of the marine environment and the importance of not pollute the sea and the suitable ways and places to dispose the fish gears to its places. 	<ul style="list-style-type: none"> • Community committee, • Local Authority • Fish Association • 	N. A

		<ul style="list-style-type: none"> • Handing the sub-project to the respective local authorities. • Sign an agreement with local authorities on the maintenance requirements. • Ensure regular maintenance of fish landing. • Disposing regularly the organic waste in accordance with agreement with local authorities. 		
Operational & maintenance phase	Biodiversity Conservation and risks from overfishing and on fish stocks	<ul style="list-style-type: none"> • Proper management of fishermen by using eco-friendly fishing gear and specifying fishing season and managing the carrying capacity of the area. • Implement a fishing season away from the spawning season and sensitive fish seasons (this can be managed with fish authorities and EPA) • Raising awareness of fishermen about the importance of marine habitats and measures used for conservation of marine species including the negative impacts of overfishing. • Encourage the use of mooring anchorage instead of traditional anchors. • Carry out regular biodiversity monitoring and inspection on the status of habitats (organisms present in the area) via snorkeling or diving. This could be done in collaboration with the environmental protection agency (EPA). • Allow fishing in specific seasons outside of biodiversity sensitive seasons (fish spawning seasons etc.) This could be done in collaboration with the environmental protection authority (EPA) and fishing authority. • Restricting certain forms of fishing at specified periods of the year to protect spawning fish and youngsters in coordination with local Environmental Protection Agency (EPA). • Individual quotas for fishermen depending on catch limitations in coordination with EPA. 	<ul style="list-style-type: none"> • Community committee, • Local Authority • Fish Association 	N. A

		<ul style="list-style-type: none"> • In the broader context, the UNDP is engaged in other major subcomponents in this project to address fish stock management. These subcomponents are identifying and addressing institutional gaps in order to build the national institutional capacity for sustainable fisheries management. • Raise awareness to fishermen on sustainable fishing measures and techniques and implement penalties in case of non-compliances. • Raise awareness to fishermen on vulnerable species and how to handle and release them in case they were accidentally caught and implement strict penalties in case of non-compliances 		
Operational & maintenance phase	Lack of maintenance for subproject	<ul style="list-style-type: none"> • The GAF and fisheries associations are committed to maintaining the intervention. • Raise the awareness of the fishermen represented by local authorities and communities' committees. • Sign an agreement with local authorities and communities' committees to ensure subproject maintenance and sustainability of the project. • Inform the beneficiaries about maintenance periods and times beforehand. • Training a maintenance team from fisheries associations. • Regular maintenance and inspection should be carried out. 	<ul style="list-style-type: none"> • GAF • Local Authority • Fish Association. • Community Committees 	N. A
Operational & maintenance phase	High energy usage	<ul style="list-style-type: none"> • Use of energy-efficient appliances and equipment, such as ENERGY STAR-certified products, will significantly reduce energy consumption. These devices are designed to operate more efficiently, using less energy while providing the same level of functionality. 	<ul style="list-style-type: none"> • GAF • Local Authority • Fish Association. • Community Committees 	N. A

		<ul style="list-style-type: none"> • Enhancing insulation and sealing air leaks will improve energy efficiency by reducing heat transfer and minimizing the need for cooling. • using energy-efficient lightening LED bulbs • Regular maintenance of energy-consuming systems and equipment will ensure they operate at optimal efficiency levels, reducing energy consumption and waste. • Raising awareness about energy conservation and promoting energy-saving behaviors. 		
Operational & maintenance phase	High use of water	<ul style="list-style-type: none"> • Monitor water usage • Rasie awareness on water conservation measures 	<ul style="list-style-type: none"> • GAF • Local Authority • Fish Association. • Community Committees 	N.A

5.2 Occupational and Health Safety Plan:

Table 7 Occupational and Health Safety Plan

Task with risk possibilities	Hazard	Risk degree			Risk mitigation measures	Risk degree after			Responsible	Estimated Cost
		H	M	L		H	M	L		
General Requirements (OHS general actions for all activities of the sub-project)									Contractor/ Technical Resident Engineer / Safeguard Officer	provide safety equipment for workers 18,000 \$, 4% from the intervention cost
		<ul style="list-style-type: none"> • (General): Conduct comprehensive training about occupational and health safety (OHS) aspects before the beginning of the sub-project implementation by PWP this includes (hazards associated with the activities, mitigation measures, and workers' responsibility as well as disciplinary action against any violation. • (General): Weekly repeated awareness sessions on OHS hazards associated with the activities, mitigation measures, and workers' responsibility as well as the disciplinary action against any violation. • (General): Workers sign that they have received awareness about the implementation of the activity, and that they understood risk assessments that help mitigate, minimize, and avoid potential risks. • Conduct daily toolbox talks for workers. • Integrate the OHS measures in the activities' detailed implementation plans (DIPs) to ensure the implementation of OHS measures on time. • Activation of the Permit to Work (PTW)²⁶ system for the activities of the moderate and high risk. • Ensure the right authorization procedures are in place for the permit to work in the worksites. • (General): Ensure maintain occupational health and safety system in the site to protect workers from hazards and risks. • (General): Ensure the necessary personal protective equipment (PPE) is always worn by workers and they get it for free. • (General): Involving the community committee in the monitoring of safety procedures and reporting any risks. • (General): Emergency response plan to be in place with details of the nearest hospital or medical centre, 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. • (General): in case activities at height take place, provide safety ropes for workers and fall protection devices. • Ensure effective monitoring of the worksites including inspections and spot checks to ascertain compliance with OHS measures. • Conduct regular inspections for any unsafe acts, near misses, or accidents. 								

²⁶ A work permit is a permit that gives the contractor approval to begin carrying out the activity specified in the permit after reviewing the risks and control procedures for this activity.

	<ul style="list-style-type: none"> • Discover the root causes of any non-compliance cases or/and accidents occurring and suggest corrective actions to avoid reoccurring. • Provide training on handling, storing and disposing cement and any type of chemicals. • Wear high rubber boots to protect from snake bites. • Ensure no work is conducted during bad weather conditions (i.e., sand storms, dust storms, rainy seasons, etc.) • In case ladders are used, inspect their stability before standing on them. • In case scaffolds are used, inspect their stability and be well insulated by a competent person prior to using. • Ensure workers are trained on handling, storing and disposing chemicals including cement and are aware of its health hazards. Additionally, ensure that workers handle and store and dispose chemicals and cement according to its MSDS. • Aware workers on the risks and hazards of water, enabling them to identify and avoid dangerous weather conditions and unsafe waterbodies. • Adequate supervision to prevent swimming, and provide a trained lifesaver. • Provide life and health insurance to all project workers. • Allows regular breaks and provide drinking water for workers. • Ensure providing latrines equipped with soap and water and resting areas for workers. • Report major accidents to the WBG within 48 hours by UNDP. • Workers have the option to remove themselves from unsafe working conditions without any reprisals. 						
Excavations and backfill works	<ul style="list-style-type: none"> • Workers fall from the edge of the 'excavated sites. • Excavation sides get demolished or soil slides during excavation or excavation residues slide on the worker during excavation. • Dust, sand and small parts volatilize while excavating in sandy soil. • Exposure to hot sun during drilling causes headache. • Misuse of equipment necessary for excavation or removal of waste and the like. • Serious accidents due to work in proximity of heavy equipment in the workplaces such as Graders, Compactors, trucks...etc. 		X		<ul style="list-style-type: none"> • Site preparation and proper organization of the stacked material in order to ensure the safety of workers during work. • Install warning signs, barricading of working area with safety tapes and fencing to prevent unauthorized access of public and pedestrians to openings, excavation, and backfilling work areas in particular and the work sites in general. • Conduct inclined excavation if the soil is collapsible or saturated with water. Also, the sides of the excavation shall be supported with timbering work if required. • Use appropriate equipment for levelling and excavation and pay extra attention while using mechanical excavators. 	X Contractor/ Technical Resident Engineer /Workers	Part of PPEs cost first item.

	<ul style="list-style-type: none"> • Limb injury while using drilling and excavation equipment. • Exposure to hot sun during drilling causes headaches • Misuse of equipment necessary for excavation or removal of waste • Exhaustion and injuries from excavation activities. • Falling in 13m deep well 			<ul style="list-style-type: none"> • Removal of falling blocks objects or sliding soil in any area above the level of excavation in and around the pit. • Ensure collection and transportation of the excavation residues to designated landfills by local authority right away. • Safety gloves, dust masks, protective helmets, protective boots and all necessary PPE to mitigate the risks of conducting the activity are to be used by workers at all time on-site. • Deposit soil extracted 0.80 meter away from the edges. • Maintenance of all work equipment before starting the work such as digging tools, drilling, Graders, Compactors, trucks...etc. • Ensure skilled workers are hired for this activity. • Allow for regular breaks and provide water • Workers have the option to remove themselves from unsafe working conditions without any reprisals. • Limit the time for workers working on vibrating tools. • Add warning signs and barriers around excavated zones. • Provide barriers and signs around the 13m deep artisanal well to prevent workers or pedestrians from falling. Signs and barriers must be visible at night 				
Mixing the concrete materials	<ul style="list-style-type: none"> • Serious injuries due to contact with cement mixture equipment when it is working. 		X	<ul style="list-style-type: none"> • Use of professional labour force to implement activities that are obligatory while mixing and pouring concrete. • Use safety gloves while loading, transporting, and distributing sharp 		X	Contractor/ Resident Engineer / Workers	Part of PPEs cost first item

	<ul style="list-style-type: none"> • Blisters on the hands due to the cement component impact during the mixing and direct contact with liquid cement. 			<ul style="list-style-type: none"> • materials and stones while building. • Long, rubber safety boots shall be worn while mixing concrete. • The use of the professional workforce to carry out mandatory activities while mixing and pouring concrete. • Wearing long, rubber safety boots are obligatory while mixing and pouring concrete. • Ensure that concrete mixing equipment is in good condition. • Workers are aware of concrete mixing equipment risk and keep safe distance during its movement and rotation. • Locate the cement mixer equipment on firm level ground to avoid collapse during operation, and it away from traffic. • Provide suitable gloves and masks 					
<p>Construction of rooms walls, plastering, tiling and pouring floor, painting walls, and roofs, roofs insulation layer</p>	<ul style="list-style-type: none"> • Falling from height >3m. • Injury or severe fractures as a result of falling. • Cracks or blisters on the hands due to effect of the chemical component of cement during mixing and direct contact with liquid cement. • Injury of the worker's head or the mason while transporting bricks and stones. • Foot injuries while mixing concrete. • Eye Injuries while applying painting scratch or base coat. • Injuries of the shoulders and back muscles because of lifting the wrong way or lifting heavy loads 		X	<ul style="list-style-type: none"> • Ensure that the stairs or scaffolding are stable and set up on the levelled ground and must be affixed to any stable body with no movement. • The used scaffold shall be in excellent condition in addition to ensuring the quality of the supporting floors casting works and scaffolds supported by the supervising engineer. • Inspect ladders before usage. • Wear fall protection devices and helmets • Use a safety harness working at height. • Use safety gloves while loading, transporting, and distributing stones. • Long, rubber safety boots shall be worn while mixing concrete. • Eye protection must be worn to protect the eyes from volatile cement while applying plastering scratch or base coat 			X	Contractor/ Resident Engineer / Workers	Part of PPEs cost first item

	<p>for long distances between the worker and construction.</p> <ul style="list-style-type: none"> Injuries in hands and feet due to using of hand tools like hammers, and chisels. 				<ul style="list-style-type: none"> or painting walls/roofs. as well as use safety gloves while mixing concrete. 					
Installation of plumbing pipes and fittings	<ul style="list-style-type: none"> Risk due to excavation works for pipes lines. Injuries during the pipe's connection works. Hands or feet get injured while plumbing works. Misuse of equipment during plumbing work. Traffic Accidents. Vehicles running into workers (pipeline area) 		X		<ul style="list-style-type: none"> Hire skilled labor to implement these activities. Follow the mitigation measures for excavation risks mentioned above in the excavation risk part. Coordinate with local councils, beneficiary committee before excavation of water supply pipelines. Install traffic signs to reduce speed and alternative roads, as well as install the warning signs for the work area. Ensure a flagman is present to warn vehicles of work area and to arrange traffic on site. 			X	Contractor/ Resident Engineer / Workers	Part of PPEs cost first item
Demolition work for the existing buildings	<ul style="list-style-type: none"> Serious accidents/ injurious due to demolition works. Working on heights The collapse of demolition works on workers Workers' ignorance of safety hazards at the worksite. Using ladders while Demolition. Using wrong equipment's for wrong purposes. 		X		<ul style="list-style-type: none"> Safely remove the damaged parts. Avoid using ladders during demolition works Inspect ladders before usage Wear fall protection devices and helmets Ensure workers are not working during environmentally risky periods (sand storm, rainy periods etc.) Workers must keep a safe distance from demolition area and demolition areas must be properly covered 			X	Contractor / Resident Engineer /Workers	Part of PPEs cost first item
Working at heights	<ul style="list-style-type: none"> Injury/death - inadequate ladder; inadequate use of ladder; failure to wear fall arrest gears; inadequate scaffold erection; inadequate safe work procedure Falling from height >3m. 		X		<ul style="list-style-type: none"> Use safe scaffolding for working at height and ensure it is according to safety standards and specifications. Check the scaffolding specification before using it and ensure it is according to international safety standards. Inspect ladders before usage 			X	Contractor / Resident Engineer /Workers	Part of PPEs cost first item

				<ul style="list-style-type: none"> ● Wear fall protection devices and helmets ● Daily check for scaffolding before starting the work at heights to ensure the working platforms with guard- rails, fence, toe-boards are according to safe specifications standard. ● Ensure the scaffolding is erected to fixed buildings and on safe ground. ● Using of scaffolds sufficient large to allow safe use and movement and ensure there is sufficient bracing into scaffolds. ● Determine the allowed loads for use on the platforms to prevent its collapse. ● Erecting scaffolds by competent workers. ● Inspect the scaffolds before starting the work. ● Issue special permit to work for scaffolds to ensure it is safe to use. ● Ensure that the stairs or scaffolding are stable and set up on the levelled ground and must be affixed to any stable body with no movement. ● Use safety harnesses by workers during working at height. ● Ensure cautious supervision of the workers during working at height. ● Use safety gloves while loading, transporting, and distributing stones while building. ● Long, rubber safety boots shall be worn while touching the concrete. ● Eye protection must be worn to protect the eyes from volatile cement while applying plastering scratch or base coat or braking and forming stones. as well as use safety gloves while mixing concrete. ● Wearing isolation boots and gloves are 					
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					<ul style="list-style-type: none"> obligatory while using the electrical tools. • Overalls, eye protection, and face visors are provided for workers who work on height. • Ensure ladders are stable and provide fall prevention devices. • Wear head helmets and fall prevention devices when working from height. 					
<p>Dealing with hazardous material Paint, epoxy and insulated materials</p>	<ul style="list-style-type: none"> • Skin and eye irritation and allergies from hazardous material such as wet cement, paint, epoxy and insulation materials. 		X		<ul style="list-style-type: none"> • Store, handle and dispose hazardous material and waste according to their MSDSs. • Hazardous materials and wastes should be handled by trained workers. • Workers should be provided with proper PPEs. • Using local exhaust ventilation systems or open windows/doors to ensure good airflow and reduce inhalation of paint fumes • For tasks with higher chemical exposures, limit the work duration and rotate workers to reduce total exposure. • Keep tools and equipment, and their safety features, in good working order. This can be achieved by routine inspection of working equipment. • Select paints with lower VOC content- Use water-based paints instead of solvent-based varieties where possible. • Ensure adequate storage and labelling of chemicals items according to safety data sheets helps reduce accidental exposures. • Safety goggles help protect eyes against splashes or airborne chemical particles that can cause irritation. 		X		Contractor / Resident Engineer /Workers	Part of PPEs cost first item

