Republic of Yemen

Ministry of Public Works and Highways

Rural Access Program – Central Management Office

UNITED NATIONS OFFICE FOR PROJECT SERVICES

YEMEN EMERGENCY LIFELINE CONNECTIVITY PROJECT

Component 1: Rural and Village Access Roads Improvement and Maintenance
Sub-Component 1.A: Rehabilitation of Lifeline Rural Access Roads

Rehabilitation of Rural Road in Hajjah Governorate

Al Aman–Al Shghaderah Center–Bani Al Nahari

Environmental and Social Management Plan

19 September 2022

Table of Contents

Abbreviations

BoQs	Bill of Quantities
C-ESMP	Contractor Environmental and Social Management Plan
CITES	Convention on International Trade in Endangered Species
cm	centimeter
cu. m.	Cubic Meter m^3
EHS	Environmental, Health and Safety
E&S	Environmental and Social
ESF	Environmental and Social Framework of the World Bank
ESHS	Environment, Social (including labor), Health, and Safety
ESIA	Environmental and Social Impacts Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESS	Environmental and Social Standard
ESSO	Environmental and Social Safeguards Officer
GBV	Gender Based Violence
GHS	General Health and Safety Guidelines
GIIP	Good International Industry Practice
GM	Grievance Mechanism
HSSE	Health, Safety, Social and Environment
IDA	International Development Association
IDP	Internally Displaced Person
km	Kilometer
L.M.	Linear Meter
LMP	Labor Management Procedures
mm	millimeter
OHS	Occupational, Health and Safety
PAP	Project Affected People
PPE	Personal Protective Equipment
PCBs	Polychlorinated biphenyls
RF	Resettlement Framework
RAP	Rural Access Program
SEA	Sexual Exploitation and Abuse
SH	Sexual Harassment
SEP	Stakeholder Engagement Plan
SMP	Security Management Plan
sq. m.	square meter m^2
TPM	Third Party Monitoring
UNOPS	United Nations Office for Project Services
YELCP	Yemen Emergency Lifeline Connectivity Project

Summary Sheet

Table 1 Subproject summary sheet

Subproject Name **ID Number** **Estimated Cost**	Rehabilitation of Al Aman–Al Shghaderah Center–Bani Al Nahari
Subproject Location	Ashghaderh, district Hajjah governorate.
Implementing Partner	RAP
Subproject Proposed Risk	Moderate
Date of the field visit	29 September 2021 May 2022
Consultation date	Last consultation session conducted on 19 - 22 May 2022
Observations/Comments	Indicated below
Signature of ESSO	
Date	

1. Introduction

The current Environmental and social management plan (ESMP) for the Rehabilitation of Al Aman–Al Shghaderah Center–Bani Al Nahari road subproject is prepared based on the Environmental and Social Management Framework (ESMF) for Yemen Emergency Lifeline Connectivity Project (YELCP). The ESMF was prepared by the United Nations Office for Project Services (UNOPS) to meet the requirements of the World Bank's Environmental and Social Framework (ESF), UNOPS requirements and the national environmental laws and regulations.The relevant Environmental and Social Standards (ESS) applicable on the YELCP are defined in section 3.1 of this ESMP.

The YELCP ESMF will guide UNOPS and Rural Access Program , to ensure that all subprojects are prepared and implemented in accordance with the ESF requirements, including the preparation of subproject specific ESMP. For this purpose, the ESMF details how UNOPS and RAP will screen each activity to assess its environmental and social aspects and Occupational Health and Safety (OHS) risks and impacts, identify the mitigation measures, and monitor ESMP implementation, most particularly the environmental and social and OHS performance of subprojects contractors. UNOPS has in parallel for the YELCP a Labor Management Procedures (LMP) t, and a GBV/SEA/SH Plan and a Security Management Plan (SMP), and a Resettlement Framework (RF), and a Stakeholder Engagement Plan SEP.

Accordingly, this subproject will follow the requirements of the LMP for labor working conditions and OHS, the GBV action plan for any GBV issues, the SMP to manage any potential security risks, and SEP for stakeholders engagement, grievance mechanism and information disclosure.

This ESMP for the rehabilitation of Al Aman–Al Shghaderah Center–Bani Al Nahari rural road was prepared after completing the following activities:

- Topographical survey, including establishment and fixing of horizontal and vertical control points, and preparation of contour maps for the subproject corridor required for the design.
- Geotechnical investigation, including assessment of soil samples, laboratory testing, soil description, identification of suitable material for construction.
- Traffic study, comprising study of existing and projected traffic volumes for the road subproject design life.
- Hydrology, including study of available data, estimation of peak hour volume discharge, and identification analysis of drainage structures location, type and size.
- Geometrical design of the road, including Horizontal alignment, longitudinal profiles and cross section.
- Pavement structural section.
- Structural design for drainage and protection works.
- Cost estimation, based on Bill of Quantities and present items rate.
- Socio Economic and Feasibility study

2. Subproject description

This subproject will be implemented in a rural road located in Hajjah Governorate, Ashghaderh District, 9 Km distance from Hajjah city. Total length of the existing road is 12.045 km and the whole road track is already excavated but unpaved. The alignment of the subproject and the whole intervention follows an already existing track, generally 4 to 6 m width in the majority of the road sections.

The main objective of the Al Aman–Al Shghaderah Center–Bani Al Nahari Road project is to connect the district center and the adjacent villages with the government center; the alignment of existing track has to be followed up to a large extent in the design of horizontal and vertical geometry of the project road. It is estimated that the road would serve about 137,000 persons directly and indirectly

This subproject will provide appropriate roads and access for targeted communities, which will facilitate their transportation and will contribute to enhancing the economy in the targeted areas. The subproject was selected based on the needs and priorities. The targeted road is the main road for beneficiaries, which is a priority for them. The implementation period is expected to be 12 months in which UNOPS will carry out tender bidding, bids analyses, signing the contract and the overall supervision in cooperation with its implementing partner RAP. A Community committee will be established from the beneficiaries at the subproject area which will play a role in facilitating the implementation and monitor the progress as well as project requirements in close coordination with UNOPS and RAP, additional details on the committee are available hereinafter within the relevant sections. UNOPS and RAP will provide the required training and capacity building for the contractor and committee in terms of environmental and social safeguard management before the implementation.

The interventions will provide opportunities for small contractors, skilled and unskilled labor from local communities as well as from displaced people, which will reduce the negative impacts of the Covid-19 pandemic and will generate positive impacts on the economy, education, and health in the targeted areas. The workers will be properly selected by the contractor, trained, equipped with necessary PPEs with close supervision on following such requirements from RAP and UNOPS. The total number of direct and indirect beneficiaries who will benefit from this sub-project are 137,000 inhabitants of which 66,750 are men and 70,250 are women. Activities under the subproject will be closely followed up and monitored, environmental and social safeguards requirements management will be part of the subproject main agenda that will result in enhancing the capacity of contractors and their workers.

2.1. Scope of work

The proposed rehabilitation will take place entirely on the existing road alignment except in a few small sections where the alignment will be widened within the existing right of way, public land where no cultivation nor fruit trees, to fulfill the design requirement. Site works will comprise the completion of the earthworks, drainage structures, protection works as appropriate, and side ditches. It will also provide road pavement layers, including bituminous surfacing. Activities summary under the subproject are as below:

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2.1.1 Engineer's Facilities[1]

- Provide a rented site office, housing and accommodation for the Engineer staff (12 month).
- Provide (2) vehicle for the Engineer staff including Operation cost (12 month).
- Provide a rented laboratory equipment for the Engineer staff including Operation cost (12 month).
- Provide a rented Survey Equipment for the Engineer staff including Operation cost (12 month).

2.1.2 Excavation Works

- Roadway Common excavation (12,002 Cu.m.). Excavation works in the road vary from section to section based on the road condition and the necessary alignment, maximum excavation depth is 150 cm.
- The excavation depth varies from area to another, ranging from 25 cm to 150 cm
- Adjusting the level of the current road to match the intended level using rocks or soil from site excavations (4,155 Cu. m.).
- .

2.1.3 Earthworks

- Disposal of surplus and/or unsuitable excavated material outside the right- of- way to the public locations approved by the engineer and the responsible authorities (7,847 Cu. m.)
- Re-preparation of existing Subgrade layer on main road from 1 + 400 km to 6 + 500 km width of 8.84 m and thickness of up to 30 cm and the price includes the filling of all the holes and grooves that were affected by erosion (45,084 Sq. m.)
- Subgrade preparation to the design limits specified on the drawings (16,210 Sq. m.)

2.1.4 Pavement and Shoulders

- Granular Base Course Layer 150 mm thick (10,245 Cu. m.)
- Provide and spray Bituminous Prime Coat, as per Specification (54,439 Sq. m.)
- Provide and lay Asphalt Concrete Wearing Course 40mm thick (2,068 Cu. m.)

2.1.5 Structural Works

- Structural Excavation (Culverts, Retaining Walls, Irish Crossings (6,348 Cu. m.)
- Concrete Class 110/25 (Blinding for Culverts, Irish Crossings& retaining walls etc...) (132 Cu. m.)
- Concrete Class 210/20 (Culvert Top Slab, Irish Crossings Cut off Wall & Slab etc...) (577 Cu. m.)
- Cyclopean Concrete Class 210/20 (Culvert / Retaining Walls Beds, barriers, Paving, etc…) (285 Cu. m.)
- High Tensile steel bar reinforcement (Grade - 60) (33 Ton)
- Grouted Riprap 25cm thick (Irish Crossing, roadside ditches, slope protection and culvert inlet & outlet) (21,985 Sq.m.).
- Gabions (For Irish Crossing, Slope Protection) (592 Cu. m.)
- Stone Masonry Dressed Coursed with Mortar (for Retaining Walls, Culverts, and Safety Barriers) (1,321 Cu. m.).
- Boulder Masonry for Retaining Walls, Culverts, Safety Barriers (414 Cu. m.)

2.1.6 Safety Works

- Project Name Board with their support, fittings and concrete foundation) (2 No).
- Small Signs (not exceeding 1 Sq.m. area) with their signal posts (30 No).
- Thermoplastic, reflectorized paint (TRP) for Pavement Marking of 10 cm (26,276 L.m).
- Relocation of Existing Walls[2] (200 L.m).

[1] The contractor will be responsible for the rest of the workers' lodging, which must meet UNOPS OHS criteria and minimum requirements that include appropriate accommodation with limited number of personnel and to be provided with the proper sanitation premises

[2] All assets (walls, fences, poles and pipes) that require relocation are public and will be relocated into public lands. Summary and clarification of relocation activities is available in annex 7

- Relocation of Existing Fences (100 L.m).
- Relocation of Existing Water pipes (1,280 L.m).
- Relocation of Existing Electric Poles (5 No).
- Relocation of Existing Telephone Poles (3 No).
- Cut existing asphalt using electrical saws and disposal. Work may cut a removable base course layer to Location approved by engineer (145 Cu. m.).
- Keeping side ditches & culverts free from obstacles by doing routine cleaning through the contract period in the section from 0+000 km to 1+ 400 km (1.4 L. km)

2.1.7 Environmental Works

- Cleaning (body, inlet and outlet) for 25 culverts. The item will be measured in the number, whether the culverts are one or multiple openings, box or pipe, so that the location of each statement is calculated as one unit. The item includes cleaning and lifting all the waste from the entrances, body inlet and outlet of the culvert constantly to discharge their function during the period of implementation of the project. The contractor must verify the condition of these culverts when he visits the project to ascertain the dimensions and condition of each culvert (25 No)
- Reinforced Concrete Pipe Culvert 150 cm dia. including plain concrete for cradles & sand for fill. (30 L.m).
- Reinforced Concrete Pipe Culvert 120 cm dia. including plain concrete for cradles & sand for fill. (102 L.m).
- Irrigation Pipes[3] MS 300 mm diameter with an average length of 12 M, including excavation and filling to a depth of 30 cm. (48 L.m).
- Stone Masonry Dressed Coursed with Mortar which serves as a safety barrier at the road curves to prevent vehicles from rolling off the road. (284 Cu. m.)

