PUBLIC WORKS PROJECT
مشـــروع الأشغال العامة

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

Environmental and Social Management Plan (ESMP No. 07)

For the Rehabilitation and Development of AL-HAMI Fish Landing Center

06 June 2024

Table of Contents

List of tables

List of Figures

Abbreviations

ASW	Arabian Sea Water
RSW	Red Sea Water
BOQs	Bills of Quantities
CO	Carbon Monoxide
CoC	Code of Conduct
DO	Dissolved Oxygen
E&S	Environmental and Social
ESI	Environmental Sensitivity Index
ESF	Environmental and Social Framework
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESR	Environmental and Social Responsiveness
ESS	Environmental and Social Standards
FCU	Fisheries Cooperatives Union
GBV	Gender-Based Violence
GM	Grievance Mechanism
HAVS	Hand-arm vibration syndrome
HNO	Humanitarian Needs Overview
HQ	Head Quarter
IBA	Important Bird Area
IEC	(Information, Education, Communication)
IPC	Integrated Phase Classification
IPF	Investment Project Finance
LC	Local Councils
LMP	Labor Management Procedures
MIS	Management Information System
MSDSs	Material Safety Data Sheets
NTU	Nephelometric Turbidity Units
OHS	Occupational Health and Safety
PERSGA	Protection of the Environment of the Red Sea and Gulf of Aden
PH	Potential of hydrogen
PPEs	Personal Protective Equipment's
PTW	Permit to Work system
PWP	Public Works Project
RAP	Resettlement Action Plan
RF	Resettlement Framework
RPF	Resettlement Policy Framework
RSW	Red Sea Water
SEA	Sexual Exploitation and Abuse
SEP	Stakeholder Engagement Plan
SFISH	Sustainable Fishery Development in Red Sea and Gulf of Aden
SH	Sexual Harassment
SMP	Security Management Plan
SP	Sub-Project
TPM	Third-Party Monitoring
TVET	Technical Vocational Education Training center
UNDP	United Nations Development Program
UV	Ultraviolet
WB	World Bank
WRI	World Resources Institute

1 Introduction:

The current Environmental and social management plan (ESMP) for the Rehabilitation and Development of AL-Hami 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 Sustainable Fishery Development in Red Sea and Gulf of Aden (SFISH) project aimed at improving capacity for sustainable production and economic opportunities for beneficiaries across the fishery value chain in Yemen. The project is funded and supported by the World Bank's International Development Association (IDA) and is proposed as an Investment Project Finance (IPF) with the option for additional resources and countries based on the demand and readiness. The SFISH project includes investments in goods, civil works, services for physical investments, operating costs, and technical assistance.

This ESMP aims to:

- Collect baseline data on the physical, biological, and socio-economic environment in the project area to inform impact assessment and monitoring.
- Evaluate potential environmental and social impacts of the proposed project. This includes impacts during both the construction and operation phases.
- Identify measures to mitigate any potential negative impacts and enhance positive impacts.
- Develop a plan for environmental and social impact analysis and mitigation measures.

[1] https://www.pwpyemen.org/index.php/en/media-center-en/publications/category/14-sustainable-fishery-development-in-red-sea-and-gulf-of-aden-sfish

- Monitor key environmental and social indicators during project implementation to ensure compliance with relevant standards and mitigate impacts. Develop an environmental and social monitoring plan.
- Engage with stakeholders and the public in a transparent and meaningful consultation process. Obtain their feedback and input to inform project design. Develop a stakeholder engagement plan and conduct public consultations.
- Build capacity within the project team and the local community on environmental and social best practices. Conduct training and awareness programs.
- Establish an effective grievance mechanism to receive and address complaints from PAPs and other stakeholders in a timely manner.

In this ESMP, the sub-project falls under the fish landing sector which is to rehabilitate and develop of Al-Hami fish landing center in Al-Shihr district - Hadramaout governorate in Yemen.

PWP will invest US $ 800,000 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 General information about the project

Name of the Sub-project:	Rehabilitation and Development of AL-HAMI Fish Landing Center
Sub-project ID:	07-09-16080
Sub-project Locations	Hadramaout
Sector and Type of Sub-project:	Fish Sector
Sub-project Implementer:	PWP
Estimated Cost of Sub-project:	800,000 US$
Estimated Cost of ESMP	40,000 US$
Field Visit (Yes/No; Include Date; another envisioned):	Yes- February – 2023; another is not envisioned.
Was Consultation Carried out? (Yes/No):	Yes- Refer to Public Consultation Section (see public consultation section 7)
Implementation Period	12 months
Beneficiaries	12,196 persons include (6,068 men (1200 fishermen) and 6128 women) (refer to targeted beneficiaries in section 3.9)
Proposed Class of Subproject (Low to High):	Moderate (refer to the Screening checklist in Annex 2)

Implementation Modality	Third Party Contractors

2 Sub-Project Description:

The main activity of the subproject is to rehabilitate and develop the already existing construction of the fish landing center located on the coast of Hadramaout in the Gulf of Aden. Al Hami is situated in Al Shihr District of Hadramaout Governorate. The project aims to conserve fish quality and improve the income of fishermen in Al-Hami area by constructing and upgrading the facilities, equipment, and infrastructure of Al-Hami Fisheries Landing Center. This includes improving fish quality, refrigeration, management, and preservation for longer periods and providing fishermen with the necessary equipment for fishing, management, storage and maintenance.

Al Hami landing established in 1998[2] with an approximately area of 10,000 m^2, 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 two tanks with a capacity of 12,000 liters and 5,000 liters for ice and cleaning purposes with 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 spacious new auction hall that meets the needs of fishermen and protects them from sunlight while practicing their profession, instead of the old dilapidated hall, a workshop for boat and fishing equipment maintenance, 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 new auction hall, administrative building, maintenance workshop, generator room, guard room, public bathrooms with septic tank and soakaway pit. The intervention does not include any removal or demolition of the old buildings located in the center.

Under this project, a total of 12,196 individuals from the community will benefit, comprising 6,068 males and 6,128 females. In addition, 302 people with disabilities will benefit from the project, of whom 195 are male and 107 are female. Particularly, the project will have a direct positive impact on 1200 fishers[3].

[2] 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. There are no technical standards attached to this law, and its implementation standards are mandated to the relevant authorities of GAF and EPA. Compliance with this law is already taking place by working on buildings that exist already.

[3] PWP technical team, *The socioeconomic study of the fisheries rehabilitation project in Al Hami area.* Hadramaout

The sub-project will be implemented through a public contracting modality[4]/ Third Party Contractors and the implementation period of twelve months. The total estimated cost of the sub-project is 800,000 US$. The estimated cost of ESMP implementation will be 40,000 US$.

The contractor will hire as many workers as possible from the local project area for both skilled and unskilled work. The estimated planned number of labors for this subproject is 290 which (35%) 101 are skilled and 189 (65%) are unskilled labor during the project life for the subproject. Given the fact that some parts of the activities require skilled labor, these tasks will be undertaken by appropriately skilled workers from the targeted areas and when not available, the contractors will hire skilled laborers from nearby areas. In coordination with PWP and community committee[5], the contractor can finish the rehabilitation of the existing guard's rooms building and public bathrooms to be used for workers accommodation during construction phase, as well as the contractor will bring tents to cover in terms of minimum space $4m^2$ per worker according to International Finance Corporation (IFC) and the European Bank for Reconstruction and Development (EBRD) worker's accommodation guidance note[6]. Contractor will provide worker's accommodation with beds, blankets, and suitable kitchen utensils.

The required stones will be purchased from the local market according to the needs, and they will be retained and used on the same day, taking measures to mitigate any loading and transportation risks. Construction materials such as cement will be sourced from local markets as needed, retained, and used on the same day. Suppliers using forced labor and/or children will not be contracted .

For part of the project implementation and operation, a community committee was elected from members of the fishermen's associations located in the targeted area, as well as from members of the local council, and local community including 3 women and 6 men, which participated in the decision-making, need assessment, and public consultation. Also, they will participate in the monitoring of implementation, hand over the sub-project from the construction contractor to the operator (Ministry of Fisheries, Hadramaout Branch), as well as operation and maintenance. Furthermore, according to SFISH's ESMF under subcomponent 2.1-d (page 11) the training, and capacity building related to sustainable fishing practices, and maintaining hygiene and sanitary aspects to maximize the market values will be conducted by Technical Vocational Education Training (TVET) centers, and Yemeni Fishery Exporters' Association.

This sub-project will work to improve fish quality and storage as well as enhance the living conditions of fishermen who lost their jobs due to the deterioration of the center and lack of development of its service facilities. Additionally, the project will provide job opportunities for skilled and unskilled labor from local

[4] Public contracting modality refers to the process of soliciting bids from qualified contractors through an open, competitive tendering process in compliance with Public Works Project (PWP) procurement rules and regulations

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

[6] https://www.ifc.org/content/dam/ifc/doc/mgrt/workers-accomodation.pdf

communities during implementation and operation. It will also generate new fishermen and mitigate negative economic impacts while producing positive effects on the target areas' economy.

The contractor will be responsible to protect its workers and communities during implementation and apply the environmental and social mitigation measures and provide the required training, tools, and necessary protection equipment for workers.

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 Work[7]:

The proposed onshore works in the Al-Hami Center are aimed at increasing and upgrading the center facilities and infrastructure to conserve fish quality and improve the income of fishermen in Al-Hami area while improving the hygienic conditions. Activities will include but not limited to the following:

New buildings/structures:

- Site leveling works.
- Excavation works for a depth 1.5 m, no more than 3 meters width, and no less than 2 meters long for the foundations.
- Backfilling works in layers using the extracted soil or proper materials in all part of works.
- Supply the construction materials such as stones[8] , sand, and gravel from the market, when needed.
- Implement masonry works under the ground beams.
- Plain concrete works.
- Reinforced concrete works for foundations, columns, slabs, floors, and septic tank.
- Plastering works for interior, and external walls and roofs (3.10-meter height).
- Painting works for Interior and exterior walls.
- Tile works for the building, stairs and walls.
- Installation of durable, and Corrosion Resistance steel doors, good-quality wood doors, and aluminum doors.
- Installation of high-quality aluminum windows.
- Upgrading existing infrastructure(wastewater system).All sanitary works include
    - Supply and Installing toilets, disabled toilet accessories (handrail- Adjustable toilet).
    - Supply and Installations sanitary pipes of 8, 6 and 4 inches in diameter with 385 m in length.

[7] For Typical Drawings please see (Annex 1).

[8] Stones will be brought from local markets. The standard stones dimensions are (25*25*25) cm.

- Supply and Installations rainwater drainage pipes, 4 inches in diameter 105 m in length.
- Valves chamber rooms (100X100) cm.
- Construction a septic tank with dimensions 16.0m x 2.5 m with a depth of 2. 0m and two soakaway pit[9] one for auction hall with discharging directly and the other from bathrooms to septic tank then to another soakaway pit.
- Supply and installation of a water supply network from tanks to new buildings, ¾" inches(20mm) in diameter and 55 meters long. and they could be slightly buried within 5 cm or less, and some parts of them can be exposed without any issues.
- Supply and installation: 7 fiberglass tanks with a capacity of 3, 2, 1.5 cubic meters.
- Drilling an artesian well with a diameter of 18 inches, 13-meter depth and installing the submersible pump and testing the productivity and analyzing a water sample which will be used only for washing. At a 13 meter depth, it is going to be brackish water-salt water due to the shallow depth. It is not ground water from the aquifers to be deeper and at a significant distance from the shoreline. In addition, the TDS of the water is of no importance it is used to just for washing purposes and not drinking.
-

- Gravel backfills for roads and parking vehicles.
- Supply and installation fire extinguishers.
- Supply and Implementation of insulation layer of roofs and floors (Flow-applied epoxy resin floor layer).
- Supply and Implementation of insulation layer of roofs (Acrylic).
- All electrical works and installations for new buildings and facilities.
- Electrical works for lighting for the public site.
- Electrical wiring works in roofs, floors, and walls
- Supply and installation the electrical equipment and accessories of the project.
- Supply and installation the main electrical distribution board
- Supply and installation lighting fixtures.
- Supply and installation electrical roof mounted fans
- Supply and installation electric socket
- Installation of an electrical bell and internet network
- Supply and installation ventilation exhaust fans
- Supply and installation roadway luminaires
- Works for connecting the electricity to the buildings.
- Supply and installation earthing system.

[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. The septic tank operation is based on an aerobic bacteria which digest sludge, after that the treated wastewater will flow to soakaway pit to absorb in soil layers.

- The main electrical distribution board. Relocating the two generators and their stored fuel on concrete base and in well ventilated areas which will be used beside public electricity grid to operate the facility.
- Supply and installation of a metal board with the name of the project, sponsor and the GM hotlines.

Rehabilitation of current structures:

- Demolition and rehabilitation of the guard room which does not have any asbestos.
- Demolition and rehabilitation of the generator room.

Collecting and transporting the construction waste residues to areas appointed by local authorities. It is estimated that the equipment and tools given in the table below will be required to complete the different sub-project engineering activities.

- **Excavation and backfilling works** (Excavator, Backhoe, Bulldozer, Dump truck, Wheel loader, Shovels and spades, Jackhammers, Compactors, and Surveying equipment).
- **Plain and reinforced concrete** (Concrete mixer, Concrete Vibrators, Concrete pumps, Trowels, Reinforcement bars (rebars), Bar benders and cutters, Formwork (plywood or metal), Scaffolding, Concrete buckets, and Power tools (drills, saws, grinders, etc.))
- **Stone and block masonry works** (Mortar mixer, Trowels, Masonry hammers and chisels, Levels and, plumb lines, Masonry saws, Jointers and pointing tools, Masonry drills and bits, and Scaffolding)
- **Plastering works** (Plastering trowels, Hawk board, Plaster mixing machine, Sandpaper, Plaster sprayer, Straight edge, Scaffolding, and Spirit level)
- **Painting works** (**Paint** brushes, Rollers, Paint sprayers, Paint trays, Paint buckets, Drop cloths, Sandpaper, Putty knives, Painter's tape, and Ladders or scaffolding).
- **Tile works** (Tile cutters (manual or electric), Tile spacers, Tile adhesive mixer, Notched trowels, Rubber floats, Grout mixers, Caulking guns, Spirit levels).
- **Sanitary works** (Pipe cutters, Pipe wrenches, Pipe benders, Plumbing snakes, Pipe sealant tape, Plungers, Hacksaws, Soldering irons, and Levels and plumb lines).
- **Lifting equipment for all activities:** Hoists and pulley systems, cranes.

The following table below shows the name of sub-project and the technical details related to the sub-project, estimated cost for the sub-project, ESMP cost, and estimated number of labors.

Table 2 shows the details of the proposed sub-project

No	Sub-Project ID	Subproject Name	Governorate	Total area of sub-project (m2)	SP Estimated Cost US$	Estimated cost for ESMP Implementation US$	Estimated/ planned No. of Labour
1	07-09-16080	Rehabilitation and Development of AL-HAMI Fish Landing Center – Alshihr district	Hadramaout	9,550	800,000	40,000	290
Total				**9,550**	**800,000**	**40,000**	**290**

2.2 Location:

Al-Hami Land is located in Al-Shihr city, Hadramout governorate, Yemen. Al-Shihr is a coastal city along the Gulf of Aden. The Gulf of Aden, a portion of the Arabian Sea, runs along the length of the Hadramout Governorate's coastline. The coast of Hadramout extends for about 620 kilometers along the Gulf of Aden's western shore[10]. The landing line has about 25 km from the port of Al-Shihr and about 80 km from the port of Mukalla.

The following table shows the coordinates with link to google map, and Map photos for the proposed project taken from google satellite.

Table 3 Name of the sub-project and the coordinates of the Location with link to google map

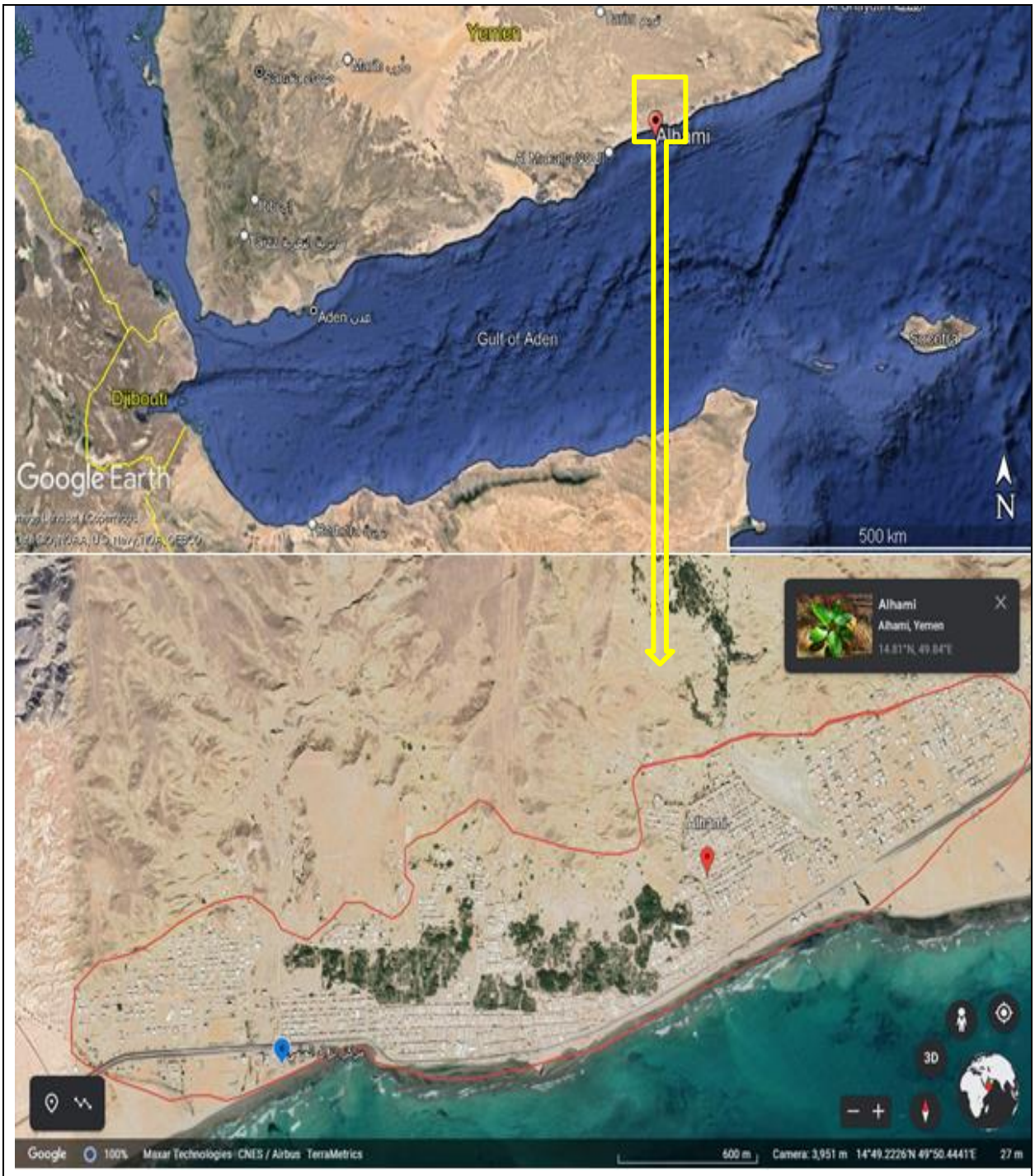
Governorate	Subproject-ID	Subproject Name	E (Y)	N (X)	Google Map Link
Hadramaout	07-09-16080	Rehabilitation and Development of AL-HAMI Fish Landing Center – Alshihr district	49°49'12.6"	14°48'31.5"	LINK[11]

[10] M. J. Sanders, & G. R. Morgan. (1989). *Review of the Fisheries Resources of the Red Sea and Gulf of Aden.*

[11] https://www.google.com/maps/place/14%C2%B048'31.5%22N+49%C2%B049'12.6%22E/@14.8087455,49.8215204,381m/data=!3m2!1e3!4b1!4m13!1m8!3m7!1s0x3de83b66601b4415:0x289e09fccb564e38!2z2KfZhNit2KfZhdmK2Iwg2KfZhNmK2Y7ZhdmO2YY!3b1!8m2!3d14.8144296!4d49.8368121!16s%2Fm%2F076xnvm!3m3!8m2!3d14.808744!4d49.820175?entry=ttu

Subproject location:

Figure 1: subproject location



The project location of Alhami landing center -taken by Google Satellite

3 Environmental and Social Baseline conditions:

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.).

3.1 Socio-Economic[12]

Hadramaout: located in the southeast of the Republic of Yemen, bounded by the Arabian Sea on the south, Al-Mahra governorate on the east, Saudi Arabia on the north and the governorates of Shabwa, Marib and Al-Jawf on the west. It occupies 36% of the total 555,000 square km area of Yemen. It consists of 28 districts, distributed between the coastal and valley regions. Mukalla and Alshihr are the main cities in the governorate, is the most important city in the coastal strip. Hadramout governorate is located on a coastal strip, 620 km long, extending along the shore of the Arabian Sea. Several ports, are located along this strip, most notably the port of Mukalla, and the port of Al-Shihr (Al-Dhaba). The latter is one of the three main Yemeni loading terminals of crude oil besides the port of Belhaf on the Arabian Sea, and the port of Ras Isa on the Red Sea in western Yemen. The port of Al-Shihr (Al-Dhaba) was established in 1993[13].

Demographics

The basic social and economic survey reveals that the total population is 12,196 people consisting of 6,068 males and 6,128 females. The survey also revealed that there are 302 men and women with disabilities in the area, while the number of fishermen is about 1,200 with their boats (600 boats) that used it daily for fishing and landing their catch.

The social composition of the region consists of several tribes characterized by respect, love, and kinship. The most important good practices and customs are their financial assistance to one another as well as encouraging boys and girls to complete their education. They agree on the public interest. Its original inhabitants are among the most skilled sailors in the south of the Arabian Peninsula[14].

The number of housing units in the area is estimated at around 977 housing units. Most of the houses are apartments consisting of two or three floors, with an average of 4 rooms per floor and an average of 4 to 5 individuals living in these apartments.

[12] The data were collected by the PWP technical team during the survey, and other data were taken from the website of the National Information Center, or from the Wikipedia site

[13] Abaad Studies & Research Center. (2023). Hadramout: Intersecting Interests and Conflicting Agendas. Retrieved from https://abaadstudies.org/news-59959.html

[14] PWP technical team, The socioeconomic study of the fisheries rehabilitation project in Al Hami area. Hadramaout

Regarding the living standards of families in the area, the poverty rate is 50%, while families with medium income make up about 40%. The remaining families have good income levels. The unemployment rate in this area is approximately 20%.

The economic activity

The sources of income for beneficiary households within the area consist of several fields, including fishing, agriculture and government jobs. Women play an important role in the area as most women there have government jobs in the health, education and teaching sectors, and also work in the private sector such as beauty centers [15].

Access to basic services

Education in the area receives great attention from the government, international organizations and civil society associations present there. There are 6 educational schools in the area; 4 schools for basic education for both sexes of boys and girls and 2 secondary schools, one for boys and one for girls. It also has 3 kindergartens.

Regarding the health sector in the area, there is a hospital that was recently developed and rehabilitated which has been received many medical cases and health activities. In addition, there are also 3 well-conditioned government health centers, 2 non-functional health centers that have not been furnished, in addition to the presence of a private health center and some clinics

There are many sources of potable water available for daily uses in the region, and the most important of these sources are wells that contain fresh and potable water. There are also water networks through collective reservoirs that operate by gravity and others with electric generators used to pump water for homes. Other sources used by the community are sulfur water and wells, which are used for agricultural purposes.

Regarding sewage in the area, there is no sewage system. Some residents use private and uncovered septic tanks while others discharge sewage into the sea, causing pollution of seawater.

Electricity services in the area are available from the government and are continuously being improved. Communication services are also available and in good condition.

Civil Society Associations in the region:

Civil society associations and the private sector have a vital role to play in conserving the environment as well as degrading the environmental resources. NGOs are among the Associations that play a major role in the Yemen society. Most of these associations aim to develop and strengthen fish value chain and provide services in the same field, as well as providing loans and contributions to supporting cultural and social services for fishermen.

[15] PWP technical team, The socioeconomic study of the fisheries rehabilitation project in Al Hami area. Hadramaout

There are approximately 9 non-governmental organizations in the area that work in the fields of development and society, focusing on women and youth in general.
Empowerment for Development and Human Rights Foundation: Their goal is to empower marginalized groups and promoting human rights in the area.
Wasal Development Foundation: Their aim is to provide resources and support for sustainable community development projects.
Hassanat Charity Foundation: Focuses on implementing humanitarian relief and aid programs.
Sanad Foundation for Development: Their mission is to work to improve livelihoods and social and economic conditions through development projects.
Al-Muawasa Association for Development: aims to implement developmental projects that improve people's living standards.
Insistence Association for Rehabilitation of Disabled: aims to provide care, rehabilitation and support services for people with disabilities.
Coastal Fish Association: aims to represent the interests of local fishermen and supporting the fishing industry.
The Association of Fishermen of the Al-Hami region: aims to represent the interests of local fishermen in the Al-Hami area and defend their needs and rights.
Agricultural Association: Their goal is to promote modern agricultural practices and supporting farmers.