				<ul style="list-style-type: none"> • Presence of Hand washing and showering after chemical works can remove residual chemicals and reduce dermal absorption. • Consider alternative products where possible that do not contain harmful chemicals like aromatic hydrocarbons and lead. • Alternative products where possible that do not contain harmful chemicals like aromatic hydrocarbons and lead. • Train workers on chemical hazards, exposure symptoms, and safe work practices to minimize chemical absorption and inhalation. • Use drops cloths, masking tape, plastic sheets and other coverings to protect floors, walls, furniture and equipment from chemical splashes and overspray. • Clean up spills immediately • Restrict access to the painting, and insulation areas to only the workers actively involved in the job. • Ensure the presence of spill prevention kits. • Secondary containment are provided for fuel and any liquid materials. • Carry epoxy works in well ventilated areas with proper masks and gloves and overalls • Gloves made of chemicals resistant materials should be worn when handling chemicals such as asphalt and epoxy • Always wear breathing NIOSH masks and high rated respiratory • Wear thermally insulated gloves and eye protection and face shields • Avoid splashing water into hot asphalt. 				
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					<p>Do not smoke around flammable vapours. Avoid heat and sparks around your asphalt work.</p> <ul style="list-style-type: none"> • Ensure proper fire extinguishers are present on site 					
Reshaping, handling, and building of stones in work site	<ul style="list-style-type: none"> • Eyes get injured while reshaping stones. • Hand Injuries. • Foot injuries • Stones fall on workers while handling, or loading. • Improper use of equipment while reshape stones. • Stone splinters resulting from reshaping stones cause damage to the worker's body. • Hearing injury. 		X		<ul style="list-style-type: none"> • The use of Personal Protection Equipment (PPE) during the work of reshaping stones is obligatory. Ensure that all necessary protection measures are properly considered. • Raise awareness to workers on safe reshaping techniques. • Use of safety gloves while loading, handling, and distributing stones. • Wearing appropriate safety boots is obligatory during the activity implementation. • Safety eye wear must be on to protect the eyes from stone splinters during the reshaping of stones. • Use safe and appropriate tools for reshaping and forming of stones. • Store and organize stones in the work area so as not to block the pathways, or cause danger to workers. 			X	Contractor/ Resident Engineer / Workers	Part of PPEs cost first item
Implementing of Steel works and welding works	<ul style="list-style-type: none"> • Injury to hands or feet while installing doors or windows. • Eyes and skin injuries from heat while using welding equipment. • Injuries of the shoulders and back muscles as a result of lifting the wrong way or lifting heavy load for long, far distances between the worker and construction. 		X		<ul style="list-style-type: none"> • Provide safety goggles, protective masks, helmets, overalls, and safety shoes, as appropriate. • Use a safety harness working at height. • Ensure skilled workers are hired for this activity. • Training workers on safety procedures while carrying and 			X	Contractor/ Resident Engineer / Workers	Part of PPEs cost first item

				<p>handling things.</p> <ul style="list-style-type: none"> • Lifting and handling objects that are proportionate with the person's ability • Use mechanical tools instead of lifting heavy materials manually • Provide training on proper carrying and handling techniques to avoid muscle and back injuries • Wear proper welding PPEs including heat resistant head covers, face covers, safety shoes, gloves and overalls. • Carry welding in well-ventilated areas • Carry welding only in dry areas. • Keep exhaust ports away from other workers. • Provide warnings for other workers. • Ensure skilled workers are hired for welding activity. • Training workers on safety procedures while implement the welding works. • Ensure welding equipment is in good condition and safe to use. • Ensure fire extinguishers are present on site 				
<p>Implementing of Sanitation works, Work in closed or confined spaces (Water Tank or Septic Tank)</p>	<ul style="list-style-type: none"> • Hands or feet get injured while excavating work. • Dust, sand, and small parts volatilize while excavating in soil. • Breathe the plastic dust emitted from UPVC pipe pieces. • Injuries due to lack of oxygen or toxic gases 		X	<ul style="list-style-type: none"> • A permit must be cut issued entering any closed area from the site official to review the safety equipment before starting work in anticipation of any emergency. • Issuance of work permits by the resident engineer to carry out the 		X	Contractor/ Resident Engineer / Workers	Part of PPEs cost first item

	<ul style="list-style-type: none"> • Variation in temperature (cold, hot) • Trapping risks inside these places. 			<p>work.</p> <ul style="list-style-type: none"> • Workers sign that they have received awareness about the implementation of the activity and that they understood the special procedures that help mitigate, minimize and avoid potential risks. • A proper supervision to ensure OHS measures are in place and access control logbook to record all trained workers working in the confined areas including register of workers names, Location, and working shift, maximum shift time, start time and finish time of entry to the confined areas to ensure safety of workers. • A proper ventilation for confined areas prior allowing any work and gas test to be conducted prior work shift to ensure the areas are free from any toxic and harmful gasses. • Specific PPEs suitable to the type of activity, including provision of self-contained breathing apparatus (SCBA) with oxygen tanks to workers when working inside areas where there is insufficient oxygen with proper training on how to use them properly. • Hire skilled labour to implement these activities. • Ensure the provision of tools for measuring toxic gases and oxygen levels during work in closed or confined spaces. • Carry out gas tests before entering in 					
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				<p>confined spaces to ensure it is safe</p> <ul style="list-style-type: none"> • Ventilate the confined space prior entry. • A suitable lighting shall be provided inside the confined areas during work hours. • Use protective masks while cutting pipes. • Ensure the necessary personal protective equipment (PPE) is provided for excavation workers. • Install temporary fencing around the excavations to prevent falling. • Ensure activity is done by skilled workers. • Ensure no work is conducted during bad weather conditions (i.e., sandstorms, dust storms, rainy seasons etc.) • Ensure limited time spent in confined areas. • Leave the place immediately in the event of an emergency. • Do not use any smoke generators or sources in enclosed spaces. • The presence of an observer outside the closed place permanently during work in anticipation of any emergency situation. • Inspect the tool before use. • Do not use tools with obvious signs of damage. • Maintain the excavation equipment before starting the work to ensure it 					
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					is in good condition and safe to work.					
Reinforcement Concrete works include reinforcement steel bars installation and concrete pouring (columns, beams, slabs),	<ul style="list-style-type: none"> Workers fall from height (more than three meter) which may lead to death or serious injuries. Injuries or serious fractures as a result of reinforcement steel bars placing and concrete pouring. Various typical injuries to the hands during shuttering work and reinforcement steel bars placing. Falling materials from high surfaces on the workers or pedestrians may cause death or serious injuries. Collapsing of working platforms, concrete formwork on the workers or pedestrians may cause death or serious injuries. injuries due using of cutting equipment. 		X		<ul style="list-style-type: none"> Use safe scaffolding for working at height and ensure it is according to safety standards and specifications. Check the scaffolding specification before using it and ensure it is in accordance with international safety standards. Do daily check for scaffolding before starting the work at heights to ensure the working platforms with guard-rails, fence, toe-boards are properly installed in accordance with safe specifications standards. Ensure the scaffolding is erected to fixed buildings and on safe ground. Using of scaffolds sufficiently large to allow safe use and movement and ensure there is sufficient bracing into scaffolds. Check the platforms big enough to allow safe use of equipment and materials, safe passage, clean and tidy. Determine the allowed loads for use on the platforms to prevent its collapse. Erect scaffolds by competent workers. Inspect the scaffolds before starting work. Issue special permit to work for scaffolds to ensure it is safe to use. Ensure that the stairs or scaffolding 			X	Contractor/ Resident Engineer/ Workers	Part of PPEs first item

				<p>are stable and set up on the levelled ground and must be affixed to any stable body with no movement.</p> <ul style="list-style-type: none"> • Use safety harnesses by workers during working at height. • Ensure cautious supervision of the workers during working at height. • Use safety gloves while loading, transporting, and distributing stones • Long, rubber safety boots shall be worn while touching the concrete. • Eye protection must be worn to protect the eyes from volatile cement while applying plastering scratch or base coat or braking and forming stones as well as use safety gloves while mixing concrete. • Wearing isolation boots and gloves are obligatory while using electrical tools. • Overalls, eye protection, steel-toe shoes for feet protection, gloves and face visors are provided for workers who work on cutting steel bars. 					
<p>Implementing of Electrical work</p>	<ul style="list-style-type: none"> • Occupational accidents and incidents caused by electrical work. • Injuries during electrical foundation works. • Injuries from electrical shocks. • Injuries because of stumbling by random power wires. • Electric shock and burns from contact with live parts. • Injury from exposure to arcing, 	<p>X</p>		<ul style="list-style-type: none"> • Take all safety precautions to address hazards for workers and visitors and the nearby community including safety/warning signage, and safety barriers around the work sites. • Train workers regarding avoiding and responding to electric shocks. • Provide fully insulated installation tools, instruments, and equipment. • Identify buried electrical cable prior the activity. 		<p>X</p>		<p>Contractor/ Resident Engineer</p>	<p>Part of PPEs first item</p>

	<p>fire from faulty electrical equipment or installations.</p>			<ul style="list-style-type: none"> • Issuance of work permits by the resident supervising engineer to carry out the work • Ensure adhering to electricity resistant PPEs. • Do not work during wet seasons or near wet areas. • No loose connections are not allowed to avoid fire and other disasters. • Power to be cut-off while not working. • Properly cables (armoured cables) without any joint to be used for electric supply. • Cables and wiring should be outdoor and indoor specified for each site. • Provide fire extinguishers suitable for use in electrical fires. • Ensure skilled workers are hired for these activities. • Periodic inspection to ensure that mitigation measures are implemented and stop any unsafe act or unsafe situation. • Provide electrical resistant PPEs including gloves. 					
<p>Risk of Lifting Activity(cranes)</p>	<ul style="list-style-type: none"> • Hazards related to the loads, e.g. crushing due to impact of moving objects or loads falling because they are not aligned properly or the wrong type of slings were used • Hazards from cranes falling over because of improper fixation or strong wind, unsafe loads, loads exceeding the safe weight limits, such as pipes and steel bars lifting, etc. 	<p>X</p>		<ul style="list-style-type: none"> • Close the lifting area with fence to prevent access to the lifting area during lifting work; • Install warning Signs in lifting activities site; • Carry out lifting work by well trained, qualified, and certified lifting team; and provided means of communication and flagman; • Use well-maintained equipment for lifting that are appropriate for the weight; well, checked and tested by a third party; 		<p>X</p>		<p>Contractor/ Resident Engineer/ Workers</p>	<p>Part of PPEs first item</p>

	<ul style="list-style-type: none"> • Hazards related to poor environment that may interfere with communication between workers or concentration needed for the task (noise) or cause sweaty, slippery objects (heat, poor ventilation) • Contact with overhead electrical cables. • Risk of High wind speed, Poor communication and poor visibility 			<ul style="list-style-type: none"> • Secure loads when lifting and use strong and reliable fixation materials to make sure that the load is well tighten and no solid parts falls from the load during lifting; • Protect the units against staining, discoloration and other damage until they are installed in their final location. <ul style="list-style-type: none"> • Lifting device capacity shall be 1.65 times the maximum calculated static load at that point. • Ensure to coordinate with local authority on areas with electricity grids/networks and cables in order to avoid electrical shocks. • Prohibit working during rainy periods. • Ensure a proper buffer distance between workers and lifting areas is kept and workers are wearing all safety PPEs such as helmets. • Maintain a buffer area/safe distance between workers and lifting area. 				
<p>Traffic safety</p> <p>Movement of people and vehicles in the worksite.</p> <p>Movement of work equipment including Tracks, Excavators, and Compactor.</p>	<ul style="list-style-type: none"> • People or workers struck by moving vehicles. • Likely traffic accidents (collision) between moving vehicles. • Falling workers from vehicles during moving. • Falling vehicles from the road edge. • Falling vehicles or equipment into excavations. 		X	<ul style="list-style-type: none"> • Conduct as much work as possible during low traffic periods • Emphasis on safety aspects among drivers • inform drivers on the local speed limit, and monitor implementation • Coordinate with local authorities to provide and manage alternative roads for smooth traffic if required • Control and manage traffic, by using traffic cones, barriers, fences, or lights as appropriate • Daily inspection and maintenance for the vehicles by the contractor to ensure they are in good condition prior to starting the work. 		X	Contractor/ Resident Engineer /Workers	Part of PPEs first item

				<ul style="list-style-type: none"> • Provide traffic signs in the worksite, especially for speed limits, routes directions, parking places, entrance and exits, pedestrians' walkways, and worksite warnings signs. • Warning signs for vehicles should be added at a safe distance from work site to warn drivers to slow down prior to reaching the work area • Stop the movement of vehicles in worksite in bad weather conditions to avoid collision. Provide the worksite with barriers in the road edges to protect workers and vehicles from falling. • Arrangement and control of the worksite entrance and exits, and not allow for unauthorized person or vehicles enter the worksite. • . Provide the vehicles in the worksite with audible reversing alarms and flashing beacons. • Prohibit workers to climb on the vehicles during moving to avoid falling. 				
Working at Night	<ul style="list-style-type: none"> • Poor or insufficient light at project site increase chances of accidents • Pushing female to work at night which may lead to increased social risk or conflict in their families etc. 		X	<ul style="list-style-type: none"> • Use of permit to work for working at night. • No more than 4-6 hours of work per day are allowed during night (as working at night permitted during through Ramadan and summer season) as per the legislation and LMP. • Work hours are limited to the approved 8 hours per day that can be done in one shift at night or divided into two shifts (day and night times) 4 hours each for each shift according to the local law. • Workers are voluntarily agreed to work at 		X	Contractor/ Resident Engineer /Workers	Part of PPEs first item