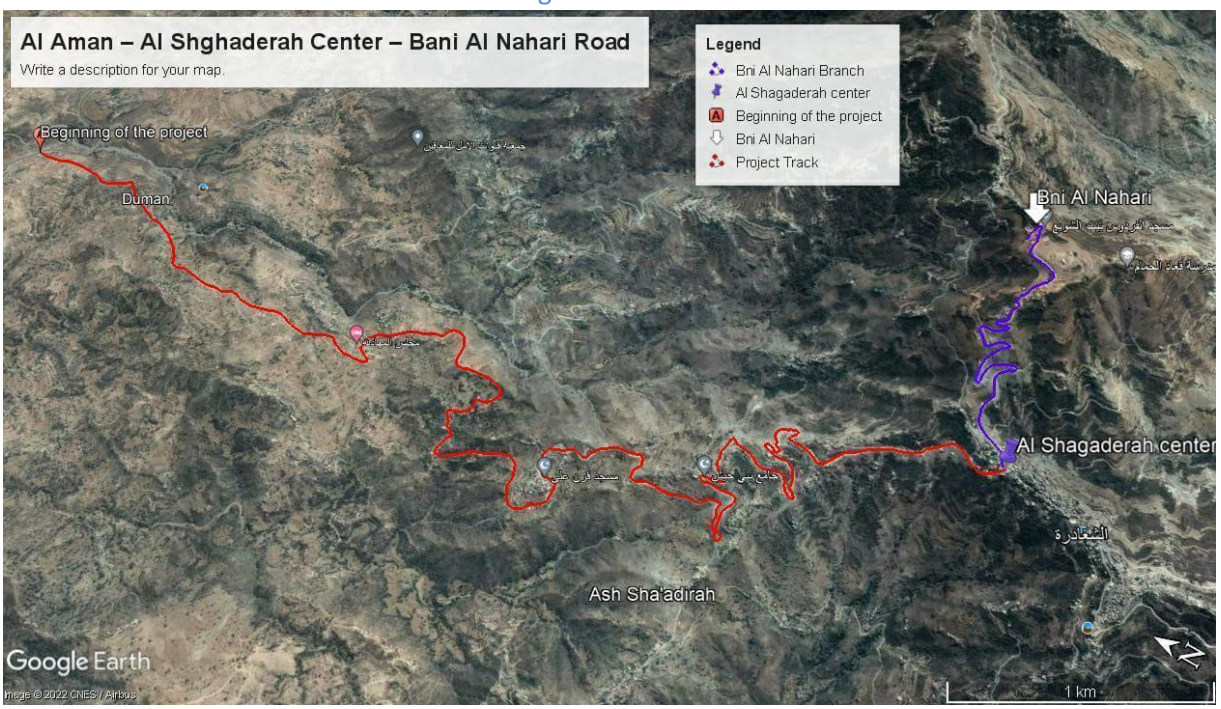
2.2. Location and coordinates

Al Aman–Al Shghaderah Center–Bani Al Nahari rural road is located in AShaghderah and Najrh districts located near AlKhushm Hajjah main asphalt road in Hajjah Governorate.

Table 2 Subproject coordinates

Road Name	Gov.	Start Point		End Point		Length meter	Width meter
		Latitude	Longitude	Latitude	Longitude		
Al Aman–Al Shghaderah Center–Bani Al Nahari	Hajjah	15.671033	43.521345	15.626170	43.537389	12.045	4-6

[3] These irrigation pipes are to convey irrigated water from one side of the road to the other and are located based on consultation with the water users in the area. The role of such is to safely intake the water into the road drainage system and take it out in a safe manner.



Google map for the subproject road alignment track

3. Legal and institutional framework of the project

This ESMP is prepared to meet the requirements of the World Bank's Environment and Social Framework (ESF), including the World Bank Group Environment, Health and Safety (EHS)Guidelines, and the EHS sector specific guidelines for toll roads as relevant and other national laws and regulations.

3.1 World Bank requirements relevant to the project

The relevant ESSs on the YELCP and this subproject are described below:

- ESS1 Assessment and Management of Environmental and Social Risks and Impacts; standard requirements include:
  - Provision of adequate organizational structure including environmental and social staff
  - The environmental and social assessment and management plans that need to be developed at the project and subproject level in which the ESMPs shall be prepared for any subproject, cleared prior implementing any civil work activities
  - List of excluded activities from any project support
  - Third Party Monitoring (TPM) role in the project implementation and reporting requirements
- ESS 2 Labor and Working Conditions; standard requirements include:
  - LMP preparation requirements and identifying the labor risks associated with the project implementation
  - Code of Conduct (CoC) preparation and application on the workers involved in the project
  - Grievance Mechanism for project workers shall be established and maintained
  - OHS measures to be adopted prior to the commencement of any project activities
- ESS 3 Resource Efficiency and Pollution Prevention and Management; standard requirements include:
  - Identification of measures to manage hazardous and non-hazardous wastes including

waste disposal sites, to use scarce resources (water, construction material, etc.), to manage air emissions due to use of fossil fuel for energy generation and to ensure energy efficiency in accordance with the World Bank's Environmental, Health and Safety Guidelines (EHSGs), other relevant Good International Industry Practice (GIIP) and relevant UNOPS guidelines

- ESS 4 Community Health and Safety; standard requirements include:
  - Assess and manage specific risks and impacts to the community arising from Project/Subproject activities and include these mitigation measures in the ESMPs
  - Preparation and implementation of GBV action plan to assess and manage GBV risks related to the Project and prevent and respond to sexual exploitation and abuse, and sexual harassment.
  - Preparation and implementation of SMP to assess and manage security risks
- ESS 5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement; A due diligence was conducted to assess whether any of the subproject road sections led to ESS 5 impacts and it concluded that there was no impact. Due diligence report is available in annex 6 of this ESMP
- ESS 6 Biodiversity Conservation and Sustainable Management of Living Natural Resources; the subproject interventions will be limited to the existing road footprint and will not involve new construction. Therefore, it is not expected that this subproject activities will impact biodiversity and habitats
- ESS 8 Cultural Heritage; the subproject will be entirely implemented within the existing right of way where there are no cultural or historical sites
- Ess10. Stakeholder Engagement and Information Disclosure; standard requirements include:
  - Preparation and implementation of SEP and to be applied to all activities under the project
  - Grievance mechanism for the project shall be established and maintained during the project lifetime

3.2 Environment, Health and Safety Guidelines

The ESF requires all projects to apply the relevant requirements of the World Bank Group Environmental, Health and Safety Guidelines (EHSGs). These are technical reference documents, with general and industry specific examples of Good International Industry Practice (GIIP). Such guidelines define acceptable pollution prevention and abatement measures and emission levels in World Bank financed projects.

The EHS Guidelines contain the performance levels and measures that are generally considered to be achievable in new facilities by existing technology at reasonable costs. Application of the EHS Guidelines to existing facilities may involve the establishment of site-specific targets, with an appropriate timetable for achieving them.

The environmental assessment process may recommend alternative (higher or lower) levels or measures, which, if acceptable to the World Bank, become project - or site-specific requirements.

If less stringent levels or measures than those provided in the EHS Guidelines are appropriate, in view of specific project circumstances, a full and detailed justification for any proposed alternatives is needed as part of the site-specific environmental assessment. This justification should demonstrate that the choice for any alternate performance levels is protective of human health and the environment. When host country regulations differ from the levels and measures presented in the EHS Guidelines, projects are expected to achieve whichever is more stringent.

In the context of rural road subprojects, UNOPS and RAP will use the General EHS Guidelines that cover environmental, occupational health and safety, and community health and safety related risks.

4. Environmental and social baseline conditions

The subproject is located within Hajjah Governorate. Hajjah Governorate is located in the northern part of the country about 205 km far from the capital Sanaa, west east of the red sea, south of Saudia Arabia, west of Amran governorate. Hajjah Governorate is characterized by its mountainous terrain and its hot climate specifically in the period May-August .Hajjah Governorate has a population of about 1,409,432 according to 2004 census year and the projected population by 2018 (2,709,635) inhabitants (1,351,341) females and (1,358,294) males.

4.1 Climate and weather[4]

Hajjah governorate has a semi-arid climate, characterized by cold nights and hot days where the yearly evapotranspiration is 2 to 4 times higher than the yearly precipitation. Its elevation reaches 2600 above MSL. Mean temperatures range between 26 and 37 degrees centigrade. The hottest month is July and the coldest is January. The area is characterized by a relatively low average yearly rainfall between 100 mm and 250 mm. It starts raining from June, intensifies towards the end of -September and stops by the end of December. The spring season is the driest season where the rainfall does not exceed 3 mm. The rainfall recharges the groundwater but also runs on the ground surface in the valleys (Wadis).

In general, the temperature is normal throughout the year, which is about 20oC and the humidity is about 45%.

4.2 Geology[5]

This province from Hajjah governorate is characterized by the difficult topographic from geological point view, there are two main types of rock, which are encountered in this region:

Yemen volcanic group (paleogene- quaternary)

Kahlan formation.

The cenosoic – quaternary Yemen volcanic group was previously divided into older “trap” series and younger volcanic series. An older and wide spread “stratose” and thick series of flood volcanoes referred to as the “Yemen Trap Series' '.

A younger, nearly limited and much thinner series of mainly peralkaline intraplate basaltic volcanic occurring discrete fields is referred to as the “Yemen Volcanic Series”.

The older unit is intruded by granite rocks along much of the edge of the high plateau of Yemen forming the great eastern escarpment of the Red Sea, over a distance of more than 200 km. Radiometric age dating suggests that the granites were mainly emplaced between 21-23 Ma. Which was more or less coincident with the extrusion of a large amount of silicic volcanic in the upper part of the volcanic pile. The “Yemen Trap Series' ' volcanic products include the whole spectrum of basaltic lithologies to silicic ignimbrites and tuffs. They vary from alkali olivine basalts, hawaiilce meteorites to per alkaline nihilities and ignimbrite flows mixed sequences arise from contemporaneous eruptions of basaltic and rhyolitic volcanic rocks. The Yemen volcanic series includes three phases of volcanic activity following the widespread and mainly Oligocene – Miocene flood eruptions of the Yemen Trap Series:

A restricted Late Miocene Volcanism which forms small basaltic plateaus and volcanic centers of sub alkaline basalt, awaiite and trashy andesite.