Fishing[16]

Fisheries play a major role in contributing to both poverty alleviation and food security in Yemen as a whole, and currently provide livelihoods for some 60,000-80,000 artisanal fishermen and their families. In many coastal communities, fisheries remain the dominant sector of the economy, and in addition to direct employment and income, create many additional jobs and considerable income through multiplier effects.

Fish harvesting is mostly a full-time, male activity. Women are almost completely cut off from any aspect of direct fishing, and their role is in fish processing, at least among the fisher communities. The fishing expertise of individual fishers (i.e., the duration in fishing) is a key element, because all fishing activities, at the different production cycles, needs know-how. Fishing expertise also dictates behavior and codes of conduct, such as best practices in resource management and conservation. The total number of persons (men) directly involved in fisheries (fish harvesting) is about 1,200. However, a much larger population (difficult to estimate) is involved in different fisheries related activities, such as fish products processing and marketing, transport, boats building and repairing, etc.

According to a report by the Fisheries Cooperatives Union (FCU), there are 14,000 fishing vessels in Yemen. The number of boats benefiting from this landing center is about 600 boats, of which 60 boats are not working. Two basic types of boats may be found in all Yemeni coastal areas:

[16] Bonfiglioli, A., & Hariri, K. I. (2004). Small-scale Fisheries in Yemen. The World Bank.

- The huri is the most common: it is a canoe-like boat (from 6 to 20 meters long) of 15, 20 or 25 tons hold capacity, with an outboard engine; its crew is generally made up of 2 to 6 persons. Small huris can be seen anchored or lying on the beach, at all fishing centers. They cannot be operated when the seas are too rough.
- The sanbuuq is a large wooden boat, with an inboard engine. There are different types of sanbuuqs, ranging from 25 to up to 70 tons hold capacity; 12 - 15m long keels with 150 - 250 horsepower diesel engines). capacity (up to 5 tons of iced fish), and size of the crew (10 to 20 persons or more). Figure 2 shows these two types of boats.

Figure 2: Types of boats found in Yemen

A fiberglass larger *huri* with a 3-person crew

Large sanbuuqs

Manual fishing methods include a variety of fishing gear such as handlines, trolling lines, longlines, traps, cast nets, beach seine-nets, gill nets and round hawl nets, and so on, according to fish species . A boat should normally be equipped with different types of nets, according to the seasons and the types of species harvested. The lack of ice and ice storage on the boats is considered as a major constraint of the entire artisanal industry. However, large boats take ice (about 1,000 kg per fishing expedition). According to Republican Decree Law No. (42) of 1991 Regulating the fishing, exploitation and protection of aquatic life, which authorizing the Ministry of Fisheries and its affiliated bodies to determine of fishing areas, the opening and closing of fishing seasons, also identify fishing gears that not due harm to aquatic life[17].

According to Regional Organization for the Conservation of the Environment of Red Sea and Gulf of Aden PERSGA, fishing is a highly seasonal activity, which depends on climatologic elements (variations in winds and sea conditions) as well as on fish behavioral factors (some fish species is available throughout the year, others only at certain times of the day or at certain seasons). Artisanal fishing is mostly concentrated within 40 km from shore. There are high seasonal variations in terms of fish harvesting, depending on the species and their characteristics(see table 4). During the period June-September (south-west monsoon):

[17] For more information see link: https://yemen-nic.info/db/laws_ye/detail.php?ID=11319

While catch of sardines stops completely, catches of other fish stocks increase. Shark is the only stock which is not affected by the monsoon. In the period March-April: peak of Yellowfin tuna catches. Lobster fisheries is closed from June to September, and the most productive period is from October to December.

Table 4: Seasons (Yemeni coastal areas)

PERIOD	ENGLISH	ARABIC
April-June	*Pre-monsoon*	*Futtur*
June-Sept.	*Monsoon*	*Shamal*
Sept-Nov	*Post-monsoon*	*Futtur*
Nov-March	*Winter*	*azyab*

From an economic point of view, the dominant species in the Yemeni waters and in coasts of Hadramout is the Yellowfin tuna. However, in terms of quantity, the sardines are the dominant species (at least in the Gulf of Aden eastern waters). Sharks (Lokham) are very important, but they require special attention. There are other marine products that are caught in the region, such as Kingfish (Dairak), Lethrinus (Gahsh) Tuna (Thamad), Shrimp (Gambari), Crabs (Saratan), Bagrus (Bayadh), Rock lobster (Shuruuk Sakhri), Parrotfish (Babagha), and others.

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 war[18]. 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, which highlights the need to expansive programming in stock assessment and fisheries management, a need the SFISH project is undertaking through other subprojects. 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 amount of fish reaching Al-Hami fishing area per day is approximately 20 to 50 tons per day and this is from October to May, while the amount ranges between 8 to 15 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).

[18] https://sanaacenter.org/ar/publications-all/main-publications-ar/9509

Physical Environment

3.2 Meteorological conditions:

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 November and between 35 - 36 degrees Celsius during the months of June to August[19].

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[19].

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 monsoon[20].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.

Regarding the duration of sunshine, the variation in the average number of hours of sunshine throughout the year is small, ranging from 8.5 - 10.5 hours/day with the possibility of increasing in the months of May, October and November[19].

The daily averages of solar radiation range from 16 to 16.5 mega joules/square meter/day during May and June and 12.5 - 13 mega joules/square meter/day during December to February[19].

As for rainfall, amounts of rainfall are modest, up to 100 mm/year, with 80% of this rain falling between January and June[19].

The amount 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/year[19].

3.3 Hydrology:

Ground Water:

The sulfur water: They are a type of hot springs and they are abundant in the region where there are more than 23 sulfur springs, of which 8 are the main springs and all located within a radius of 1 km and the sulfur content varies from one spring to another and their temperature ranges from (80-90) degrees Celsius. Some of them are used for agricultural purposes but the main use is used as a tourist and therapeutic destination at the same time (most visitors use them to treat some rheumatic or skin or even

[19] National Research Center. (2015). https://yemen-nic.info/gover/hathramoot/brife/. Retrieved from National Research Center.

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

respiratory diseases). There are no accurate studies or references for these springs and this data was obtained from a video interview with one of the inhabitants of the region[21].

Wells: There are also many wells in the area and they are used as a main source of drinking water and are formed slowly from rain and flood water, as well as for agricultural purposes. Research was carried out to measure the data quality of nine water wells of Al-Shihr which 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 and the water produced are of good quality[22]. The landing center depends on the well located in the center, which is brackish and salty and used for cleaning purposes, thus preventing wasting good quality water from the main local network. As for making ice, drinking, etc., the main local network is extending from wells that are about 5 kilometers away and (Al-Haddad Field), through a collection water to tank and from there distributing water by gravity to the internal networks and from there to the center.

Surface Water:

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 turbidity in the coastal region is highly dynamic and closely associated with the atmosphere, and ocean variability, such as cyclones[23] and algae blooms[24].

Suspended sediment particles control the transport, reactivity and biological impacts of substances in the marine environment and are a crucial link in interactions between the seabed, water column and the food chain [25].

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 Hadhramout 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 is attributed to astronomical

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

[22] Gumaan, D. S., & Wahdain, A. S. (2022). Computational study of physical and chemical parameters of groundwater quality monitoring and outskirts in Ash-Shihr town.

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

[24] Wang, M., & Shi, W. (2008). Satellite observed blue-green algae blooms in China's Lake.

[25] Turner, A., & Millward, G. (2002). Suspended Particles: Their Role in Estuarine Biogeochemical Cycles.

effects, effects of evaporation, very low to negligible precipitation and river discharge, atmospheric pressure, and steric sea-level effects.

Currents:

Currents are stronger in the Gulf of Aden than in the Red Sea and are associated with the direction and force of the north-east and south-west monsoons. During the winter, driven by the north-east monsoon, they set west-south-west along the coast of Yemen at an average rate of around 0.25 knots. The middle of the Gulf of Aden, the current sets from the Horn of Africa to the west at average rates of 0.5 knots. However, stronger rates have been reported in some parts of the Gulf of Aden. For example, at the oil terminal 60 km east of Mukalla, maintenance diving on the oil loading buoys has been delayed from time to time due to strong currents of perhaps 1.5 knots setting to the west. During the south-west monsoon in the summer months, the current along the Yemeni coast consistently sets east-northeast at an average rate of 1.0 knot, although rates of up to 3.0 knots have been recorded at this time. In the middle of the Gulf of Aden the currents are more variable, with counter currents tending to set from east to west[26].

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 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[26].

Pollutants

Petroleum and maritime traffic

Routine operational leaks and spills from the fishing and transport it to fisheries the major source of marine pollution. While the boats are working, oily water accumulates in the bilge wells of the fishing boats/vessels[27], from normal processes such as fuel and oil spills from which bilge water is produced. This bilge water is often pumped into the sea with little or no treatment, contaminating the water with motor oil, hydraulic oil and other lubricants. Also, accidental fuel and oil spillages occur when boats and fishing vessels refuel, maintain their engines and fuel tanks, or when equipment malfunctions occur. Even small fuel spills can contaminate large areas of water. The intervention includes establishing a maintenance workshop with a paved area (19 x 11 meters) at the fish landing center to carry out routine maintenance for boats, starting with changing oils, maintaining boats and equipment, filling fuel, installing and maintaining spill-prevention tools, and other maintenance work for boats and fishing equipment. The workshop will be built of an impermeable surface of concrete to prevent contamination of soil and water.

[26] Gladstone, W., Facey, R., & Hariri, K. (2006). State of the marine environment: report for the red sea and Gulf of Aden. Jeddah: Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden (PERSGA).

[27] Bilge wells are the compartment located in the bilge area of the ship, i.e. the bottom-most part of the ship that is designed to collect and hold the wastewater that is generated on board the ship.

Temporary containers will be created appropriate to the type and quantity of spills to collect spills which sells to be reused in cement factories, as this will be manage by landing site administration and community committee.

Liquid and solid wastes

Often when processing fish on fishing boats, waste oil, blood and offal are discharged directly into the auction hall. This oily fish waste spreads in the water and coats the wildlife. Additionally, to wastewater being released untreated into the environment, human and animal waste that contains bacteria, viruses, nutrients, chemicals, medications, soaps and detergents, plastics, debris, and other solid waste pollutes seawater.

The environmental study of the area showed that it is environmentally clean except for the existence of a drainage channel for the sewage of the garden hall to the sea and it represents blood and mucus residues that cover the fish and sea water, and it does not pose a danger or pollution to the marine environment. The intervention also includes the establishment of a Septic tank and soakaway pits to treat wastewater resulting from sewage and fish cleaning and drain it to soakaway pits. The the septic tank operation is based on an aerobic bacteria which digest sludge, after that the treated wastewater will flow to soakaway pit to be permeate the in soil layers.

3.4 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.

3.5 Soil and Geology:

Hadhramout coast as coastline of Hadhramout province constitute nearly 14% of the Yemeni total coast and more than 20% of the North Gulf of Aden coast[28]. 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 stone around Al-Shihr, with outcrops sometimes over 500 m in height and beaches and sand dunes in between. At Mukalla to Al-shihr the 500 m contour is 5 km from the coast[26]. Depths of the Gulf in the corresponding part of the coast of Hadhramout 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[28].

According to study (An Environmental Impact Study of Rehabilitating Some Fish Landing Centers in Hadramaut Governorate) was conducted by PWP including the site of the fish landing center in Al-hami 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

[28] 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).

jetty does not exceed 25 meters), and it is a sand stone coast except that it is covered with sand during periods of the year and is exposed during autumn and winter (Figure 3). 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 shore line, as well as more than 10 meters away from the erosion line. This arrangement satisfies the national regulations of Yemeni Law No. 2 for the year 2006.

Moreover, the marine environment opposite the landing center has a solid, elevated rocky seabed that is exposed during low tides (Figure 8), which made the fishermen anchor on the beach on the sides adjacent to the landing center and not opposite it which causes them the trouble of transferring the caught fish to the landing center by car.

Figure 3: Overlooks coastal of Al-hami

The coastal of Al-hami landing center

3.6 Air Quality and Noise:

In general, there are no specific measures that indicate the level of noise in Yemen, but there are many sources of noise in Yemen, the most important of which are traffic, construction work, and sports, social and religious activities. As for the area in which the project will be located, the sources of noise are from traffic as well as social activities (such as weddings) and religious (mosques in the area). It is far from the project locations.

3.7 Biodiversity:

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 types [29].

In this area, there are no mangrove trees or 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. There are fertile farms and many types of trees in Al-hami. No rare trees were mentioned. 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 Arabia [30]. In Al-hami 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 Tropical Bird (*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, the Al-hami region is not reported as a migratory bird sanctuary, some common gulls were observed during the visit of the area by the PWP technical team (Figure 4).

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 islands 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

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

[30] Al-Jumaily, M. M. (1998). Review of the mammals of the Republic of Yemen.

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. This area is located about 35 kilometers from the project site. According to the survey conducted by the team, no marine turtles were previously or currently sighted at the project site.

Figure 4: the birds that observed in the region

Seagulls have been observed in an intertidal area during low tide.

3.8 Existing Situation of the Targeted Area:

Al-Hami Fish Landing Center in Hadhramaut is located on the Golden Coast Road. It is considered one of the most important investments related to the marine fishing sector in the region. It is a key element in the local economy as it is the primary driver associated with the fishing. It was established in 1998 with an approximately area of 10,000 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 PWP technical team has visited Al-hami site during the course of preparation of this report. There were a number of environmental and operational issues that were recorded during the site reconnaissance. In general, the site is suffering from inadequate levels of hygiene due to lack of sanitary wastewater collection infrastructure. The Power Plant was observed to release visible air emissions from relatively short stacks. The present condition of landing site construction is in a bad shape as climatic harsh condition has deteriorated it and have to be

rehabilitated. Local fishermen suffer from the deterioration of their fish and marketing failure because of the ice factory is currently not working because the refrigerator has corroded and also because there is no source of fresh water available at the center. As well as there is no fish store at the center and it is considered one of the essentials that facilitate proper circulation of fish for the center, preserving them and ensuring the safety of their quality and guaranteeing their marketing. see photos for the existing situation below.

The center's planned facilities will help accommodate a large volume of daily fish production and provide opportunities for many fishermen. The center will:

- Allow many fishermen to sell and exhibit their fish products.
- Preserve and store the fish properly to maintain quality.
- Repair and maintain the fishermen's boats to keep them in good working condition. This will ensure operational continuity.
- Provide fresh and brackish water for drinking, and cleaning . Fishermen will need water for basic needs and to prepare their catch.
- Treat and dispose of wastewater from the facilities properly to be environmentally friendly.

Figure 5: Existing Situation of the Targeted Areas

	
Corrosion of some parts of fish landing facilities	The current sewage of the landing center, where it is discharged to the sea

<table>
<tr><td>  </td><td>  </td></tr>
<tr><td>The center's current auction hall is unable to accommodate larger quantities</td><td>Some facilities are no longer able to operate fish landing center.</td></tr>
<tr><td colspan="2">PWP technical team took pictures during their visit in February 2023, and it shows the current condition of some dilapidated facilities in Al-hami Center</td></tr>
</table>

3.9 Targeted Beneficiaries:

The intervention aimed at strengthening regional fishery information management and improving capacity for sustainable production and economic opportunities for beneficiaries across the fishery value chain in Yemen.

Most of the local community work in fishing and agriculture as well as daily wage labor and also in government jobs. The number of beneficiaries from the project is around 12,196 of which 6,068 are men and 6,128 are women. The number of fishermen in the area is 1200. Most of the beneficiaries in the area are those working in the center, from administration to workshops and workers and traders as well as consumers and the local community residing around the center. The beneficiaries will benefit from the project during both its implementation and operation. The new facilities will create new job opportunities for both women and men who are not fishermen. Table 5 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	Beneficiaries		
			Male	Female	Total

07-09-16080	Rehabilitation and Development of AL-HAMI Fish Landing Site – Alshihr district	3	6,068	6,128	12,196
Total		**3**	**6,068**	**6,128**	**12,196**

PWP will utilize the available allocations to cover the beneficiaries' needs at the sub-district level. In some cases, the allocations for sub-districts are not enough to cover all their needs, therefore, PWP identified priorities of local community through participatory methodology, as these priorities will be achieved by the available allocations.

The selection of the community beneficiaries is based on transparent eligibility criteria and consultations with communities and local leaders. Before implementation and during the participatory consultations with local communities to define the interventions, PWP's teams confirm the local priority intervention and ensure that the intervention is in its suitable place.

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 and significant, 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 have 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 (Responsive Criteria and Exclusion List):

This sub-project is eligible for support as per the PWP Environmental and Social Responsiveness (ESR) Criteria at the Proposal Stage- see Annex 3

4.3 Environmental and Social Screening:

An Environmental and Social screening has been conducted by PWP safeguards staff, field staff, and designer engineers through site visits to the sub-project site, using the screening checklist available in Annex 2.

Positive impacts:

During the design phase, a team was assembled to conduct environmental, social and engineering studies to identify risks and threats that the project may face during implementation and operation. The community was consulted about their needs and priorities to mitigate most of the issues they face in the area. Women played a role in identifying priorities and were nominated to participate as member in the community committee for monitoring and evaluation the subproject implementation.

During the implementation phase, an important social benefits that the project will bring is the creation of new jobs for professionals, craftsmen, and daily wage workers in the area. This will temporarily reduce unemployment and improve living standards during the implementation period and support the construction sector in the area. There will also be a temporary boost to the local economy through increased demand for goods and services. Those with limited experience will gain new skills, and the community will gain confidence that their needs have been met.

During the operational phase, the sub-project can have a positive impact on the environment by utilizing the available fish resources in the area effectively, improving their quality, preserving them, and managing their resources sustainably and reduce loss of value in the fisheries sector. It will also protect the marine environment from solid and liquid waste. The operation of a rehabilitated infrastructure of the landing site will empower further future measures in fisheries management and stock conservation.

As for the positive impacts on fishermen during operation, the project will accommodate more fishermen than before, improve their daily income, and ensure the continuous maintenance and repair of their boats. Additionally, the project will enable them to store their products for longer periods. The community will benefit from healthier food options from the fish bought, and a healthier environment around them will be created. Improvements will help the center administration in raising the work standards and allow for more a controlled supervision and monitoring process for the catch.

Negative risks and/or impacts:

During the implementation and civil works phase of a market sub-project, there are potential negative impacts on the environment that may occur such as: Soil and surface water contamination from fueling and maintaining equipment, civil works (earth works, concrete works, and paints used in construction), and general construction waste. Effects on air quality due to the generation of dust and particulate matter from civil works and gases emitted from equipment. The operation of heavy construction equipment and steel works will generate vibrations and increase in noise levels. Probability of an archaeological discovery during the activities.

During the implementation and civil works phase of the sub-project, potential negative impacts on the community and fishermen may occur such as: Poor management in construction waste, equipment, and storage of construction materials during construction could cause public health and safety and

inconvenience and delays for fishermen. There are also negative impacts affecting the community such child labor as poor families push their children under the age of 18 to work in the subproject or with suppliers, Sexual Exploitation and Abuse (SEA)/Sexual Harassment (SH), discrimination against women and persons with disabilities when selecting beneficiaries, financial exploitation of the community or beneficiaries, fraud, bribery and corruption in the sub-project activities, and traffic accidents involving community members and workers. There are new facilities being constructed, so it is necessary to ensure conserve the current infrastructure such as water, electricity, communications, and sewage systems in the locations of the new facilities. Injuries may occur to pedestrians, and children entering the work site.

With regard to occupational health and safety during implementation, minor and moderate injuries may occur during the activities of the subproject for workers, including injuries related to using scaffolding, ladders. Injuries related to heavy transportation and construction equipment such as overturning, collision, falling from heights, falling in excavated zones and injured accidents. Injuries related to collapses Structures that are under construction due to insufficient support such as scaffolding and formwork. Risks related to exposure to chemicals or hazardous materials and handling such as paints, cement, insulators, and others. Damages related to excessive exposure to noise from heavy equipment, machinery and tools. Electrical hazards that may lead to electrocution of workers or ignition of fires. Injuries due to slips and trips due to wet, uneven and stacked surfaces on construction sites. Injuries related to extreme weather, such as exposure to extreme heat or cold. Hazards related to confined spaces such as tanks, pits, sewers, etc. The center component may be constructed using poor workmanship, which could lead to problems such as leaks, structural damage, and electrical hazards. Damages related to fatigue due to long working hours, physically hard work, and dangerous conditions. Transmission of diseases and epidemics among workers such as Cholera. Risks of drowning.

Risks during operation.

During the operation phase of the sub-project, there may be potential negative impacts on the social and environmental aspects such as the depletion of fish stocks in the surrounding waters due to poorly managed fishing practices. The risk of increase in boat and fishermen number as a result of the upgrading and increasing auction halls capacities to receive more fishermen which may in turn put a pressure on fish stock in the area/overfishing.

The subproject takes place in a context where overfishing is possible. Exploitative fishing techniques and using non sustainable fishing gear and methods may pose a risk on biodiversity and fish stock. Additionally, fishing during spawning seasons may also decrease the number of mature fish and damage the value of the fisheries. The deterioration of government-controlled centres and weakness of monitoring practices are a key reason for the proliferation of such practices.

Furthermore, improper maintenance of boats and accidental oil and fuel leaks may impact the biodiversity in the area. Improper disposal of fish waste, oils, and chemicals used in the center has the potential to damage the water, soil, and air. There is also a risk of increase in boats around coral reefs and their deterioration. The high-water use in the center requires a lot of water which can stress the created water supply if not used efficiently. Underage child labor, especially during peak seasons. Health and safety issues may arise where workers in maintenance workshop or during handling fish waste, biohazards, and poor hygienic practices are exposed to injuries. The maintenance, operation, and preservation of the center. Risks of fire from generators may also be present.

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

4.4 Land Acquisition/use and Economic and/or Physical Displacement:

The intervention will be implemented on the same land of the existing location (Which has an area of about7000 m^2), which is owned by the Ministry of Fish Wealth in Hadhramaut Governorate as outlined in the document provided in the Annex 4. Therefore, no potential land acquisition, physical and/or economic displacement will be triggered (more details in Resources and Services' access restrictions in section 4.5), there is no land acquisition issues could affect the developing and construction .The sub-project will not cause any temporary economic and/or physical displacement because the intervention will not change the old buildings in the area, and fishermen and shop owners can carry on their works without any interruption .

The Public Works Project (PWP) has further formalized its commitment to implement this sub-project by securing a social agreement with the targeted community and local authority. The social agreement was 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 subprojects 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). To review the signatures and stamps of parties with targeted communities and local authorities to implement this subproject, as detailed in Annex 4 of the same document.

4.5 Resources and Services' access restrictions:

The sub-project will not cause any restrictions to the available services and facilities at Al-Hami Fishery Landing Center site during the implementation period. As the project aims to establish new facilities and components in a planned manner to avoid any disruption to the center's daily operations. The project will also not include any rehabilitation or maintenance works for critical facilities such as the existing auction hall. Moreover, work activities will be implemented section by section in coordination with community committees. The contractor will provide all necessary measures to ensure the safety of workers and site visitors according to the specifications, and health and safety requirements stipulated in the contract.

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. The

subproject will take into consideration providing local communities with all support that increase their livelihoods and beneficiaries. This will include people with disabilities, females, males, and children.

Child Labor:

According to project ESMF and LMP no child labour/forced labour will be hired for subproject activities at all work sites including subprojects' quarries. The minimum accepted age is 18 years old, and verification of age will be done before starting the work by checking IDs and other available documents before the commencement of any work. A labour 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.

Gender Equity:

Both males and females have been considered beneficiaries when designing the subproject. Additionally, persons with disabilities have been considered during the design phase, where a ramp has been designed to serve people with disabilities and special needs. PWP is mainstreaming Gender in all aspects of the sub-project's cycle as well as raising awareness amongst the community both males and females on job opportunities during sub-project implementation. The total number of targeted beneficiaries for the subproject is 12,196 including 6,068 males and 6,128 females. The number of children under 18 years old is approximately 10,342, comprising 5,321 boys and 5,210 girls. The physically disabled individuals, both males and females, number around 203. The total number of households is approximately 3103, according to the 2022 census. The benefiting fishermen in the area amount to 1200. The following table illustrates the population by age groups.

Table 6 Subproject population by age groups

location	Age Groups	Males	Females	Total
AL-HAMI	1-5	2267	2248	4515
	6-14	1620	1657	3277
	15- 17	1245	1305	2550
	18 - 64	689	694	1383
	65 and older	247	224	471
Total		6068	6128	12196

Women play a significant role in the region, as most women are employed in government positions in sectors such as healthcare and education. Additionally, they also work in the private sector, including beauty centers. It's known that women don't participate in the fishing process, but they contribute to activities like cleaning, drying, and preservation. PWP will give chances for women to work in the sub-project as a workforce according to their physical ability and according to the culture in the sub-project area. Women who meet requirements have been encouraged to participate as supervisor engineers as well as contractors and can get into the tender competition according to the WB procurement procedures for works and supplies.