				<ul style="list-style-type: none"> night. • Ensure proper lights with adequate distribution are installed at project site. • Ensure work site is properly secured and in/out is fully controlled. • Ensure activities conducted at night are not high risk. • Provide head lights to all workers at project site. • Install reflective /Florescent signs around the work areas. • Ensure proper PPEs are provided for workers, including reflective vests, etc. • Ensure supervisors are available at all times. • No alone worker is allowed at night. • Ensure GM system is place and awareness are given to all workers and they sign the code of conduct. • Raise awareness on risks of working at night with all workers. • Ensure Emergency Response Plan is in place. • Ensure Communication means are in place. • No female worker is permitted to work at night at any outdoor interventions. 				
<p>OHS risks related to tree planting</p>	<ul style="list-style-type: none"> • Muscle strain, head injury, puncture wounds, bruises, and crushes while using hand tools. • Musculoskeletal disorders during manual handling. • Thorns risks such as scratches, puncture wounds, and skin irritation. • Twigs/branches risks such as 		<p>X</p>	<ul style="list-style-type: none"> • Inspect tools before and after each use and maintain them in good condition. • Provide users with tool use and safety information. • Use the correct tools for the job. • Ensure a firm and stable stance and wear sturdy footwear. • Wear gloves, do not use them when handles are wet. 		<p>X</p>	<p>Contractor/ Resident Engineer /Workers</p>	<p>Part of PPEs first item</p>

	<p>scratches, puncture wounds, and bruising.</p> <ul style="list-style-type: none"> • Slip, trip, and falls. 			<ul style="list-style-type: none"> • Maintain two tool length safe working distances. • Transport securely. • Explain basic manual handling during safety talk (avoid heavy loads/twisting/straining). • Provide gloves and masks and safety shoes • Use the right tool for the right job. • Take regular breaks during the session. • Don't over-exert—work within your means. • Use mechanical aids or get help when moving heavy loads. • Gloves to be worn at all times when handling saplings. • Thicker gauntlet gloves available if planting thorny vegetation. • Handle saplings at base of the plant to avoid contact with thorns. • If required, wear goggles to protect eyes from twigs/branches. • Ensure unused tools are left in a designated place, stored neatly. • Where possible, only dig holes for trees as you plant to prevent empty holes becoming a tripping hazard. 				
<p>Manual Handling</p>	<ul style="list-style-type: none"> • Risk of heavy, Bulky, or unwieldy load • Risk of Unstable/ unpredictable loads • Risk of PPE clothing hindering the movement or posture • Risk of poor communication on safety between workers • Risk of workers' back injuries due 		<p>X</p>	<ul style="list-style-type: none"> • Avoid the need for unnecessary manual handling as possible when suitable equipment is present. • Reduce the load risk by using lighter weights or more stable containers. • Reorganize the activity to further reduce the impact on the individual(s). • Utilize mechanical lifting aids or equipment as appropriate. 		<p>X</p>	<p>Contractor/ Resident Engineer /Workers</p>	<p>Part of PPEs first item</p>

	to wrong manual handling.				<ul style="list-style-type: none"> • Ensure appropriate rest breaks, job rotation, and training are involved. • Provide personal protective equipment (e.g., gloves, foot protection, and non-slip footwear). • Provide training for workers on handling and storing any hazardous substances and materials. 					
<p>Poor coordination, planning</p>	<ul style="list-style-type: none"> • Hands or feet get injured while excavating or constructing works. • Dust, sand, and small parts volatilize while excavating or building works. • Injuries to the shoulders and back muscles because of lifting the wrong way or lifting heavy loads for long. • Risk of rain flood. 		X		<ul style="list-style-type: none"> • Conduct awareness sessions about (OHS) occupational and health safety includes (hazards associated with the activity, mitigation measures, and worker's responsibility as well as disciplinary action against any violation. • Regular breaks to workers and provision of clean water to workers • Workers sign that they have received awareness about the implementation of the activity, and that they understood the special procedures that help mitigate, minimize and avoid potential risks. • Ensure the necessary personal protective equipment (PPE) is always worn by workers and they get it for free. • Ensure workers are aware of electric hazards from electric poles. • Ensure no work is conducted during rainy periods and near stagnant water areas • Coordinate with local authority regarding the presence of electrical poles and cables near the work area to avoid electrical shocks. 			X	Contractor/ Resident Engineer	Part of PPEs first item

Operation Phase										
Working in unhealthy areas	<ul style="list-style-type: none"> injuries to the workers of fish cutting and preparing from cutting tools such as knives. Outbreaks of infectious disease such as diarrheal diseases and their consequences as cholera and dysentery, in addition to intestinal parasites among fishermen, vendors and other workers are common in such conditions. unhygienic conditions and poor sanitation are prevailed. risk from drowning and fishing during bad weather and sea storms seasons. Fire risks from fuel storage that will be used in equipment and trucks. 			X	<ul style="list-style-type: none"> Landing centre Administration to issue a list of instructions for workers in the fish preparing department that includes occupational safety measures while dealing with cutting and processing fish. Ensure adherence to occupational safety instructions by fish-preparing workers. Use sound and good tools while working in fish processing Use personal safety tools such as gloves, etc. Awareness programs should focus on providing the trainee with knowledge that illustrate the benefits of proper fish handling and its impact on health and economy. Other programs could also help fishermen to acquire and build necessary skills and good practices to raise quality and reduce manifestations of fish spoilage according to scientific and health standards with high efficiency. Awareness sessions to fishermen on the risks and hazards of water, enabling them to identify and avoid dangerous weather conditions and unsafe waterbodies. Adequate supervision to prevent swimming, and provide a trained lifesaver. Provide and train the fishermen on rescue means like lifejackets, GPS, etc. Install early warning system for fishermen Train the fisheries on the evacuation procedures in the sudden sea storms' cases. 			X	Fish Association Fish Authority/ SMEPS during their training program community committee/ Landing centre Administration / Fish worker	NA

				<ul style="list-style-type: none"> • Ensure the presence of fire extinguishers • Ensure presence of fire signs with details on how to use extinguishers • Train facility workers on using fire extinguishers and how to react in case of fire. • The number of firefighting units must be present on the signs. • Carry fire drills on regular basis. 				
<p>Health risks, accidents and safety risks during operation and maintenance phase</p>	<p>Health risks. Accidents and safety risks.</p>		<p>X</p>	<ul style="list-style-type: none"> • Landing site staff and users should be provided with an adequate supply of wholesome drinking water which should be maintained at suitable and accessible points. • Suitable, efficient, clean, and adequate sanitary conveniences should be provided for maintenance workers. • Ensure that the hygiene, safety, and protection rules of the environment are followed rigorously. • Emergency response plan that provides measures to deal with emergencies and accidents. • Protective equipment should be made available on site. • First aid tools should be available. • Fire distinguishers should be made available. • Ensure the general safety and security at all times by providing day and night security guards who signed the code of conduct (COC) and adequate lighting within and around the landing site. 		<p>X</p>	<p>Fish Association Fish Authority/ community committee/ Landing centre Administration</p>	<p>N. A</p>

6 Environmental, Social, and OHS Clauses and Liabilities for Contractors:

6.1 Conditions for the Eligible Contractors:

1. Provision of adequate and suitable equipment for the activities of the subproject.
2. A financial capability that ensures the subproject will be executed and completed as per agreed terms and conditions.
3. Provision of insurance policies for the workers' health as a condition to signing the contracts.
4. The OHS tools should be provided with acceptable quality according to the BOQ with conducting training to the workers. These materials should be conditional for the handover of the site to the contractors.
5. Contractors are fully responsible for any accident or incident of any that may occur
6. Contractor's strict compliance with the ban on the use of explosives.
7. Contractors and contractors' site representatives have undertaken OHS training and are fully aware of the risks, mitigation measures, and responsibilities.
8. Contractors should abide by the principle of non-discrimination in all aspects of employment.
9. Banning the use of explosives should be enforced and monitored.
10. The contractor will be terminated if they do not comply with the E&S and OHS mitigation measures during implementation.
11. Contractors shall ensure compliance with the Code of Conduct

6.2 Environmental and Social Clauses for Contractors:

The contractors shall supply and execute the necessary works on-site to mitigate the environmental and social impacts of the subproject in accordance with the bidding and contractual E&S requirements. The Environmental and Social Clauses for Contractors should at least reflect the following but not exhaustive items:

1. Worker Health and Safety:

To avoid work-related accidents and injuries, the contractors will:

- 1.1 Provide occupational health and safety training to all employees (including the community worker if any) involved in the works.
- 1.2 Provide protective masks, helmets, overalls and safety shoes, safety goggles, as appropriate.
- 1.3 Provide workers in high noise areas with earplugs or earmuffs.
- 1.4 Ensure availability of first aid box.
- 1.5 Provide employees with access to toilets and potable drinking water and soap.
- 1.6 Train workers regarding the handling of hazardous materials hazardous materials and storing and managing hazardous materials

2. Labor Management Plan:

The estimated/planned number of labors for the rehabilitation of Rowkub landing center is 79 skilled and 159 unskilled labor during the project life for subproject (as classified in Table 2) in which the expected project contract period will be twelve months based on the work size. the timing of labor will be about 8 hours/day and 6 days/week during the construction phase of the subproject, the time when most labor will be employed in demolition, excavations, backfilling, and leveling works which is no need for skills from the workers. regarding female employing it can be employed in jobs that do not require physical effort such as preparing food, cleaning, washing, spraying, and others, in addition to reducing the working hours for women so that

they are about half the hours of men's work at most, taking into account their social conditions and their obligations at homes, should provide accommodation for skilled labor in the subproject site with suitable rooms. The contractor is responsible for the following:

- 2.1 Wages and Deductions: The contractor shall be in line with the current market rates paid for skilled, semi-skilled, or unskilled labor. Also, the daily rates could differ from one governorate to another; hence, it should be equivalent to the wages paid in the specific location. On the other hand, community workers should be paid similar to the contracted workers. PWP field staff shall monitor and ensure contractor pays all workers based on market rates in the area.
- 2.2 Child Labor and Forced Labor: Ensure all workers are 18 Years old and above, and no child, forced, involuntary or unpaid labor will be used in any works.
- 2.3 There will be no discrimination in the wage rates between males and females for that there will be no forced labor employed.
- 2.4 Labor influx: The contractor should use workers from the local communities as possible. Some parts of the activities including special works that require skilled labors, these tasks may be undertaken by appropriately skilled workers from the targeted areas and when not available, the contractors may hire skilled laborers from nearby areas.
- 2.5 Sexual Exploitation and Abuse (SEA)/Sexual Harassment (SH): The contractor and its workers should sign the Code of Conduct and ensure workers respect and adherence to the Code of Conduct CoC for the local community's protection and do no harm. Ensure that workers respect local community cultures, and social safeguard issues on Gender, SEA/SH raise awareness on the GM system and how it can be used to report any SEA/SH cases.
- 2.6 Community Health and Safety: The contractor shall protect the local communities from any risks that might be generated during the implementation including exposure to the virus (COVID-19) and as mentioned in the OHS plan above.
- 2.7 Occupational Health and Safety (OHS): The contractor shall maintain occupational health and safety system on site to protect workers from hazards and risks and provide adequate health and safety training²⁷, required PPE, first aid box, and toilets and potable drinking water, and as mentioned in the OHS plan above.
- 2.8 Overtime Work: The contractors shall provide workers basic wages per hour of overtime on normal working days and on the day of weekly rest, and official holidays and leave, in addition to the entitlement to standard wages for such holidays according to the Yemeni Laws.
- 2.9 Gender and Social Inclusion: Contractors to adopt a non-discrimination policy in job opportunities during the implementation to ensure non-discriminatory and inclusive manner is followed, including women, and as mentioned in the Environmental and Social Management Plan.
- 2.10 Training of workers: PWP staff and Contractors shall provide the workers with required training and daily toolbox talk on OHS, Environment, , SEA/SH, GM, and as mentioned in the Environmental and Social Management Plan.
- 2.11 Addressing worker grievances: Contractors shall provide the work site with a GM system for all workers (159 community workers and 79 contracted workers) including providing the complaints box and the project board with complaint means. The mechanism will also allow for anonymous complaints to be raised and addressed. Training on handling grievance in positive manner shall be provided to the contractor.

²⁷ This project will be implemented by national / traditional contractors. However, the contractor will be responsible for providing training and PPE for each worker

3. Insurance: the contractor shall provide insurance for any injury to any worker or any other third party who got injured inside the site.
4. Supply and implement roadblocks and traffic signs to prevent the entry of non-workers to work sites (zinc - timber - concrete blocks - warning tapes - traffic signs).
5. Conduct work section by section and to keep enough access to spaces fishermen for the remaining functioned parts of the landing site.
6. Assign a permanent safety supervisor to follow up the implementation of an environmental and social management plan as well as OHS requirements during the implementation of work activities at the site.
7. Apply a safety work permit system for all working activities at the site to ensure full implementation of ESMP and OHS requirements.
8. Supply of personal safety equipment and tools including boots, helmets, gloves, goggles, masks, earplugs, safety belts, air breathing apparatus, full body harness etc. in quantities enough for all laborers at the expense of the contractors and ensure the adherence of using by all.
9. Provide first aid boxes in the worksites (as per the emergency response plan) which contain (adhesive plaster of different sizes - sterile gauze - scissors – disinfectant- forceps - etc.).
10. Provide a contingency plan containing the names and numbers of the nearest health center and local assistants, the routes to be used, and the means of transport.
11. All necessary PPEs and COVID protection gears required for the job are distributed to each worker who will be participating in the implementation.
12. Provision of water for these bathrooms and or trenches with covers and obliging all workers and supervisors to use them.
13. Separate the material and store them accordingly and provide enough space for movement and maneuvering.
14. Removal of all waste during the implementation period to a dedicated location outside the work area (allocated landfills) and following the instructions of the consultant.
15. Commit to placing disturbing equipment away from populated places and operating them at the appropriate times.
16. Commit to storing hazardous materials away from workers and sensitive zones and watercourses and not to change oils or leave grease residue in the work area.
17. Commit to the repair of public services (electricity, telephone, water, sewage) that are broken during the implementation of the project.
18. Report immediately any accident or injury occurring during the execution of the work and within a maximum period of 24 hours to the UNDP and in 48 hours to the WBG.
19. Conduct awareness sessions about OHS before the beginning of work by the contractors this includes hazards associated with the activity, mitigation measures, workers' responsibility, GM, sexual harassment, abuse, and gender-based violence as well as the disciplinary action against any violation.
20. The contractors shall adhere to the use of the Permit to Work system (PTW) for all activities and ensure all workers are aware of the system.
21. Contractors must address the risk of gender-based violence, through:
 - i. Mandatory and repeated training and awareness-raising for the workforce about refraining from unacceptable conduct towards local community members, specifically women.
 - ii. Informing workers about national laws that make sexual harassment and gender-based violence a punishable offense that is prosecuted.
 - iii. Introducing a Worker Code of Conduct as part of the employment contract, and including sanctions for non-compliance (e.g., termination)
 - iv. Adopting a policy to cooperate with law enforcement agencies in investigating complaints about gender-based violence.