Localized upper Miocene – lower Pliocene volcanism at six volcanic centers dominated by per alkaline rhyolite and trashy andesite central vent stratovolcanoes.

[4] Data source Yemen Information Center
[5] Data source Yemen Information Center

Discrete Pliocene-quaternary alkali basalt volcanic fields.

Sedimentary units, generally of limited area extent and thickness giving them lens-like characteristics, occur in many parts of the volcanic pile between flows. These are generally composed of lacustrine deposits consisting of calcareous sandstone and mudstone and reworked volcanic clasts and many contain freshwater gastropods, lamellibranches and plant remains.

They are the sedimentary depositional products of small lakes and ponds formed in depressions and topographic lows on the generally low relief volcanic landscape laid down during more prolonged phases of volcanic quiescence when sediment

4.3 Hydrology and hydrogeology of the area (surface and ground waters)

The meteorological characteristics of this area play a great role in defining the hydraulic response of the existing watershed. The rate, duration, distribution, and return period of precipitation are the most important climatic factors.

Orographic effects strongly control the spatial patterns of rainfall in arid/semi-arid basins. These basins fall within the rainfall zones of 300-600 mm in upper semi-arid areas of basins and 0-300 mm in lower arid areas (FAO, 1987). Rainfall in the semi-arid (mountainous) part of the basin is sporadic and scanty and the storms are usually short, intense and local. However, rainfall in the arid (plain) part is erratic and has low intensity.

Temporal distribution of the rainfall differs from one zone to another and from year to year, but a general characteristic can be given. seasonal rainfall regime is well-defined in the spring (March-May) and in the late summer (July-September). Erratic rains also may occur during any month of the year (Van der Gun, 1995). Long periods of dry weather with few or no clouds are common from October to March, although occasional storms do occur, especially on the western and southern slopes. One-year draughts are more frequent than multi-year draughts and the occurrence of drought is more frequent in the arid part than in the semi-arid part of arid/semi-arid basins (Vivoni, 2000).

Absorption and run off zones

The rolling and mountainous areas that have quite high topography, and consist of mostly sedimentary rocks, represent the runoff zone in the sub-project area.

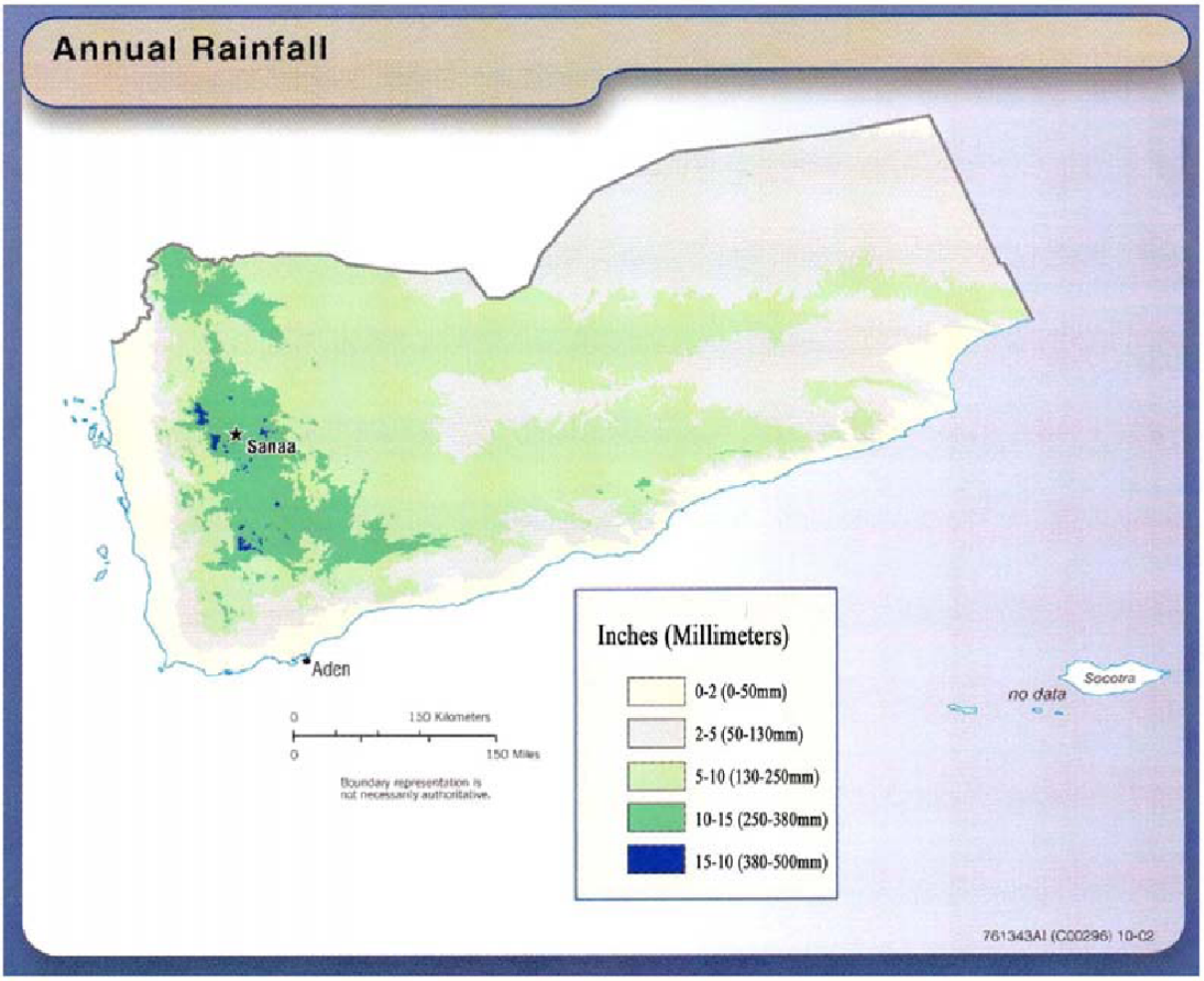
Absorption zone is represented by the flat section (at or before the beginning of the road) which has a low slope and is composed of alluvial deposits and soils. The nature of these materials permits infiltration of water to the subsurface environment and then acts as an absorption and infiltration zone to the ground water and major wadi areas at low locations.

Water Harvesting System

Based on the visit, several systems could be used as water harvesting systems.

A – Irrigation from groundwater for agriculture purposes

B – Direct discharge to a nearby farm, from other side farms across the channel.



4.4 Air quality and noise

In general, there is a lack of air quality data in Yemen and specifically for the subproject area. However, based on field visits, it was noticed that the air quality in the road project is unlikely to be of major concern.

On the other hand, typical existing noise levels near the project site are generally limited because the project site is located in a relatively underdeveloped area. Cars encountered were relatively old and slowly driven at low gear due to the rough terrain. Noise comes from the engines, transmission, exhaust and suspension of the vehicles and from frictional contact between the tires and the hard road. Noise is expected to be of (minimal impact or negligible) due to the limited number of vehicles that will use this road. As well, the impact of the construction machinery noise will be temporary during the construction phase.

4.5 Biological resources

The road does not affect any sensitive, specially designated area or protected species as they are not present in the working area.

The road rehabilitation will not affect any sensitive, specially designated area or protected species as they are not present in the working area. Most likely since the project is rehabilitation of an existing road, disturbance to wildlife will be minor, temporary and localized and mostly due to noise and air

emissions. With proper management of air, noise, waste and air emissions this impact during rehabilitation will be negligible.

4.6 Cultural and historical sites

The subproject will be implemented within the existing unpaved road in which there is no record for any archaeological or historical sites. The subproject will be limited to improve the existing road condition which shall not result in any impact on the cultural heritage.

4.7 Socioeconomic aspects

4.7.1 Targeted Beneficiaries

About 137,000 inhabitants (74,000) males and (63,000) females including children and individuals with disabilities live in the settlements of Al Aman, Ashghadera, Beni Anhari,Quarn Ali,Jarada,Beni Gaish,Al Amshah,Makadha,Najrah Center,,Bani Jiash, Aazy, Maghrabat Al Amasha, Makadha, and Dar A'alwan. Beneficiaries include physically isolated rural populations who have been denied access to income opportunities, food, and humanitarian support, thereby suffering from lack of access to food and essential commodities. The sub-project beneficiaries will be: (a) Rural poor village populations connected by sub-project road, a large fraction of whom are women living in areas which currently suffer from a lack of access to food, humanitarian support, facilities and economic developmental options (b) women and children in rural areas, through reductions in transport and ,time and costs needed to meet basic human needs, such as food, motherhood and childhood clinics, and accessing education and health facilities; moreover, improved roads will facilitate the distribution of gas cylinders to remote areas, thereby reducing the time spent on, and demand for, environment-damaging collection of firewood, (c) rural shopkeepers and traders, through improved access to wholesalers, through more reliable transport and lower transport costs. It is to be noted that these short-haul carriers are already highly competitive; this makes it likely that transport savings will actually be passed on to the consumer, (d) road users and small transporters serving the rural areas, through improved travel conditions, time savings and reduced vehicle operating costs, (e) private sector contractors and consultants, who will benefit from business opportunities provided by the subproject; and (f) the rural population at large, through better access to markets and services and lower transport costs.

The alignment road passes through one governorate, two districts and many villages. The total population for AShaghderah, and Najrah Districts is about 137,000 person/ year 2018), and the population density is 772p/km2.

4.7.2 Economical activities and poverty status

The local communities in Ashaghaderh and Najrh districts work in agriculture. The agriculture activities are dependent on rainfall through water harvesting systems the most important agricultural products are cereal, and Oat. In addition, there are people who work in raising Bees and livestock because of the availability of natural trees and grasses and the appropriate climate.

According to the 2014 Household Budget Survey, the poverty rate in Hajjah reached about 64%. More recent statistics suggest that the poverty rate is now 83%. The Interim Food Security Classification for 2019 ranks Hajjah as the governorate with the second-highest levels of poverty in Yemen, after Al-Hodeidah.

4.7.3 Existing situation of the targeted road

The targeted area is suffering from the bumpy and narrow roads, the physical environment of the targeted road is steep and rocky. This situation makes the movement of cars very difficult resulting in difficulties for people to access services such as hospitals, schools, and markets as people spend many hours crossing through these roads; this has also affected the cost of living as the transportation and commodities prices in the targeted area is very high, which also causes a delay in the development

process. People in the targeted area are living in poor conditions and most of the local communities are unemployed. The targeted road is severely affected during the rainy seasons due to floods which makes the roads more difficult and sometimes be closed.

4.8 Resources and services' access restriction

The subproject will not cause restrictions for the services or resources. The implementation will follow effective measures to avoid complete closure to the road. The works will be implemented section by section in addition to other mitigation measures, such as informing the public about implementation schedules. There will be close coordination with local authorities and communities to ensure smooth implementation and to avoid any potential impacts on services and resources access.

The nature of intervention will not cause complete closure to the road as it will be conducted section by section. There will be strict control and management for traffic by arranging detours and alternate bypass for traffic and roadside residences & businesses for each site using traffic cones, barriers, fences, or lights as appropriate in coordination with traffic officers and according to the work and traffic plan provided by the contractor (C-ESMP) and approved by UNOPS and RAP. Moreover, there will be an action plan which will include arrangements for each section that will be prepared by the contractor in liaison with the supervision firm and authorities. The contractor will not start any rehabilitation activities until the plans approved by RAP and UNOPS and the installation of traffic safety and control safeguards. Specific pedestrian pathways which will let people access services near worksites, will be specified.