Public Consultations

The consultation was conducted on 8thFebruary 2023 with 35 males and 21 females from the local communities. A wide spectrum of participants, including prestigious people in positions of authority, participated in this consultation. They were among them (Local Administration Manager, Responsible for the Fish Landing Center, 5 Association Managers, a regional Works Manager, Lawyer from the Water Authority, Administrator at the Fish Landing Center, Project Manager of Works in the Region, and Social Worker). Also, PWP established the community committee in the targeted area by sending the social consultants' team (males and females) and conducting focal group discussions on 8th February 2023 including 21 women and 35 men to enable participation in the electing of the community committee. The elected community committee and the members including women and men participated in the decision-making, need assessment, and public consultation. Also, community committee consisting of 6 men and 3 women will participate in the monitoring of implementation, receiving the sub-project, as well as operation and maintenance. Furthermore, according to SFISH's ESMF under subcomponent 2.1-d (page 11) the training, and capacity building related to sustainable fishing practices, and maintaining hygiene and sanitary aspects to maximize the market values will be conducted by TVET centers, and Yemeni Fishery Exporters' Association.

Table 7 below provides the figures on Sub-project's beneficiaries, public consultations, and community committees per gender.

Table 7 Subproject's beneficiaries, public consultations, community committee per gender

Subproject ID	Beneficiaries			Public Consultation			Community Committees		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
07-09-16080	6,068	6,128	12,196	21	35	56	6	3	9
Total	**6,068**	**6,128**	**12,196**	**21**	**35**	**56**	**6**	**3**	**9**

Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH)[31]

PWP raised the awareness of community members, both men, women, and persons with disabilities regarding Sexual Exploitation and Abuse (SEA)/Sexual Harassment during the public consultation process as well as raising community awareness on Grievance Mechanism (GM) processes and how it can be used to address complaints resulting from project activities including gender discrimination and incidents of SEA/SH. 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, sexual exploitation and abuse, and gender-based violence a serious and punishable offense.

[31] 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

Conflict sensitivity and Do No Harm

PWP has its conflict sensitivity manual to manage any conflict cases during the project 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 community provide their consent, acceptance, and satisfaction with the chosen intervention. No concerns were raised by the community against the sub-project. Public consultation included ensuring conflict sensitivity screening. In case of conflicts that cannot be resolved, the sub-project will be rejected. Also, conflict sensitivity is taken into consideration in the monitoring and reporting processes during the implementation by the Technical Resident Engineer. Furthermore, the elected community committee is trained to manage, monitor, and report any conflict that might be generated during the project cycle. Generally, the sub-project will help to build the resilience of the community and improve their living conditions positively.

Environmental and Social Impact Analysis Plan and Mitigation Measures

This section consists of a set of mitigation, monitoring and institutional measures to be taken during the construction and operation of the project to eliminate adverse environmental impacts, offset, or reduce them to acceptable levels. On the other hand, it 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 assessment stage. 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 following table.

Environmental and Social Management Plan[32]:

Table 8 ESMP table

Sup-Project phase	Potential Impact Factor	Mitigation Measure	Personnel / Institution Responsible For Execution[33]	Estimated Cost
Social and Environmental Impacts				

[32] All the ES mitigation measures are obtained based on WB ESF and WB EHS sector-based guidelines for roads.

[33] During Construction Phase, the contractor is responsible for implementing the mitigation measures. PWP field staff/ resident engineer is responsible, monitoring and reporting on ensuring mitigation measures are implemented. During O&M phases, the Local councils and the Beneficiary Committees are responsible for O&M.

Implementation	Child labor/forced labor risk	• Ensure child labor is not permitted; all workers will be verified to be over 18 years old and above as per ESS2 • 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. • Verifying age by checking IDs and other available documents. • Ensure a Labor Log is available, and all workers are registered. • 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. • Training of workers on the Codes of Conduct. All workers to sign Codes of Conduct	• Contractor • Technician Resident Engineer • Community Committee	NA

Implementation	Sexual harassment, sexual exploitation and abuse	• Mandatory and repeated training and awareness-raising for the workforce about refraining from unacceptable conduct toward local community members, specifically women. • 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.	• Contractor • Technician Resident Engineer • Community Committee • Gender Focal Point	NA
Implementation	Discrimination against women, the elderly, youth, the poor, and persons with disabilities when selecting beneficiaries	• PWP adopts a non-discrimination policy that ensures a non-discriminatory and inclusive manner, including women and persons with disabilities when selecting sub-project. 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.	• PWP Sub-area Staff • Community Committee • Gender Focal Point34	NA

[34] 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.

Implementation	Financial exploitation of community or beneficiaries. Fraud, bribery, and corruption within sub-project activities	• Inform the beneficiaries that the sub-project is provided for free, and they should not pay anyone to get benefits from the sub-project. • Whistleblowers who report fraud, bribery, or corruption should be protected from retaliation and provided with support and legal assistance. • Prepare and publicize in the community a transparent recruitment procedure • 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 • Raise awareness among PWP Technician 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.	• Contractor • Technician Resident Engineer • Community Committee	NA

Implementation	Lack of workers' awareness and knowledge on respecting local community cultures, and social safeguard issues on SEA/SH.	• Implement a systematic awareness campaign to increase workers' awareness of local community tradition and cultures and the need to respect them. • Contactor and its workers to sign the Code of Conduct and receive regular training on the same. • Ensure workers respect and adhere to the Code of Conduct (CoC) for the local community's protection and do no harm. They will be trained on the CoC before each worker signs it • Ensure GM system in place to handle any complaints related to incidents of SEA/SH.	• Contractor • Technician Resident Engineer • Community Committee • Gender Focal Point	500$
Implementation	Damage to existing infrastructure	• Use the designs and plans of the underground networks in coordination with competent authorities to identify the location of the underground pipes and cables. • Repair any damage caused by the Contractor's activities, in coordination with concerned authorities. • Backfill service trenches as soon as possible after the service has been maintained and if possible, on the same working day.	• Contractor • Technician Resident Engineer	NA

Implementation	Public Health includes risks of public, visitors, fishermen, and children's access to the worksite.	• Install fences, barriers, dangerous warning/prohibition sites around the construction area which show potential danger to public people. • Place appropriate warning and directional signs at areas where construction is taking place. • Erect removable barriers. • Implement regular inspection by site guard. • Ensure all types of wastes are removed appropriately • Awareness of the public about risks and hazards at the project construction areas before the commencement on site.	• Contractor • Technician Resident Engineer • Community Committee	500$
Implementation	Restrictions on services or resources	• Phasing/sequencing of construction works to minimize disruptions. • Establishing alternative access routes/detours around construction areas to maintain access to resources/facilities. • Informing and coordinating closely with local communities in advance regarding construction schedules, closures and disruptions if there. • Work activities will be implemented section by section during low fishing seasons.	• Contractor • Technician Resident Engineer	NA

Implementation	No latrines near the project site and workers may have to practice open defecation.	• Allocating and rehabilitating from the existing public bathrooms in the center (Gender-segregated facilities). • Constructing a cesspit or prepare the Septic tank and connect it to the bathrooms in case proper sewage disposal for the latrines wastewater is not available. • Ensure regular cleaning of temporary latrines to ensure no odours are emitted and to avoid disease vectors. • Ensure proper housekeeping of latrines. • Managing and supplying water and soap in the latrine daily • Ensure soap and water are always present in latrines.	• Contractor • Technician Resident Engineer	1000$
	No skilled workers in the targeted areas for construction works.	• Skilled workers will be hired from targeted areas if not available from neighboring areas. • In coordinate with PWP and community committee, the contractor will finish the existing buildings such as guard's rooms and toilets to be used for workers accommodation in terms of minimum space 4m2 per worker. • provide good canteen and cooking and laundry facilities. • Allow for regular breaks and provide permanent water supply.	• Contractor • PWP • Technician Resident Engineer • Community Committee	NA

	Complaints Occurrence	• GM should be established by the Contractor and PWP • Inform the public about GM contact information and the method of submitting complaints; • Details of complaints received should be incorporated into the audits as part of the monitoring process and respond to settle the complaint quickly and accordingly. • All complaints must be addressed quickly within the timeframe given in the GM	• Contractor • PWP	NA
Implementation	Soil and surface water contamination from accidental oil spills and from liquid waste	• Ensure oil change, machine maintenance, washing of machinery or mixing cement is done at designated insulated areas by concrete away from the soil, water areas, and drains. • Properly store all types of waste and hazardous chemicals if any in insulated areas according to their Material Safety Data Sheets (MSDSs). • 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 • 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 • Ensure the presence of spill prevention kits and remove any spill instantly. • Avoid working during bad weather seasons, and dust storms and during rainy seasons	• Contractor • Technician Resident Engineer	NA

		• Only clearing/levelling areas earmarked for facilities that fall under small and medium scale construction and which would not dramatically change the hydrology of the area; moreover, leveling will be limited to the excavation area of new buildings.		
Implementation	Poor management in construction waste, equipment, chemicals, storage of construction materials, and Solid waste produced by workers	• The contractor must identify the locations and required areas for storing construction materials, equipment and waste at each project stage. • Ensure that workers regularly collect all solid trash in enclosed bags stored 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. • The contractor should continuously remove the waste immediately and transfer it to the approved disposal site. • Properly collect and load the debris and waste materials using well maintained equipment 'to suitable trucks with suitable load and put more emphasis on the safeguards requirements. • Minimize littering of roads by ensuring that vehicles are licensed and loaded in such a manner as to prevent falling off or spilling of construction materials, and by sheeting the sides and tops of all vehicles carrying sand, other materials or debris. • Concrete, soil, wood, metal - Can be disposed in an approved demolition waste landfill. • Arrange for waste hauling and landfill disposal in coordination with local waste authority.	• Contractor • Technician Resident Engineer	NA

		• Hazardous waste like paints, solvents - Requires special disposal procedures by approved hazardous waste handlers. Arrange for hazardous waste pickup and disposal at an approved hazardous waste facility. • General trash - Dispose in designated trash bins for pickup by waste collection authorities to be disposed in landfills. • Attach the waste receipt from the relevant landfill authorities. • The Contractor's staff should be trained in waste handling. • Burning waste will not be allowed. • Use the excavated soil for backfilling.		
	Air pollution due to dust from activities and gas emissions from machines	• Spray the work area with sea water or greywater efficiently and regularly to reduce the dust. • Use dust sweeping methods to avoid wasting water in dust suppression • Avoid working during dust storms and windy days. • Material loads must be suitably secured/covered during transportation to prevent the scattering of soil, sand, materials, or dust. • Exposed soil and material stockpiles must be protected against wind direction and the location of stockpiles shall take into consideration the prevailing wind direction.	• Contractor • Technician Resident Engineer	NA

		• Maintain machinery in good working conditions to minimize emissions including exhaust emissions of CO, NOx, and fumes. • Consolidate material deliveries to reduce the number of trips made to help reduce emissions and traffic congestion. • Ensure turning off vehicles and machinery when not in used. • Rise workers' awareness of the importance of air quality and energy saving measures (i.e turning off vehicles when not in use).		
	Noise and vibration are caused by machines, vehicles and steel works.	• Noise levels in activities will not exceed high noise limits "80 dB for 8 working hours", and exposure hours will be limited. • Schedule noisy activities or produce vibrations (steelworks, and excavations) during times when nearby residents are least likely to be affected during daylight hours. • Machinery must be maintained regularly to avoid exceeding noise emissions from poorly maintained machines. • Limit vehicle speed at critical locations. • Ensure using well maintained machineries and equipment	• Contractor • Technician Resident Engineer	NA
	Probability of an archaeological discovery during the activities	• Ensure to stop the work in the discovery area and inform the Antiquities Authority and the local authority.	• PWP • Contractor • Technician Resident Engineer	NA

		• Ensure to prevent seizing any archaeological items and deliver them to the Antiquities Authority with an official report. • Ensure that awareness sessions are held for all workers on the importance of archaeological finds and report any archaeological items that are found during the implementation of project activities	• Community Committee	
	Sewage and liquid pollutions discharge to sea water And Risks on coastal and marine habitats and related biodiversity	• 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 the used oil from the generator. Oil storage tanks/used oil must be stored/installed on insulated ground/concrete ground Any spills must be removed immediately • Limit noisy, disruptive activities. • Implementing spill containment and pollution prevention plans to avoid accidental releases of contaminants • Ensure regular maintenance by trained workers. • Ensure no presence of stagnant water from excavation • Avoid working during rainy seasons • Ensure all chemicals are stored, handled and disposed according to their materials safety data sheets by trained workers	• Contractor • Technician Resident Engineer • EPA	NA

		• Carry out regular biodiversity monitoring and inspection on the status of habitats (turtles, corals and other organisms present in the area) 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)		
Operational and maintenance phase	The depletion of fish stocks	• Using sustainable yield levels to establish total permissible harvest limits for major fish species. • limiting the use of certain damaging fishing gear after consulting with in coordination with local Environmental Protection Agency (EPA). • Designating specific regions as marine protected zones where fishing is prohibited. • Individual quotas for fishermen depending on catch limitations in coordination with EPA. • 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).	• Community committee, • Local Authority • Fish Association	NA
	Solid and liquid waste generated from facilities of the center ,generator, and boats	○ Liquid waste: • The liquid waste is piped to a septic tank, where solid waste is separated from liquids. • Natural sedimentation occurs in the filter pond, where solids sink at the bottom. The cleared liquid is then piped to a large collecting tank. • The treated water can subsequently be utilized to irrigate non-edible crops around the facility.	• Community committee, • Local Authority • Fish Association	NA

		• The collected liquidwaste from the septic tank is securely and hygienically transferred to a soakaway pit. • Regular maintenance and inspection should be carried out on the septic tank • Fishing boats' engines, Vehicles, and equipment such as petrol pumps must be subjected to regular maintenance to avoid any leakage of hazardous liquids in workshop maintenance on concrete bases. • Ensure that site machine repair workshops and petrol pump and generator room area have impermeable floors to confine pollutants and regularly inspect the area for spills. ○ Solid waste: • Properly collect, store and manage solid waste resulting from facilities of the center. • When the store is full, the waste is transferred to the vehicle by cleaners • The area of continuous disposal of waste generated from fish processing operations shall be determined in the designated place for waste approved by the local authority • • Transporting solid waste to the designated permitted sites, waste disposal sites allocated by the local authorities Other measures: • Implement a penalty fees for boats/fishermen who release waste into the sea • Ensure the presence of spill prevention kits near gas station • Remove spills right away		

		• Ensure refueling of boats is done in an environmentally safe manner (i.e enclosed surface to prevent leaks from boats into the sea) •		
	Air Emissions from organic waste and power generations	• Ensure that the generator is placed in a well-ventilated area, to disperse the gaseous emissions and reduces the concentration of fumes around the generator. • Maintain machinery in good working conditions to minimize emissions including exhaust emissions of CO, NOx, and fumes. • Cleaning regularly the selling yard to avoid the bad odors • Disposing regularly of the organic waste	• GAF • Community committee, • Local Authority • Fish Association	NA
	High energy usage	• 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. • 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.	• GAF • Community committee, • Local Authority • Fish Association	NA

		Raise awareness to workers/fishermen on good energy saving practices		
	High use of water	• Using water-efficient appliances and equipment • Reusing grey water from sinks, showers, and other sources for flushing toilets and irrigation of treated. • Installing water meters to monitor using • Raise awareness staff on ways to conserve water	• GAF • Community committee, • Local Authority • Fish Association	NA
	Child labor	• Ensure child labor is not permitted; all workers are 18 Years old and above. • Verifying age by checking IDs and other available documents. • Ensure a Labor Log is available, and all workers are registered. • Avoid fishermen that employ children	• Community committee, • Local Authority • Fish Association	NA
	Biodiversity Conservation and fish stock depletion	• 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. • Ensure not disturbing turtles that reach the landing site shore and release any caught sea turtle right away.	• Community committee, • Local Authority • Fish Association	NA

		• Carry out regular biodiversity monitoring and inspection on the status of habitats (seaweed, and other 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 agency (EPA) and fishing authority. • In the broader context, the UNDP is engaged in other major sub components 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.		
	The maintenance, operation and preservation of the center	• The GAF and fisheries associations are committed to maintaining the intervention • Conducting routine cleaning, disinfection, inspection and repairs of facilities to minimize disruption of operations. • Engaging certified contractors as needed to perform specific maintenance and calibrations. • Assigning clear responsibilities for maintenance chores after training and appointing accountable personnel. • Maintaining maintenance budgets, supply chains, and reserve cash for unanticipated repairs.	• GAF • Community committee, • Local Authority • Fish Association	NA

The occupational health and safety Management Plan

Table9 Occupational and Health Safety Plan

Tasks / Activates 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)	• 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., how to use tools properly mitigation measures, and workers' responsibility as well as the disciplinary action against any violation). • 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. • 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. • 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)[35] 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. • Ensure maintain occupational health and safety system in the site to protect workers from hazards and risks. • Workers sign that they have received awareness about the implementation of the activity, and that they understood risk assessment 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. • Involving the community committee in the monitoring of safety procedures and reporting any risks.								• Contractor • Resident Engineer • Workers	provide safety equipment for workers 38,000 from the intervention cost

[35] 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.

	• Emergency response plan to be in place with details of the nearest hospital or medical center, responsibilities are understood for all works, first aid boxes are available and a list of trained first aiders is posted and known by all workers. • In case activities at height take place, provide safety ropes if workers and fall protection devices. • Ensure effective monitoring to the worksites including inspections and spot checks to ascertain compliance with OHS measures. • Conduct regular inspections for any unsafe acts, near misses, or accidents. • Discover the root causes of any non-compliance cases or/and accidents occurring and suggest the corrective actions to avoid reoccurring. • Provide training on handling chemicals or hazardous materials. Ensure workers are trained in handling paints, cement, insulators, and others and are aware of its health hazards. Additionally, ensure that workers handle and store chemicals or hazardous materials according to its MSDS. • Ensure no work is conducted during bad weather conditions (i.e., sandstorm, dust storm, rainy seasons, etc.) • In case scaffolding, ladders, works on project surfaces are used, inspect their stability and ensure guardrails are installed prior standing on them. Workers must also use strong safety harnesses when working at heights. • Ensure proper speed limit and driving safety measures are adhered to including wearing seatbelts. • Use appropriate and proper equipment and ensure its safety before starting any activity • Preparing the site and the appropriate organization of materials, vehicles and machinery before starting any activity to ensure the safety of workers • Provide safety training - On hazard awareness, material handling techniques, PPE use, fall protection, housekeeping and emergency response. • Aware workers on the risks and hazards of sea water, enabling them to identify and avoid dangerous weather conditions and unsafe waterbodies. • Workers have the option to remove themselves from unsafe working conditions without any reprisals. • Adequate supervision to prevent swimming, and provide a trained lifesaver. • Provide life and health insurance to all project workers. • Regular breaks and provide drinking water for workers. • Report major accidents to the WBG within 48 hours by UNDP		

Excavation works	• Workers fall to the excavation site while standing on the edge, during going down or getting out of the excavation. • Citizens, children or vehicles falling due to the absence of special warning signals at night. • Collapse of the sides of the excavation on workers and equipment. • Injury to workers inside the drilling area with drilling equipment and machinery • Workers sustained burns or other injuries due to the use of explosive materials. • Injury to workers due to not wearing proper safety equipment • Workers or equipment may be electrocuted due to the presence of a nearby electrical source • Exposure to the hot sun during works causes headaches and psychological and neurological disorders		**x**		• Provide the worksites with guards 24 hours to stop an unauthorized entrance to the work sites. Add signs and barriers around excavated zones • The site official shall conduct daily inspection of the excavation area. • Place necessary signs to warn drivers if there is traffic close to the excavation area. • Ensure that there is a fixed entrance and exit to the excavation, and it is clear to facilitate the easy movement of the excavating workers • Sloping the sides of the excavation outward in proportion to its depth and soil type. • Place a reflective and luminous warning sign for traffic (if permitted to operate at night). • Not placing waste and materials next to the excavation, removing them, and arranging and cleaning the work site. • Ensure that there are no overhead or ground			**x**	• Contractor • Resident Engineer • Workers	Part of PPEs cost first item

	• Misuse of equipment necessary for excavation, or removal of waste. Exhaustion and injuries from excavation activities				services in the excavation area, or specify them, if any (electricity wires, water lines, sewage lines, telephone lines, etc.). • Stop working if the weather is not safe • Observe the measures to prevent soil movement when excavating and immediately report any strange phenomena that may occur. • Use of explosives is forbidden in any of project activities. This is clearly communicated to all communities. • Speed limits and traffic instructions signs to be followed by drivers and workers • Wearing high visibility clothing in the worksite. • Always keep a safe distance with work equipment • 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 times on-site.					

					Ensure regular breaks and potable water supply to workers					
Work in closed or confined spaces	• Injuries due to lack of oxygen or toxic gases • Variation in temperature (cold, hot) • Trapping risks inside these places Risks of contacting sewage		x		• A permit must be cut before entering any enclosed area from the site official to review the safety equipment before starting work in anticipation of any emergency. • 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)			x	• Contractor • Resident Engineer • Workers	Part of PPEs cost first item

					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 labor to implement these activities. • A suitable lighting shall be provided inside the confined areas during work hours. • 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. Ensure workers are wearing overalls before entering sewage tanks Ensure presence of washing machine and washing area for workers					

Work at height	• Fall of workers from ladders, scaffolds, rooftops, platforms, etc. • Fall of tools, equipment or materials from above and strike workers below • Struck of workers by falling objects or moving parts of equipment when working at height. • Risk of electric shock from power lines, electrical cords and equipment when working at height. • Failure of ladders, scaffolds or other access equipment. • Overextend or lose their balance of workers when reaching or working from ladders, platforms, etc. • Working at height during adverse weather		x		• Issue work permits that document hazards, controls and crew details for height work. • Wear personal protective equipment - Use helmets, harnesses, high visibility vests, protective footwear, etc. • Using fall protection systems such as harness systems tied to anchors, guardrails, fall arrest systems, etc. • Using only certified equipment. Wear head helmets • Train workers on the correct setup, use, and inspection of access equipment • Clearly demarcate and secure areas below height work to keep personnel away. • Install physical barriers like guardrails, enclosures and toe boards to prevent falls. • Secure loose tools and equipment to prevent them from falling.			x	• Contractor • Resident Engineer • Workers	Part of PPEs cost first item

	• Working on uneven, sloped or fragile surfaces at height • Collide workers with other persons, objects or equipment when working at height.				• Assign workers a buddy to observe for safety when working at height. • Conduct pre-use and routine inspections of access and fall protection equipment. • Inspect ladders and scaffolds prior usage and ensure they are properly fixed • • Have checkpoint controls to ensure only authorized personnel can enter fall zones. • Work should be stopped immediately if weather conditions become hazardous. • Take breaks often to rest and to avoid fatigue and provide potable water supply • Workers should inspect the area for any electrical hazards before starting work at height					

movement of equipment and vehicles at the project site	• Worker injuries from collisions or being struck by vehicles. • Damage to equipment from collisions with other vehicles or structures. • Environmental incidents like spills of fuels, oils or hydraulic fluids from leaky or damaged vehicles. • Increased congestion and reduced access/egress, especially on larger sites with lots of equipment movement. • Distractions and errors from equipment operators multi-tasking or using cell phones while driving.		x		• Ensure that vehicles are compatible with the working environment, suitable for the purpose, well-maintained and fitted with safety systems such as reversing aids, rollover protective structures and seat belts. • Require speed limits and backup alarms on vehicles • Plan the workplace so that pedestrians are safe from vehicles. Provide separate routes, crossing points, one-way systems, road signs, lighting and safe areas for loading and unloading. • Training equipment and vehicle operators on safe driving practices, as well as on the specific hazards and risks associated with the project site Ensure a presence of a flagman for work site arrangement and vehicle movements control • Produce a safe system of work for using and maintaining the machines. Check that the machines are complete, with all safeguards fitted, and free from defects.			x	• Contractor • Resident Engineer • Workers	Part of PPEs cost first item

	• Noise and dust from equipment operation. • Poor visibility due to weather conditions • People can fall from vehicles • Excessive speed or reckless driving				• Unskilled people driving cars and equipment are not allowed. • Enforce safety rules consistently through oversight and monitoring. • Driving during bad weather is prohibited • Pay attention and focus while driving. • Carry out machine maintenance and oil change at service centers if present • Ensure proper speed limit and driving safety measures are adhered to including wearing seatbelts during transferring equipment and materials to and from the project site.					
Manual handling	• Back injury caused by lifting, carrying or handling heavy or awkward loads • Hand injury caused by sharp edges, pinch points or contact with hazardous substances. • Hand-arm vibration syndrome (HAVS) caused by using		**x**		• Avoid the need for unnecessary manual handling as possible when suitable equipment is present. • Raise awareness to workers on safe lifting techniques to avoid injuries • Provide personal protective equipment (e.g., gloves, foot protection, and non-slip footwear).			**x**	• Contractor • Resident Engineer • Workers	Part of PPEs cost first item

	vibrating tools or equipment • Damage to nerves, tendons, and soft tissues from repeatedly performing the same manual handling tasks • Chemical injury caused by skin contact with harmful substances. • Noise-induced hearing loss caused by exposure to loud noises from machinery or tools • Workers accidentally collide with other workers, equipment or structures • Fall injuries caused by slipping, tripping or falling from height while carrying loads • Dropping loads when workers manually handle heavy or unsuitable loads				• Avoid adding two stored materials on top of each other (exceed permit load) • Ensure appropriate rest breaks, job rotation, and training are involved. Provide potable water supply to workers. • Ensure good housekeeping to remove tripping hazards from work areas • Provide training for workers on handling and storing any hazardous substances and materials and provide PPEs for each chemical depending on manufacturer's guidelines and MSDSs on safe handling specification . • Limit the distance that loads must be carried manually.					