22. Contractors must not employ workers below the age of 18 and must ensure verification of documents is conducted before hiring.
23. Provide proof of insurance for all laborers, including the third party, before the implementation of the project.
24. Commit to not use any type of explosive materials for the extraction of stones required for the project or any relevant works.
25. Movement of Trucks and Construction Machinery: The Contractors moving solid or liquid construction materials and waste shall take strict measures to 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. This could be done by sheeting the sides and tops of all vehicles carrying mud, sand, other materials, and debris. Construction materials should be brought from registered sources in the area and debris should be transferred to assigned places in the landfill with a documented confirmation.
26. Traffic Safety Measures: The Contractors shall provide, erect, and maintain such traffic signs, road markings, barriers, and traffic control signals, and other measures as may be necessary for ensuring traffic safety around the rehabilitation site. The Contractors shall not commence any work that affects the public motor roads and highways until all traffic safety measures necessitated by the work are fully operational.
27. Gas, Noise and Dust Control: The Contractors shall take all practicable measures to minimize nuisance from noise, vibration, and dust caused by heavy vehicles and construction machinery. This includes:
 - Respecting normal working hours.
 - Maintaining equipment in a good working order to minimize extraneous noise from mechanical vibration, creaking, and squeaking, as well as emissions or fumes from the machinery.
 - Shutting down equipment when it is not directly in use.
 - using operational noise mufflers.
 - Provide a water tanker and spray water when required to minimize the impact of dust.
 - Limiting the speed of vehicles used for construction.
 - Environmental training on machinery efficiency, the importance of maintenance, transportation efficiency and good practice usage of machinery in order to mitigate impacts from dust, gas, noise and climate change.
28. Protection of the Existing Installations: The Contractors shall properly safeguard all buildings, structures, works, services, or installations from harm, disturbance, or deterioration during the concession period. The Contractor shall take all necessary measures required for the support and protection of all buildings, structures, pipes, cables, sewers, and other apparatus during the concession period and will be required to repair any damage that may occur, in coordination with the Municipality and the relevant authorities.
29. Working in rainy seasons is not allowed where there is a risk of flooding, endangering workers or equipment.
30. Environmental training on machinery efficiency, the importance of maintenance, transportation efficiency and good practice usage of machinery in order to mitigate impacts from dust, gas, noise and climate change. Awareness sessions on biodiversity importance and monitoring techniques.

6.3 Environmental and Social Liabilities for Contractors

Contractors will be legally and financially accountable for any environmental or social damage or prejudice caused by their workers and it is thus expected that controls and procedures are put in place to manage environmental and social performance. These will include:

- Mitigation measures to be included in the contract will be specified in the subproject bidding documents.
- Deductions for environmental noncompliance will be added as a clause in the Bill of Quantities (BOQ) section.
- The contractor should be fully complied to all instructions; otherwise, according to the contract documents, suitable sanctions should be applied depending on the severity of the expected risk from this noncompliance, such as alert, final alert, and terminating the contract.
- Environmental penalties shall be calculated and deducted in each submitted invoice.
- Any impact that is not properly mitigated will be the object of an environmental/social notice by PWP.
- Any action from the perspective of PWP is severing and can cause a huge impact on the occupational health and safety, in the environment or in the social aspects, PWP has the power to terminate the contractor's contract, but the contractor in the blacklist, and Warranty confiscation.
- For minor infringements and social complaints: if an incident occurs, which causes temporary but reversible damage, the contractors will be given the notice to remedy the problem and restore the environment. No further actions will be taken if the PWP project engineer confirms that restoration is done satisfactorily.
- For social notices, the PWP project engineer will alert the contractors to remedy the social impact and to follow the issue until solved. If the contractor does not comply with the remediation request, work will be stopped and considered under no excused delay.
- If the contractors have not remedied the environmental impact during the allotted time, the PWP will stop the work and give the contractors a notification indicating a financial penalty according to the non-compiled mitigation measure that was specified in the bidding document. No further actions will be required if that restoration is done satisfactorily. Otherwise, if Contractors have not remedied the situation within one day any additional days of stopping work will be considered no excused delay.
- In the event of repeated non-compliance totaling 5% of the contract value, the Project Engineer will bring the environmental and social notices to the PWP procurement to take legal action.

6.4 Public Works Project Liabilities

1. Provision of insurance policies for the workers as a condition of signing the contracts.
2. PWP site engineer and community committee OHS officer have undertaken OHS training and are fully aware of the risks, mitigation measures, and responsibilities.
3. The contractor will be warned and banned if they do not comply with the E&S and OHS mitigation measures during implementation.
4. Labor management plan:
 - 4.1 Training of workers: PWP staff and Contactors shall provide the workers with required training and daily toolbox talk in the OHS, , SEA/SH, GM, and as mentioned in the Environmental and Social Impact Analysis Plan and Mitigation Measures above.
 - 4.2 PWP site engineer Conduct awareness sessions about OHS before the beginning of work by the contractors this includes hazards associated with the activity, mitigation measures, workers' responsibility, GM, sexual harassment, abuse, and gender-based violence as well as the disciplinary action against any violation.

7 Environmental and Social Monitoring Plan

The monitoring plan will clearly indicate the linkages between impacts identified in the ESMP report, measurement indicators, detection limits (where appropriate), and definition of thresholds that will signal the need for corrective actions.

The implementation of the mitigation measures will be monitored during the project lifecycle through daily checks by the resident engineers, biweekly by the OHS/ES staff at the branches as well as monthly visits by PWP subareas managers and regular TPM and UNDP field monitoring visits to ensure the compliance of the environmental and social safeguards standards and technical quality assurance. The roles and responsibilities of each responsible personnel are as follows:

- Gender Focal Point: is responsible to monitor the implementation of measures under gender action plan, including those related to gender equity, gender discrimination, , SEA/SH, women workforce, beneficiaries' awareness, and GM
- Safeguard Specialist: is responsible to monitor all the safeguards process (as a general supervisor) as detailed in the ESMP and other ES documents, including SEP, and ensure their compliance.
- GM Officer: is responsible to monitor the GM processes, including awareness raising, receiving complaints, and following up, and reaching closure.
- Resident Engineer: conduct the daily monitoring and guarantee the compliance in the field in subproject bases.
- Community Committee: support in monitoring and solving the problems if any, support in raising the awareness of the community, monitor the community inclusion and Community satisfaction.
- Subarea Staff: follow up the compliance in sites and ensure everything is implemented according to the ESMP.

The monitoring is conducted through different means of verification including visual observation; photographic documentation; site supervision/inspection; and maintaining records of field activities including labors information, training of workers, toolbox talk, workers GM, injuries and accidents, and correction actions.

Following aspects will be monitored (though the list will be updated to accommodate any emerging issues or updated aspects that may be recommended by the monitoring reports):

Table 8 Environmental and Social Monitoring Plan

Mitigation Measure (Action)	Monitoring methodologies and Indicators	Responsible ²⁸	Timeframe
Environment Monitoring Plan (Construction phase)			
Air pollution, gas emissions, noise, waste, and traffic management	<p>Methodology:</p> <ul style="list-style-type: none"> Complaints records. Visual inspection <p>Indicators:</p> <ul style="list-style-type: none"> The presences of fumes /dust cloud observed Number of society grievances on the air quality, noise level or waste at work site. Number of recorded wastes at undesignated areas. 	Resident Engineer	Daily
Soil pollution by spills oil during change for equipment maintenance and vehicles and spills paint and from liquid waste.	<p>Methodology:</p> <ul style="list-style-type: none"> Visual inspection and photographs <p>Indicator:</p> <ul style="list-style-type: none"> Change in soil color Presence of oil on the soil observed. Number of recorded Soil pollution in work site. Number of complaints from locals. Number of spill events Presence of spill prevention kits. 	Resident Engineer	Daily
Solid and liquid waste produced by workers (trash and plastic bags) accumulates and pollutes the environment. Monitor improper waste management by visual inspection	<p>Methodology:</p> <ul style="list-style-type: none"> Grievances system related to waste mismanagement. Periodic inspection for non-compliance with waste storage. <p>Indicator:</p> <ul style="list-style-type: none"> Number of non-compliance with waste storage and handling. Number of times waste was improperly accumulated, or wasted was recorded and stored outside a designated area. 	Resident Engineer	Daily

²⁸ The indicators are shared between the Responsible agencies, some of them are the responsible for implement the action and others are responsible for monitoring the actions' implementation according to the level of the position.

	<ul style="list-style-type: none"> • Number of grievances related to waste mismanagement. • Presence of oil or solid waste observed. • Presence of waste receipt • Presence of proper label on materials 		
Contamination of water resources, drain on water resources, Water contamination by sediment particles in suspension, and impacts on flora and fauna.	<p>Methodology:</p> <ul style="list-style-type: none"> • Visual and photographic inspection. <p>Indicator</p> <ul style="list-style-type: none"> • Presence of water resources contamination observed. • Number of recorded water resources contamination in work site • Number of spill events • Change in soil color. 	Resident Engineer	Daily
Ensure not to work in rainy season or during water stagnation	<p>Methodology:</p> <ul style="list-style-type: none"> • Knowledge of the rainy seasons • Monitor the weather in the area. <p>Indicators:</p> <ul style="list-style-type: none"> • Number of accidents • Number of flood rainy events 	Resident Engineer Contractor Community committee	During rainy season
loss of biodiversity and associated benefits during site clearing prior to construction	<p>Methodology:</p> <ul style="list-style-type: none"> • Visual and photographic inspection. • Inspection/site visits <p>Indicators</p> <ul style="list-style-type: none"> • Presence of biodiversity losed observed in work site and number of dead animals or sick animals and habitat reduction. • Significant change in species structure and composition. • Presence of dead animals. • Number of spill events. 	Resident Engineer	Monthly
Ensure latrines and handwashing stations are available and supplied with water and soap	<p>Methodology:</p> <ul style="list-style-type: none"> • Visual and photographic inspection. <p>Indicators</p>	Contractor/ Resident Engineer	Daily

	<ul style="list-style-type: none"> • Presence of running water observed. • Presence of soap observed. 		
Trees planting shall be conducted as BOQs	<p>Methodology:</p> <ul style="list-style-type: none"> • Visual and photographic inspection. <p>Indicators</p> <ul style="list-style-type: none"> • Number of planted native trees. • Number of OHS incidents. 	Contractor /Resident Engineer	Before invoice No. 1 Daily for OHS.
Operation and Maintenance			
Biodiversity Conservation	<p>Methodology:</p> <ul style="list-style-type: none"> • Proper management of fishermen. • Raising awareness of fishermen. • Encourage the use of mooring anchorage instead of traditional anchors. • Monitoring and inspection of biodiversity. • Inspection/site visits. <p>Indicators:</p> <ul style="list-style-type: none"> • Significant change in species structure and composition. • Presence of dead animals. • Presence of fishermen during spawning seasons • Number of spill events. • Presence of mooring buoys instead of traditional anchors. • Number of awareness sessions provided to fishermen. 	Fish Association / Local Council / EPA and fish authority	Monthly
risks of overfishing and on fish stocks	<p>Methodology:</p> <ul style="list-style-type: none"> • Issue numbered permits aligned to quotas/limitations • Monitor gear used and catch quantity <p>Indicator:</p> <ul style="list-style-type: none"> • No. of permits issued vs total fishing capacity. <p>Catch data vs quotas/seasonal restrictions</p>	• Community Committee Local Authority	Annually

	Number of non-compliances Percentage of indicator species		
High use of water	<p>Methodology:</p> <ul style="list-style-type: none"> • Install water meters to track usage. • Develop reuse systems. <p>Indicator:</p> <ul style="list-style-type: none"> • Water usage data from meters. • Volume of greywater captured and reused. • Water quality within safety limit based on national law regulations. • Water level did not significantly decrease from artisanal well from its baseline. • Water abstraction rates are below replenishment rates from artisanal well and other water resources. <p>Number of awareness sessions related to water conservation measures provided to local communities.</p>	<ul style="list-style-type: none"> • Community Committee Local Authority 	Monthly
High energy usage	<p>Methodology:</p> <ul style="list-style-type: none"> • Visual inspections. • Monitor and track the energy consumption. • Provide training and awareness sessions <p>Indicator:</p> <ul style="list-style-type: none"> • Percentage reduction in total energy consumption. <p>Number of awareness sessions conducted.</p>	<ul style="list-style-type: none"> • Community Committee Local Authority 	Monthly
Social Monitoring Plan			
No child labor is permitted, and workers must be 18 years or older. Verifying age by checking IDs and other available documents. Ensure a Labor Log is available, and all workers are registered	<p>Methodology:</p> <ul style="list-style-type: none"> • Verifying age by checking IDs and other available documents • Ensure a Labor Log is available, and all workers are registered • Visual inspection • <p>Indicator:</p>	Contractor/ Resident Engineer / Community Committee	Daily

	<ul style="list-style-type: none"> Number of child labor (employed/ used) or number of recorded workers under the age of 18. Labor log and IDs. 		
Ensure contractors and their workers signed the Code of Conduct CoC and they are aware to respect the local community's protection and do no harm.	<p>Methodology:</p> <ul style="list-style-type: none"> Provide awareness-raising. GM system in place. Contact and its workers to sign the COC. <p>Indicators:</p> <ul style="list-style-type: none"> 100% of Contractors, and their workers signed on the Code of Conduct (CoC). Number of complaints received. 	PWP Safeguard/ Contractor/ Resident Engineer/ Gender Focal Point	Before commencement of work Biweekly.
Prepare a traffic management plan (TMP) as part of the C-ESMP depending on the traffic volume and the condition/nature of local routes	<p>Methodology</p> <ul style="list-style-type: none"> Traffic management plan in worksite <p>Indicators:</p> <ul style="list-style-type: none"> Number of accidents. Number of signboards related to traffic management. 	Contractor/ Resident Engineer	Daily as required
Signboard with GM contact details in place	<p>Methodology</p> <ul style="list-style-type: none"> Visual inspection <p>Indicators:</p> <ul style="list-style-type: none"> Number of Signboard with GM contact details in place 	Subarea Staff Resident Engineer	Within one week before commencement of work
Knowledge of the local community, the community committee, and workers about the GM, as well as the contact numbers.	<p>Methodology</p> <ul style="list-style-type: none"> Providing a complaint box, number of awareness-raising and brochures distributing. <p>Indicator:</p> <ul style="list-style-type: none"> The number of awareness-raising. Presence of sign board with GM contact details The number of complaints 	Subarea Staff Resident Engineer	Bi-weekly
Public safety during the construction work	<p>Methodology:</p> <ul style="list-style-type: none"> Visual observation and photos <p>Indicator:</p> <ul style="list-style-type: none"> Number of recorded injures. Number of awareness sessions for community 	Resident Engineer / Contractor	Daily