5. Environmental and social impacts assessment

5.1. Applicability

The YELCP ESMF as well as the other project documents and requirements described in the introduction of this ESMP apply to this intervention.

Eligibility (Exclusion List)

The subproject is eligible for support because it does not have any of the attributes in the following exclusion list.

Table 3 Subproject exclusion list

#	Statement	Yes	No
1	Production or activities involving harmful or exploitative forms of forced labor/harmful child labor;		X
2	Production or trade in any product or activity deemed illegal under host country laws or regulations or international conventions and agreements;		X
3	Production or trade in weapons and munitions;		X
4	Gambling, casinos and equivalent enterprises;		X
5	Trade in wildlife or wildlife products regulated under Convention on International Trade in Endangered Species (CITES);		X
6	Production or trade in radioactive materials;		X
7	Production or trade in or use of unbonded asbestos fibers;		X
8	Production or trade in wood or other forestry products from unmanaged forests;		X
9	Production or trade in products containing Polychlorinated biphenyls (PCBs);		X

#	Statement	Yes	No
10	Production, trade, storage, or transport of significant volumes of hazardous chemicals, or commercial scale usage of hazardous chemicals;		X
11	Production or trade in pharmaceuticals subject to international phase outs or bans;		X
12	Production or trade in pesticides / herbicides subject to international phase outs or bans;		X
13	Production or trade in ozone depleting substances subject to international phase out;		X
14	Production or activities that impinge on the lands owned, or claimed under adjudication, by indigenous peoples, without full documented consent of such people;		X
15	Power plants;		X
16	Large-scale transport infrastructure such as highways, expressways, urban metro-systems, railways, and ports;		X
17	Investments in extractive industries; commercial logging;		X
18	Dams, or projects involving allocation or conveyance of water, including inter-basin water transfers or activities resulting in significant changes to water quality or availability;		X
19	Activities that would significantly convert natural habitats or significantly alter potentially important biodiversity and/or cultural resource areas;		X
20	Activities that would require the relocation of residential households and/or significant involuntary land acquisition[6]		X
21	Activities in disputed areas.		X

5.2. Environmental and social screening form

RAP used the following form to screen for the potential environmental and social risks and impacts for the selected subproject as per the YELCP ESMF requirements. The risk level of this subproject is estimated to be moderate, which requires preparation of ESMP. The preparation of ESIA for this subproject is not required as detailed in the YELCP ESMF as the subproject will mainly be rehabilitation of existing unpaved road in the same right of way. There will be no resettlement or displacement under this subproject. Site specific impacts may be triggered include noise, dust emission, disruption of traffic, waste disposal, hazardous materials and wastes, soil, surface and groundwater contamination from oil, fuel and chemical spills and safety risks for workers and community including occupational health and safety. Minor, short term and localized air pollution might be caused due dust generation or excavation works. Little noise from subproject rehabilitation is expected during implementation due to the use of heavy equipment. The impact on air quality and noise is limited and they are seen as minor concerns. The corresponding mitigation measures for potential impacts are included in this ESMP and the environmental and social requirements for contractors will be included in the tender documents and contract. All environment, social, health

[6] A due diligence was conducted to assess whether any of the subproject road sections led to ESS 5 impacts and it concluded that there is no impact. Due diligence report is available in annex 6 of this ESMP.. Annex 7 includes data on the government assets that may require relocation under the subproject.

and safety mitigation measures will be included in the implementation contract. In addition, items for environmental and social safeguards requirements including OHS are included in the tender documents.

Table 4 Environmental and social screening form

Subproject Name **Subproject ID**	Al Aman–Al Shghaderah Center–Bani Al Nahari sub-project ELC-HAJ-001
Subproject location	Hajjah governorate.
Implementing Partner	RAP
Estimated Investment	
Was the site visited beforehand	Yes
Estimated Start/Completion Date	12 months from date signing the contract
Observations/Comments	Indicated below
Signature of Environmental and Social Safeguards Officer (ESSO)	
Signature of Program Manager	

Question	Answer		ESS relevance	Due diligence/ Actions
	Yes	No		
Does the subproject involve civil works including new construction, expansion, upgrading or rehabilitation of existing infrastructure?	X		ESS1	ESMP, SEP
Does the subproject involve land acquisition and/or restrictions on land use?[7]		X	ESS5	SEP
Is the subproject associated with any external waste management facilities such as a sanitary landfill, incinerator, or wastewater treatment plant?		X	ESS3	ESMP, SEP
Does the subproject have an adequate system in place (capacity, processes and management) to address waste?	X		ESS1, ESS3	ESMP
Does the subproject involve the recruitment of workers including direct, contracted, primary supply, and/or community workers?	X		ESS2	LMP, SEP
Does the subproject have appropriate OHS procedures in place, and an adequate supply of PPE (where necessary)?	X		ESS2	LMP

[7] A due diligence was conducted to assess whether any of the subproject road sections led to ESS 5 impacts and it concluded that there is no impact. Due diligence report is available in annex 6 of this ESMP.

Question	Answer		ESS relevance	Due diligence/ Actions
	Yes	No		
Does the subproject have a GM in place, to which all workers have access, designed to respond quickly and effectively?	X		ESS10, ESS2	SEP, LMP
Does the subproject involve use of security or military personnel during construction and/or operation of healthcare facilities and related activities?		X	ESS2, ESS4	ESMP, LMP, SMP
Does the subproject establish and implement an appropriate quality management system to anticipate and minimize risks and impact that services may have on community health and safety?	X		ESS2, ESS4	ESMP, LMP GBV Action Plan
Does the subproject apply the concept of universal access where technically and financially feasible?	X		ESS4	ESMP, SEP
Is the subproject located within or in the vicinity of any ecologically sensitive areas?		X	ESS6	ESMP, SEP
Is the subproject located within or in the vicinity of any known cultural heritage sites?		X	ESS8	ESMP, SEP
Does the project area present potential Gender-Based Violence (GBV) and Sexual Exploitation and Abuse (SEA) risk?		X	ESS1,ESS4	ESMP, SEP, GBV Action Plan

6. Risk level and mitigation instruments

6.1 Labor management

While a substantial number of jobs will be created through the subproject lifetime, it is not expected that the labor influx will be experienced as most of the workers required by contractor will be sourced

locally from the same communities.

The subproject is expected to provide approximately 30,734 labor days over the course of its life cycle, with 16,992 labor days by semi-skilled workers and 13,734 labor days by unskilled workers for which the contractor is accountable.

The contractor shall protect the workers from any risk that may be encountered during the implementation including exposure to the COVID-19 virus.

The contractor shall maintain occupational health and safety system in the site to protect workers from hazards and risks and provide adequate health and safety training, required PPE, first aid box, potable drinking water and mobile gender-segregated toilets with a sewage pipe attached to a properly insulated/lined and covered cesspit that will be backfilled once the job is over.

For the potential risks and impacts associated with labors, discrimination in employment can occur in the workplace in various ways, such as unequal paypaid less, inappropriate treatment of workers and disproportionate selection and termination.

Child labor is totally prohibited in the subproject. No child labor will be hired in implementation and the contractors are forbidden to hire a person under the age of 18 years. The minimum age of workers has been specified in the tender documents for contractors. On the other hand, forced,

involuntary or unpaid labor will not be used in any work under the subproject. A labor log including names, ages and other details will be managed by the contractor, and all workers will be registered. RAP and UNOPS will regularly monitor this issue and will verify the registers as well as the workers onsite.

The Contractor shall put in place a Grievance Mechanism for workers and the workers of its subcontractors that is proportionate to its workforce. The GM shall be distinct from the Project level Grievance Mechanism for affected individuals and communities. Contractor GM system shall be communicated to all workers with a transparent mechanism in addition to ensure confidentiality. Further details on the workers GM requirements are available in annex 1 hereinafter.

6.2 Occupational health and safety impacts

The subproject assigned risk is moderate, thus actions are required to minimize the risk of OHS of workers due to poor construction practices, inadequate site management or faulty design and equipment.

UNOPS will include environmental and social requirements for contractors including all OHS requirements, as well as Health and Safety prevention measures from COVID-19 in the contract and tender documents.

UNOPS will ensure that:

1. Relevant site specific OHS requirements that are incorporated within this ESMP are included in the tender documents and contract to ensure that the contractor fully avoids or mitigates environmental, social, occupational health and safety impacts that might arise from this activity.

UNOPS will also require that contractor:

1. Fully implement permit to work system, method of statement and job safety analysis to ensure all tasks are well prepared and follow all necessary safety mitigation and prevention measures.
2. Provide safety training to all workers including lifting operations, electrical work, Excavation, waste management, manual handling and permit to work before commencing any work.
3. Provide the required safety and health PPE and hygienic materials to workers to protect workers and ensure their safety and prevent them from Covid-19 infection.
4. Provide appropriate training on the use, serviceability and integrity of the necessary PPE.
5. Prepare emergency response plan including contact numbers, evacuation plan and provide necessary first aid equipment on site and transportation and contracted nearest hospital in case of any emergency.

COVID-19

This subproject, like other sectors, will be under the risks of Covid-19 pandemic. The precautionary measures against it were applied during the preparation period and it will be strictly applied in the subproject worksites and workers' accommodation place during implementation.

UNOPS will require the contractor to implement extra measures during COVID 19 Pandemic, including the following prevention measures to protect workers and will depend on emphasizing basic infection prevention measures and all contractors/suppliers should implement good hygiene and infection control practices, including but not limited to:

1. Promote frequent and thorough hand washing, including by providing workers, customers, and worksite visitors with a place to wash their hands. If soap and running water are not immediately available, provide alcohol-based hand rubs containing at least 60% alcohol.
2. Encourage workers to stay home if they are sick.
3. Encourage respiratory etiquette, including covering coughs and sneezes. Additionally, adhering to wearing masks and social distancing.

4. Provide customers and the public with tissues and trash receptacles.
5. Provide flexible working hours (e.g., staggered shifts) if possible, to increase the physical distance among employees and between employees and others if state and local health authorities recommend the use of social distancing strategies.
6. Discourage workers from using other workers' phones, desks, offices, or other work tools and equipment, when possible.
7. Maintain regular housekeeping practices, including routine cleaning and disinfecting of surfaces, equipment, and other elements of the work environment. When choosing cleaning chemicals, employers should follow the manufacturer's instructions for use of all cleaning and disinfection products (e.g., concentration, application method and contact time, PPE).
8. Workers should wear masks, gloves and goggles at all times on the site.

6.3 Environmental and social impacts

Implementing the rehabilitation works of this subproject will definitely have positive environmental and social impacts represented mainly by improving the pavement condition, improving access to services and upgrading the environmental condition toward climate change resilience. However, there will be temporary, and localized controlled impacts. The selection of the activities takes into consideration sustainability, climate change resilience and priority needs identified in consultations with local and local communities. The subproject will maximize the use of local labor to support local communities and IDPs.