electrical hazards	• Electric shock or electrocution during Coming into contact with live electrical wires or equipment • Fires due to Faulty wiring, overloading circuits, or damage to electrical components • Burns to workers exposed to electrical arcs and fires. • Workers tripped over exposed or dangling wires. • Exposure to hazardous substances used in some electrical applications.		x		• Using the proper personal protective equipment (PPE): This includes items such as hard hats, safety glasses, gloves, and arc-flash suits. • Isolate and de-energize electrical sources before working on them • Working in a well-lit area will help to prevent falls and make it easier to see potential hazards. • Using lockout/tagout procedures will prevent workers from coming into contact with energized electrical equipment. • Keeping electrical equipment in good working order • Training workers on safe work practices such as how to use PPE and how to identify and avoid hazards. • Worksites should be inspected for hazards on a regular basis. • Only qualified workers should be allowed to work with electrical equipment.			x	• Contractor • Resident Engineer • Workers	Part of PPEs cost first item

					• Ensure proper grounding and bonding of all systems and equipment • Secure or cover exposed wires to reduce trip hazards • ensuring power circuits are protected by the appropriate rated fuse or circuit breaker to prevent overloading • Using battery powered tools instead of mains operated where possible • Providing safe and suitable electrical equipment for example not using leads and tools in damp or wet conditions unless they are specially designed for those conditions • Only trained/qualified workers are allowed to conduct electrical works					
Steel working hazards	• Injuries from handling heavy steel beams and components. • Welding and cutting activities involve risks like burns, eye injuries, cuts, and electric shocks • Exposure to metal dust and fumes from welding, grinding, and cutting processes		**x**		• Using proper personal protective equipment this includes flame and cut resistant clothing, welding helmet with appropriate filter lenses, leather gloves, safety boots, and hearing protection. • Crews should communicate and coordinate lifting plans before each lift to ensure everyone understands the procedure and their roles.			**x**	• Contractor • Resident Engineer • Workers	Part of PPEs cost first item

	• Fall hazards when working at heights, especially during steel erection. • Risks from unstable or improperly supported steel structures • Injures due to failure of slings, chains, lifting beams or other lifting equipment .				Using local exhaust ventilation systems or position fans to extract smoke, fumes and gases away from the welder's breathing zone. Welding must be carried out in well ventilated areas • Areas below lifting operations should be roped off or flagged as safety zones to keep other workers away. • Workers should be trained on how to properly attach slings and lifting devices, signals to communicate with crane operators, and safe lifting postures to minimize strain. • Checking for cracks, bends or other damage that could compromise integrity during lifting. • Nylon ropes can be attached to steel beams to help workers guide and stabilize pieces during lifting and placement. • When welding, confine the area with barriers or warning tape to keep others at a safe distance from UV light, hot sparks and metal. • Inspecting welding leads, cables, and torches regularly for damage that					

					could cause electric shock. Replace faulty parts immediately. • Rotate workers or implement work-rest regimes to reduce the total amount of time exposed to fumes and dust.					
Concrete working hazards	• Injuries from handling heavy concrete materials like bags of cement, sand, and gravel. • Exposure to cement dust from cutting open bags of cement, concrete mixing and finishing activities. • Falls from elevated work surfaces like formwork, rebar cages and slippery concrete surfaces • Chemical burns from wet or freshly mixed concrete coming into contact with skin. • Noise exposure from equipment like concrete mixers, saws and vibrators • Electrocution hazards from operating power tools and equipment		x		• Providing proper protective clothing - Like goggles, gloves, boots and coveralls to protect against concrete burns, dust and chemicals. • Providing training for workers on handling and storing any hazardous substances and materials • Using mechanical aids to lift and transport heavy concrete materials - Forklifts, hoists, wheeled dollies, etc. • Providing dust suppression systems and ventilation to control cement dust • Installing fall protection systems like guardrails, safety nets and personal fall arrest systems wherever workers are at risk of falling. • Enforce the use of hearing protection. • Implementing a wet work procedure including the use			x	• Contractor • Resident Engineer • Workers	Part of PPEs cost first item

	near water or in wet conditions. • Respiratory issues from inhaling silica dust created when cutting, grinding or drilling hardened concrete.				of ground fault circuit interrupters, • Controlling silica exposure through dust suppression, local exhaust ventilation, isolation of dust sources and respirators. • Conducting regular inspections to identify and correct unsafe conditions before they lead to incidents. • Provide water and hand washing facilities so workers can thoroughly rinse skin that comes in contact with concrete. • Workers can apply creams containing ingredients like lanolin to act as an additional barrier on skin exposed to concrete.					
Paintwork hazards	• Exposure to hazardous chemicals such as solvents, paints, thinners, and cleaners, which can cause skin irritation, eye injury, respiratory problems, and other health effects. • Working in confined spaces, which can pose risks of low oxygen levels, toxic		x		• Wear suitable personal protective equipment (PPE) compatible with the chemicals used and the work environment such as gloves, goggles, masks, ear plugs, and coveralls. • Using local exhaust ventilation systems or open windows/doors to ensure good airflow and reduce inhalation of paint fumes			x	• Contractor • Resident Engineer • Workers	Part of PPEs cost first item

	fumes, fire, explosion, and entrapment13. • Paint spills and splashes can damage surfaces, goods and equipment not protected or covered properly during painting work. • Electrical hazards from working close to live electrical power lines or equipment.				• For tasks with higher chemical exposures, limit the work duration and rotate workers to reduce total exposure. • Know how to prevent injury from electrical hazards. Maintain safe distances from energized electrical equipment or utility lines. • 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 labeling of paints according to safety data sheets helps reduce accidental exposures. • Safety goggles help protect eyes against splashes or airborne paint particles that can cause irritation. • Hand washing and showering after paintwork 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. • Do not allow welding, grinding, smoking or any other ignition sources in areas where flammable paints are used. • Only keep the minimum amount of paint and thinners needed for the job in the work area. Store excess in a flammables cabinet. • Use drop cloths, masking tape, plastic sheets and other coverings to protect floors, walls, furniture and equipment from paint splashes and overspray. • Clean up spills immediately					

					• Restrict access to the painting area to only the workers actively involved in the job.					
Mechanical hazards	• Hazards include entanglement, amputation, crushing and impact injuries. • Failures in high pressure air, gas or liquid systems. • Uninsulated pipes, ductwork and equipment carrying hot fluids or gases can cause burn injuries. • Excessive noise levels from mechanical equipment like ventilation systems, compressors and pumps. • Inhalation and contact risks during storage and handling of materials used in mechanical systems • Vibrational injuries of the arm or whole body while using tools, compressors, and other vibration		x		• Using PPE like gloves, safety glasses, hearing protection and steel-toe boots to protect workers from mechanical risks. • Educating employees on hazards, controls, safety procedures, lockout/tagout and PPE use related to mechanical equipment. • Checking machinery and tools regularly for damage, wear and safety defects. Tagging out unsafe equipment until repaired. • Reducing exposure times to mechanical hazards while dealing with toxic materials or during welding work • Keeping work areas free of debris, spills and clutter that can cause slips, trips and being caught in or between equipment. • Be mindful of where your hands and arms are when operating tools or machinery to avoid getting			x	• Contractor • Resident Engineer • Workers	Part of PPEs cost first item

	equipment used in mechanical systems • Workers risk cuts and lacerations from knives, saws, metal edges and other sharp hazards involved in plumbing installation. • Accidentally striking buried utilities or overhead power lines can cause injuries, fires or electrocution. • Burning of exposed skin as a result of the release of steam, hot liquids or gases. • Burns and fires due to welding.				caught between moving parts. • Using holsters for sharp tools • Put away or sheath tools when not in use • Supervising workers and ensure they follow safe work procedures, machine guards remain in place, and PPE is properly utilized during installation work. • Restricting access to areas with hazardous moving machinery to only those involved in the work and using warning signs and/or barriers. • Thoroughly check welds, threaded fittings and other joints and connections for defects before pressurizing the system. • Ensure any flexible hose used can withstand the system pressure and meet industry standards for the application. • Educate employees on the causes, symptoms, first aid and prevention of thermal burns. Ensure they understand the dangers of hot surfaces.					

					• Make sure workers have access to appropriate hearing protection • Use manual tools for installation work when feasible to reduce noise exposures. • Make sure all chemical containers are properly labeled and stored in areas with restricted access when not in use. • Use vibration dampening tools and provide anti-vibration gloves Limit the time for workers working on vibrating tools. • Utilities must be located and clearly marked before digging or working overhead • Train workers in burn hazards and first aid specific to welding - Educate them on preventing thermal burns Follow measures under "steel working hazards" • Provide burn treatment .					

Working in unhealthy areas	• 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.		**x**		• 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. Raise awareness on good hygienic practices • 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				• Fish Association • Fish Authority • SMEPS during their training program • community committee	NA

					• Train the fisheries on the evacuation procedures in the sudden sea storms' cases.					
Lifting Operations	• Injuries of workers from falling/suspended loads and misunderstandings on load movements. • Crushing objects. • Noise/vibration injuries		x		• Close the lifting area with fence to prevent access during lifting work. • Install warning signs for lifting activities Prevent accessibility to non-workers at lifting zones or any construction zone • Carry out lifting work by well trained, qualified, and certified lifting team and with proper communication means and flag Man. • Provide workers with all necessary Personal Protective Equipment PPEs and safety materials • Use well-maintained equipment for lifting that is appropriate for the weight; well checked and tested . • Ensure workers are standing within a safe distance from the lifting zone Secure loads when lifting and use strong and reliable fixation materials to make sure that the	x			• Fish Association • Fish Authority • SMEPS during their training program • community committee	NA

					load is well tightened, and no solid parts fall from the load during lifting Check if materials that will be lifted are well tied prior to conducting the lifting operation • Ensure workers and any person is standing at a safe distance from the lifting area						
Operation and Maintenance Phase	• Occupational health and safety risks are similar to those in the section above on occupational health and safety during the construction phase		x		• Ensure that the same relevant mitigation measures from the previous OHS impacts will be applied during the operation and maintenance phase.	x			• Fish Association • Fish Authority • SMEPS during their training program • community committee	NA
	General occupational health and safety procedures for workers during operation including risks of fires from generators. • handling fish waste, biohazards, and poor hygienic practices				• Require appropriate personal protective equipment (PPE) like cut-resistance gloves, goggles, aprons, and dust masks. Enforce proper use of PPE at all times. • Provide hand washing stations and hand sanitizers for workers.			• Community committee, • Local Authority • Fish Association	NA		

					• Employees in hazardous facilities should be trained in accident prevention, first aid, emergency response, and reporting protocols. • Use mechanical lifting aids and trolleys to reduce manual handling of heavy objects. • Raise awareness on good hygienic practices • 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. • Wear PPEs such as masks and gloves to prevent inhaling generator's emissions • Monitor fuel consumption of generator to detect any leaks					

					• Ensure presence of spill prevention kits and remove any spills straighaway • Ensure generator and fuel are present on concrete bases • The number of firefighting units must be present on the signs. • Implementing proper procedures for collection, storage and disposal of fish waste and other biohazardous waste. • Ensure adequate wastewater treatment and solid waste management • Ensure non-slip flooring and walkways in processing areas • Wear PPEs including gloves and masks while handling fish wastes Store and label fish waste at designated zones • Regularly dispose fishwaste/biohazards					

					according to local authority by certified local contractor • Ensure workers maintain proper hygiene and cleaning of the site area and of their personal hygiene by ensuring soap and water is present on site					

5 Environmental, Social, and OHS Clauses and Liabilities for Contractor

The ES and OHS conditions are the indicators that PWP will build on to select the eligible contractor for the ES requirements while the ES and OHS clauses are the measures and instructions that will be included in the bidding documents to ensure contractor obligations during the implementation.

5.1 Conditions for the Eligible Contractor

1. Provision of adequate and suitable equipment for the activities of the subprojects
2. A financial capability that ensures the subprojects will be executed and completed as per agreed terms and conditions.
3. Provision of health and life insurance policies for the workers as a condition of signing the contracts.
4. The OHS tools should be provided with acceptable quality according to the BOQ with conducting training for the workers. These materials should be conditional for site handing to the contractors.
5. Contractors are fully responsible for any accident or incident 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. They are adhering to compliance with all measures given to them and they are fully responsible for any noncompliance.
8. Contractors should abide by the principle of non-discrimination in all aspects of employment.
9. The contractor will be alerted and terminated if they do not comply with the E&S and OHS mitigation measures during implementation.
10. Contractors shall ensure compliance with the Code of Conduct
11. Contractor shall ensure compliance with the LMP.

5.2 Environmental and Social Specific Conditions for Contractor:

The contractor shall supply and execute the necessary works on-site to mitigate the environmental and social impacts of the sub-project in accordance with the bidding and contractual E&S requirements. The contractor is responsible for following a specific contractor-ESMP that will be included in their bidding documents[36] as specific specifications, items in BOQ, and ES instructions and guidelines as attachments. The Environmental and Social Clauses for Contractors should at least reflect the following but not exhaustive items:

[36] both bidding documents and works contracts will include specific clauses laying out contractor responsibilities including their responsibilities for compliance monitoring

1. Worker Health and Safety:

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

1.1 Provide occupational health and safety training on a regular basis to all employees involved in the works.
1.2 Provide protective masks, helmets, gloves, overalls and safety shoes, and safety goggles, breathing apparatus and any other PPE appropriate to the task assigned and determined through risk assessment.
1.3 Provide workers in high-noise areas with earplugs or earmuffs.
1.4 Ensure availability of first aid box and ensure that at least one person trained in first aid is always available on-site.
1.5 Provide employees with access to toilets and potable drinking water and soap.
1.6 Train workers regarding the handling of hazardous materials and storing and managing hazardous materials

2. Labor Management Plan[37]:

The estimated / planned number of laborers for the rehabilitation and enhance landing site sub-project is 290 which (35%) 101 skilled and 189 (65%) unskilled labor during the project life for the sub-project in which the expected life project contracts will be twelve months. Workers are recruited at the beginning of each activity of the project, as it is expected that excavations and the paving works will be the most active activities in which workers are recruited. Contractor shall ensure that all workers are hired formally with proper contract, in accordance with national regulation, ESS2, and the LMP. The contractor is responsible for:

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, they should be equivalent to the wages paid in the specific location. PWP field staff shall monitor and ensure the 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 work.
2.3 Labor influx: The contractor should use workers from the local community as much as possible. Some parts of the activities include special works that require skilled labor, these tasks must be undertaken by appropriately skilled workers from the targeted area.
2.4 Gender-based Violence (GBV)/Sexual Exploitation and Abuse (SEA)/Sexual Harassment (SH): The contractor and its workers should sign the Code of Conduct (CoC) and ensure workers respect and adherence to it for the local community's protection and do no harm. Ensure that workers respect local community cultures, and social safeguard issues on Gender, SEA/H, and GBV. Raise awareness of the GM system and how it can be used to report any GBV cases.
2.5 Community Health and Safety: The contractor shall protect the local community from any risks that might be generated during the implementation.
2.6 Occupational Health and Safety (OHS): The contractor shall maintain occupational health and safety system on the site to protect workers from hazards and risks and provide adequate health and safety

[37]

training38, required PPE, first aid box, toilets, soap and potable drinking water, and as mentioned in the plan above.

2.7 Overtime Work: The contractor shall provide workers basic wages per hour of overtime on normal working days and on the day of weekend, and official holidays and leave, in addition to the entitlement to fair wages for such holidays according to the Yemeni labor Law.

2.8 Gender and Social Inclusion: Contractor to adopt non-discrimination in job opportunities during the implementation to ensure a non-discriminatory and inclusive manner, including women, as mentioned in the Environmental and Social Management Plan.

2.9 Training of workers: PWP staff and Contactor shall provide the workers with required training and daily toolbox talk in the Environment, OHS, GBV, SEA, GM, and as mentioned in the Environmental and Social Management Plan.

2.10 Addressing worker grievances: Contactor shall provide the worksite with a GM system for all 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. Ensure that workers are aware that grievances will be handled positively. Contractor, resident engineer, and community committee are trained to handle grievances positively.

3. 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).
4. Carrying out the project activities that need skill at the hands of trained and skilled workers and ensuring full supervision.
5. Assign a permanent safety supervisor to follow up on the implementation of an environmental and social management plan as well as OHS requirements during the implementation of work activities at the site.
6. Apply a safety work permit system for all working activities at the site to ensure full implementation of ESMP and OHS requirements.
7. Supply of personal safety equipment and tools including boots, helmets, gloves, goggles, masks, earplugs, safety belts, air-breathing apparatus, full-body harnesses, etc. in quantities enough for all laborers at the expense of the contractor and ensure the adherence of use by all.
8. Provide first aid boxes in the worksite (as per the emergency response plan) which contain (adhesive plaster of different sizes - –sterile gauze - scissors – disinfectant- forceps - etc.).
9. 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.
10. Provision of water and soap in rented apartment of (workers, supervisors, monitors and trainers) with bathrooms and or trenches with covers and obliging all workers and supervisors to use them.

[38] This project will be implemented by national / traditional contractors. However, the contractor will be responsible for providing training and PPEs for each worker

11. Separate the material and store them accordingly and provide enough space for movement and maneuvering. If applicable, commit to properly removing, handling, storing, and disposing of hazardous wastes and materials according to their MSDSs by trained workers.
12. 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. If applicable, commit to properly removing, handling, storing, and disposing of hazardous wastes and materials according to their MSDSs by trained workers.
13. Commit to placing disturbing equipment away from populated places, not at accessible zones for the community, nor at sensitive zones and watercourses, and operating them at the appropriate times.
14. Commit to storing hazardous materials away from workers and not to changing oils or leaving grease residue in the work area.
15. Commit to the repair of public services (electricity, telephone, water, sewage) that are broken during the implementation of the project.
16. The contractor shall coordinate with the competent authorities to organize traffic in the streets to facilitate movement in case the project causes any congestion, if necessary.
17. Report immediately any accident or injury occurring during the execution of the work and within a maximum period of 24 hours to PWP and within 48 hours to the UNDP and the WBG.
18. Conduct awareness sessions about OHS before the beginning of work by the contractor 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.
19. The contractor shall adhere to the use of the Permit to Work system (PTW[39]) for all activities and ensure all workers are aware of the system.
20. Contractor must address the risk of gender-based violence, through: Mandatory and repeated training and awareness-raising for the workforce about refraining from unacceptable conduct toward local community members, specifically women.
    - Informing workers about national laws that make sexual harassment and gender-based violence a punishable offense that is prosecuted.
    - Introducing a Worker Code of Conduct as part of the employment contract, and including sanctions for non-compliance (e.g., termination)
    - Adopting a policy to cooperate with law enforcement agencies in investigating complaints about gender-based violence.
21. Contractor must not employ workers below the age of 18 and must ensure verification of documents is conducted before hiring.
22. Provide proof of health and life insurance for all laborers, including the third party, before the implementation of the project.
23. Commitment not to use any type of explosive materials in any of the project's activities.

[39] 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.

24. Movement of Trucks and Construction Machinery: The Contractor 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.

25. The Contractor shall not commence any work affecting public vehicular roads or traffic around the project until all traffic safety measures required by the work have been fully operational.

28. Gas, Noise, and Dust Control: The Contractor 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 in or close to residential areas.
- 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.
- Shut 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 to mitigate impacts from dust, gas, noise, and climate change

26. Protection of the Existing Installations: The Contractor 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.

27. The contractor must not engage in any illicit activities, including but not limited to, embezzlement, kickbacks, or any form of bribery or corruption. The contractor must also implement effective measures to prevent and detect any fraudulent or corrupt practices within their own organization, as well as within any subcontractors or suppliers involved in the sub-project.

28. To prevent theft of equipment and materials on the project site, the contractor must take all necessary measures to ensure their protection.

29. The contractor shall be responsible for implementing security measures, such as fencing, lighting, and surveillance cameras, to prevent unauthorized access to the project site.

30. The contractor shall be required to conduct regular inspections of the project site to identify and address any potential soil erosion or destabilization risks.

31. As part of the project's commitment to preserving cultural heritage, the contractor must conduct a pre-construction archaeological survey of the construction site. This survey shall be conducted by qualified and experienced archaeological experts, and shall involve a comprehensive assessment of the project area to identify any potential archaeological artifacts or features that may be impacted by construction activities.

32. The Contractor shall ensure that workers are trained and competent in the proper handling, handling, storage, and disposal of hazardous chemicals or materials, including but not limited to paints, cement, sealants, and other materials, and that they are aware of the potential health risks associated with handling such materials.
33. The contractor shall be responsible for ensuring that all scaffolding, ladders, and other surfaces are properly secured and supported, and that they are able to support the weight of workers and equipment without risk of collapse or failure.
34. The contractor shall be responsible for verifying that all workers have the necessary qualifications and training to work with electrical equipment, and that they are aware of the hazards associated with working with electrical equipment.
35. The contractor shall also be responsible for ensuring that all electrical equipment is properly installed, maintained, and used in accordance with all applicable laws and regulations.
36. The contractor is required to ensure proper implementation of dangerous and heavy lifting operations. This includes developing a communication plan and coordinating lifting plans before each elevator to ensure the safety of the work, loads, and equipment.
37. The contractor shall ensure that all personnel involved in concrete work wear appropriate personal protective equipment . In addition, the contractor shall ensure the integrity of all frameworks used in the concrete work. The frameworks shall be properly installed and securely braced to prevent any failure or collapse during the work.
38. The contractor shall ensure that all personnel involved in welding and iron work wear appropriate personal protective equipment (welding helmets, face shields, safety glasses, leather gloves, and leather aprons). In addition, ensure the safety of all installation and welding work. The installation and welding work shall be performed in accordance with all applicable safety standards and regulations, and shall be inspected by a qualified inspector to ensure that it is safe and meets all required specifications.
39. The contractor shall ensure that all personnel involved in sanitary work wear appropriate personal protective equipment (gloves, safety glasses, and respiratory protection). In addition, ensure the safety and well-testing of all sanitary work. The sanitary work shall be performed in accordance with all applicable safety standards and regulations, and shall be inspected by a qualified inspector to ensure that it is safe and meets all required specifications.
40. Working in bad weather is not allowed.
41. Environmental training on machinery efficiency, the importance of maintenance, transportation efficiency, and good practice usage of machinery to mitigate impacts from dust, gas, noise, and climate change

5.3 Environmental and Social Liabilities for Contractor

Contractor 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 sub-project bidding documents.
- Deductions for environmental non-compliance will be added as a clause in the Bill of Quantities (BOQ) section.

- The contractor should fully comply with all instructions; otherwise, according to the contract documents, suitable sanctions should be applied depending on the severity of the expected risk from this non-compliance, such as alert, final alert, and termination of the contract.
- Environmental penalties shall be calculated and deducted from 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 occupational health and safety, in the environment or 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, that 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 contractor 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 contractor has not remedied the environmental impact during the allotted time, the PWP will stop the work and give the contractor a notification indicating a financial penalty according to the non-complied mitigation measure that was specified in the bidding document. No further actions will be required if that restoration is done satisfactorily. Otherwise, if the contractor has 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 Environmental and Social Monitoring Plan

The following table indicates mitigation measures with reference to the above tables of the ESMP for the E&S and OH&S. The monitoring indicators are addressed for all the mitigation measures. The implementation of the mitigation measures will be monitored through daily checks by the resident engineers, biweekly as well as monthly visits by PWP sub-areas staff and the regular TPM, community committee, and UNDP field monitoring visits and audits.

The roles and responsibilities of each responsible personnel are as follows:

- Gender Focal Point: is responsible by the PWP to monitor the implementation of measures under the gender action plan, including those related to gender equity, gender discrimination, SEA, women workforce, beneficiaries' awareness, and GM
- Safeguard specialist is responsible by the PWP to monitor all the safeguards process and reporting to UNDP(as a general supervisor) as detailed in the ESMP and other ES documents, including SEP, and ensuring their compliance.
- GM Officer is responsible by the PWP to monitor the GM processes, including awareness raising, receiving complaints and following up, and reaching closure.

- Resident Engineer: conduct daily monitoring by the PWP to guarantee compliance in the field on sub-project bases.
- Community Committee: Appointed by PWP to support in monitoring and solving the problems if any, support in raising the awareness of the community, monitoring the community inclusion and Community satisfaction. During operation their role is also to coordinate with the local authorities / councils to ensure the maintenance and sustainability of the sub-project.
- Sub-area Staff: follow up on the compliance by the PWP in sites and ensure everything is implemented according to the ESMP.