Community satisfaction	Indicator: <ul style="list-style-type: none"> • Number of grievances raised and types • Number of resolved complaints • Number of accidents 	Community Committee	Monthly
Regular awareness sessions to communities, community committee, and workers about the use of GM	Methodology: <ul style="list-style-type: none"> • Awareness records. Indicator: <ul style="list-style-type: none"> • The number of awareness- session to communities and workers. 	Subarea Staff Resident Engineer Gender Focal Point	<ul style="list-style-type: none"> • Within one week before commencement of work. • Regularly /Bi-weekly
Regular awareness sessions to communities, community committee, and workers about the historical value of the worksite and the importance of reporting any archaeological discoveries	Methodology: <ul style="list-style-type: none"> • Awareness records. Indicator: <ul style="list-style-type: none"> • Number of awareness sessions to communities, a community committee, and workers about archaeological discoveries management procedures. 	Subarea Staff Resident Engineer Antiquities Authority	Before commencement of the work
Involvement of the community in the supervision of the implementation of the subproject and report any findings	Methodology: <ul style="list-style-type: none"> • Disclosure of project activities with designs • Using GM system Indicator: <ul style="list-style-type: none"> • No. of GM complaints from the community and • The number of resolved complaints. 	Community Committee Subarea Staff Gender Focal Point	Daily
Ensuring awareness is raised regarding Sexual Exploitation and Abuse /Sexual Harassment (SEA/SH) among all workers as well as the community. Ensure laws are enforced for any violations	Methodology: <ul style="list-style-type: none"> • Use of Photos • Provide an awareness session about punishing violations. Indicators: <ul style="list-style-type: none"> • Number of SEA and SH cases • Number of awareness sessions 	Gender Focal Point / Resident Engineer / Community Committee	Monthly
GBV/SEA/SH (if occurs) are reported in accordance with the law	Methodology: <ul style="list-style-type: none"> • Provide GM system Indicator: <ul style="list-style-type: none"> • Number of grievances and • Number of resolved grievances 	Gender Focal Point /Resident Engineer / Community Committee	When happen

Ensure non-discrimination and inclusion of women and persons with disabilities when selecting beneficiaries	<p>Methodology:</p> <ul style="list-style-type: none"> The beneficiaries of the project <p>Indicators:</p> <ul style="list-style-type: none"> Number of women beneficiaries versus men. Number of GM complaints regarding discrimination and solved complaints. Number of women and men in community committees Number of consultations with exclusively women groups. 	Gender Focal Point / Subarea staff / Resident Engineer / Safeguard Specialist / Community Committee	Before commencement of work and during the implementation
Ensure no financial exploitation of communities or beneficiaries	<p>Methodology:</p> <ul style="list-style-type: none"> GM complaints Awareness sessions <p>Indicator:</p> <ul style="list-style-type: none"> Number of GM complaints regarding financial exploitation 	Sub-area staff / Resident Engineer / Safeguard Specialist / Community Committee	Weekly. Monthly.
Deliver awareness to the local community members including women, marginalized groups on /SEA/SH.	<p>Methodology:</p> <ul style="list-style-type: none"> Provide GM system <p>Indicator:</p> <ul style="list-style-type: none"> Number of GM complaints regarding discrimination and solved complaints 	Gender Focal Point / Subarea staff / Resident Engineer / Safeguard Specialist / Community Committee	During the project's preparation stages and the implementation
Monitoring and reporting SEA/SH complaints. Ensure GM cases related to SEA/SH are well treated and mitigated as a priority.	<p>Methodology:</p> <ul style="list-style-type: none"> Provide GM system Tracking of SEA/SH cases reported. <p>Monitoring SEA/SH cases to ensure survivors access services in a timely manner. Indicator:</p> <ul style="list-style-type: none"> Number of recorded grievances related to SEA /SH and number of solved grievances 	Gender Focal Point / Safeguard Specialist / GM Specialist	Weekly
OHS Monitoring Plan			
Adherence of contractor to permit to work system for activities as identified	<p>Methodology:</p> <ul style="list-style-type: none"> Issuance of the permit to work. <p>Indicators:</p> <ul style="list-style-type: none"> Number of permits issued for activities and safety measures with the type of work. 	Contractor/ Resident Engineer/ PWP safeguard	Daily as required

by the risk assessment ²⁹ and ensuring all safety measures for the task is in place	<ul style="list-style-type: none"> Number of incidents/ accidents recorded and type. 		
Inspections are conducted to verify the safety measures are in place and documented	<p>Methodology:</p> <ul style="list-style-type: none"> Forms and reports filled in every visit <p>Indicator:</p> <ul style="list-style-type: none"> The number of problems found/ noncompliance 	Subarea Staff/ Resident Engineer	Daily
All OHS requirements for the subproject are identified and available in the place.	<p>Methodology</p> <ul style="list-style-type: none"> Incorporating OHS requirements into project documents. OHS inspections and audits. <p>Indicators</p> <ul style="list-style-type: none"> Number of incidents and types. The record of injuries in project reports. 	Subarea Staff/ Resident Engineer	Daily as required
Regular awareness sessions to communities and workers aware of the safety requirements are conducted	<p>Methodology:</p> <ul style="list-style-type: none"> Awareness sessions records Visual observation and photographic documentation <p>Indicator:</p> <ul style="list-style-type: none"> Number of awareness sessions to communities and workers. Number of injuries. 	Resident Engineer	Weekly
Occupational Health and Safety Hazards	<p>Methodology</p> <ul style="list-style-type: none"> PPES check list Inspection on Availability of the correct type of PPEs and the adherence to proper use of PPE by all workers. <p>Indicators:</p> <ul style="list-style-type: none"> Number of workers adhering to the suitable PPEs. Number of injuries accidents and details on recovery. 	Contractor/ Resident Engineer	Before commencement of the work

²⁹ Risk assessment should be undertaken once in the project cycle and when it's required as when we have new activities in the subproject or when a sever accident happened, in which the risks and their mitigation measures should be attached with sub-project documents.

Workers' satisfaction	<p>Methodology:</p> <ul style="list-style-type: none"> Workers' grievances system <p>Indicators:</p> <ul style="list-style-type: none"> Number of workers' grievances and type Number of resolved grievances 	Contractor/ Resident Engineer	Weekly
All accidents and incidents are reported to head office within 24 hours and communicated to UNDP	<p>Methodology:</p> <ul style="list-style-type: none"> Accident, and injuries reports within 24 hours <p>Indicators:</p> <ul style="list-style-type: none"> Number and types of accidents, and injuries reported and recorded and time of reporting. Number of reported accidents within 24 hours to UNDP and within 48 hours to the WBG versus the number of reported accidents after 24 hours to UNDP and after 48 hours to WBG. 	Contractor/ Resident Engineer	within 48 hours
Ensure all activities that require specific skills are done by skilled workers.	<p>Methodology</p> <ul style="list-style-type: none"> Labor data with skill level <p>Indicators:</p> <p>Number of skilled workers and type of work.</p>	Resident Engineer	Daily
Working in confined areas	<p>Methodology:</p> <p>Supervision and daily inspection</p> <p>Indicators</p> <ul style="list-style-type: none"> -Number of PTW - Records of non-compliances with working at confined areas requirements during project activities - Number of incidents <p>Gas tests are within safe limits</p>	Contractor/ Resident Engineer	Daily
Tools and equipment to be regularly maintained and inspected to ensure they are of acceptable quality and in good working condition for the required activity	<p>Methodology</p> <ul style="list-style-type: none"> Periodic inspection of tools and equipment <p>Indicators:</p> <ul style="list-style-type: none"> Results of the periodically report Number of maintenances performed on tools. 	Resident Engineer	Weekly Monthly

An emergency response plan with details of the nearest hospital or medical center shall be in place and responsibilities are understood by all workers. First aid boxes are available and a list of trained First aiders is posted and known by all workers	Methodology: <ul style="list-style-type: none"> • Photos and site inspection Indicators: <ul style="list-style-type: none"> • Emergency plan banner in the site photo • Photos that reflect workers training in the emergency plan and first aid. • Photo for the first aid box on site 	Contractor/ Resident Engineer / Safeguard Specialist	From the beginning of the implementation
All constructions works are to be conducted during daylight and when required night works are allowed	Methodology: <ul style="list-style-type: none"> • Using GM system Indicator: <ul style="list-style-type: none"> • No. of GM complaints and number of resolved complaints. • Presence and number of workers on site 	Resident Engineer Community Committee	Daily
Monitoring during operation phase			
Maintenance works during operational phase	Methodology: <ul style="list-style-type: none"> • Complaints recorded. • Visual inspection • Maintenance records Indicator: <ul style="list-style-type: none"> • Visible deterioration detected. • Number of complaints regarding quality/deterioration • Number of maintenances performed for the structures 	Community Committee/ Local Authority / Fish Association	Monthly
Working in unhealthy areas and presence of wastes	Methodology: <ul style="list-style-type: none"> • Complaints recorded. • Visual inspection • Number of trainings on OHS, environmental issues and social issues Indicator: <ul style="list-style-type: none"> • Number of complaints regarding health issues • Number of trainings provided regarding OHS, environmental and social topics. 	Fish Association Fish Authority Community Committee	Every three months

8 Stakeholders Engagement Plan, Public Consultation

8.1 Public Consultation

The stakeholders' engagement meeting has been conducted by engaging all parties that will be targeted in these interventions including relevant local authorities, Fisheries Association, communities' leaders, fishermen, and local communities. PWP social team has conducted several focused group discussions and interviews with concerned persons regarding the proposed sub-project. Through those meetings, information has been collected related to the current situation of the fish landing site and the priorities of rehabilitating needs. Social and environmental impacts, either negatively or positively, have been discussed with different stakeholders and used in proposing the environmental and social management plan (ESMP) measures, also, the meeting include sharing communities' needs, deciding the priorities, and developing the subproject design and plan.

Public consultations have been conducted by PWP social consultants' teams (male and female) on February 07th 2023 to inform the local community (population, fishermen, ...etc.) of the activities to take place and get feedback. Another meeting was conducted with females in the landing site separately in Fishing Association office (See figure12 and table12&13).

Figure 4 Shows the consultation attendance sheets and meeting photos in Rowkub Subproject





The community Committee has been chosen and declared, which **consists of 5 males and two females**. The team then conducted a meeting with the Beneficiaries Committee and trained them on carrying out their tasks, the proper way of communication, and conflict resolution principles and methods.

Table 9 subproject Consultation Date

Sub Project Intervention		Consultation Date	Beneficiaries		
			Male	Female	Total
Rehabilitation and development of Rowkub Fish Landing sit Hadhramaut governorate	Local People and fishermen	07/02/2023	27	23	50
	Rowkub Fishing Association and local authority	07/02/2023	12	1	13
Total			39	24	63

8.2 Public Consultation Findings and Feedback

Topics of the Consultations:

1. Ensure that communities' needs are in line with their priorities.
2. Inform local communities about the activities to be undertaken the sub-projects timetable, and the work plan.
3. Inform them about the opportunities to have a job during implementation.
4. Raise their awareness about subproject's potential risks such as safety, health, environmental, and social risks and required control measures.
5. Inform them about their roles in monitoring the compliance of contractors and workers in the worksites and their rights to give their concerns.
6. Document and address the local communities' concerns, expectations, and feedback.
7. Ensure the participation of subproject beneficiaries both females and males.
8. Discuss the positive impacts that the subprojects will have on improving services for the beneficiaries.
9. Inform them about how to use the GM to give their opinions regarding social risks, OHS, and any complaints and concerns about project activities without fear.
10. Raise their awareness regarding social safeguards such as SEA/SH, and abuse that may occur during the implementation and the required measures that should be taken in case of occurrence.
11. Raise their awareness for the COVID-19 pandemic and the measures to protect themselves and their families and inform them that during the implementation the control measures for covid-19 will be applied.
12. Raise their awareness regarding other diseases such as Cholera and other transmissible diseases.

13. Distribution of awareness posters about OHS, COVID-19, GRM, and Gender with all beneficiaries to contribute to building positive culture regarding social risk management.

14. Ensure that the necessary of operation and maintenance plan to ensure subproject sustainability.

The consultation process took the form of face-to-face and group interviews with local communities' members (both males and females) and feedback collected through questionnaires and discussion. The consultation starts with a brief explanation of the nature and objectives of the subproject and potential impact and proposed mitigation measures. The consulted beneficiaries prioritize their needs which in this case are rehabilitation of fish landing center. The consulted beneficiaries have expressed their support to targeted subproject as it will have positive social impacts on the community. Some concerns were raised during the construction/operation phases and the PWP team responded to their concerns. the summary of consultation and feedback can be seen in Table 11.

Table 10 Public Consultation Findings and Feedback

Summary of Consultation for Rowkub fish landing site, subproject # (07-9-16078)		
Date of consultation	07/02/2023	
Location of consultation	For Rowkub area, the public consultations have been conducted in Rowkub Fishing Association office for both males and females' meetings.	
Total Number of participants (# of women / # of men)	Total (50), Men (27), Women (23)	
Have measures been taken to ensure the inclusion of vulnerable people (e.g. the elderly, people with reduced mobility, people with special needs, illiterate people, women, etc.) (if so, who/how)?	The elderly and women were included in the consultations regarding their needs, and women were involved in the community committees.	
Main issues/identified risks/concerns/questions/complaints (specify if male or female)	Answers from the project team	Follow-up actions (who is responsible and by when)
<ul style="list-style-type: none"> Beneficiaries fear that the executing contractor will not hire them in the works during implementation. (male) Increasing the financial burden on the fishermen because they go to the nearby landing centres to anchor their boats because there is no breakwater in the Rowkub area. (male) During the public consultations, residents expressed their concerns regarding the accumulation of waste generated from demolition/construction activities, 	<ul style="list-style-type: none"> Involving the local community in the implementation of the subproject as workers for the suitable jobs. Establishment of a breakwater will be implemented in next phases if donor give clearance, in this phase the rehabilitation works of the landing centre will be done due to its importance. As part of the contracts with local contractors, it was established that it is the contractors' responsibility to remove any waste resulting from demolition/construction activities 	<ul style="list-style-type: none"> Local Contractor and Technical Resident Engineer and Monitoring by Safeguarding Officer, CC, during Subproject implementation and operation phases.