The potential impacts associated with the rehabilitation activities of the subproject were identified based on the ESMF general and specific impacts as well as based on the specific road characteristics, screening checklist and the expected intervention. The field visit to the subproject sites was conducted in May 2022 in which the screening checklist components were verified and prepared as shown above.

The subproject does not involve any land acquisition and/ or restrictions on land use and it is not expected to have impacts on local biodiversity.

In addition, it is expected to face a temporary disruption of traffic activities and traffic congestion. Minor, short term and localized air pollution may be caused due to excavation works. Little noise from subproject rehabilitation is expected during implementation due to the use of heavy equipment. These highlighted potential impacts will be addressed and mitigated by the necessary matching mitigation measures and full implementation of this Environment and Social Management Plan. However, there are many positive impacts which will be attained, particularly increased level of service for the maintained and rehabilitated road to good conditions and prevention of further deterioration, improving drainage, environment, and health and safety conditions. The subproject will also provide an improved environment for area dwellers, creation of local employment through road rehabilitation works and local economic development. It will improve access to health and education services. Generated waste will be deposited at external waste management facilities represented by the public landfill in Hajjah Governorate. This document includes a waste management guidelines for the contractor to deal with all issues related to waste from waste generation until disposal in coordination with local authorities and landfill management.

RAP and UNOPS has strong monitoring and inspection on daily, weekly and monthly basis to ensure complete compliance particularly to OHS measures. The subproject has established and implemented an appropriate quality management system to minimize risks and impacts those services may have on community and safety; RAP has close coordination with local authorities and plans to establish a community committee to facilitate implementation and enhance coordination with utilities.

Gender and Social -related issues

Involvement of beneficiaries, males and females, has been considered during the consultation process for this subproject and will be considered during implementation stages. Their views and needs are taken into consideration during consultations and preparation, and they will be applied in all phases. The consultations with men and women, which were updated in May 2022 at the subproject in different areas in the forms of face-to-face interviews and group discussions, addressed the social issues including community needs, concerns, rights, and risks. The participants in consultations confirmed the selection priority needs. They showed their complete support for implementation. SEA is considered properly during preparation and consultations and low concerns were raised about such issues. This will be paid special attention during implementation. The gender and social-related issues are also detailed in the consultation section below. In fact, the subproject will contribute to improving living standards, facilitate access to school, hospitals, markets, etc. The population of Hajjah Governorate (women and men) including vulnerable groups, such as IDPs, persons with disabilities, marginalized people, and children will be benefiting from the subproject. The interventions will generate positive impacts on the livelihoods of the beneficiaries and the subproject environment.

Gender

Gender equality to the possible extent has been considered during subproject consultations and it is a core principle for all subprojects. Women and men were engaged in public consultations. The gender issues among others were discussed. They were informed about gender mainstreaming, rights, roles, and other important issues, such road safety and GM, GBV, etc. The consultations emphasize the necessity of gender mainstreaming and women participation in implementation as possible. Thus, a community committee will be established including men and women to participate in implementation monitoring and ensure sustainability. Gender mainstreaming and equality will be included in the training and awareness-raising and in implementation as possible.

Gender-Based Violence GBV and Sexual Exploitation and Abuse SEA

UNOPS and RAP raised the awareness of community members for men and women on GBV & SEA during the public consultation process as well as on GM processes and how they can be used to report gender-based violence, gender discrimination and SH/SEA cases with the highest level of confidentiality and anonymity of complaints. RAP plans to conduct training for contractors and engineers about GBV, SH/ SEA and GM. They will be informed about national laws that make sexual harassment, abuse, and gender-based violence a serious and punishable offense. The contracts with contractors will include a Code of Conduct which will highlight the GBV, SEA and SH. **Furthermore, UNOPS has already taken the following steps in regards the GBV/SEA/SH issues**

1. In the stakeholder consultation meetings UNOPS has presented the project GBV SEA/SH action plan and during the meetings. Although the consultation meeting contains both males and females, we paid more attention to females' participants and ensured to explain about the GM mechanism and highlighted how it is transparent, secure and confidential to use any of the GM access point
2. UNOPS has developed visibility materials to promote awareness for PSEA/SH in local language (Arabic) the materials and messages used are adapted to be suitable for the Yemen context and sensitivity of the subject.
3. GM focal point received specialized training about SEA/SH cases and the way to deal with it using Victim centered approach
4. UNOPS developed SOP and protocol for GM in how to deal with SEA/SH cases.
5. UNOPS has conducted refresh sessions for Project Personnel in GBV/SEA/SH and trained retainers' sites engineers as well
6. UNOPS has prepared risk assessment tools for GBV and will require contractors to fill out a

checklist on GBV/SEA/SH and to prepare a code of conduct for their workers/staff.

7. As part of the YELCP GBV SEA/SH action plan UNOPS will roll out SEA/SH prevention and response plans for contractors, where the contractors need to prepare the action plan as part of the tender documents. UNOPS is supporting to enhance the contractors' capacity in this area since they have zero knowledge and capacity. Hence, UNOPS developed a contractors action plan template, which covers the most priority areas. Moreover, UNOPS conducted an induction session for contractors about this requirement and presented to contractors on how to prepare their own GBV SEA/SH prevention and response plans (GBV Action Plans) using the developed template. In addition, in depth training sessions will follow and will continue during project life span
8. UNOPS will train contractors' SEA/SH focal points
9. UNOPS will require contractors to employ at least 5% female staff to encourage gender mainstreaming.

Conflict sensitivity and Do Not Harm

During public consultations at all levels, RAP investigated whether the subproject was a priority, free of conflict, or had negative effects on the implementation. Accordingly, it was ensured that the subproject is an urgent priority for the community and beneficiaries and it is completely supported by various stakeholders and all consulted persons expressed their satisfaction with the selection. Moreover, it was proven that the subproject is free of conflict sensitivity and any negative effects that may hinder implementation according to screening and consultations. In general, the subproject will improve the condition of the road which in turn will strengthen community and climate change resilience and improve their living conditions.

UNOPS has established GM system with the following contact channels: UNOPS/Sana'a – Tool Free +Number 8000190 - Tel: 01 504914/915 - SMS:739888388 Email: GRM.yemen@unops.org for Yemen Emergency Lifeline Connectivity Project (YELCP) to enable beneficiaries to communicate their concerns regarding the project activities. Further details on the Project GM available in section 9 hereinafter

In addition, hard copies of the translated forms of GM (which is attached in Annex 2) was provided to the interviewed people and they have been informed about the GM contact information that will be also posted at the subproject site signboard to ensure any grievance can be addressed in an amicable manner. Resolving complaints at community level is always encouraged to address the problem that a person may have during the implementation and/or operational phase.

The contractor and workers should sign the Code of Conduct, UN/UNOPS CoC for contractor firms and example of personnel CoC is available as part of annex 1, and ensure workers respect and adhere to the Code of Conduct CoC to respect the local community cultures, and adhere to the social safeguard issues on Gender, SEA/SH and GBV. Raise awareness on the GM system and how it can be used to report any GBV cases.

Training of workers: UNOPS and Contactor should provide the workers with required training and daily toolbox talk in the OHS, GBV, SEA and GM.

6.4 Environmental and social management plan

UNOPS and RAP will ensure implementation of proper mitigation measures for the potential impacts by including environmental and social requirements for contractor and OHS requirements in the contract and ensure that contractor's personnel are familiar with such clauses, as well as requiring contractors to comply with the World Bank Environmental, Social Health and Safety (ESHS) Guidelines and National Labor Law (Decree 5/1995) and applicable International Labor Organization conventions on workplace conditions. Community committee will play a role in monitoring project progress including the environmental and social safeguards implementation in close coordination with RAP and UNOPS. The following table includes the mitigation measures for the potential risks and impacts:

Table 5 Environmental and Social Management Plan

Potential impact	Mitigation measures	Implementation responsibility	Monitoring responsibility	Cost
OHS Impact				
Work related accidents and injuries	- Maintain insurance coverage for workers in subproject sites according to the requirements and conditions of insurance in the bidding documents which should comply with labor law, UNOPS and the World Bank requirements. - Provide occupational health and safety training to all workers involved in the subproject. - Provide protective masks, safety helmets, goggles, shoes and overall safety materials as appropriate. - Provide workers in high noise areas with earplugs or earmuffs. - Ensure availability of first aid boxes at the work areas with trained staff on the emergency response. - Following driving safety instructions i.e., trained/qualified drivers, following speed limits, using well maintained trucks. - Heavy equipment must be inspected on a daily basis to ensure integrity and to rectify any failures. - The contractor shall maintain a banksman for heavy equipment in work sites. - The contractor shall prepare an emergency plan with the C-ESMP to address the related emergencies. - Ensure air and noise mitigation measures stated previously are well implemented - No explosives to be used in the project or activities related to the project. - Avoid working in extreme environments/weathers conditions. - Add warning signs at a safe distance from the targeted road sections to warn drivers about the rehabilitation work and to prevent them from running into workers while doing their work. - Train workers in manual handling as well as recognition of symptoms of heat	Contractor	Contractor, RAP, UNOPS and TPM	Included within the subproject cost

Potential impact	Mitigation measures	Implementation responsibility	Monitoring responsibility	Cost
	exposure. - Shorten exposure time to heat or stress through frequent rest breaks. - Provide appropriate potable drinking water - Awareness needs to be provided to workers on the importance of maintaining body fluids and avoiding dehydration. - Excavated zones shall be properly fenced and marked to avoid falling. - Work at height areas shall be properly marked and controlled, workers shall be trained on the work at height protection measures as well as provided with the required fall protection PPE. Any work at height platforms shall be properly secured and inspected regularly.			
Risk to workers from hazardous material used for work, such as fuel, lubricating oil, bitumen paints and chemicals.	- Workers need to be trained on the handling procedure for hazardous materials and wastes. - Hazardous substances shall be stored properly in dedicated areas following the Material Safety Data Sheets (MSDSs) as well as the national and international guidelines including the World Bank and UNOPS Environmental Health, and Safety (EHS) Guidelines. - Ensure availability of fire extinguishers and the workers need to be trained on the emergency response measures. - Storage areas shall be provided with clear identification, labeling, storage, no smoking signs. - All workers handling the cement and hazardous substances shall be provided with adequate PPE relevant to their tasks.. - Flammable materials shall be stored in well ventilated and insulated areas, inaccessible to the public.	Contractor	Contractor, RAP, UNOPS and TPM	Included within the subproject cost

Potential impact	Mitigation measures	Implementation responsibility	Monitoring responsibility	Cost
Poor onsite sanitation or water supply, leading to illness and disease.	- Provide workers with access to gender designated toilets and sanitation premises including the soap and tissue, through renting toilets and/ or contracting with public toilets close to the working sites. - In case of mobile toilets, ensure that they are properly insulated and located away from drainage and runoff zones. Ensure cesspits are properly lined and covered. - Provide potable drinking water through distributing drinking water containers/ bottles for all working sites - Ensure proper housekeeping practices are maintained - Ensure all surfaces are free from oil, grease or any other contaminants, particularly soluble contaminants. - Provide and implement safety precautions onsite during implementation of the subproject.	Contractor	Contractor, RAP, UNOPS and TPM	Included within the subproject cost
Risk of Manual Handling	- Avoid manual handling activities to the possible extent. - Reduce the load risk by using lighter weights or more stable containers. - Reorganize the activity to further reduce the impact on the individual(s). - Utilize mechanical lifting aids or equipment as appropriate. - Ensure appropriate rest breaks, job rotation and training for workers. - Provide PPE to the workers on a regular basis (e.g. gloves, foot protection, and non-slip footwear).	Contractor	Contractor, RAP, UNOPS and TPM	Included within the subproject cost
COVID-19 spread causing illnesses	- Ensure adherence to COVID-19 precautionary measures by all workers. - Ensure face masks are available and used by all workers. - Ensure awareness sessions are conducted on COVID-19 with all workers. - Ensure availability of hygiene kits, soap, clean water, and hygiene etiquette is followed. - Ensure social distancing is applied in the worksite.	Contractor/ workers	Contractor, RAP, and UNOPS	Included within the subproject cost