The following aspects in table 10 below will be monitored (though the list will be kept updated to accommodate any emerging issues or updated aspects that may be recommended by the monitoring reports):

Table 10 Environmental and Social Monitoring Plan

Action	Monitoring methodologies and Indicators	Implementation Responsible[40] / Monitoring	Timeframe
Community Health and safety			
No child labor is permitted, and workers must be 18 years or older. Avoid buying raw material from suppliers that employ children.	**Methodology**: • Checking identification documents • Worker interviews. • Employment documents for suppliers **Indicator**: • Completeness of records. • Age verification from the IDs • Documentation reviews.	• Contractor • Resident Engineer • Community Committee • Safeguard Specialist	• Daily
Combating sexual harassment, sexual exploitation and abuse, and discrimination during project implementation. Ensuring that the contractor takes into account gender differences during the implementation of the project through the work of facilities designated for women	**Methodology**: • Policy against SH, abuse, and discrimination. • Anonymous GM • Routine facility checks • Worker feedback. **Indicator**: • Number and types of disciplinary actions applied for policy violations.	• Contractor • Resident Engineer • Gender Focal Point • Community Committee • Safeguard Specialist	• Daily

[40] 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.

	• Number and types of complaints reported through GM. • Satisfaction of female workers		
Ensure that the beneficiaries or the community is not financially exploited Ensure that there is no fraud, bribery or corruption in the sub-project activities	**Methodology**: • Beneficiaries are informed clearly and repeatedly. • Anti-corruption policy. • GM system. • Random beneficiary surveys **Indicator**: • Verify that beneficiaries know that project benefits are to be provided free of charge • Number and types of complaints reported through GM.	• Sub-area staff • Resident Engineer • Safeguard Specialist • Community Committee	• Weekly • Monthly
Poor waste management	**Methodology**: • Contractor should have a plan • Establish a regular schedule for waste collection • Waste collection points. • Conduct regular inspections **Indicator**: • Frequency of waste removal • Adherence to removal schedule • Licenses and permits of waste haulers and disposal facilities	• Resident Engineer • Contractor • Community Committee • Safeguard Specialist •	• Daily
Damage to existing infrastructure (phone networks, electricity, etc.) caused by the subproject activities	**Methodology**: • The contractor cooperated with the local councils and determined the infrastructure. • Include requirements in contractor agreements to report any damage immediately and bear responsibility for repairs **Indicator**: • Treatment plans to avoid infrastructure risks.	• Contractor • Resident Engineer • Community Committee • Safeguard Specialist	• Monthly

	• Lack of infrastructure damage incident reports from contractors		
Ensure public health and that the public and children do not have access to the work site.	**Methodology**: • Install appropriate fencing, barriers and warning signs. • security personnel or monitoring systems. • Visitor log. **Indicator**: • fences, barriers and warning signs are intact. • Security performance. • Visitor log compliance	• Resident Engineer • Contractor • Community Committee • Safeguard Specialist	• Daily
Restrictions on services or resources	**Methodology**: • Regular site inspections. • Interviews/surveys with local communities. **Indicators**: • Accessibility/connectivity • Social impacts	• Resident Engineer • Contractor • Community Committee • Safeguard Specialist •	• Weekly
Ensure temporary latrines are available for both men and women. Ensure regular cleaning.	**Methodology**: • Locating Gender-Specific latrines. • Visual inspection • Worker surveys. **Indicators**: • latrines are available with signs according to gender. • Percentage of workers who are satisfied	• Resident Engineer • Contractor • Community Committee • Safeguard Specialist	• Weekly
Skilled workers will be hired from neighboring areas if not available from targeted area.	**Methodology**: • labor log **Indicators**: • Number of skilled workers from the targeted area and neighboring	• Contractor • Resident Engineer • Safeguard Specialist	• Before the commencement of work and implementation
Contractor and their workers are aware to respect the local community's protection	**Methodology**: • Include requirements in contracts • Code of conduct (COC) • GM system. • Community feedback.	• GM Officer • Contractor • Resident Engineer • Gender Focal Point • Safeguard Specialist	• Before the commencement of work • biweekly

	Indicators: • Contract clauses requiring respect of communities • 100% of contractors, and their workers signed the Code of Conduct (CoC) • The number of complaints received. • Positive feedback from communities		
Knowledge of the local community, the community committee, and workers about the GM, as well as the contact numbers.	**Methodology:** • Develop and distribute brochures, posters and flyers with information about the GM and contact details. • Feedback channels • Community meetings **Indicator:** • Numbers of promotional materials distributed. • Attendance at community meetings • Volume of feedback received	• GM Officer • Resident Engineer • Safeguard Specialist	• During public consultation • Bi-weekly
Regular awareness sessions to community members, the community committee, and workers about the use of GM	**Methodology:** • Promotional activities • Document sessions **Indicator:** • Number of awareness session and promotional materials. • Attendance records	• GM Officer • Resident Engineer • Safeguard Specialist	• Weekly
Involvement of the community in the monitoring of the implementation of the sub-project and reporting any findings	**Methodology**: • Conduct joint inspections • Empower the committee • Disclosure of project activities with designs • Respond to findings **Indicator**: • Regular meetings and inspections with the committee • Number of issues or concerns identified • Positive community feedback	• Community Committee • Sub-area Staff • Resident Engineer • Safeguard Specialist	• Daily

	• The number of resolved complaints		
Community satisfaction	**Methodology**: • Surveys and Interviews • Grievances • Community meetings **Indicator**: • Results from satisfaction surveys and interviews. • Number of grievances raised and types • Feedback received during community meetings • Number of accidents	• GM Officer • Community Committee • Safeguard Specialist	• Monthly
Monitoring and reporting SH/SEA complaints and GM cases related to SH/SEA are well treated and mitigated quickly.	**Methodology**: • Tracking of GBV and SH cases reported. • Monitoring GBV/SH cases to ensure survivors access services in a timely manner **Indicator**: • the number of cases reported • Numbers and percentage of cases followed up, time from report to service access, case resolution rates	• Gender Focal Point • Safeguard Specialist • GM Officer • Resident Engineer	• Weekly
Environmental Impacts			
Soil Contamination	**Methodology**: • Visual inspections for spills or leaks. **Indicator**: • Observation for the presence of oil or waste • Change in soil color • Number of reported complaints on spills	• Resident Engineer • Contractor • Community Committee • Safeguard Specialist •	• Daily
surface water contamination	**Methodology**: • Monitor activities near ground and surface water during works.	• Resident Engineer • Contractor • Community Committee • Safeguard Specialist	• Daily

	• Visual checks for spills, leaks, signs of contamination. **Indicator**: • Monitoring results • Visible checks on Surface water turbidity /contamination incidents. Number of spill/contamination incidents Number of complaints regarding water spills.	•	
Ensure air quality and reduce the generation of dust, volatile particles and gases emitted from equipment	**Methodology**: • Visual inspections of dust and particles generating activities. • Emissions inspections • Complaints records. Visual observations • **Indicators**: • Presence of Road debris • The presence of fumes /dust observed. • Maintenance records Number of society complaints on the air quality, noise level or waste at work site	• Resident Engineer • Contractor • Community Committee • Safeguard Specialist	• Daily
Ensure that noise and vibration are controlled at the site due to machinery, vehicles and steel works.	**Methodology**: • Noise and vibration monitoring. • Equipment assessments • Community complaints . **Indicators**: • Noise level and vibration readings. • Equipment maintenance records • Number of society complaints on noise and vibrations.	• Resident Engineer • Contractor • Community Committee • Safeguard Specialist	• Daily

Ensuring the Use of Good and Potable Water for Various Project Activities	**Methodology**: • Identify source of water before starting works. • Validate source capacity. • Procure tanks as per required capacity **Indicators**: • Source identified vs alternatives. • Volume extracted daily vs approved capacity	• Resident Engineer • Contractor • Community Committee • Safeguard Specialist	• Daily
Ensure that the place is free of any artifacts or archaeological features. Possible archaeological discovery during the activities	**Methodology**: • Visual inspection during survey work • Screening of excavated soil **Indicator**: Presence of stone, ceramic or glass artifacts, unusual soil types, holes, or human remains.	• Contractor • Resident Engineer • Community Committee • Safeguard Specialist •	• At the beginning • Monthly
Sensitive habitats and biodiversity	**Methodology**: • Conduct habitat surveys before and during works. • Raising awareness of fishermen. • Proper management of fishermen • Monitoring and inspection of biodiversity **Indicators**: • Compliance with habitat areas restrictions. • Significant change in species structure and composition • Presence of dead animals. • Significant decrease in coral cover • Presence of fishermen during spawning seasons • Number of spill events • Presence of mooring buoys instead of traditional anchors	• Resident Engineer • Contractor • Community Committee • Safeguard Specialist • EPA and fish authority	• Mothly

	• Number of awareness sessions provided to fishermen		
Monitor improper waste management by visual inspection	**Methodology**: • Grievances system related to waste mismanagement • Periodic inspection for non-compliance with waste storage waste receipt inspection **Indicators**: • 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 • Number of grievances related to waste mismanagement Presence of waste receipt and dates	• Contractor • Resident Engineer • Community Committee • Safeguard Specialist	• Daily
Occupational health and safety			
Adherence of contractor to permit to work system for activities as identified by the risk assessment[41] and ensuring all safety measures for the task are in place	**Methodology**: • Issuance of the permit to work Supervisor checks Incident records **Indicators**: • Number of issued permits of work and safety measures with the type of work Supervisor compliance Number of incidents/ accidents recorded and type	• Contractor • Resident Engineer • Community Committee • Safeguard Specialist	Daily as required

[41] Risk assessment should be undertaken once in the project cycle and when its required as when we have new activities in the subprojects or when a severe accident happens, in which the risks and their mitigation measures should be attached with sub-project documents.

Conduct comprehensive training and about occupational and health safety (OHS) aspects before the beginning of the sub-project implementation.	**Methodology**: • Training records and content. • evaluate workers during their tasks • Knowledge assessment **Indicators**: • Complete training records for all workers • Low failure rates on knowledge assessments • Observations showing workers applying proper safety practices	• GM Officer • Contractor • Resident Engineer • Safeguard Specialist • Community Committee	Daily as required
All OHS requirements for the sub-project are identified and available in the workplace.	**Methodology**: • Incorporating OHS requirements into project documents. • OHS inspections and audits **Indicators:** • Number of incidents and types • The record of injuries in project reports	• Safeguard Specialist • Resident Engineer • Contractor • Community Committee	• Daily as required
Workers aware of the safety requirements are conducted	**Methodology**: • Awareness sessions records • Visual observation and photographic documentation **Indicator**: • Number of awareness sessions for workers. • Number of injuries	• Resident Engineer • Contractor • Workers • Safeguard Specialist	• Weekly
Ensure maintain occupational health and safety system in the site to protect workers from hazards and risks	**Methodology**: • Implement appropriate controls to eliminate or minimize risks. • inspections to identify any new hazards **Indicators**: • Number of hazards identified • Percentage of risks controlled • Inspection findings	• Contractor • Resident Engineer • Community Committee • Safeguard Specialist	• Daily
Ensure the necessary personal protective equipment (PPE) is always worn by workers and they get it for free	**Methodology**: • Implement appropriate controls to eliminate or	• Contractor • Resident Engineer • Workers	• Daily

	minimize risks.inspections to identify any new hazards **Indicators**: • Number of hazards identified • Percentage of risks controlled Inspection findings Presence of PPEs Number of workers not adhering to PPEs	• Community Committee • Safeguard Specialist	
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**: • Have a formal written emergency response plan • Routinely inspect and test the plan and first aid kits. **Indicators:** • Emergency plan banner in the site photo Photo for the first aid box on site • Results of inspect and test • Low number of actual emergencies	• Contractor • Workers • Community Committee • Resident Engineer • Safeguard Specialist	• At the beginning of implementation
Involving the community committee in the monitoring of safety procedures and reporting any risks	**Methodology**: • Conduct joint inspections • Respond to issues raised **Indicators**: • Regular meetings and inspections with the community • Number of risks/hazards identified by community committee	• Community Committee • Resident Engineer • Contractor • Safeguard Specialist	• Daily
Conduct regular inspections for any unsafe acts, near misses, or accidents.	**Methodology**: • Routine inspections of the worksite, tools, equipment and worker tasks • Near miss reporting • Accident/injury reporting **Indicators**: • Number of unsafe acts or at-risk behaviors • Rate of near miss reports • Severity of injuries	• Resident Engineer • Contractor • Community Committee • Safeguard Specialist	• Daily

Severe accidents and incidents are reported to head office within 24 hours and communicated to PWP and within 48 hours to the UNDP	**Methodology**: • Accident ,and injuries reports within 24 hours **Indicators**: • Number and types of accidents, and injuries reported and recorded and time of reporting • Number of reported accidents within 24 hours to PWP and within 48 hours to the UNDP Versus the number of reported accidents after 24 hours to PWP and after 48 hours to UNDP	• Safeguard specialist • Resident Engineer • Community Committee	• within 24 hours • within 48 hours
Ensure all activities that require specific skills are done by skilled workers.	**Methodology**: • Worker qualifications • Supervisor Approval **Indicator**: • Percentage of workers with documented qualifications meeting job requirements • Supervisor approval records	• Resident Engineer • Community Committee • Contractor • Safeguard Specialist	• Daily
Workers' satisfaction	**Methodology**: • Workers' grievances system **Indicators**: • Number of workers' grievances and type Number of resolved grievances	• Contractor • Resident Engineer • Community Committee • Safeguard Specialist	• Weekly
Tools and equipment are to be regularly maintained and inspected to ensure they are of acceptable quality and in good working condition for the required activity	**Methodology**: • Periodic visual inspection of tools and equipment • Periodic Maintenance Inspection on maintenance log **Indicator:** • Results of the periodic report • Number of maintenance performed on tools	• Resident Engineer • Community Committee • Contractor • Safeguard Specialist	• Monthly
All construction works are to be conducted during daylight and no work is to be done at night	**Methodology**: • Define work hours • Supervisor monitoring • Timesheet reviews **Indicator**:	• Resident Engineer • Contractor • Community Committee	• Daily

	• Zero confirmed incidents of out-of-hours work occurring • No discrepancies found in timesheet reviews	• Safeguard Specialist	
Organizing the movement of equipment and vehicles at the project site	**Methodology**: • Define routes • Enforce safe speed limits • Scheduled movements **Indicator**: • Worksite map showing clearly defined routes • Number of near miss incidents	• Resident Engineer • Contractor • Community Committee • Safeguard Specialist	• Daily
Manual handling	**Methodology**: • Mechanical aids • Safe work procedures for manual handling tasks • Monitoring **Indicator**: • Completeness and functionality of mechanical lifting aids • Adherence to safe work procedures observed during monitoring	• Resident Engineer • Contractor • Community Committee • Safeguard Specialist	• Daily
Operational phase monitoring			
The depletion of fish stocks	**Methodology:** • Issue numbered permits aligned to quotas/limitations • Monitor gear used and catch quantity **Indicator:** • No. of permits issued vs total fishing capacity. • Catch data vs quotas/seasonal restrictions	• Community Committee • Local Authority	• Annually
Biodiversity risks (coral reef deterioration, spills)	**Methodology:** • Surveys **Indicators** • Number of spill events • Significant decrease in coral reef percentage cover • Significant decrease in fish species and other	• Community Committee • Local Authority In collaboration with EPA	• Bi-Annually

	non-targeted species (sea turtles etc.)		
Solid and liquid waste generated from facilities of the center, air emissions and odor emissions	**Methodology:** • Inspect filter pond operation. And sediment removal regularly. • Inspect waste storage, loading/transport procedures. • Consult local authorities and community on impacts. **Indicator:** • Filter pond efficiency. • Inspection reports for storage, load spills, transport vehicles. • Feedback from authorities /communities on waste management. Number of complaints regarding emissions and wastes	• Community Committee • Local Authority	• Monthly
High use of water	**Methodology:** • Install water meters to track usage. Monitor water quality • Develop reuse systems. **Indicator:** • Water usage data from meters. • Volume of greywater captured and reused Water quality not exceeding safety legal limit	• Community Committee • Local Authority	• Monthly
High energy usage	**Methodology:** • Visual inspections. • Monitor and track the energy consumption. • Provide training and awareness sessions **Indicator:** • Percentage reduction in total energy consumption. Number of awareness sessions conducted	• Community Committee • Local Authority	• Monthly

Prevention of child labor	**Methodology**: • Checking identification documents • Worker interviews. **Indicator**: • Age verification from the IDs shows workers below 18 years of age •	• Community Committee • Local Authority	• Monthly
General occupational health and safety procedures for workers during cleaning, packaging, cooling and storage operations for onions and dates	**Methodology**: • Monitor use and proper maintenance of all required personal protective equipment (PPE). • OHS inspections and audits **Indicators:** • Number of incidents and types • The record of injuries in project reports	• Community Committee • Local Authority	• Monthly
The maintenance, operation and preservation of the center	**Methodology**: • Conduct regular inspections • Number of complaints **Indicators:** • Inspection reports • Number of resolved complaints	• Community Committee • Local Authority	• Annually
Working in unhealthy areas and presence of wastes	**Methodology:** • Complaints recorded. • Visual inspection • Number of trainings on OHS, environmental issues and social issues Injuries log **Indicator:** • Number of complaints regarding health issues • Number of trainings provided regarding OHS, environmental and social topics Number of injuries/accidents/incidents	• Fish Association • Fish Authority • community committee	• Every three months

7 Stakeholders Engagement Plan and Public Consultation:

Stakeholder engagement has been conducted and all parties that will be targeted in this intervention have been involved by interviews and focus group discussions with fishermen, center management, and personalities from the community, which included (Local Administration Manager, Responsible for the Fish Landing Center, 5 Association Managers, a regional Works Manager, Lawyer from the Water Authority, Administrator at the Fish Landing Center, Project Manager of Works in the Region, and Social Worker). This engagement process has included a discussion of community needs, making decisions on key priorities, and developing the sub-project designs and plans. Public consultations have been conducted by PWP social consultants' team (male and female) to inform the local community of the activities to take place and get feedback. Table 11 below show the date and number of participants segregated by gender.

Table 11 below shows the sub-project intervention and consultation date.

Table 11 subproject Consultation Date

Sub Project Intervention	Consultation Date	Consulted Beneficiaries		
		Male	Female	Total
Rehabilitation and Development of AL-HAMI Fish Landing Site – Alshihr district	08/02/2023	21	35	56
Total		**21**	**35**	**56**

Topics of the Consultations and Information Disclosure:

- Ensure that community's needs are in line with their priorities.
- Inform local community about the activities to be undertaken, the sub-projects' timetable, and the work plan.
- Inform them about the opportunities to have a job during implementation.
- Raise their awareness about the subproject's potential risks such as safety, health, environmental, and social risks and required control measures.
- Inform them about their roles in monitoring the compliance of contractor and workers in the worksite and their rights to give their concerns.
- Document and address the local community's concerns, expectations, and feedback.
- Ensure the participation of subproject beneficiaries both females and males.
- Discuss the positive impacts that the subproject will have on improving services forthe beneficiaries.
- Inform them that the road traffic may temporarily be interrupted during implementation and how to coordinate with sub-project supervisors and contractor to manage the traffic.
- 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.

- 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.
- Raise their awareness regarding other diseases such as Cholera and other transmissible diseases.
- Distribution of awareness posters about OHS, GM, and Gender with all beneficiaries to contribute to building positive culture regarding social risk management .

7.1 Public Consultation Findings and Feedback

The consultation process took the form of face-to-face and group interviews with local community members (both males and females) and feedback collected through questionnaires and discussion. The following table shows the most important concerns of the community and the findings that have been clarified

Table 12 concerns of the community and the findings

Summary of Consultation for [Stakeholder name/community]		
Date of consultation	08/02/2023	
Location of consultation	The administration building at Al Hami Fish Landing Center	
Total Number of participants (# of women / # of men)	Total 56 Men: 21 Women: 35	
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	Women were involved to be members of the community committee for the project	
Main issues/ identified risks/concerns/questions/complaints (specify if male or female)	**Answers from the project team**	**Follow-up actions (who is responsible**
• Can the project achieve the fishermen's goals by meeting their needs within the center without needing to resort to other centers to purchase ice or fishing tools? (male)	• Yes, the maximum possible needs of fishermen will be provided within the center starting from providing ice and fish preservation to boat maintenance, fishing equipment provision, and fuel supply necessary for boats refueling and other issues that will alleviate the fishermen's suffering.	• Implementer PWP
• Temporary closure or disruption of parts of the harbor during renovation affecting their operations (male)	• The project avoids any potential risks that may harm the fishermen, whether economically or even their safety. The project will be implemented during the no-fishing seasons (from June to	• Contractor, Technical Resident Engineer

• Doubt about the viability or achieving long-term planned objectives of the project.(male) • The Contribution of Fishermen in Rehabilitation Works Despite Their Limited Construction Experience (male) • Can women participate in the project and monitor the activities? Will women's complaints be taken into consideration? (female)	September). Therefore, there will be no temporary closure or disruption of important parts at the center, except if it may endanger the safety of fishermen or other consumers. • The area, market needs, society requirements and demand were studied, evaluated and analyzed. In addition to reviewing previous successful projects. Also, the operation process of this project makes this project closer to achieving its goals in the short and long term. • The project accepts skilled and unskilled labor. Any worker in the area has the right to participate in the project activities. • Yes, women can participate in the project, starting from assessing needs until being elected as a social committee, one of whose most important roles is to monitor project activities. There will be a grievance mechanism (GM) system to manage, respond to, and monitor problems for any gender.	• Community committee, Local Authority, Fish Association • Technical Resident Engineer • Gender Focal Point, Community committee

7.2 Sustainability of Sub-project and Community Ownership

PWP engages all affected parties of sub-project within the sub-projects' cycle, consultations are conducted at various stages including consultation with the community for selection of intervention based on focal group discussions with women and men, formation of the Community committee by electing members including female members with the total number of 6 males and 3 females, training on various aspects for operation and maintenance. Also, coordination with Local Authority / Council to inform on activities taking place, the possibility of their role in operation and maintenance, their role as monitors in operational and maintenance phase. Furthermore, PWP conducts public feedback sessions with targeted community during site visits to listen to their concerns and feedback as well as to ensure their acceptance of the intervention.

Before the subproject handing over, PWP sub-area manager will invite the beneficiaries' representatives 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 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, community will be consulted

on how a rehabilitated site will be managed in the future, what lessons can be learnt from the absence of management over the past 20 years. 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.

7.3 Stakeholders Engagement Plan:

According to SFISH stakeholder engagement plan (SEP)[42] PWP will continue to engage the stakeholders during the sub-project's implementation by conducting meetings with beneficiaries, the community committee, and the local authority to discuss any raised issues, and implementation aspects, as well as listen to stakeholders' concerns and feedback. The sub-area manager will conduct monthly meetings with community committee 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.

The PWP resident engineer will be in continuous cooperation and coordination with the community committee at the site to discuss any issues that might be raised. Furthermore, different meetings with the local authority may be conducted to strengthen cooperation and facilitate implementation. In addition, at the end of implementation meetings with beneficiaries, community committee, and local authority will be involved to prepare for the sub-project hand over and operation process. Training for beneficiaries and community committee on the project operation and maintenance will be conducted to ensure subproject sustainability.

Figure 6 public consultations photos

[42] https://pwpyemen.org/index.php/en/media-center-en/publications/category/14-sustainable-fishery-development-in-red-sea-and-gulf-of-aden-sfish


Public Consultation Of Al-hami landing center, Al-Shihr District

7.4 Information Dissemination and disclosure

As part of a transparent approach, PWP will disseminate information about the subproject in a variety of ways and at varying levels. It begins by coordinating with the local authority to create a solid coordination framework. The local community will be engaged through public consultations and different awareness sessions will be held during the preparation and implementation phases with the distribution of IEC (information, education, communication) regarding the benefits available under the project. This process will highlight sustainability and environmental and social aspects, GM tools, etc. Following the approval of this document PWP will develop an Arabic version of the ESMP which will be available to all local stakeholders at the site. The translated ESMP will also be available on the PWP website.

8 Capacity Building

PWP conducts capacity building for different levels in all projects' life cycle. Annual comprehensive training will be done for PWP main and sub-areas staff in which revision and updates have been reflected according to the World Bank's new ESF. In public consultation, awareness session was held on all topics covered by section 8.1. The executive staff as the main part in managing project 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 session will take place for resident engineer 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 representative will

conduct awareness sessions for workers, community committee, and some present from the local community members that will represent the required Environmental, Social, and OHS needs. Different awareness sessions should be held during the implementation phase of the sub-project. In daily awareness sessions, the resident engineer and the contractor OHS assistant will explain to workers what risks they can expect in the course of their work. As part of this awareness, SEA/SH, GM, and code of conduct procedures will be discussed. The PWP sub-area assistant will conduct sub-project site visits every two weeks to stay in touch with workers and community. In addition to raising awareness among workers, PWP sub-area manager outreach to the local community every month. As part of the project closing phase, local authority and community committee will be provided with project maintenance procedures on-site.

9 Grievance Mechanism (GM)

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 (HQ) 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 Officer monitors complaints to ensure they are resolved satisfactorily, and complaints are closed. Complaints received will be recorded and investigated and the person who submits 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 GBV/SEA/SH action plan[1] procedures. After one year, the GM system will be reviewed in order to improve it. For instance, by examining the nature of complaints, complaints made by which gender, If the GM is adapted to women, if no women made complaints, *etc*.