<p>during and after the sub-project implementation.</p> <ul style="list-style-type: none"> • Overcrowding of students in the schools of Rowkub City due to their influx from outside the area. (female) 	<p>at the implementation sites. The contractors are obliged to coordinate with the local authority and community committee in the sub-project area to ensure the proper disposal of the waste in appropriate locations.</p> <ul style="list-style-type: none"> • The consultants raise the community demands to PWP to search fund to implement new classrooms in schools. 	
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8.3 Sustainability of Subproject and Community Ownership

PWP engages all affected parties of subproject within the subproject cycle. Consultations are conducted at various stages including consultation with the communities for selection of interventions based on focal group discussions with women and men. Formation of the community committees by electing members including female members with the total number of seven (5 male and 2 females), training on various aspects for operation and maintenance including the roles and responsibilities for community committees and beneficiaries. Also, coordination with Local Authorities/Councils to inform on activities taking place, the possibility of their role in operation and maintenance, their role as facilitators in case of security issues or any disputes, etc. As well as coordination with Fishermen's association and other agencies in the Field. Furthermore, PWP conducts public feedback sessions with targeted communities during site visits to listen to their concerns and feedback as well as to ensure their acceptance of the interventions.

Before the subproject handing over, PWP sub-area manager will invite the beneficiaries' representative to participate in this occasion. The beneficiaries' representative could be the head of the community committee, Fisheries Association, local council member, district manager, or any entity representing the beneficiaries. The site handing over ends with minutes of subproject handing over between PWP sub-area manager and the contractor with the signing of the beneficiaries' representative. During this occasion, the sub-area manager makes awareness to the attendance beneficiaries about the importance of the sub-project maintenance to ensure the sustainability of the intervention. Also, the community will be consulted on how a rehabilitated site will be managed in the future. The community committee will have the right also to monitor this site. The Fish Association will be given the responsibility to manage the activities, collect the fees, provide the services and provide the maintenance.

8.4 Stakeholders Engagement Plan

According to SFISH stakeholder engagement plan (SEP)³⁰, PWP will continue to engage the stakeholders during the subproject's implementation through conducting meetings with beneficiaries, community committees, and local authorities to discuss any raised issues, implementation aspects, as well as listen to stakeholders' concerns and feedback. Subarea's managers will conduct monthly meetings with community committees around ten to twelve times during the implementation to coordinate with them for the implementation and safeguard issues, conducting awareness and training sessions regarding safeguard requirements and their monitoring roles. Also, PWP resident engineers will be in continuous

³⁰ <https://pwpymen.org/index.php/en/media-center-en/publications/category/14-sustainable-fishery-development-in-red-sea-and-gulf-of-aden-sfish>

cooperation and coordination with the community committees and Fish Association at the sites to discuss any issues that might be raised. Furthermore, different meetings with the local authorities may be involved to work in cooperation to facilitate the implementation. In addition, at the end of implementation, meetings with beneficiaries, Fish Association, community committees, and local authorities will be involved to prepare for the subproject hand over and operation process. Also, to conduct the training for beneficiaries and community committee on the project operation and maintenance to ensure subproject sustainability.

8.5 Information Dissemination and disclosure

As part of the transparency and information disclosure process, PWP information about the subproject is disseminated in a variety of ways and at varying levels. It begins by coordinating with the local authorities to create a solid coordination framework. After that, at the local community level, public consultations and different awareness sessions are held during the preparation and implementation phases with the distribution of IEC (information, education, and communication) regarding the benefits available under the project, sustainability, environmental and social aspects, GM tools, etc. Additionally, PWP develops an Arabic version of the ESMP after the document is cleared and approved, for Arabic speakers' stakeholders, and disseminates project information on the PWP website.

through the following Link can be seen the different representations of attendance during stakeholder engagement and information disclosure meetings in different neighborhoods³¹.

8.6 Capacity Building

According to the ESMF, UNDP through PWP will conduct capacity building for different levels in all subproject life cycle and also in operation and maintenance phase. An annual comprehensive training will be done for PWP main and sub-areas staff in which revision and updates had been reflected according to the World Bank's new ESF. During the public consultation, awareness was given covering all topics in section 9.2. The executive staff³² as the main part in managing projects implementation at the governorates level will have training sessions in place for their responsibilities, liabilities, risk\impact assessment and planned mitigation measures and they should sign their commitment to these procedures. Also, another training before start implementation will take place for resident engineers where every person's responsibility, implementation procedures, needed forms, risk assessment methods, and general OHS procedures will be given. In handing over the site to the contractor, PWP sub-area representatives will conduct awareness sessions for workers, community committees, and some of the community members that will represent the required Environmental, social, and OHS aspects needed in the implementation phase. During the implementation phase, different awareness sessions should be done in the different sub-projects period. The supervisor engineer with help from the contractor OHS assistant will conduct daily awareness session as possible in which daily expected risks in daily works should be reflected for workers. SEA/SH, GM and code of conduct, and infectious and transmitted diseases will be part of this awareness as well. Every two weeks, PWP sub-area assistant will aware workers and local communities during his site visit. PWP sub-area managers will raise the workers and the local community awareness as well. On-site handing over occasion, project maintenance procedures shall be explained to local authorities, Fish Association, and communities' committees as part of the project closing phase.

³¹ https://docs.google.com/document/d/1LvJ8f76OjKqmPx9_pNfATBse6TaaXWBNSJVRcNoINhs/edit?usp=sharing

³² The contractor, supervisor engineer, and contractor OHS assistant.

9 Grievance Mechanism³³

As part of an ongoing move to improve its accountability, PWP has developed a Grievance Mechanism (GM) system for managing, responding to, and monitoring issues within its Programs. The accumulated experience in PWP to respond and interact with all partners and beneficiaries enables it to improve and adopt an efficient GM, focusing on institutionalizing the experience in dealing with complaints and mainstream it in the system context. GM awareness sessions have been conducted to explain the mechanism and introduce the system to the local communities, including female members and workers. GM brochures distributed to the local community that have full details on the system and complaint boxes placed in the subproject sites which will be opened weekly in a formal meeting with supervision from the local community committee -that is selected earlier during the early intervention stage. The complaints are then registered and classified according to their type and raised to branch offices to be addressed and solved. Other communication means also introduced to beneficiaries and listed below:

- Complaints box at subproject location which is open every week
- Telephone: 8002626
- SMS, Telephone, and WhatsApp Number 775626262
- Face to face during visits of PWP teams.

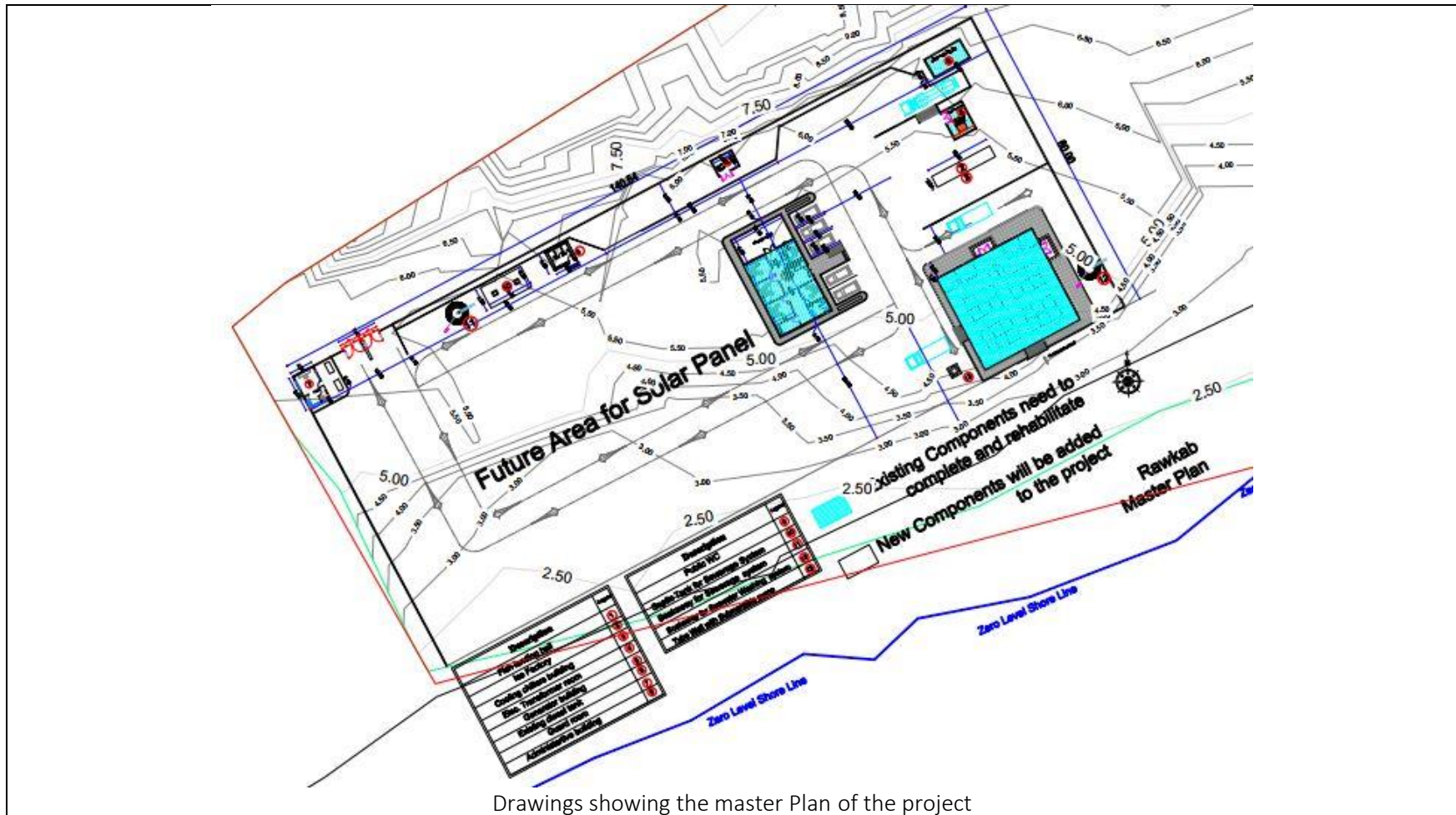
PWP has GM staff at Head Quarters (HQs) and locally at the subproject for GM handling. Each complaint is resolved either at the field by the Supervisor, or the Branch Office Manager or raised to the HQ. Complaint boxes are collected by PWP staff during bi-weekly field visits. Ensure registering all complaints and address all that can be resolved in the field. The designated GM specialist monitors complaints to ensure they are resolved satisfactorily, and complaints are closed. Complaints received will be recorded and investigated and the person who submit the complaints will be notified with the updates of his/her case. Similarly, all complaints received anonymously will be treated at the same level and as seriously as other complaints. Every effort is made to resolve any complaint at the community level and within a time frame of 14 days by community committee members, sub-area staff, and residential engineer, in case it could not be solved, the complaint is raised to the HQ's specialists. UNDP will monitor the implementation of the Grievance Mechanism (GM) system and follow up on pending complaints and provide any needed assistance in case PWP is not able to solve the complaints themselves or higher involvement is required through SRM-Stakeholder Response Mechanism- to help project-affected stakeholders, governments and other partners jointly resolve concerns and disputes. SEA/SH related complaints will be managed within the overall GM in which complaints will be managed according to SEA/SH action plan procedures. After one year, the GM system will be regularly reviewed to improve it, for instance, the review will be conducted by examining the nature of complaints, complaints made by which gender, If the GM is adapted to women, if no women made complaints, etc.

³³ For more information see link <https://docs.google.com/document/d/16PNeo62NkCqmTOwOPveMqfziYMBSUaNcYROjBv6nQus/edit>

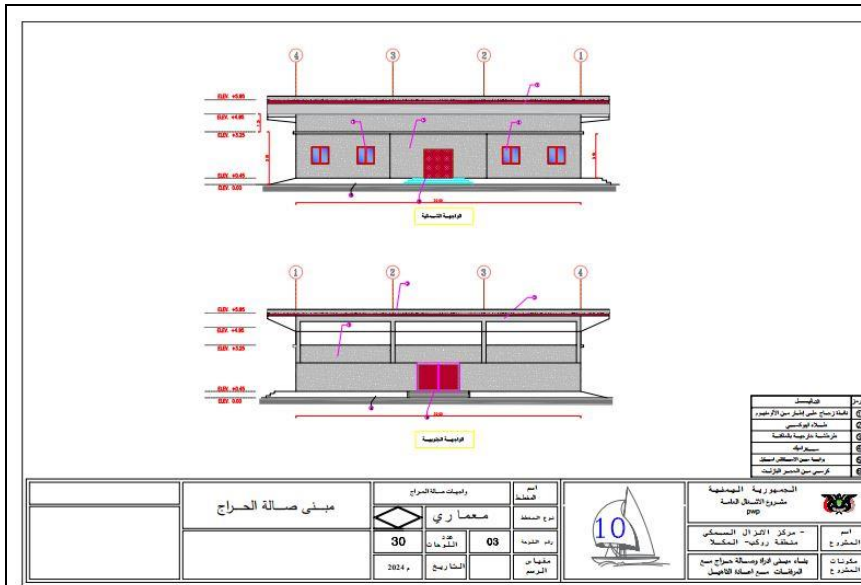
Annexes

Annex 1- Typical Drawings

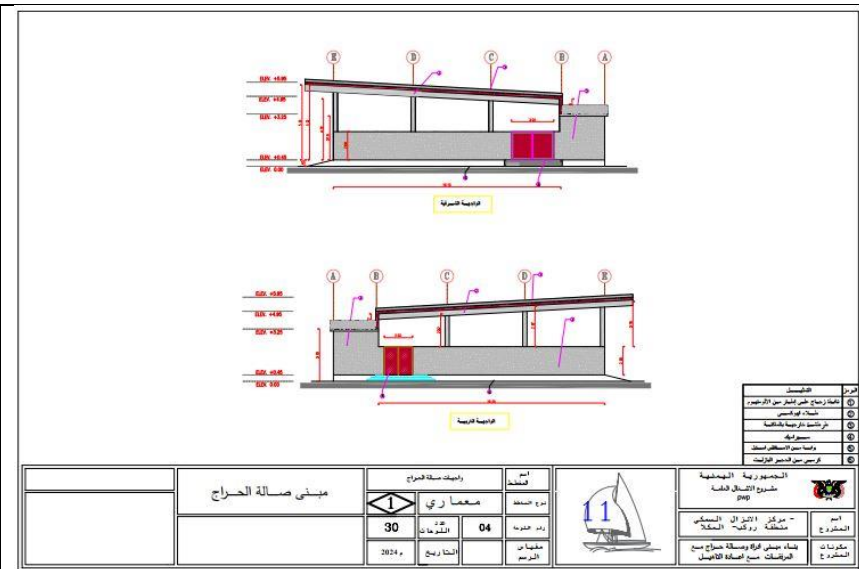
Figure 5 Photo Showing the Typical drawing of the general site plan location for Rowkub landing