Potential impact	Mitigation measures	Implementation responsibility	Monitoring responsibility	Cost
Working at quarries and transporting stones	- Use of explosives is forbidden in any of the project activities. This is clearly communicated to all communities. - Ensure all workers are aware of the dangers of using explosive materials. - Report and address any serious workplace accident or incident immediately within 24 hours - Providing high visibility clothes for those who work in quarries. - Ensure activity is done by skilled workers from the targeted areas and in case the skilled workers are not available in the targeted areas, skilled workers from other neighboring area will be employed for the task - Prior awareness of laborers of the potential risks resulting from execution of work activities - Selecting site of stone quarries away from the population gatherings and agricultural lands - Ensure that the quarries are safe and construct barriers to protect workers from falling with no child labor allowed. - Ensure that quarries are safe to extract the stones and there is enough space for safe work and inspect quarry before cutting stones - Ensure workers obtain stones from areas with low risk of falling rocks. - Make sure that the rocks are cohesive and not lose to ensure that the rocks do not fall out - Checking daily the condition of the rocks and soil, especially after rain and the use of compressors. - Daily awareness of the mechanism of cutting rocks is done in a safe way and it is forbidden to cut rocks from the bottom or from the top - Conduct awareness sessions about handling materials and motivate workers to ask for help from other workers when performing heavy tasks. - A periodic inspection by the supervising staff is to be done	Contractor/ workers	Contractor, RAP, and UNOPS	Included within the subproject cost

Potential impact	Mitigation measures	Implementation responsibility	Monitoring responsibility	Cost
	- Organizing and arranging labor at the site of stone quarries to avoid congestion between working groups. - Check the efficiency and insulation of electrical wires of mechanical cutting equipment (Air Compression Machine). - Drivers are to be aware of the importance of periodic maintenance and inspections of stone transporting vehicles and are to be committed to do so. - Emergency response plan is prepared, and all workers are aware of it - Ensure workers obtain rocks from areas with very low risk of falling if possible. - Provide safety ropes if workers are working at high areas while cutting stones or any other sites located at high areas with high risk of falling etc. - Ensure areas where rocks are obtained have no potential risks of falling rocks or have barriers for falling rocks. - Regular break to workers to reduce the sun impact and exhaustion and provide drinking water.			
Risk of electrical shock	- Minimize the potential for water or chemical spills on or near electrical equipment. - Use safe work practices every time electrical equipment is used. - Disconnect the power source before working on the electrical poles or connections.. - Ensure that workers are wearing suitable PPE - Avoid working during rainy seasons. - Workers on electrical connections or poles should be qualified and trained.	Contractor	Contractor, RAP, UNOPS and TPM	Included within the subproject cost
General environmental impacts				

Potential impact	Mitigation measures	Implementation responsibility	Monitoring responsibility	Cost
Dust generation during excavation work, backfilling, and compaction of the pavement layers. Air pollution due to emissions from machinery and vehicles.	- Properly use dust control methods, such as covers, water suppression, or increased moisture content for open materials storage piles, or controls, including air extraction. - Ensure spraying water efficiently during dust suppression to avoid wasting water. Water spraying can be carried out by using gray-water if available or collected rainwater where possible. - Reduce the amount of water used to control dust, and use sweeping practices rather than washing. - Conducting cleaning activities away from drainage structures. - Reduce dust generation due to cutting work by spraying water when needed and avoiding spraying water where electrical live lines are presented. - Cover open bodied trucks handling sand, gravel or remains. . - Regularly clean road surfaces within the working sites to remove accumulated fine material, and regularly clean transportation vehicles. - Ensure turning off vehicles and machinery when not in use to reduce NOx and CO and PM emissions from machinery and vehicles used. - Properly and regularly maintain machinery to minimize exhaust emissions, suspended particulates and fumes, in particular by ensuring that the engine, injection system and air cleaners are in good condition.	Contractor	Contractor, RAP, UNOPS and TPM	Included within the subproject cost
Increased levels of noise and vibration due to heavy vehicles and equipment, which may be a nuisance to the community around the work sites.	- Use well-maintained and inspected equipment. - Shut down equipment when not in use. - Use operational noise mufflers. - Limit noisy activities to normal daylight hours. - Limit vehicle speed at critical locations. - Provide advance notice to occupants if an activity involving high level impact noise is in close proximity to buildings.	Contractor	Contractor, RAP, UNOPS and TPM	Included within the subproject cost

Potential impact	Mitigation measures	Implementation responsibility	Monitoring responsibility	Cost
Disruption of environment by borrow pits and quarries	- Materials required for rehabilitation must be obtained from approved borrow areas and quarries and avoid ecologically sensitive zones; - If a contractor should seek to develop, operate and reinstate borrow pits and /or quarries, the contractor will adhere to the following: - Inform RAP and UNOPS about developing and operating or reinstating borrow pits and/ or quarries for approval. - Obtain all necessary permits for borrow pits and quarry operations. - Locate quarry sites as far away from settlements as possible. - Ensure quarries are not ecologically sensitive zones - Locate borrow pits and quarries at least 100 m from watercourses or human habitations. - Fence and secure quarry sites. - Conduct a pre-blasting inspection/survey, in consultation with residents/property owners, prior to operating a quarry, to document the existing condition of buildings and identify any sensitive structures, building components or contents. - Locate, to the extent possible, publically authorized and licenced borrow pits on land that is not used for cultivation and is not wooded. - The use of explosives is prohibited. - Apply all the working conditions and labor requirements.	Contractor	Contractor, RAP, UNOPS and TPM	Included within the subproject cost
Leakage of vehicles lubricants and oil in worksites.	- Avoid any leakage of oil in the worksite. - Avoid refueling vehicles or changing lubricants in places on site other than allocated locations. - Use impervious surfaces for refueling areas and other fluid transfer areas. - Provision of spill prevention kits in the work area, carry out appropriate collection and cleaning of areas in case of leakage.	Contractor	Contractor, RAP, UNOPS and TPM	Included within the subproject cost

Potential impact	Mitigation measures	Implementation responsibility	Monitoring responsibility	Cost
Soil/ groundwater/ runoff contamination	- Pave in dry weather to prevent runoff of asphalt or concrete materials and avoid working during rainy seasons - Cover storm drain inlets and manholes during paving operations - Conduct cleaning activities away from drainage structures - Properly store all types of waste and hazardous chemicals if any in insulated areas to avoid spillage and away from runoff areas and soil - Ensure mobile latrines if used are insulated from the ground and located away from runoff zones as well as their cesspits and ensure they are properly covered in which any waste shall be disposed in the public sewage or authorized locations - Remove spills if any regularly - Ensure concrete mixing if any is done at designated insulated areas away from soil, and water drains. - Ensure hazardous chemicals and waste, if any, are stored, handled and disposed of according to their Material Safety Data Sheets. - Construction waste should be stored and handled in designated areas away from the soil and water runoffs. Ensure no clogged runoffs/drainage zones.	Contractor	Contractor, RAP, UNOPS and TPM	Included within the subproject cost
Blockage of culverts, drainage ditches, stormwater catchment basin and channels	- Clean and maintain drainage structures. - Provide adequate drainage works.	Contractor	Contractor, RAP, UNOPS and TPM	Included within the subproject cost
Water logging due to inefficient drainage for surface runoff in some locations or shallow water	- Keeping trenches and excavations free of water. - Dewatering surface water if needed using water vacuum mobile tankers. - Provide adequate and efficient drainage for surface runoff. - Ensure proper waste management and no wastes to be stored in drainage areas	Contractor	Contractor, RAP, UNOPS and TPM	Included within the subproject cost

Potential impact	Mitigation measures	Implementation responsibility	Monitoring responsibility	Cost
Low aesthetic value of landscape such as accumulation of waste and debris in the rehabilitation site and damaged curbs and tiles.	- Replant the damaged and dry trees with native non-invasive trees, available in local nurseries and subproject areas. - Remove the accumulated wastes and debris in the work site. - Reconstruct damaged curbs, and tiles. - Rehabilitated sites must be cleaned when work is completed.	Contractor	Contractor, RAP, UNOPS and TPM	Included within the subproject cost
Production and disposal of rehabilitation work's debris and waste materials.	**Loading:** - Properly collect and load the debris and domestic waste using well maintained equipment 'to suitable trucks with suitable load and put more emphasis on the safeguards requirements. Solid wastes should be stored in designated zones and away from drains and runoff zones. - Hazardous waste should be handled and stored and disposed according to their MSDSs. Storage of hazardous waste should be at designated inaccessible sites and at well insulated zones, away from runoff/ drains - The contractor should continuously remove the waste immediately and transfer it to the approved disposal site. - 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.	Contractor	RAP and UNOPS Site Engineers/ Environmental, Social and OHS Specialists and Contractor's Safety Officers.	Included within the subproject cost
	Transportation: - Properly transport the loaded wastes and debris and hazardous waste (separately) by suitable trucks with emphasis to cover trucks with appropriate traps to avoid spillage during transportation. And direct the drivers to follow the driving safety instructions i.e. licensed and well-trained drivers, following speed limits, using well maintained trucks; and follow the traffic rules.	Contractor	RAP and UNOPS Site Engineers/ Environmental, Social and OHS Specialists and Contractor's Safety Officers.	Included within the subproject cost

Potential impact	Mitigation measures	Implementation responsibility	Monitoring responsibility	Cost
	Final Disposal: - Properly dispose of solid waste at designated permitted sites, landfill allocated by the local authorities and cleaning funds; and attach the receipt of waste from the relevant landfill authorities to the site engineer.	Contractor		Included within the subproject cost
Social Impact				
Temporary disruption of traffic and congestion due to road closure and detours.	- Prepare a traffic plan during implementation in coordination with the responsible authorities and affected communities. - Inform and coordinate with the local councils and traffic authority, public and roadside residents on the implementation schedule. - Shorten implementation period to the possible extent.. - Road rehabilitation to be performed in sections to avoid full closure of the road. - Control and manage traffic, by arranging detours and alternate bypass for traffic and roadside residences & businesses for each site using traffic cones, barriers, fences, or lights as appropriate in coordination with traffic officers and according to the work plan provided by the contractor (C-ESMP) and approved by UNOPS Resident Engineer and RAP. - The contractor should not start any rehabilitation activities before the installation of traffic safety and control safeguards.	Contractor	Contractor, RAP, UNOPS and TPM	Included within the subproject cost
Temporary disruption of obtaining water and electricity during moving water pipes and electrical poles	- Informing locals prior starting the displacement activities of water pipes and electrical poles - Displaying signs alerting residents to the hazard of the construction zone. - Where applicable, supplying residents with several tanks of drinkable water in an emergency and ensure access to all groups particularly the vulnerable	Contractor	Contractor,, RAP, UNOPS and TPM	Included within the subproject cost