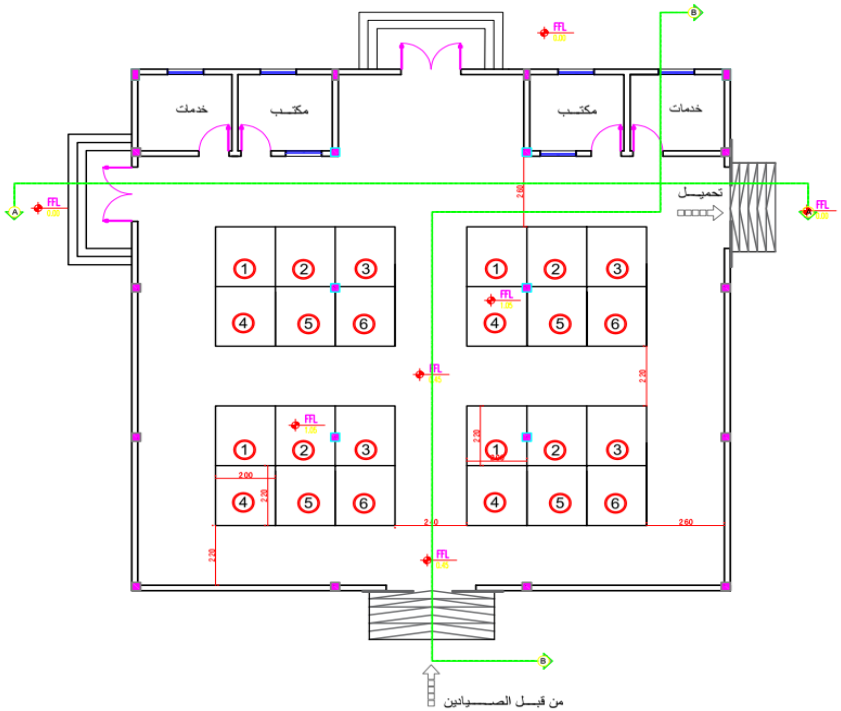
[1] https://drive.google.com/file/d/1oPq0QSPFY8N8PXf40b6SssxpsA7dmjx0/view?usp=drive_link

Annexes

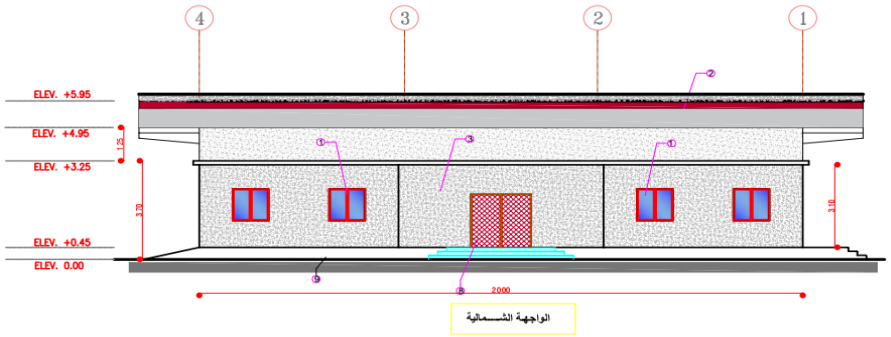
Annex 1 – Typical Drawings

Figure 7 Show the typical drawings for Market

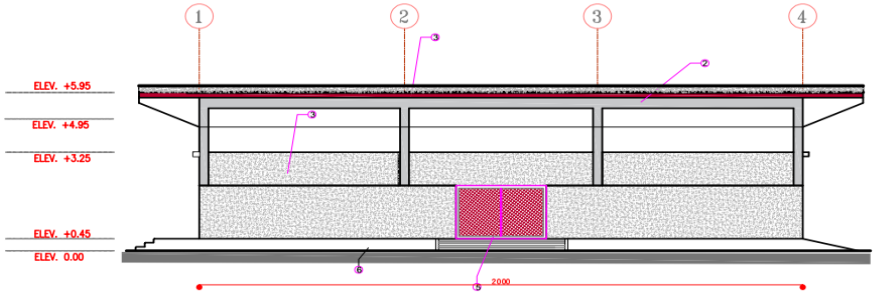
Drawings showing the main component of the intervention



ختم المقاول	اسم المقاول	مسقط وتوزيع صالة الحراج			اسم المخطط	ختم الصندوق	الجمهورية اليمنية الاشغال العامة
		1	معماري		نوع المخطط		
		29	عدد اللوحات	01	رقم اللوحة		اسم المشروع: مركز الانزال السمكي - منطقة الحامي-مديرية الشحر - محافظة حضرموت
		2023م	التاريخ		مقياس الرسم		مكونات المشروع: اعادة تأهيل وترميم المباني والسور وجميع المكونات



الواجهة الشـــمالية

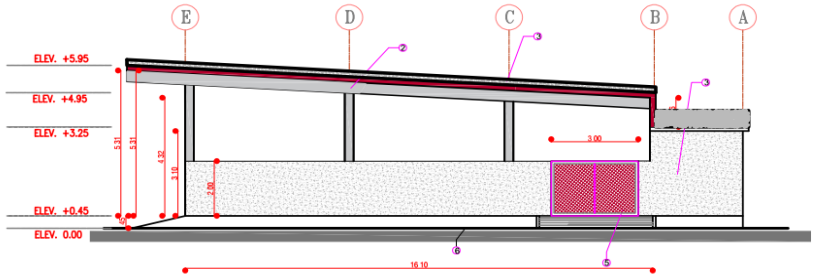


الواجهة الجنوبيـــة

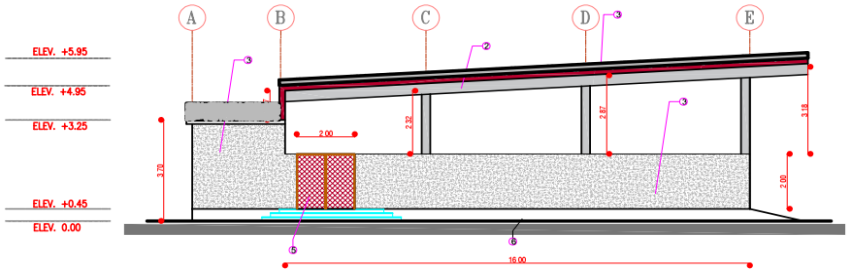
الرمز	التمثيـــل
①	نافـذة زجاج علـى إطار من الألومنيـــوم
②	طلاء ابيوكســـي
③	طرطشة خارجية بالماكنـــة
④	ســـيراميك
⑤	بلب شبك من الحديد مع دهان ابيوكســـي
⑥	كرســي من الحجر البازلـــت

ختـم المقـاول	اسـم المقـاول	واجهات صالة الحراج		اسم المخطط	ختـم الصـــندوق
		1	معماري	نوع المخطط	
		29	عدد اللوحات 03	رقم اللوحة	
		2023م	التاريخ	مقياس الرسم	

الجمهورية اليمنية الأشغال العامة	
اسم المشروع	مركز الانزال السمكي - منطقة الحامي-مديرية الشحر- محافظة حضرموت
مكونات المشروع	اعادة تأهيل وترميم المباني والسور وجميع المكونات



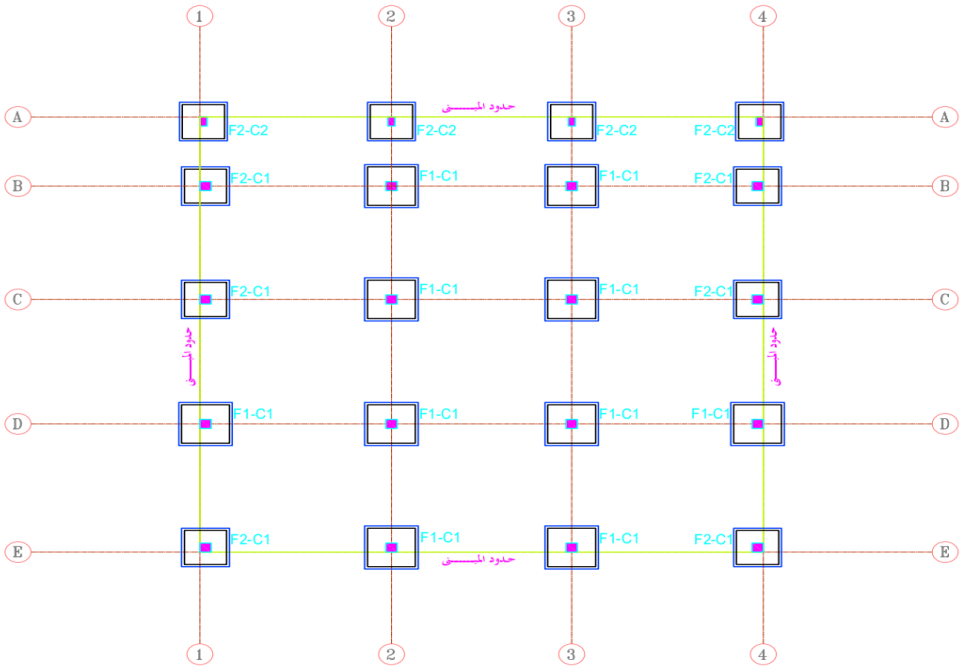
الواجهة الشـــرقية



الواجهة الغربيـــة

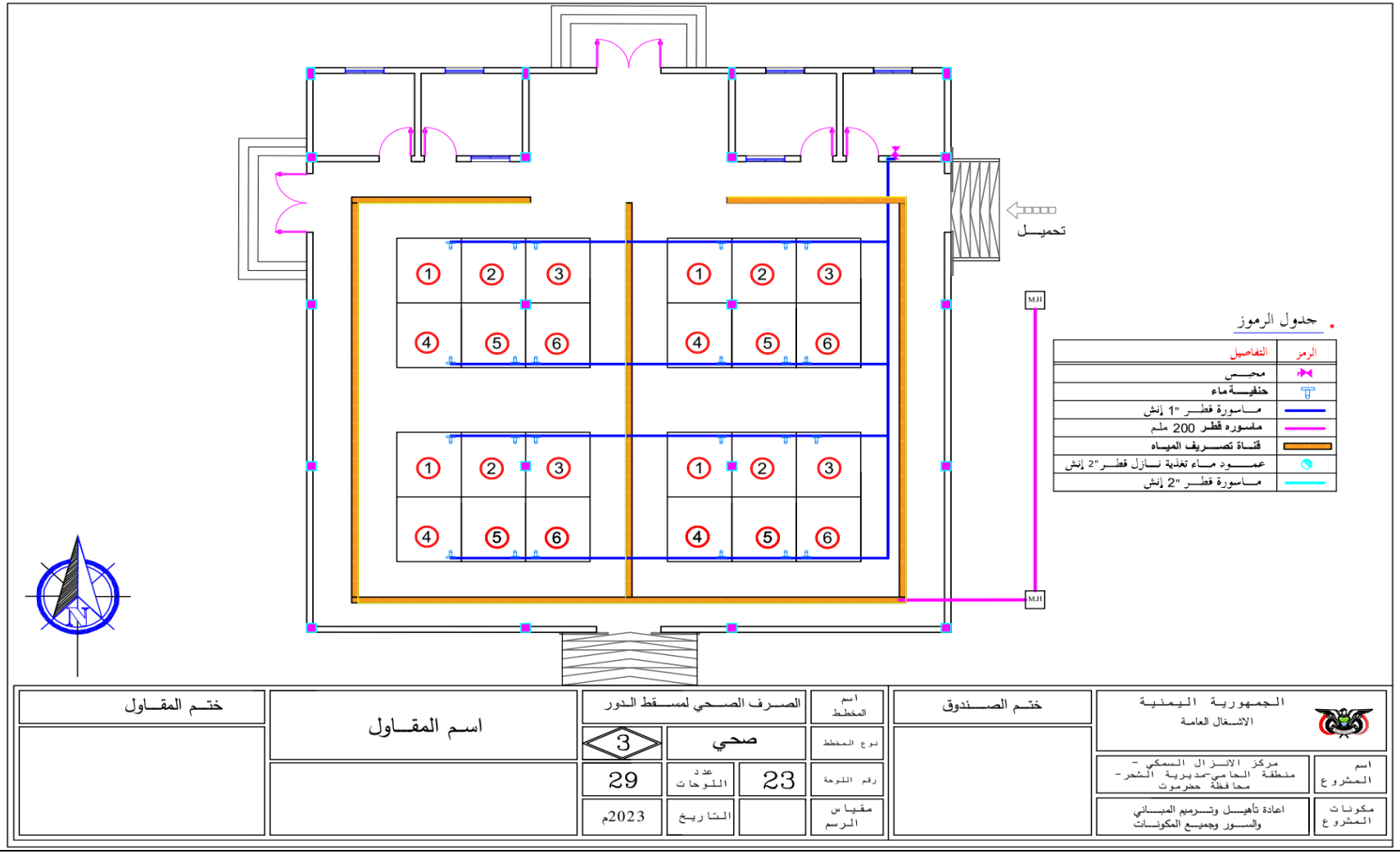
الرمز	التمثيـــل
①	نافـذة زجاج على إطار من الألومنيـــوم
②	طلاء ايبوكســـي
③	طرطشة خارجية بالماكنـــة
④	ســـيراميك
⑤	بلب شـبك من الحديـد مع دهان ايبوكســـي
⑥	كرســي من الحجـر البازلـــت

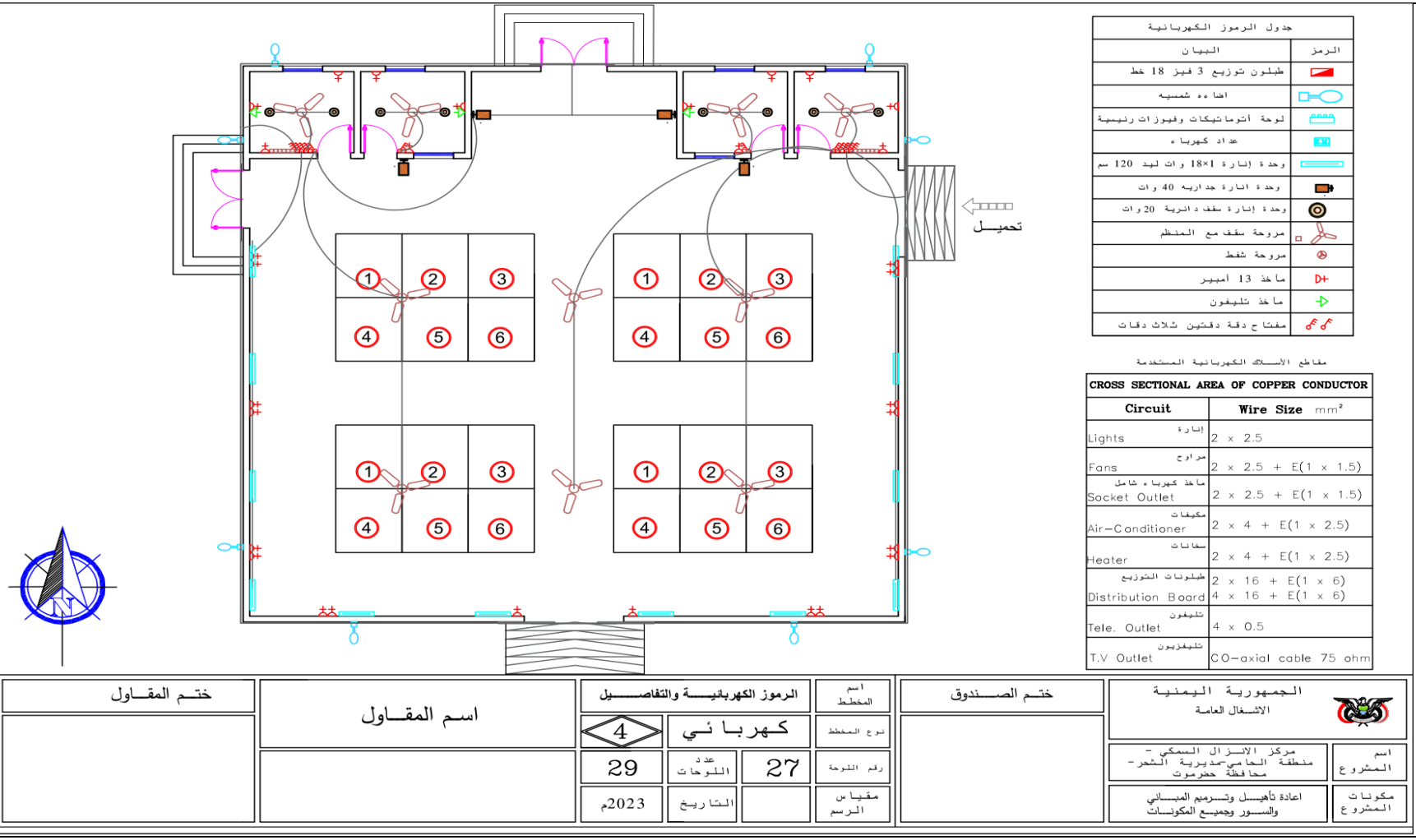
ختـم المقـاول	اسـم المقـاول	واجهات صـالة الحـراج	اسم المخطط	ختـم الصـــندوق	الجمهورية اليمنية الاشغال العامة
		1 معمـاري	نوع المخطط		
		29 عدد اللوحات / 04 رقم اللوحة	رقم اللوحة		اسم المشروع: مركز الانـزال السمكي - منطقة الحامي-مديرية الشحر- محافظة حضرموت
		2023م التاريخ	مقياس الرسم		مكونات المشروع: اعادة تأهيـل وتـرميم المبـاني والسـور وجميـع المكونـات



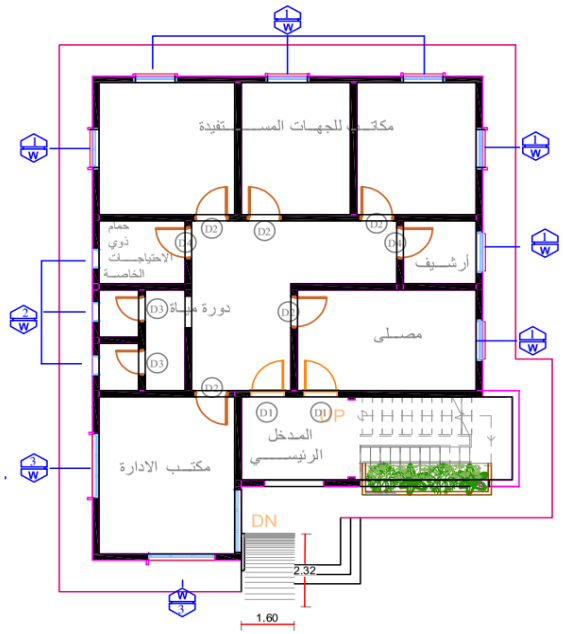
مسقط القواعد
FOUNDATION PLAN LAYOUT
SCALE 1:100M.

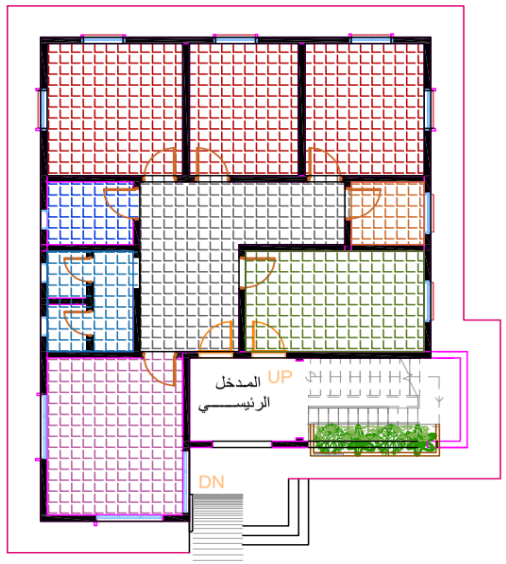
ختم المقاول	اسم المقاول	مسقط القواعد	اسم المخطط	ختم الصندوق	الجمهورية اليمنية الاشغال العامة
		2 إنشائي	نوع المخطط		
		29 عدد اللوحات 09	رقم اللوحة		اسم المشروع: مركز الانزال السمكي - منطقة الحامي-مديرية الشحر- محافظة حضرموت
		2023م التاريخ	مقياس الرسم		مكونات المشروع: اعادة تأهيل وترميم الميناني والسور وجميع المكونات


تحميـــل
M.H
M.H
جدول الرموز
الرمز
التفاصيل
محبـــس
حنفيـــة ماء
مـــاسورة قطـــر "1 إنش
ماسوره قطر 200 ملم
قنـــاة تصـــريف الميـــاه
عمـــــود مـــاء تغذية نـــازل قطـــر"2 إنش
مـــاسورة قطـــر "2 إنش
الجمهورية اليمنية
الاشغال العامة
ختـم الصـــندوق
اسم المخطط
الصـرف الصـحي لمســقط الـدور
نوع المخطط
صحي
رقم اللوحة
23
عدد اللوحات
3
مقياس الرسم
التاريخ
2023م
29
اسـم المقـــاول
ختـم المقـــاول
اسم المشروع
مركز الانـــزال الـسمكي - منطقة الحامي-مديرية الشحر- محافظة حضرموت
مكونات المشروع
اعادة تأهيـــل وتـــرميم المبـــاني والســـور وجميـــع المكونـــات

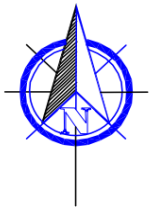


Drawings showing of the new hall



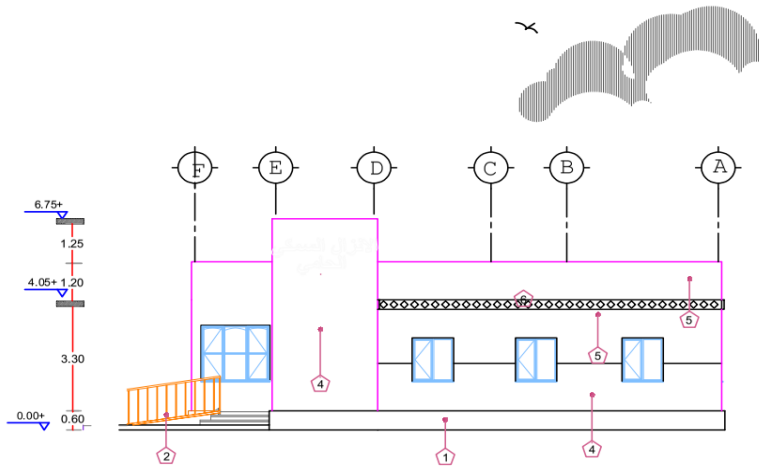


الرمز	اسم الفـــراغ المعمـــاري	المساحة
	مكاتب للجهات المســـتفيدة	46.075
	أرشـيف	4.400
	مصـلى	17.280
	موزع الحركـة	28.74
	حمام ذوي الاحتياجـات الخاصـة	5.391
	دورة ميـاة	8.559
	مكتـب الادارة	20.695

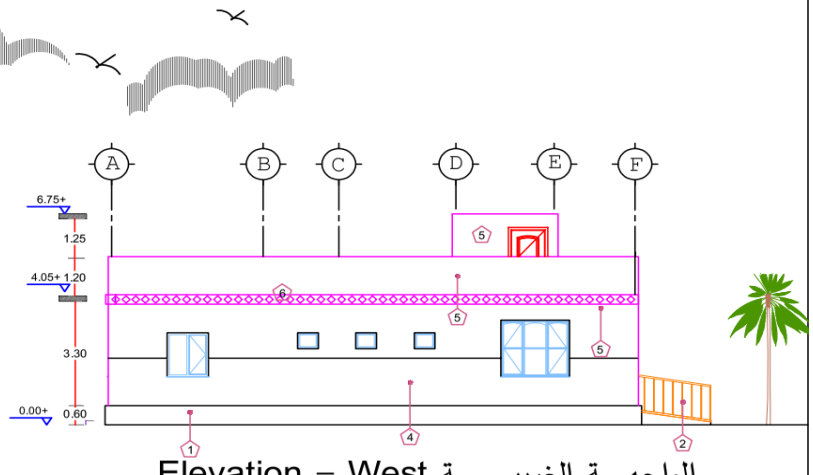


مسـقط الدورالارضـي

الجمهورية اليمنية الاشغال العامة فرع : المكلا		ختم الاشغال العامة	أسم المبنى	مبنى الادارة	اسم المقاول	ختم المقاول
أسم المشروع	مركز الانزال السمكي - منطقة الحامي - مديرية الشحر - محافظة حضرموت		نوع المخطط	معماري	1	
أسم اللوحة	المسـقط		رقم اللوحة	01	عدد اللوحات 37	
			مقياس الرسم	التاريخ	2023 م	