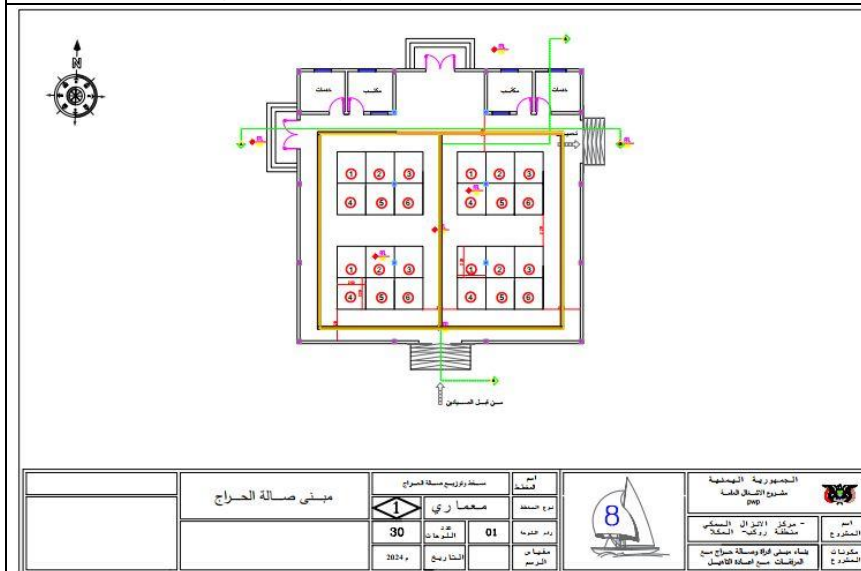
Drawings showing the master Plan of the project



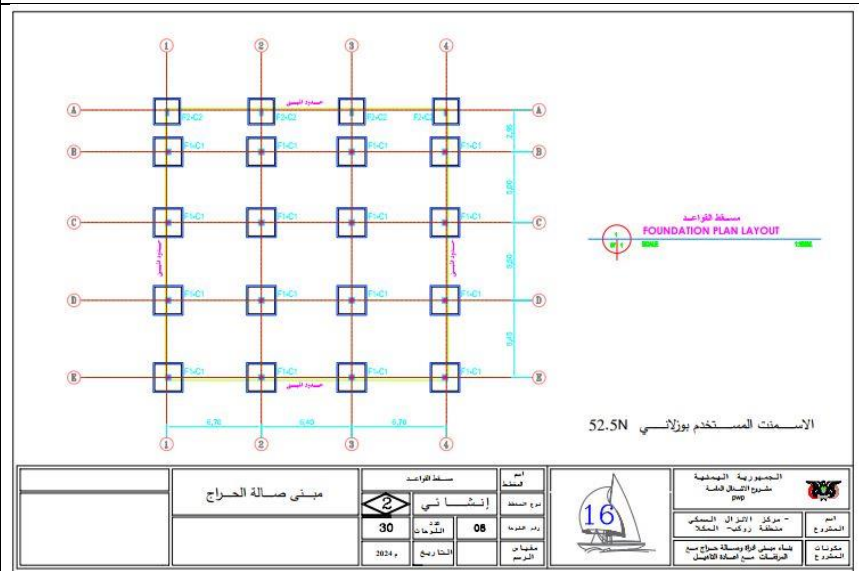
Drawings showing the Elevation view for auction hall



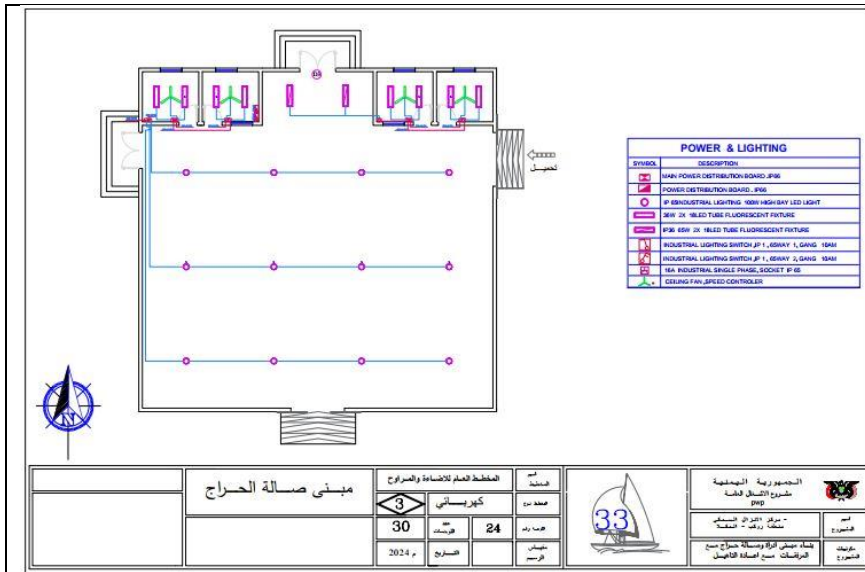
Drawings showing the side view for auction hall



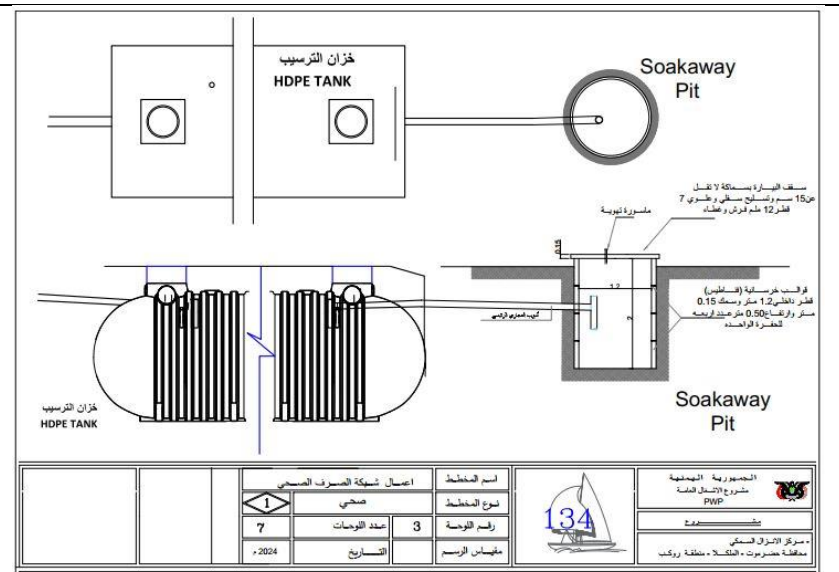
Drawings showing the section plan for the auction hall



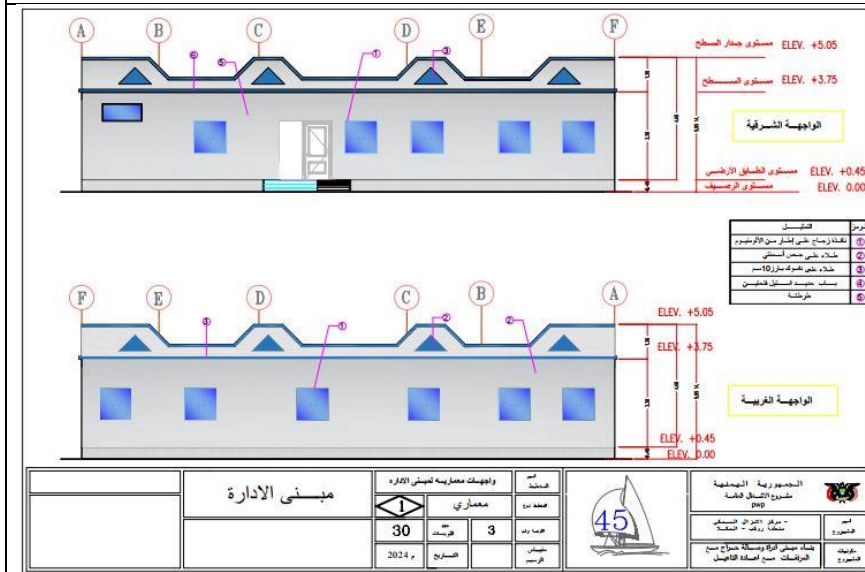
Drawings showing the foundation plan for the auction hall



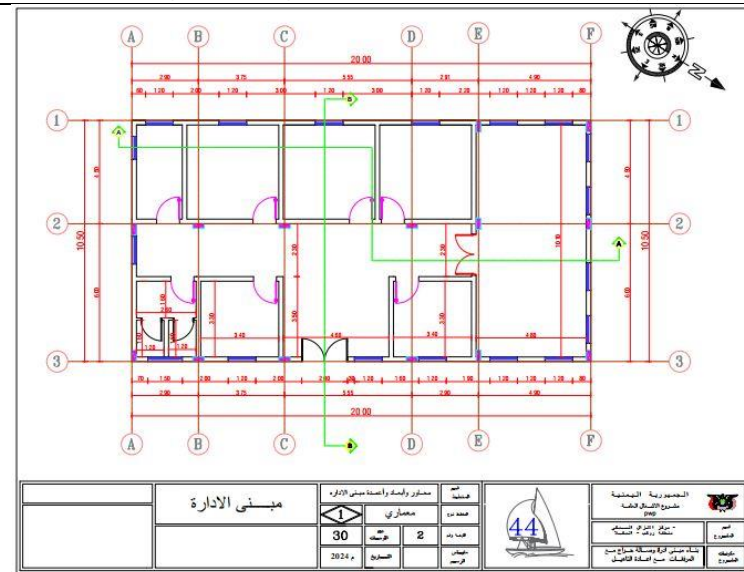
Electrical drawings the for the auction hall



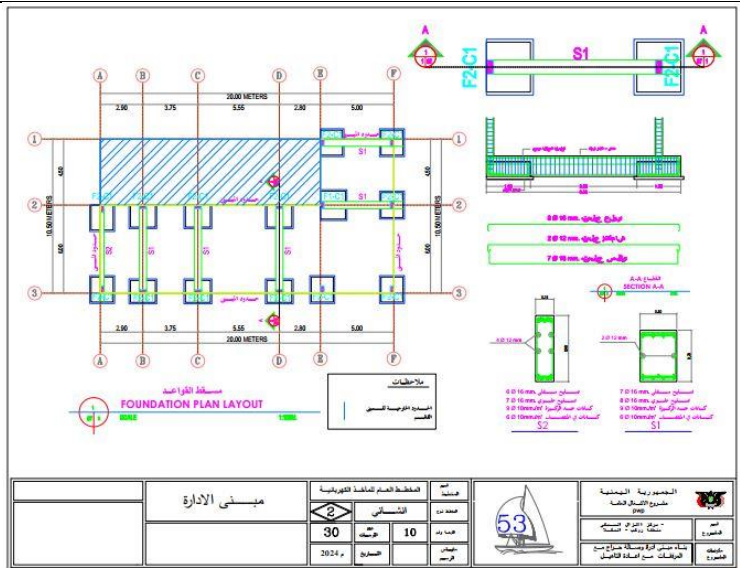
Drawings showing the HDPE tank and Soakaway Pit



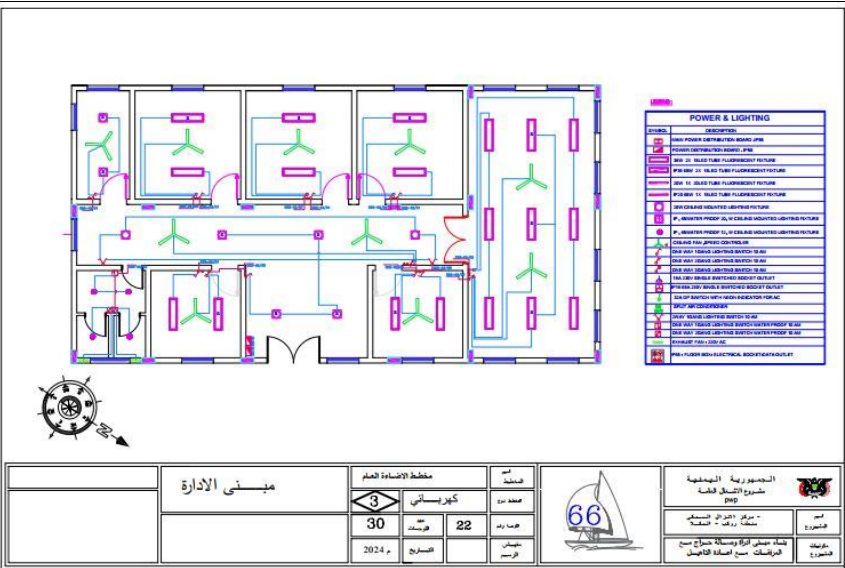
Drawings showing the Elevation view of admin office



Drawings showing the section plan of admin office



Drawings showing the foundation plan for the landing admin office



Electrical drawings for the landing admin office

Annex 2 – Environmental and Social Screening Checklist

Table 11 PWP Environmental and Social Checklist

Sub-Project No.	07-09-16078
1: The Natural Environment	Answer (NA, minor, moderate, substantial, or high)
<p>1.1 Are there any environmentally sensitive areas or threatened species that could be adversely affected by the subproject (specify below)?</p> <ul style="list-style-type: none"> - Intact natural forests - Riverine forest - Wetlands (lakes/rivers/seasonally inundated areas). <p>If yes, how far are the nearest wetlands (lakes, rivers, seasonally inundated [flooded] areas)? Habitats of endangered species for which protection is required under Yemeni laws and/or international agreements.</p> <ul style="list-style-type: none"> - Marine sensitive Areas. - Others (describe) (e.g., cultural sites, burial places, etc.) 	NA
2.Fauna and Flora	
2.1 Will subproject involves the disturbance or modification of existing drainage channels (rivers, canals) or surface water bodies (wetlands, marshes)?	NA
2.2 Will the subproject lead to the destruction or damage of terrestrial or aquatic ecosystems or endangered species directly or by induced development?	NA
2.3 Will the subproject lead to the disruption/destruction of wildlife through interruption of migratory routes, disturbance of wildlife habitats, and noise-related problems?	NA
3.Destruction/Disruption of Land and Vegetation	
3.1 Will the subproject lead to unplanned use of the infrastructure being developed?	No
3.2 Will the subproject lead to long-term or semi-permanent destruction of soils in cleared areas not suited for agriculture?	No
3.3 Will the subproject lead to the interruption of subsoil and overland drainage patterns (in areas of cuts and fills)?	No
3.4 Will the subproject lead to landslides, slumps, slips, and other mass movements in soil?	No
3.5 Will the subproject lead to erosion of lands?	No
3.6 Will the subproject lead to health hazards and interference of plant growth by the dust raised and blown by vehicles?	No
4. Protected areas	
4.1 Does subproject occur within/adjacent to any protected areas designated by the government (national park, national reserve, world heritage site, etc.)	No