Potential impact	Mitigation measures	Implementation responsibility	Monitoring responsibility	Cost
Temporary disruption of the construction machinery noise during the construction phase	- Avoid working at night hours. - Avoid exposure to a noise level greater than 85 dB(A) for a duration of more than 8 hours per day without hearing protection. In addition, no unprotected ear should be exposed to a peak sound pressure level (instantaneous) of more than 140 dB(C). - The use of hearing protection should be enforced when the equivalent sound level over 8 hours reaches 85 dB(A), the peak sound levels reach 140 dB(C), or the average maximum sound level reaches 110 dB(A). - Reduce the "allowed" exposure period or duration by 50 percent for every 3 dB(A) increase in excess of 85 dB(A). - Perform periodic medical hearing checks on workers exposed to high noise levels. - Rotate staff to limit individual exposure to high levels. - Install practical acoustical attenuation on construction equipment, such as mufflers. - Use silenced air compressors and power generators - Keep all machineries maintained, inspected and in good condition - Install exhaust silencing equipment on bulldozers, compactors, crane, dump trucks, excavators, graders, loaders, scrapers and shovels. - Installation of signs in all areas where the sound pressure level exceeds 85 dB (A). - Shut down equipment when not in use. - Provide advance notice to occupants if an activity involving high level impact noise is in close proximity to buildings.	Contractor	Contractor,, RAP, UNOPS and TPM	Included within the subproject cost
Public safety during the rehabilitation phase.	- Conduct management and safety plan for rehabilitation activities. - Install warning signs near and around the working sites. - Erect removable barriers in high risk areas. - Provide and maintain required barricades, guards, fencing, shoring, temporary roadways, footpaths, lighting and traffic flagging. - Protect workers and the public by covering openings and by protected fencing,	Contractor	Contractor, RAP, UNOPS and TPM	Included within the subproject cost

Potential impact	Mitigation measures	Implementation responsibility	Monitoring responsibility	Cost
	barricaded and guardrails. - Protect proper shielding scaffolds.			
Complaints	- A complaints register will be kept on site and this will feed into the GM. Details of complaints received will be incorporated into the audits as part of the monitoring process.	Contractor UNOPS, and RAP	Contractor, RAP, UNOPS and TPM	NA
Influx of non-local manual labor and risk of GBV and SEA.	- Ensure that local laborers are hired within the subproject to provide opportunities for local communities and to avoid labor influx to the possible extent.	Contractor, UNOPS, and RAP	Contractor, RAP, UNOPS and TPM	NA
Sexual harassment, abuse, gender-based violence, and discrimination	- Contractors must address the risk of gender-based violence, SEA and SH through: o Mandatory and repeated training and awareness-raising for the workforce about refraining from unacceptable conduct toward local community members, specifically women. o Informing workers about national laws that make sexual harassment and gender-based violence a punishable offense that is prosecuted. o Introducing a Worker Code of Conduct as part of the employment contract, and including sanctions for non-compliance (e.g., termination). o Set up a solid GM and code of conduct and contractual provisions to prevent the act of GBV and SEA. o Adopting a policy to cooperate with law enforcement agencies in investigating complaints about gender-based violence. - Contractor and workers to sign the code of conduct, and ensure workers comply and adhere to the code of conduct. - Conduct regular awareness sessions on site in GBV prevention. - GM system shall be put in place to handle any issue on Gender SEA and GBV.	Contractor/ RAP supervision consultant	Contractor, RAP, UNOPS and TPM	Included within the subproject cost
Child Labor and Forced	- All workers should be more than 18 years old.	Contractor, UNOPS, and RAP	Contractor, UNOPS, and RAP	NA

Potential impact	Mitigation measures	Implementation responsibility	Monitoring responsibility	Cost
labor	- Verifying age of workers by checking IDs and official documents. - Ensure a worker log is available, and all workers are registered. - A labor log including names, ages and other details will be kept, and all workers will be registered. UNOPS will continuously monitor this issue and ensure that workers are properly paid.			
Poor coordination, planning and sequencing of work could lead to the breakdown of unseen underground services networks (electric power cables, telephone lines, water distribution networks).	- Coordinate with local councils, community committee, and other competent utilities authorities. - Inspection of site to clearly identify any electrical hazards or other utility lines damages in the working areas. - 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. - The contractor should coordinate with the Traffic Department to prepare a Traffic Management Plan for traffic detours to ensure traffic transfers are smoothly managed for each work area with a clear plan and an engineering scheme. - Safeguard all existing structures, works, pipes, cables, sewers, or other services or installations from harm, disturbance or deterioration during rehabilitation activities. - Backfill service trenches as soon as possible after the service has been maintained and if possible, on the same working day.	Contractor	Contractor, RAP, UNOPS and TPM	Damage cost to be covered by the contractor
Discrimination in employment **can occur in the workplace in various ways**	- The employment of all project workers be based on the principles of non-discrimination and equal opportunity and no discrimination is allowed with respect to any aspects of the employment relationship, including recruitment, compensation, working conditions and terms of employment, access to training, promotion, or termination of employment. - Rely on the relevant provisions of the Yemeni Labor Code which match ESS2 requirements, most particularly Article 42 regarding the equal employment	UNOPS, RAP, Contractors and workers	Contractor, RAP, UNOPS and TPM	NA

Potential impact	Mitigation measures	Implementation responsibility	Monitoring responsibility	Cost
	convention for women, and Articles 43-47 defining special measures to address the vulnerabilities of women workers.			
Operation and maintenance of the rehabilitated road, lack of maintenance	- Maintenance is required to ensure sustainability of this project. - Inform the locals on maintenance periods and ensure providing alternative road access during maintenance work - Ensure same mitigation measures are applied during maintenance works - Ensure maintenance of Right of Way through implementing integrated vegetation management - Avoid using chemical herbicides and use mechanical or biological control measures instead for maintaining plants on the RoW.	Local Authority	Local authority	NA

7. Environmental and Social Monitoring Plan

The implementation of the mitigation measures will be monitored accordingly through daily, weekly, monthly and on a regular basis by the contractor, supervisor consultant, RAP and UNOPS engineers as well as by TPM. The following aspects will be monitored (though the list will keep updated to accommodate any emergency or updated aspects that may be recommended by the monitoring reports). Community committee will play a role in monitoring project progress including the environmental and social safeguards implementation in close coordination with RAP and UNOPS.

Table 6 Environmental and Social Monitoring Plan

Impact/issues	Measurements (incl. methods & equipment)	Frequency	Implementation responsibility
OHS Impact			
Work related accidents and injuries.	- Inspection and photographic documentation - Maintaining a record of injuries and accidents specifying cause and location - Contractors are required to provide a list of trained workers, who will be checked for their training skills and age and the measures will be	Daily	Contractor, RAP, UNOPS and TPM

Impact/issues	Measurements (incl. methods & equipment)	Frequency	Implementation responsibility
	implemented onsite and followed by regular monitoring visits. **Indicators:** - Number of reported incidents - Occupational health and safety training - Documents for insurance coverage of workers - Number of fatalities, number of injuries.		
Risk to workers from hazardous material used for work, such as fuel, lubricating oil, paints and chemicals.	- Inspection and photographic documentation - Maintaining a record of injuries and accidents specifying cause and location. **Indicators:** - Number of reported incidents - -Training records on the handling of hazardous materials and wastes	Daily	Contractor, RAP, UNOPS and TPM
Poor onsite sanitation or water supply, leading to illness and disease.	- Site inspection **Indicators:** - Number of recorded complaints - Number of reported incidents - Presence of pests in latrines and project site	Weekly during rehabilitation work and site inspection.	Contractor, RAP, UNOPS and TPM
Workers not wearing full PPEs	- Inspection and photographic documentation - Indicators: - Number of workers not adhering to wearing PPEs - Number of injured workers due to not adhering to PPEs	Daily	Contractor, RAP, UNOPS and TPM
Safety	- Hours worked, recordable incidents and corresponding Root Cause Analysis (lost time incidents, medical treatment cases, first aid cases, high potential near misses, and remedial and preventive activities required (for example, revised job safety analysis, new or different equipment, skills training, and so forth.	Daily	Contractor, RAP, UNOPS and TPM

Impact/issues	Measurements (incl. methods & equipment)	Frequency	Implementation responsibility
COVID-19 spread causing illnesses	Visual inspection and health inspections Indicators: - Number of sick workers - Number of workers adhering to wearing PPEs through visual Inspection		Contractor, RAP, UNOPS and TPM
Risk of Manual Handling	- Inspection and photographic documentation Maintaining a record of injuries and accidents specifying cause and location. Number and type of injuries recorded	Daily	Contractor, RAP, UNOPS and TPM
Worker grievances	- Number of grievances, details including occurrence date, grievance, type and date submitted; actions taken and dates; resolution (if any) and date; and follow-up yet to be taken grievances listed should include those received since the preceding report and those that were unresolved at the time of that report. - Number of GBV/SH cases reported that are related to workers	Daily	Contractor, RAP, UNOPS and TPM
General Environmental Impacts			
Dust generation during excavation work, backfilling, and compaction of the pavement layers.	- Visual observation and photographic documentation of equipment induced dust clouds during rehabilitation activities **Indicators:** - Visual presence of dust clouds	Daily during rehabilitation works. Upon any complaint.	Contractor, RAP, UNOPS and TPM
Increased levels of noise and vibration due to heavy vehicles and equipment, which may be a nuisance to the community around the working sites.	- Site supervision/inspection and documentation to ensure compliance with the noise mitigation measures **Indicators:** - Number of complaints concerning noise	Weekly during site inspection. Upon any complaint.	Contractor, RAP, UNOPS and TPM
Air pollution due to emissions from vehicles and equipment.	- Visual observation and photographic documentation of equipment induced emissions during rehabilitation activities. **Indicators:**	Weekly during rehabilitation works and site inspection. Upon any	Contractor, RAP, UNOPS and TPM

Impact/issues	Measurements (incl. methods & equipment)	Frequency	Implementation responsibility
	- Quantity of consumed fuel	complaint.	
Production and disposal of debris and wastes from rehabilitation.	- Inspection and photographic documentation **Indicators:** - Presence of waste at undesignated sites - Waste disposal receipts from the relevant landfill authorities	Daily and in weekly site inspection	Contractor, RAP, UNOPS and TPM
Leakage of vehicles lubricants and oil in worksites.	- Visual observation and photographic documentation of equipment and soil leaks (detected through changes in soil color). **Indicators:** - Presence of spills - Change in soil color	Monthly and Weekly during rehabilitation work and site inspection. Upon any complaint.	Contractor, RAP, UNOPS and TPM
Improper management of hazardous material and waste	- Inspection and photographic documentation. **Indicators:** - Presence of hazardous materials and waste at undesignated sites	Daily in site inspection	Contractor, RAP, UNOPS and TPM
Footprint management:	- Details of any work outside boundaries or major off-site impacts caused by ongoing Work to include date, location, impacts, and actions taken. - Negative impacts /damages due to work outside boundaries	Daily	Contractor, RAP, UNOPS and TPM
Environmental impacts (soil groundwater contamination from leaks and presence of dead animals close to project site)	- Inspection and photographic documentation. - Photographic detection of changes in soil color at particular sites. - Photographic detection of dead animals near the project's activities - Presence of waste stored near runoffs or at undesignated areas - Appropriate storage for all types of waste and hazardous chemicals, in insulated areas with restriction of any public entry	Daily during site inspection	Contractor, RAP, UNOPS and TPM
Blockage of culverts, drainage ditches, stormwater catchment basin and channels.	- Site inspection and photographic documentation of cleaning activities - Indicators: - Presence of materials and wastes within culverts	Daily	Contractor, RAP, UNOPS and TPM