Elevation – East الواجهـــة الشـــــرقية



Elevation – West الواجهـــة الغربيـــــة

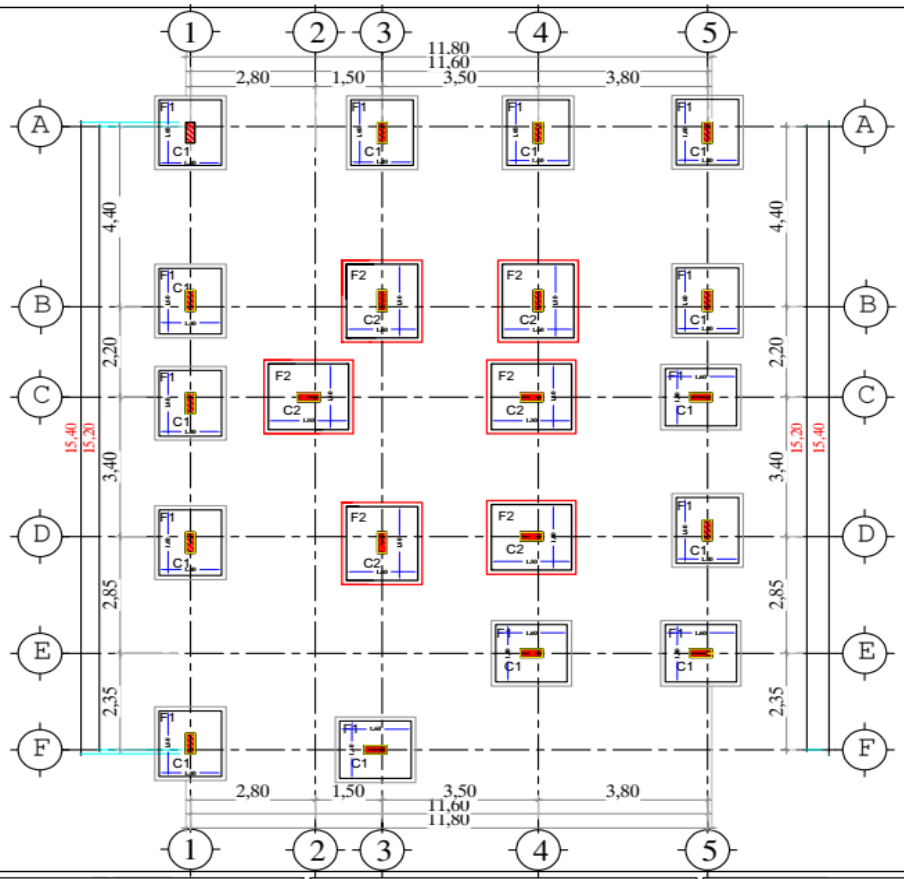
الرمز	جدول مواد الواجهـات
1	كرسـي حجر مـربوع نظيـف سمك 40سم مع الكحلـة برشـة أمريكيـة للـون الأسـود
2	م 1كوبسته درابزين بارتفاع 2.5×5 حديد مربوع 2مرتكزه على ملى بحسب 3قاعدة حديد مربوع بسمك المخططات التفصيلية
3	احواض زهور من الحجر المربوع بارتفاع 130 سم
4	مباني داموك مع التلبيس والدهان رشة امريكية لون أزرق
5	مباني داموك مع التلبيس والدهان رشة امريكية لون أبيض
6	مباني بلك بروز 7سم سمك البلاطة مع اللياسة والدهان باللون الأسود

جدول التشـــــطيبات

ملاحظات

-على المقـاول تقـديم عينـه من جميـع المـواد للأستشـاري للموافقـه عليهـا ثـم ارسـالها للفـرع للتعميـد.
-على المقـاول عمل عينةتنفيذيـة من المبـاني ثـم اسـتلامها من قبـل الاستشـاري .
-جميـع أنـواع البلـك المسـتخدم بلـك أتومـاتيكي .
-الطـلاء الخـارجي يجـب ان يكـون مقـاوم للرطوبـة والعوامـل الخارجيـة

الجمهورية اليمنية الاشغال العامة فرع : المكلا	ختم الاشغال العامة	أسم المبنى	مبنى الادارة	اسم المقاول	ختم المقاول
أسم المشروع: مركز الانزال السمكي - منطقة الحامي - مديرية الشحر - محافظة حضرموت		نوع المخطط	معماري		
أسم اللوحة: الواجهات 2		رقم اللوحة: 13	عدد اللوحات: 37		
		مقياس الرسم	التاريخ: 2023 م		

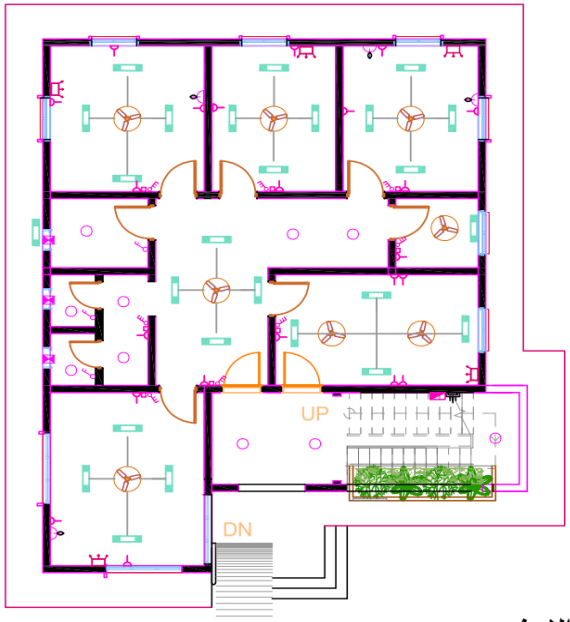


ملاحـــظـــــــات هـــــــــامة:

يجب تنفيذ جميع الاعمال الانشائية حسب اصول الصنعة وبما يتلائم مع المعايـــير الهندسيـــة حسب الآتي :

1) جهد التربة التصميمي (1.5كجم /سم2) وعلى الجهة المنفذة عمل الاختبارات اللازمة لمعرفة قوة تحمل التربة قبل التنفيذ وفي حالة ظهور خلاف ذلك يجب مراجعة الجهة المصممة.
2) حفر التربة بما لا يقل عن 1.5م من مستوى الارض الطبيعية وحتى الوصول الى طبقة التأسيس بعد نقل المخلفات القائمة
3) طلاء جميع الاعمال الخرسانية المغمورة بالدامر الساخن طليتين متعامدتين
4) يجب انطباق مركز ثقل العمود مع مركز ثقل القاعدة أسفله في حالة القواعد المنفصلة يجب ألا تقل أشاتر رقاب الأعمدة عن 1م
5) خرســـانة عادية M150
6) خرســـانة مسلحة M250 بمعدل 350 كجم اسمنت / م3
7) حديد التسليح المستخدم grade 40
8) صممت هذا المبنـــى على اساسات لـــدورين فقـــــط
9) يجب استخدام الهزاز الميكانيكي لجميع الاعمال الخراسانية المسلحة مع توفير العمالة الماهرة لذلك بما يمنع اي حركة لحديد التسليح
10) جميع العناصر ذات المنشأ الخرسانية يتم رشها لمدة 15يوم متواصلة صباحا و مساءا
11) تشريك اسياخ الحديد في الاعمدة لايقل عن (50) ضعف قطر سيخ العمود
12) عمل بسكت لكافة العناصر الانشائية بما يضمن عدم ملامسة حديد التسليح للقوالب الخشبية حسب الاتي :
- لا يقل عن 5 سم للأساسات
- لا يقل عن 2 سم للأعمدة والسلالم والميدة

ختـم المقـاول	اسـم المقـاول	مسـقط القواعـد والمحـاور	اسم المخطط	ختـم الصـــندوق	الجمهورية اليمنية الاشـغال العامة
		2 إنشـــائي	نوع المخطط		
		37 عدد اللوحات	18 رقم اللوحة		اسم المشروع: مركز الانـزال السكني - منطقة الحامي-مديرية الشحر- محافظة حضرموت
		2023م التاريخ	مقياس الرسم		مكونات المشروع: اعادة تأهيـل وتـرميم المبـاني والسـور وجميـع المكونـات



مســقط الدورالارضـــي

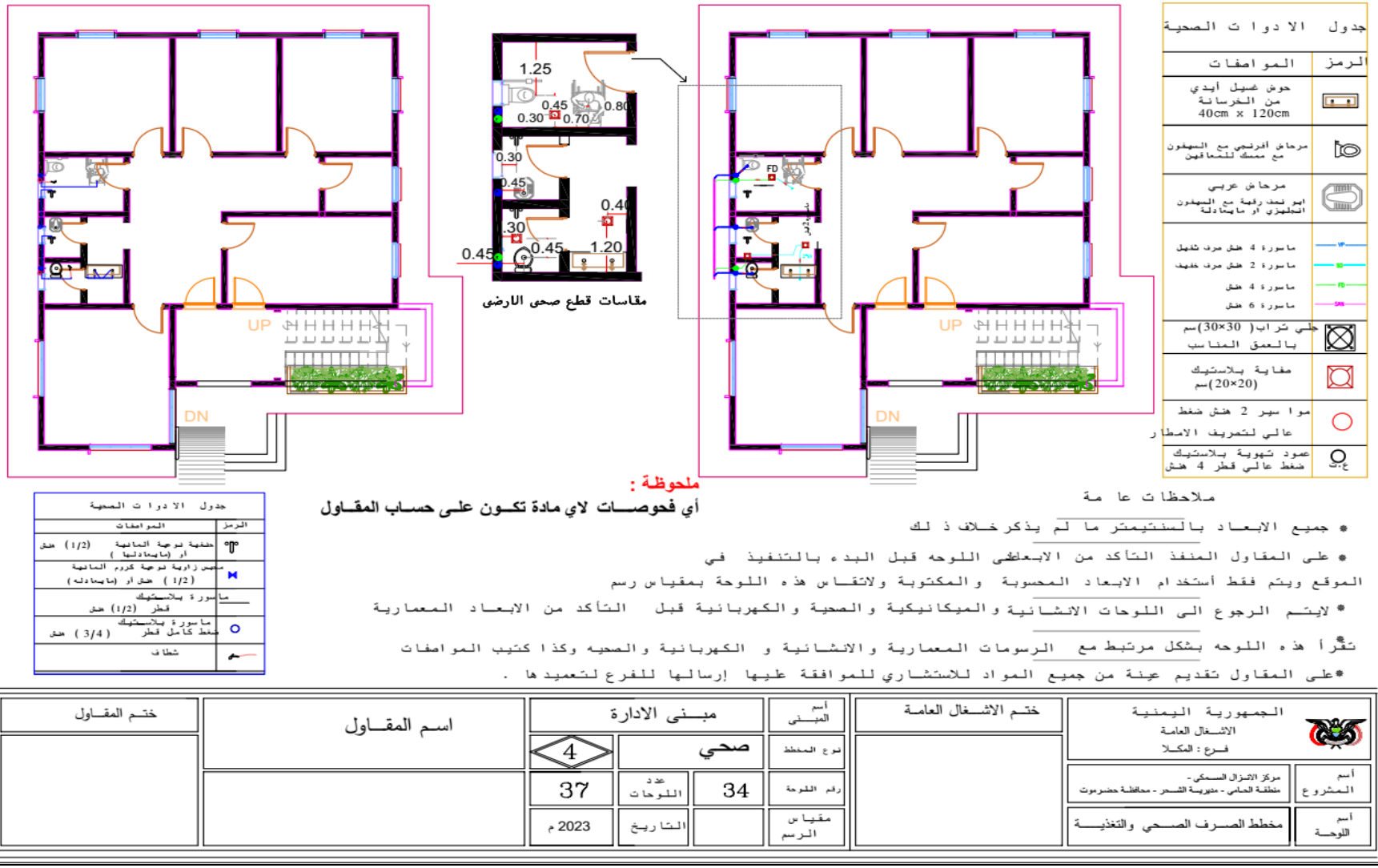
توضع تحت الدرج

جدو ل الا د وا ت الكهربائيـــــة	
الـمـو اصفـا ت	الـرمـز
مين سويتش 3 فيز	
أتوما تيك 3 فيز	
طبلون توزيع (3) فيز	
مروحة سقف مع المنظم	
لمبة عادية	
ماخذ 13 أمبير	
مفتا ح دقة	
دقتين	
ثـلاث دقا ت	
مفتا ح تبا دلي	
ماخذ كمبيوتـــر	
جرس كهربـــائي كبـــير	
تكييف اسبليت	
ماخذ هـاتف	
مروحة شـــفط 25*25سم	
وحدة اضاءة فلورسنت مزدوجة قدرة ٨٠ وات	

ملاحظات

يجـب اعتمـاد جميـع العينـــات قبـــل توريـــدها
يجـب علـى المقـاول توفـــير ادوات الســلامة والصـحة المهنيـــة و
اجبـار العمـال علـى ارتـــدائها

الجمهورية اليمنية الاشغال العامة فـرع : المكـلا		ختـم الاشـغال العامـة	أسم المبـنى	مبـنى الادارة		اسم المقـاول	ختـم المقـاول
أسم المشروع	مركز الانزال السمكي - منطقة الحامي - مديرية الشحر - محافظة حضرموت		نوع المخطط	كهربا ئي	3		
			رقم اللوحة	29	عدد اللوحات 37		
أسم اللوحة	المســـاقط		مقيا س الرسم		التا ريخ 2023 م		



ملحوظة :

أي فحوصـــات لاي مادة تكـــون علـى حساب المقـاول

ملاحظات عامة

* جميع الابعاد بالسنتيمتر ما لم يذكر خلاف ذ لك
* على المقاول المنفذ التأكد من الابعادعلى اللوحه قبل البدء بالتنفيذ في الموقع ويتم فقط أستخدام الابعاد المحسوبة والمكتوبة ولاتقـاس هذه اللوحة بمقياس رسم
* لايتـم الرجوع الى اللوحات الانشائية والميكانيكية والصحية والكهربائية قبل التأكد من الابعـاد المعمارية

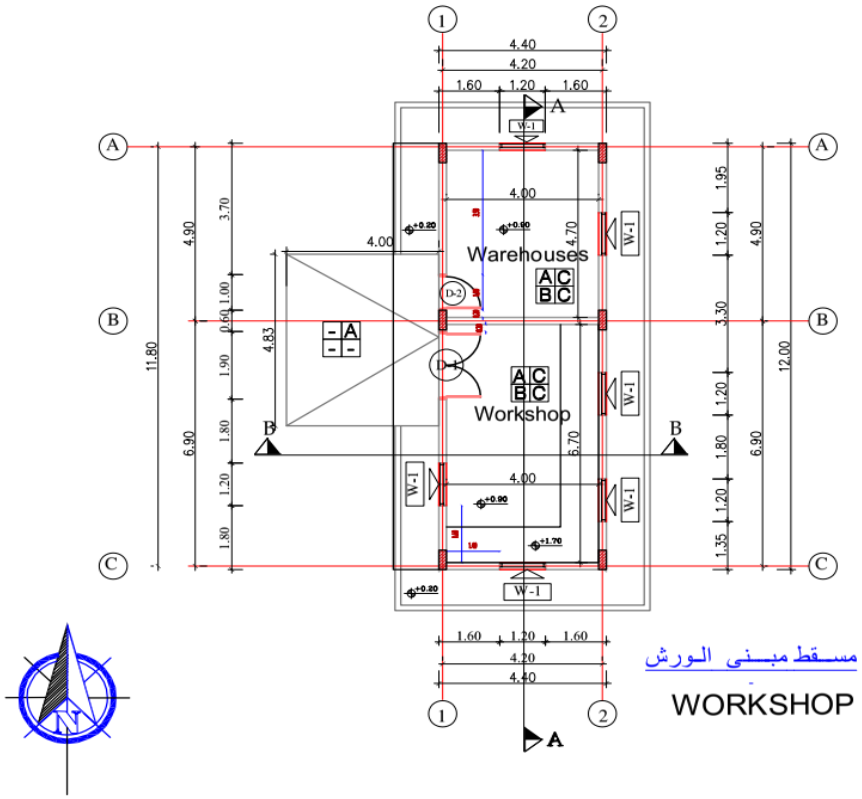
تقرأ هذه اللوحه بشكل مرتبط مع الرسومات المعمارية والانشائية و الكهربائية والصحيه وكذا كتيب المواصفات

*على المقاول تقديم عينة من جميع المواد للاستشاري للموافقة عليها إرسالها للفرع لتعميدها .

الجمهورية اليمنية الاشغال العامة فرع : المكلا		أسم المبنى	مبنى الادارة	اسم المقاول	ختم المقاول
أسم المشروع	مركز الاتزال السمكي - منطقة الحامي - مديرية الشحر - محافظة حضرموت	نوع المخطط	صحي		
أسم اللوحة	مخطط الصرف الصحي والتغذية	رقم اللوحة	34	عدد اللوحات	37
		مقياس الرسم		التاريخ	2023 م

ختم الاشغال العامة

Drawings showing of the administration building



مسقط مبني الورش

WORKSHOP

جدول الإنهاءات

FINISHING SCHEDULE FOR FISH LANDING CENTER
SPACE SCHEDULE

	السرمز	المواصفات
الأرضيات	A	
	B	
	C	
	D	
الجدران	A	
	B	
	C	
السقوف	A	
	B	
الوزرات	A	

جدول الشبابيك

WINDOWS SCHEDULE

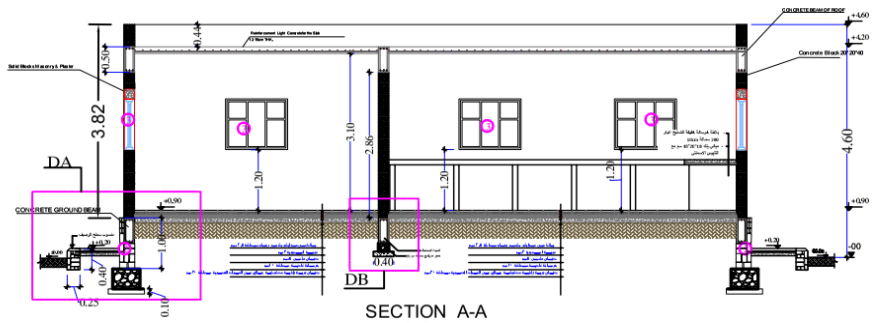
السرمز	الأبعاد العرض	الارتفاع	المواصفات
	1.20	1.00	

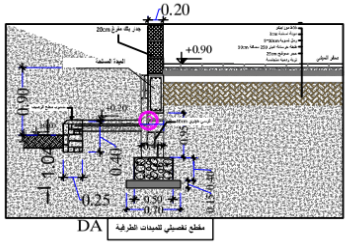
جدول الأبواب

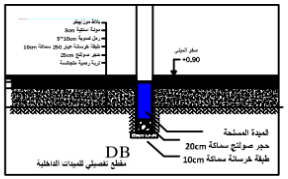
DOORS SCHEDULE

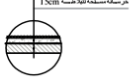
السرمز	الأبعاد العرض	الارتفاع	المواصفات
D1	1.90	2.10	باب خشب مزدوج طاقتين
D2	1.00	2.00	باب خشب مفرد درفة واحدة

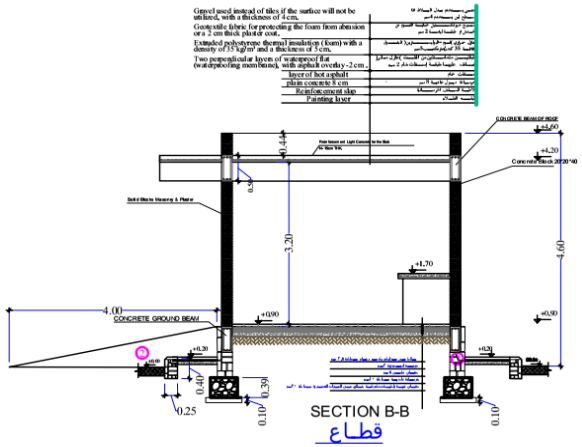
ختم المقاول	اسم المقاول	مخطط مسقط الأرضي - مبنى الورشة	اسم المخطط	ختم الصندوق	الجمهورية اليمنية الاشغال العامة
		1 معماري	نوع المخطط		
		10 عدد اللوحات / 01 رقم اللوحة	رقم اللوحة		اسم المشروع: مركز الانزال السمكي - منطقة الخامي-مديرية الشحر- محافظة حضرموت
		2023م التاريخ	مقياس الرسم		مكونات المشروع: اعادة تأهيل وترميم المباني والسور وجميع المكونات



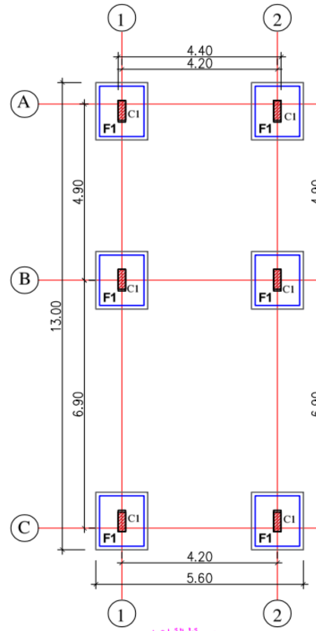








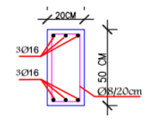
ختم المقاول	اسم المقاول	مبنى الورشة -مقاطع توضيحية	اسم المخطط	ختم الصندوق	الجمهورية اليمنية الاشغال العامة
		1 معماري	نوع المخطط		
		10 عدد اللوحات	04 رقم اللوحة		اسم المشروع: مركز الانزال السمكي - منطقة الحامي-مديرية الشحر - محافظة حضرموت
		2023م التاريخ	مقياس الرسم		مكونات المشروع: اعادة تأهيل وترميم المباني والسور وجميع المكونات



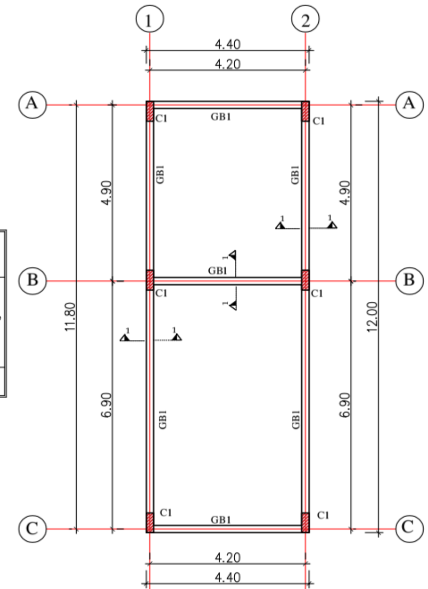
مسقط القواعد
FOUNDATION PLAN LAYOUT

Isolated Foundation Reinforcement Detail جدول تسليح القواعد المنفصلة						
Name الرمز	Dimension (M) الابعاد (متر)			Bottom Reinforcement التسليح السفلي		
	B العرض	L الطول	H الارتفاع	Long Dire الاتجاه الطويل	Shorts Dire الاتجاه القصير	Shorts Dire الاتجاه القصير
F1	1.20	1.40	0.40	6Φ16/m	6Φ16/m	2+3Ø16

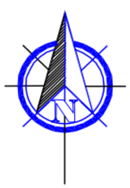
Beam Reinforcement for Ground Beams (Midah) تفاصيل تسليح جسور الميدة									
Notes ملاحظات	Stirrups/ الكانات		Reinforcement / التسليح				Dimension الابعاد		Name الرمز
	Edge طرفية	Middle وسطية	Top Addition علوي اضافي	Top Straight علوي مستمر	Bottom Bend سفلي مكسح	Bottom Straight سفلي مستمر	H الارتفاع	B العرض	
	Φ8@150mm	Φ8@200mm	-----	2Φ16	-----	3Φ16	50	20	GB1



sec.(1-1) GB1



مسقط الميدة
Ground Beams PLAN



ملاحظات:
- يجب أن لا يقل محتوى الاسمنت في الخرسانة العادية لطبقة النظافة عن 250 kg/m³ ولا تقل المقاومة المكعبية لها على عمر 28 يوم عن 20N/mm² أو 200 kg/cm²
- يجب أن لا يقل محتوى الاسمنت في الخرسانة المسلحة للقواعد عن 350 kg/m³ ولا تقل المقاومة المكعبية لها على عمر 28 يوم عن 25N/mm² أو 250 kg/cm²
- يجب أن يطابق مركز ثقل العمود مركز القاعدة أسفل منه في جميع القواعد.
- يجب أن لا تقل أشاير رقاب الأعمدة عن 1m
- يجب معالجة الخرسانة المصبوبة برشها بالمياه مرتين يومياً صباحاً ومساءاً ولمدة 10 أيام اعتباراً من اليوم التالي للصب
- يجب عدم التكسير في الخرسانة بعد صبها لأي سبب كان
- يجب أن لا يقل الغطاء الخرساني في القواعد عن 50mm
- يجب مراعاة الأصول الفنية في صب ودك الخرسانة واستخدام الهزازات المناسبة ودائماً باشراف المهندس الاستشاري

ملاحظات:
- يتم التأسيس على تربة طبيعية لا تقل قدرة تحملها عن 150kN/m² أو ما يعادلها ويتوجب على المقاول إجراء تحريات التربة الضرورية للتحقق من قدرة التحمل المطلوب لتربة التأسيس وذلك تحت إشراف المهندس الاستشاري.
- لا يقل منسوب التأسيس عن 1.5 m أسفل صفر أرضية المبنى.
- يجب تسوية تربة التأسيس ودكها أصولاً مع الترطيب المناسب للوصول إلى كثافتها العظمى وذلك تحت إشراف المهندس الاستشاري
- صممت القواعد لتحمل دور واحد فقط.
- يتم استخدام النايلون المشمع العازل تحت طبقة خرسانة النظافة على كامل مساحة الطبقة.
- يتم عزل جوانب وأسطح القواعد مع الرقاب بمادة البيتومين الحار بشكل جيد (3 طبقات على الأقل).