4.2 If the subproject is outside of, but close to, any protected area, is it likely to adversely affect the ecology within the protected area (e.g. interference with migration routes of mammals or birds)	Minor
4.3 Would this project increase the current impact on the surrounding environment for example by using more water, chemicals, or machinery than previously? If yes HOW More water will be used for construction process as well as water that are going to be used during operation for toilets, cleaning and washing in the auction yard, etc. Chemicals will be used temporarily during rehabilitation of the landing site through painting processes and possible oil spills from fishing boats if not managed properly during operation phase.	Minor
5. Geology and Soils	
5.1 Based on visual inspection or available literature, are there areas of possible geologic or soil instability (erosion-prone, landslide-prone, subsidence-prone)?	No
5.2 Based upon visual inspection or available literature, are there areas that have risks of a large-scale increase in soil salinity?	No
6 Landscape/aesthetics	
6.1 Is there a possibility that the subproject will adversely affect the aesthetic attractiveness of the local landscape?	No
7. Historical, archaeological or cultural heritage site	
7.1. Based on available sources, consultation with local authorities, local knowledge, and/or observations, could the subproject alter any historical, archaeological, or cultural heritage site or require excavation nearby?	No
8. Resettlement and/or Land Acquisition	
8.1 Will the subproject require land acquisition?	NA
8.2 If so, will this land acquisition be involuntary?	NA
8.3 If so, will this involuntary land acquisition lead to relocation or loss of shelter, loss of assets, or access to assets?	NA
8.4 If so, will this involuntary land acquisition lead to loss of income sources or means of livelihood (whether or not affected persons must move to another location)?	NA
8.5 Will the subproject lead to involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of displaced persons?	NA
8.6 Will the subproject led to permanent physical or economic displacement?	NA
8.7 Will the subproject led to temporary physical or economic displacement?	NA
8.8 Will the project bring about consolidation or adjustment of tenure rights?	NA
9. Noise pollution during Construction and Operations	
9.1 Will operating noise level exceeds allowable/ambient noise limits?	Minor
10. Solid or Liquid Wastes, including Medical Waste	
10.1 Will subproject generate large amounts of residual wastes (solid or liquid wastes), including medical waste?	Minor
10.2 If "Yes", does the subproject include plan for collection & disposal?	Yes
11. Pesticides, Insecticides, Herbicides or any other Poisonous or Hazardous Chemicals	
11.1 Will the subproject require the use of such chemicals?	NA
11.2 If, "Yes", does the subproject include plan for safe handling, use & disposal?	NA

12. Water and Soil Contamination	
12.1 Will the subproject require large amounts of raw materials/construction materials?	Moderate
12.2 Will subproject generate large amounts of residual wastes, construction material waste, or cause soil erosion?	Minor
12.3 Will the subproject result in soil or water contamination (e.g., from oil, grease, and fuel from equipment)?	Minor
12.4 Will the subproject lead to contamination of ground and surface water bodies by herbicides for vegetation control and chemicals for dust control?	No
12.5 Will the subproject lead to an increase in suspended sediments in streams affected by road cut erosion, a decline in water quality & increased sedimentation downstream?	Minor
12.6 Will subproject lead to the destruction of vegetation and soil in the right-of-way; borrow pits, waste dumps, and equipment yards?	No
12.7 Will the subproject lead to the creation of stagnant water bodies in borrow pits, quarries, etc., encouraging mosquito breeding and other disease vectors?	No
12.8 Will this project include the development of a large irrigation scheme?	No
12.9 Will this project aims at improving an irrigation scheme (without expansion)?	No
12.10 Will this project change the water quality and quantity in the project area or areas connected to it	Minor
12.11 Will this project involve the intensification of production systems that leads to land-use changes (e.g., deforestation), higher nutrient inputs leading to soil or water pollution, changes in water regimes (drainage, irrigation)?	No
13. Decent Work	
13.1 Will this project affect the current or future employment situation of the rural poor and in particular the labor productivity, employability, labor conditions, and rights at work of self-employed rural producers and other rural workers?	NA
13.2 Will this project affect the labor conditions, child and force labor?	Minor
14. Gender Inclusion Risks	
14.1 Could this project risk overlook existing gender inequalities in access to productive resources, goods, services, markets, decent employment, and decision-making? For example, by not addressing existing discrimination against women and girls, or by not taking into account the different needs of men and women	Minor
14.2 Will this subproject pose risk on community related to sexual harassment, sexual exploitation and abuse.	NO
14.3 Will this subproject cause any conflict among communities	NO
15. Indigenous People	
15.1 Are indigenous peoples present in the Project area (including Project area of influence)?	NA
15.2 Is it likely that the Project or portions of the Project will be located on lands and territories claimed by indigenous peoples?	NA
15.3 Would the proposed Project potentially affect the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples?	NA

15.4 Would the Project adversely affect the development priorities of indigenous peoples as defined by them?	NA
16. Community Health, Safety	
16.1 Would elements of Project construction, operation, or decommissioning pose potential safety risks to local communities?	Minor
16.2 Would the Project pose potential risks to community health and safety due to transport, storage, construction?	Minor
16.3 Would the Project pose potential risks to community health and safety due to the use and/or disposal of hazardous or dangerous materials (e.g., explosives, fuel, and other chemicals during construction and operation)?	Minor
16.4 Would failure of structural elements of the Project pose risks to communities? (e.g., collapse of buildings or infrastructure)?	No
17. Working Conditions	
17.1 Would the Project result in potential increased health risks (e.g., from water-borne or other vector-borne diseases)?	No
17.2 Does the Project pose potential risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during Project construction, operation, or decommissioning?	Moderate
17.3 Will the Project activities cause any risks for workers during the construction?	Moderate

Annex 3 - PWP Environmental and Social Responsiveness (ESR) Criteria at Proposal Stage

Note: To be selected and filled according to project type based on PWP baseline study

Table 12 PWP Environmental and Social Responsiveness (ESR) Criteria at Proposal Stage

Proposal Title	Rehabilitation and Development of Rowkub Fish Landing Site	
Proposal Location	Hadhramout governorate	
ESR Criteria at the Proposal Stage	Confirmation	
	Write Yes or No	
Consultation with the local community including a community leader, men, women, and girls were conducted in the proposal stage regarding the design and location of the project. Their opinions were included in the proposal.	Yes	
Poor and vulnerable beneficiaries were defined, and the community was obliged to providing help for them in the rehabilitation and development of fish landing center subproject implementation.	Yes	
The project will not have a significant adverse environmental and social impact.	Yes	
The project will not raise land acquisition problems.	yes	
Stakeholders are aware of the PWP policy and have agreed to follow/apply them towards a successful implementation of the rehabilitation and development of fish landing center.	Yes	
Targeted beneficiaries are highly in need of this project.	Yes	
All communities including (Male, female) will benefit from the intervention.	Yes	

The operation and maintenance requirements of the project were explained to the community, and an acceptable system was developed for this purpose.	Yes
Responsibility for operation and maintains are defined and committed by community committee.	Yes
Local communities are aware of project risks and GM.	Yes
The project will not cause any conflict among communities	Yes
<i>If the answer to any of the above questions is 'NO' then the project will be dropped at the proposal stage. If the answer is 'Yes' then incorporating this information in the project proposal</i>	

Annex 4 - PWP Checklist of Expected Environmental and Social Impacts to be Addressed at the Design Stage

Table 13 PWP Checklist of Expected Environmental and Social Impacts to be Addressed at the Design Stage

Project Name	Rehabilitation and Development of Rowkub Fish Landing Site	
Project Location	Hadhramout governorate	
Check List of the E&S Issues to be Addressed for construction subproject at the Design Stage	Confirmation	
	Write Yes or NO	
The relevant authorities were consulted on the design and all their observations were taken into consideration.	Yes	
The design of the project will include the ES & OHS monitoring plan	Yes	
The project design will ensure local community participation during implementation.	Yes	
The design and the construction/rehabilitation materials for example stone are in harmony with the surrounding environment and the architectural character of the city.	Yes	
GM tools have been included in the project document.	Yes	
A safe work plan has been developed to project activities to control risks.		
OHS measures and Personal Protection Equipment (PPEs), were added to the bidding documents.	Yes	
Temporary latrine and wash hand facilities have been included in the project document.	Yes	
<i>If any of the answers are "No", then the reasons must be stated in the design report.</i>		

Annex 5 - Social agreements and A land document for the benefit of fisheries) - Arabic

Figure 6 Social agreements and A land document



الجمهورية الفلسطينية
مصلحة اراضي وعقارات الدولة
مكتب المصلحة بمحافظة

محضر تسليم أرض للاستخدام الرعصي بين مصلحة اراضي وعقارات الدولة

وإبين

في يوم الجمعة بتاريخ ٨ / ١٤ / ٢٠١١ الموافق ٤ / ٤ / ٢٠١١

بيننا على القواسم والقرارات السابقة بشأن اراضي وعقارات الدولة واستناداً الى طلب/ لوجيات مكتب المصلحة بمحافظة للتصديق على تسليم ارض المسمى مصلحة استخدامها من قبل مكتب المصلحة بمحافظة لغرض تربية الاسماك والكافة في شارع وحدة بنوار رقم منطقة مدينة مديرية محافظة

مساحة ٢٧٠٠ والمساحة على المخطط الجزئي رقم () للوضح يظهر هذا المحضر ومساحتها ٢٧٠٠ متر مربع (متر مربع)

ومحدداً من الشمال متر بطول متر

ومن الجنوب متر بطول متر

ومن الشرق متر بطول متر

ومن الغرب متر بطول متر

وبناءً على التقرير الفني المرفق بهذا المحضر فقد تم الاتفاق على تسليم الأرض المشار اليها والتي تضمنها التقرير الفني وقد مثل مصلحة اراضي وعقارات الدولة الاخ مدير عام مكتب المصلحة بمحافظة

ومثل الجهة المستفيدة الاخ مدير عام مكتب المصلحة بمحافظة وفق الشروط الآتية:

- لا يحق للجهة المستفيدة القيام بأي تصرفات مثل البيع او التاجير او الرهن او القنازل عن العقار او اي جزء منه لاي شخص او جهة اخرى واي تصرف من هذه التصرفات يعد باطلاً وغير شرعي وغير ملزم لمصلحة اراضي وعقارات الدولة بناءً وجسه من الوجود وفي هذه الحالة يحق للمصلحة استعادة العقار محل التسليم ولا يحق لمصلحة اراضي وعقارات الدولة اجراء اي تصرفات كالبيع او التاجير او الرهن او القنازل

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Annex 6 – PWP Complain Handling Mechanism

Figure 7 PWP Complain Handling Mechanism



Figure 8 PWP Complain Handling Mechanism

تمهيد:

الرقابة المجتمعية هي آلية لتلقي الشكاوى المتعلقة من قبل مشروع الأثر الاجتماعي في شروط أساسية وتتميز في آلية التوعية والتقييم على المشاريع المنفذة. وهو ما يجعل مشروع الشكاوى أداة فعالة في مراقبة سير العمل في أي مشروع استثماري وهي نفس الوقت تتيح للمجتمع المدني المشاركة المجتمعية بفاعلية في جعل المجتمع يقوم بدوره الفعال على المشاريع المنفذة الخاصة بالأثر الاجتماعي.

تجربة تنموية:

- ✓ الرقابة المجتمعية أداة الموزعة بسهولة وحرة تقدم المشروع والتوصل إلى أهل فرع فاعلي في مشروع الأشغال العامة. فهي على التفاعل والتعبير وضع المخاوف ورد من المجتمع.
- ✓ التفاعل والتعاون والتكاتف بين المجتمعات المستهدفة ومشروع الأشغال العامة يحتاج الأنشطة التوعوية، وعدم إهمال أمان حمايتها عن الفساد وتمكين المجتمع ومعرفة كيفية التعامل مع القضايا المجتمعية، وخلق المشروع الرضا والتعاون المجتمعي الجامع حول المصلحة العامة بدلاً من المشكلات والتناقض.
- ✓ هناك تواجد مشروع الأشغال العامة فعلاً على رقابة مجتمعية فعالة، تمثل البديل الطويل وألوية الأثر لمشروع الأشغال العامة.

من الميدان:

يحتاج مشروع الأشغال العامة في أي فرع الناس عند تحديد المشاريع المنفذة، والتسليم إلى أصواتهم والتفاعل مع شكواهم وتمسك أوتاعهم والتفاعل مع مقترحاتهم التي تدور عن احتياجاتهم ومخاوفهم.

شارك في حل المشكلة (الشكاوى):

- ✓ تأكد من صحة الشكاوى أو المشكلة الناتجة عن المشاريع والأعمال المنفذة المنفذة في منطقتك وتأثيراتها مع الأثرين.
- ✓ كن صادقاً وفعالاً في التعامل مع أي شكوى أو مشكلة قد تحدث أثناء تنفيذ المشروع، وتجنب الأحكام والتهويل، المسببة.
- ✓ أدرجني على تدفق المصداقة العامة عند تقديم الشكاوى دون تسويف وتحويل من الأهواء الشخصية.
- ✓ تشجع مجتمعتك وكل من حولك في نطاق المشروع على روح المبادرة في وضع الحلول والمعالجات للمشكلة في بنائها والتي من السهل حلها بإمكانات وسهولة المجتمع.
- ✓ لا تتردد عن استخدام هواتفك في رفع الشكاوى وتقديم المقترحات حول الاختلالات في جودة أو مواصفات المشاريع المنفذة، وجدواها الاقتصادية وتأثيراتها السلبية لمجتمعتك.

أخي المواطن الكريم:

كعبورك وواجبك بثمان عليك القيام بدورك في الرقابة المجتمعية على جودة المشاريع المنفذة والخدمات المقدمة. فمشاركتك الرقابية هي الضمانة الكبيرة ضد المقاربات الكاذبة وغير المنسوبة والوصفة الناجمة للفساد على التسبب والفعال.

لتكون فاعلاً:

"عليك التحرز من الأهواء الشخصية، وكن حريصاً على تشويق المصلحة العامة وتجاوزاً ومساهمة في نجاح الأنشطة والمشاريع التنموية المنفذة في منطقتك ومراقباً أميناً على جودة الخدمات والأنشطة المقدمة لمجتمعتك. بحيث تكون فعيرة وملمية لاحتياجات الناس و معلقة أقصى درجات المنفعة والاستفادة والفوائد المرجوة منها.