الجمهورية اليمنية
الاشغال العامة

اسم المشروع	مركز الانزال السمكي - منطقة الحامي-مديرية الشحر- محافظة حضرموت
مكونات المشروع	اعادة تأهيل وترميم المباني والسور وجميع المكونات

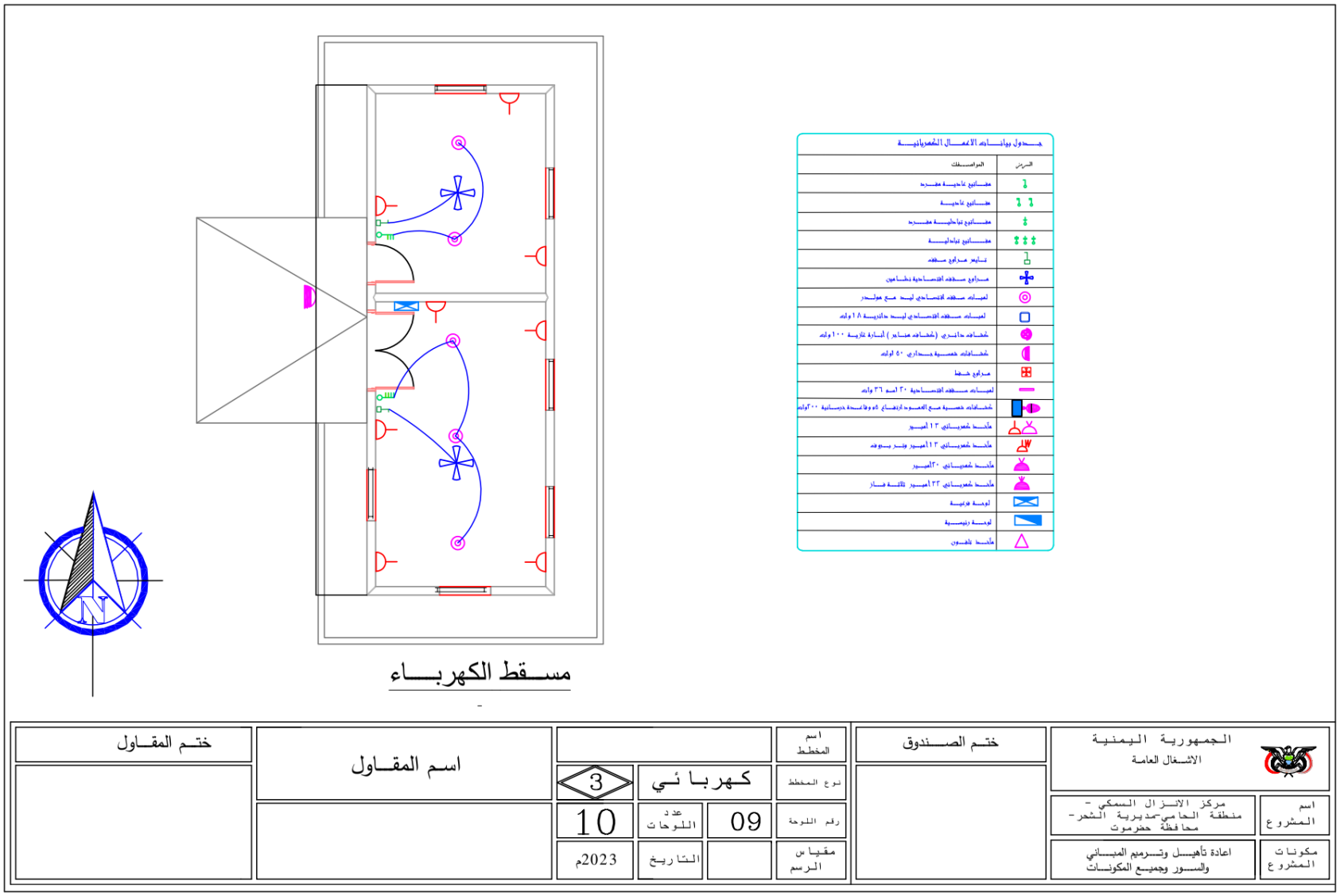
ختم الصندوق

مخطط القواعد

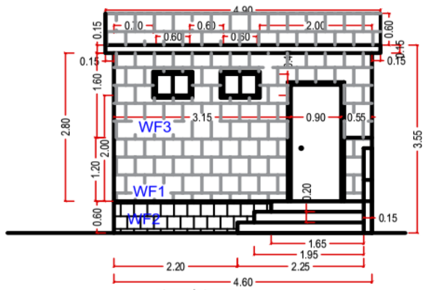
اسم المخطط	مخطط القواعد - مبنى الورشة		
نوع المخطط	انشائي		2
رقم اللوحة	05	عدد اللوحات	10
مقياس الرسم		التاريخ	2023م

اسم المقاول

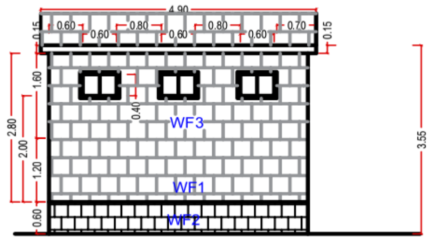
ختم المقاول



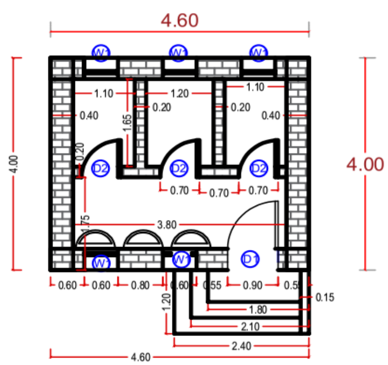
Drawings showing of the workshop building



واجهـــة أمامية



واجهـــة خلفية

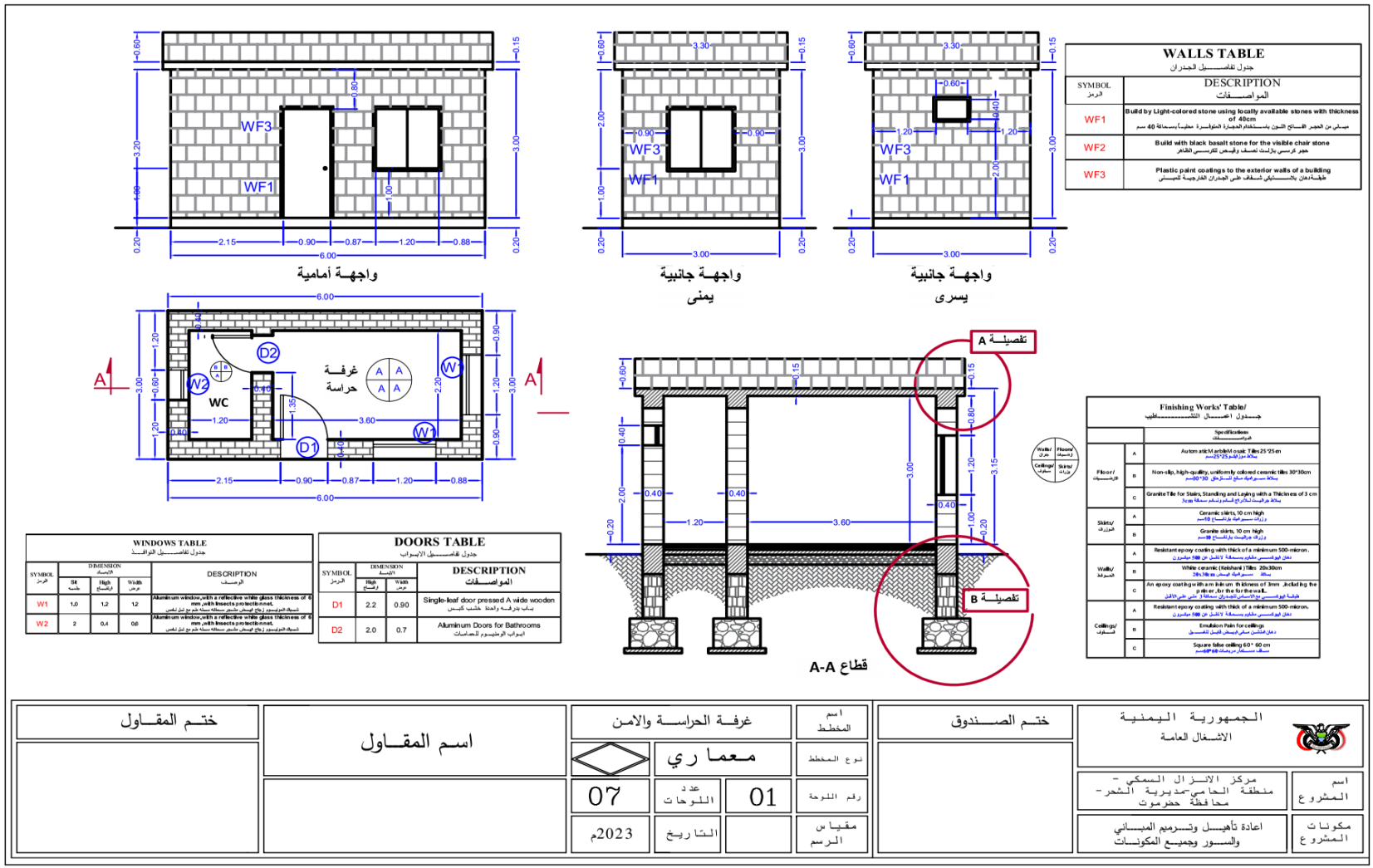


WINDOWS TABLE جدول تفاصــــيل النوافــذ				
SYMBOL الرمز	DIMENSION الابعـاد			DESCRIPTION الوصـف
	Sit جلسه	High ارتفاع	Width عرض	
W1	2	0.4	0.6	Aluminum window,with a reflective white glass thickness of 6mm ,with insects protection net. شباك الومنيوم وزجاج ابيض مشجر سماكه سته ملم مع تيل ناموس

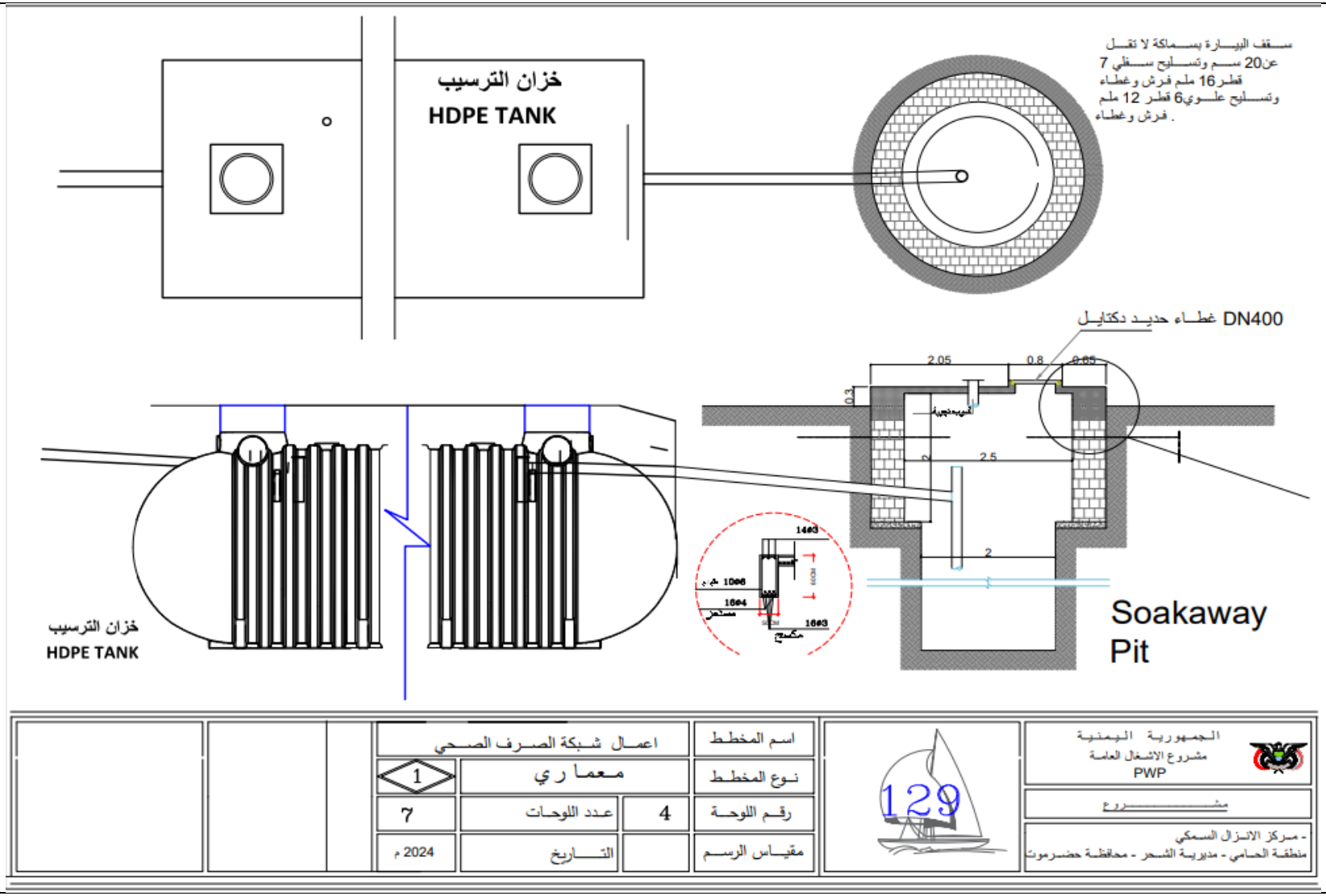
WALLS TABLE جدول تفاصــــيل الجدران	
SYMBOL الرمز	DESCRIPTION المواصــــفات
WF1	Build by Light-colored stone using locally available stones with thickness of 40cm مبـاني من الحجر فـاتح اللون باستخدام الحجارة المتوفـرة محليـاً بسماكة 40 سم
WF2	Build with black basalt stone for the visible chair stone حجر كرسي بازلت نصف وقيص للكرســي الظاهر
WF3	Plastic paint coatings to the exterior walls of a building طبقـة دهان بلاســتيكي شفاف على الجدران الخارجيـة للمبـنى

DOORS TABLE جدول تفاصــــيل الابـواب			
SYMBOL الرمز	DIMENSION الابعـاد		DESCRIPTION المواصــفات
	High ارتفاع	Width عرض	
D1	2.2	0.90	Single-leaf door pressed A wide wooden بـاب بدرفــه واحدة خشب كبس
D2	2.0	0.7	Aluminum Doors for Bathrooms ابـواب الومنيـوم للحمامـات

ختـم المقــاول	اسم المقــاول	الحمامات- تفاصـــيل معمارية	اسم المخطط	ختـم الصــندوق	الجمهوريـة اليمنيـة الاشـغال العامة
		3 / مـعمـا ري	نوع المخطط		اسم المشروع: مركز الانزال السمكي - منطقة الحامي-مديرية الشحر- محافظة حضرموت
		05 / عدد اللوحات / 01	رقم اللوحة		مكونات المشروع: اعادة تأهيل وترميم المباني والسور وجميع المكونات
		م2023 / التاريخ	مقياس الرسم		



Drawings showing of the guard room



Drawing showing the septic tank and Soakaway Pit

Annex 2 – Environmental and Social Checklist

Table 13 Environmental and Social Checklist

Sub-Project No.	05-9-16080
1: The Natural Environment	Answer Negative Impact Rate (Minor/Moderate/Substantial/High)
1.1 Are there any environmentally sensitive areas or threatened species that could be adversely affected by the subproject (specify below)? Intact natural forests Riverine forest Wetlands (lakes/rivers/seasonally inundated areas) If yes, how far are the nearest wetlands (lakes, rivers, seasonally inundated [flooded] areas)? _____km Habitats of endangered species for which protection is required under Yemeni laws and/or international agreements Others (describe) (e.g., cultural sites, burial places, etc.)	 NA NA NA NA NA
2. Fauna and Flora	
2.1 Will the subproject involve 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?	Minor
3.2 Will the subproject lead to the destruction of soils in cleared areas not suited for agriculture?	NA

3.3 Will the subproject lead to the interruption of subsoil and overland drainage patterns (in areas of cuts and fills)?	NA
3.4 Will the subproject lead to landslides, slumps, slips, and other mass movements in soil?	NA
3.5 Will the subproject lead to erosion of lands?	NA
3.6 Will the subproject lead to health hazards and interference of plant growth by the dust raised and blown by vehicles?	Minor
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.)	NA
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 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.	Moderate
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)?	NA
5.2 Based upon visual inspection or available literature, are there areas that have risks soil salinity?	NA
6 Landscape/aesthetics	
6.1 Is there a possibility that the subproject will adversely affect the aesthetic attractiveness of the local landscape?	NA
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?	NA
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 the subproject generate residual wastes (solid or liquid wastes), including medical waste?	Moderate
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?	Minor
11.2 If, "Yes", does the subproject include plan for safe handling, use & disposal?	Yes
12. Water and Soil Contamination	
12.1 Will the subproject require raw materials/construction materials?	Moderate
12.2 Will subproject generate residual wastes, construction material waste, or cause soil erosion?	Moderate
12.3 Will the subproject result in soil or water contamination (e.g., from oil, grease, and fuel from equipment)?	Moderate
12.4 Will the subproject lead to contamination of ground and surface water bodies by herbicides for vegetation control and chemicals for dust control?	NA
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?	NA
12.6 Will subproject lead to the destruction of vegetation and soil in the right-of-way; borrow pits, waste dumps, and equipment yards?	NA

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?	NA
12.8 Will this project include the development irrigation scheme?	NA
12.9 Will this project aim at improving an irrigation scheme (without expansion)?	NA
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)?	NA
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?	Minor
13.2 Will this project affect the labor conditions, child and force labour?	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.	NA
14.3 Will this subproject cause any conflict among communities	NA
15. Indigenous People	
15.1 Are indigenous peoples present in the Project area (including the 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., the collapse of buildings or infrastructure)?	NA
17. Working Conditions	
17.1 Would the Project result in health risks (e.g., from water-borne or other vector-borne diseases)?	NA
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 14 PWP Environmental and Social Responsiveness (ESR) Criteria at Proposal Stage

Proposal Title	Rehabilitation and Development of AL-HAMI Fish Landing Site	
Proposal Location	Hadhramout Governorates	
ESR Criteria at the Proposal Stage		Confirmation Write Yes or No
Consultation with the local community including a community leader, men, women, and girls was 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 provide help for them in the subprojects' 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 PWP policy and have agreed to follow/apply them towards successful implementation.		Yes
Targeted beneficiaries are highly in need of this project		Yes
All communities including (Male, Female, and children) will benefit from the intervention.		Yes
The operation and maintenance requirements of the sub-project were explained to the community, and an acceptable system was developed for this purpose		Yes
Responsibility for operation and maintenance are defined and committed by the community committee		Yes
Local communities are aware of project risks and GM.		Yes
The project will not cause any conflict among communities		Yes
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		

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

Table 15 PWP Checklist of Expected Environmental and Social Impacts to be Addressed at the Design Stage

Project Name	Rehabilitation and Development of AL-HAMI Fish Landing Site
Project Location	Hadhramout Governorates
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 contractual materials for example stone are in harmony with the surrounding environment and the architectural character of the village.	Yes
GM tools have been included in the project document.	Yes
A safe work plan has been developed to project activities to control risks.	Yes
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
If any of the answers are "No", then the reasons must be stated in the design report.	

Annex 4. Social agreements and A land document for the benefit of fisheries) - Arabic

Figure 8 (Social agreements & land document for the benefit of fisheries) – Arabic

Below is copies of the document related to social agreements and land. For a detailed description, please refer to section *4.4. Land Acquisition/use and Economic and/or Physical Displacement*.

بسم الله الرحمن الرحيم

الجمهورية اليمنية

وزارة الاسكان والتخطيط الحضري

مكتب محافظة حضرموت

ثمن ٥ دينار

№ 033405

وثيقة إنتفاع بقطعة أرض
لبناء مسكن شخصي

بهذا يتفق مدير عام مكتب وزارة الاسكان والتخطيط الحضري بمحافظة حضرموت عن حكومة الجمهورية اليمنية
كطرف اول والاخ ـــــــــ طرف ثاني

١) يوافق الاول على ان ينتفع الطرف الثاني بقطعة ارض ملك الجمهورية اليمنية الواقعه بحي ـــــــــ
رقمها ـــــــــ والتي تبلغ مساحتها طولا ـــــــــ وعرضها ـــــــــ
عن مربع ـــــــــ بمعدل قيمة المتر المربع المقدما ـــــــــ وقيمة الايجار السنوي للمتر
المربع مبلغ وقدره ـــــــــ

٢) يقبل الطرف الثاني بالسماح ان يدفع للطرف الاول قيمة الانتفاع السنوي مبلغ وقدره ـــــــــ
او مقدما مبلغ وقدرة ـــــــــ في المناطق الريفيه على ان يبدأ سريان عقد الانتفاع بالارض
من تاريخ ـــــــــ

٣) تستمر صلاحية هذه الاتفاقية على ان يتعهد الطرف الثاني بالشروع في اقامة البيت خلال مدة مئة يوم التوالي على العقد
وان ينتهي من البناء خلال ثلاث سنوات منذ يوم بدء الاعمال .

٤) يحق للطرف الاول سحب وانهاء عقد الانتفاع وفقا للقانون النافذ عند اخلال الطرف الثاني باحد بنود العقد
كما يحق لمكتب الوزارة تجميد العقد متى ما راى ذلك ضروريا

٥) يجب على الطرف الثاني متى تم اقامة البيت تسجيله لدى السجل العقاري والحصول على الشهادة الدالة
على تمام الاعمال وبهذا ينشأ حق ملكيه السكن الشخصي من يوم التسجيل .

٦) يحق للطرف الاول اجراء تعديل اي فقرة من فقرات العقد الثاني متى راى ذلك ضروريا حسب المظلم
والارشادات الصادرة .

٧) على ماجا اعلاه اتفق الطرفان برضاه واختيار عليذلك ووضع تلا امضاءه بحضور الشهود .

امضاء الطرف الاول ـــــــــ امضاء الطرف الثاني ـــــــــ

مدير عام مكتب وزارة الاسكان
والتخطيط الحضري م – ح

رقم البطاقة الشخصية ـــــــــ
رقم الجوال ـــــــــ

الشهود
١) ـــــــــ
٢) ـــــــــ

الحدود
غربا ـــــــــ
شرقا ـــــــــ
شمالا ـــــــــ
جنوبا ـــــــــ

الموافق ـــــــــ

(Social agreements & land document) – Al-hami landing center

Annex 5 – PWP Complain Handling Mechanism

Figure 9 PWP Complain Handling Mechanism


تمهيد:
المجتمع يقوم بدوره الرقابي على المشاريع
تجربة تنموية:
من الميدان:
شارك في حل المشكلة(الشكوى):
تأكد من صحة الشكوى أو المشكلة الناتجة عن المشاريع والأعمال التنموية المنفذة في منطقتك وناقشها مع الآخرين
كن صادقاً ومحايداً في التعامل مع أي شكوى أو مشكلة قد تحدث أثناء تنفيذ المشروع وتجنب الأحكام والمواقف المسبقة
احرص على تحقيق المصلحة العامة عند تقديم الشكوى دون سواها وتحرر من الأهواء الشخصية
شجع مجتمعك وكل من حولك في نطاق المشروع على روح المبادرة في وضع الحلول والمعالجات للمشكلة في بدايتها والتي من السهل حلها بإمكانيات وقدرات المجتمع.
لا تتردد عن استخدام حقوقك في رفع الشكاوى وتقديم المقترحات حول الاختلالات في جودة أو مواصفات المشاريع المنفذة ،وجدواها الاقتصادية وفائدتها الخدمية لمجتمعك .
أخي المواطن الكريم:
ضميرك وواجبك يحتمان عليك القيام بدورك في الرقابة المجتمعية على جودة المشاريع المنفذة والخدمات المقدمة، فمشاركتك الرقابية هي الضمانة الأكيدة ضد الممارسات الخاطئة وغير المشروعة والوصفة الناجحة للقضاء على التسيب والإهمال.
لتكون فاعلاً :
"عليك التحرر من الأهواء الشخصية ،وكن حريصاً على تحقيق المصلحة العامة ومتعاوناً ومساهماً في نجاح الأنشطة والمشاريع التنموية المنفذة في منطقتك ،ومراقباً أميناً على جودة الخدمات والأنشطة المقدمة لمجتمعك ، بحيث تكون معبرة وملبية لاحتياجات الناس و محققة أقصى درجات المنفعة والاستفادة والفوائد المرجوة منها.