Impact/issues	Measurements (incl. methods & equipment)	Frequency	Implementation responsibility
Water logging due to inefficient drainage for surface runoff in some locations or shallow water.	- Site inspection and design review of water logging location and photograph documentation	Daily	Contractor, RAP, UNOPS and TPM
Low aesthetic value of landscape such as accumulation of waste and debris in the rehabilitation site and damaged curbs and tiles.	- Site inspection and documentation of general landscape **Indicators:** - Presence of wastes at undesignated zones - Number of complaints related to aesthetic value	Daily	Contractor, RAP, UNOPS and TPM
Disruption of the environment due to uncontrolled sources of construction materials.	- Site inspection and documentation of material sources, amount and storage areas	Daily	Contractor, RAP, UNOPS and TPM
Environmental incidents and near misses	- Records and numbers of environmental incidents and high potential near misses and how they have been addressed, what is outstanding, and lessons learned.	Daily	Contractor, RAP, UNOPS and TPM
Social Impact			
Temporary disruption of economic activities, including disruption of traffic and congestion due to road closure and detours	- Site inspection and documentation of community economic activities nearby site. - Visual observation and photographic documentation of traffic management plan **Indicators:** - Number of reported complaints - Number of accidents due to disruption of traffic; number of persons reporting economic losses due to disruption of economic activities. - ---Number of road closures events that affect communities	Once before commencement Once during maintenance Once after completion Upon any complaint.	Contractor, RAP, UNOPS and TPM
Public safety during the rehabilitation phase.	- Visual observation and photographic documentation of safety measures. - Visual observation for installing warning signs, barricading of working areas with safety tapes and fencing/barricades to prevent unauthorized	Daily basis during rehabilitation work and weekly during site inspection visits,	Contractor, RAP, UNOPS and TPM

Impact/issues	Measurements (incl. methods & equipment)	Frequency	Implementation responsibility
	access of public and pedestrians to the working areas. **Indicators:** - Number of recorded complaints - Number of reported incidents	On any complaint.	
Complaints Handling	- Number of registered complaints and types will be kept on site and this will feed into the GM. Details of complaints received will be incorporated into the audits as part of the monitoring process.	Daily	Contractor, RAP, UNOPS and TPM
GBV and SEA issues	- Number of reported and registered cases of the SEA/SH through project GM. - Number of reported cases of contractors' noncompliance to PSEA/SH obligation on work sites.	Daily	Contractor, RAP, UNOPS and TPM
The risk of employing children for work activities.	- Site inspection, checking and documentation of contractor employee records -	Weekly during rehabilitation and site inspection.	Contractor, RAP, UNOPS and TPM
External stakeholder grievances	- Number and type of grievance and date submitted, action(s) taken and date(s), resolution (if any) and date, and follow-up yet to be taken grievances listed should include those received since the preceding report and those that were unresolved at the time of that report. Grievance data should be gender disaggregated.	Daily	Contractor, RAP, UNOPS and TPM
The risk of influx of non-local manual labor and risk of GBV and SEA.	- Inspection and maintaining a record of local manual labors specifying location. - Number and types of labor.	Daily	Contractor, RAP, UNOPS and TPM
Sexual harassment, abuse, gender-based violence, and discrimination	- Inspection - Number of GM Reports	Daily	Contractor, RAP, UNOPS and TPM
Discrimination in employment **can occur in the workplace in various**	- Inspection and auditing for workers' documents. - GM Reports regarding labor discrimination, rights and issues	Daily	Contractor, RAP, UNOPS and TPM

Impact/issues	Measurements (incl. methods & equipment)	Frequency	Implementation responsibility
ways			
External stakeholder engagement:	- Highlights, including formal and informal meetings, and information disclosure and dissemination to include a breakdown of women and men consulted and themes coming from various stakeholder groups, including vulnerable groups (e.g., disabled elderly, children, etc.).	Daily	Contractor, RAP, UNOPS and TPM
Monitoring during operational phase			
Presence of failure	- Visual inspections on roads, culverts, electricity poles, water pipes etc. Indicator: - Number of GM related to the infrastructure of this project - Presence of failure in roads, electricity etc. and number of times they occurred	Monthly	Local authority
Training to local authority	- Number of trainings and attendees on maintenance provided	Prior to handing over	RAP and UNOPS

8. Public Consultation

Public consultation process takes the form of semi-structured and direct interviews with local communities and group discussions with other stakeholders in the selected road areas. They were conducted in Hajjaj Governorate in the subproject areas taking into consideration precautionary measures to avoid the spread of Covid-19; social distance was applied and implemented outdoors.

The consultations with beneficiaries were conducted in the subproject areas between 19 and 22 of May 2022 by RAP specialist with 17 males, and 3 females. Consultation questionnaire that is distributed to the interviewees is available in annex 3 with examples of the consultation records available in Annex 4.

8.1 Consultation topics

The consultations with men and women covered several issues and topics including:

- Ensure communities' needs and confirm the selection priority;
- Inform local communities about the subproject and its activities to be undertaken, its timetable;
- Inform them about their rights to have a job opportunity during implementation.
- Raise their awareness about subprojects' potential risks such as safety, health, environmental, and social risks and required control measures.
- Document and address the local communities’ concerns, expectations, and feedback.
- Ensure the participation of subproject beneficiaries both females and males.
- Discuss the positive impacts that the subprojects will have such as improved transportation services, accessibility and road safety;
- Discuss subprojects' possible negative impacts such as disruption of traffic and safety of workers and proposed mitigation measures and how to avoid and mitigate them.
- Inform them that the road traffic may temporarily be interrupted during implementation and how to coordinate with subproject supervisors and contractors to manage the traffic.
- Raise awareness regarding social safeguards such as GBV, 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 safeguard, OHS, and any complaints and concerns without fear.
- Raise awareness for the COVID-19 pandemic and the precautionary measures as well as raise awareness on other diseases, such as Cholera.

8.2 Public consultation findings and feedback

The consultation findings with interviewed people both males and females were noted as they have expressed their strong support to the subproject. They showed their interest in facilitating implementation and were eager for the subproject as it is the key priority for them. Moreover, the interviewees expressed their happiness for hearing about the subproject and how the planned activities will have positive impacts such as improving access to local services, schools and health care centers and other local services. The consulted beneficiaries have no concerns regarding land, noise, or SEA/SH. However, they have expressed some concerns about the delay of commencement and implementation in addition to the use of poor materials in rehabilitation; they also emphasize avoiding complete closure of the road during implementation and support the suggested mitigation measures to be applied section by section.

Therefore, they expressed their further needs and priorities to target other streets and roads in the governorate because the roads are much deteriorated and the most affected sector due to the current situation in the country They showed that it is an urgent need for them as it facilitates access to the only public hospital and services in the governorate.

8.3 Stakeholders engagement and information disclosure

YELCP project level stakeholders' engagement and information disclosure activities took place regularly by UNOPS and RAP. The project documents including ESCP, ESMF, LMP, SEP and RF have been communicated to the relevant stakeholders and disclosed in Arabic and English on the official UNOPS website.

RAP and UNOPS will ensure stakeholder engagement and information disclosure during implementation and operation with all representatives and communities affected by the subproject. Furthermore, the subproject contractor will be required to undertake a process of stakeholder engagement with representative persons and communities directly affected by the activities it undertakes, including, if necessary, the public disclosure of its C-ESMP. The subproject contractor will also maintain good relations with local communities throughout the subproject and will give these communities prior notice of plans and schedules as they might affect local people. Thus, the stakeholder engagement process and information disclosure will also be applicable in the subproject cycle.

8.4 Subproject sustainability

RAP engages various stakeholders in implementation and the consultation process continues during and after implementation. To ensure sustainability of the subproject, a community committee is planned to be formed before the commencement date which will work to ensure and confirm community participation, and help in facilitating implementation. The committee is formed from local councils, utilities, representatives of youth and women. The key duty of such committees is to ensure sustainability of the subproject during and after the implementation phase. Also, coordination with Local Authorities / Councils took place to inform them on activities, the possibility of their role in facilitation during implementation. The implementation will take into consideration the climate change resilience to ensure sustainability through improving road drainage system capacity, ensuring work quality resistant to flash flood, adjustment of structural design of the pavement (flexible, semi-rigid and rigid/composite designs), etc.

8.5 Consultation during implementation

Consultations will continue during implementation with the previously consulted representative local communities to assess beneficiaries' satisfaction on implementation of mitigation measures and accommodation of all their concerns and will conduct broader consultation with more beneficiaries and wider representatives of local communities' citizens.

To ensure engagement with stakeholders during subproject implementation, the following mechanism will be adapted:

- Continue consultation with local communities by interviews and using questionnaires to assess beneficiaries' satisfaction on the implementation of activities and safeguards.
- Conduct interviews during implementation of subproject in the targeted areas with both male and female citizens/ beneficiaries conducted by male and female moderators/facilitators in separate sessions.
- Utilize GIS-based portal mapping for all activities including sub projects supported to promote transparency to reach more citizens.
- Utilize citizen engagement findings conducted for YELCP which include a wide range of stakeholders.
- Explore using UNOPS' remote monitoring tools for engaging citizens in monitoring and quality assurance of subproject activities.
- Include a TPM component in reaching citizens and beneficiaries during implementation.
- Receive feedback from citizens through the RAP and UNOPS established GM in Sana'a during implementation of the subproject.

9. Grievance mechanism

UNOPS has established a GM system under the YELCP to enable beneficiaries to communicate their concerns regarding the project activities. More specifically, the GM details the procedures that communities and individuals, who believe they are adversely affected by the project or a specific subproject, can use to submit their complaints, as well as the procedures used by UNOPS and RAP to systematically register, track, investigate and promptly resolve complaints.

RAP has developed a GM for YELCP to provide multiple access points to the GM for beneficiaries to voice their concerns. Accordingly, hard copies of the translated GM records (attached in Annex 2) were provided to interviewed people and they have been informed that the GM contact information will be posted at the subproject site to ensure any grievance can be addressed in an amicable manner. During monitoring, RAP will conduct inspections for complaints. Resolving complaints at community level is always encouraged to address the problem that a person may have during the implementation and/or operation phase.

RAP shall maintain records for grievances and complaints including minutes of discussions, recommendations and resolutions made.

9.1 Complaints registration

UNOPS and RAP provide multiple access points to the GM for beneficiaries to voice their concerns. These access points will be advertised at subproject level and put on the sign boards on each subproject site, and include GM contact information including hotline, landline, mobile SMS, email and website:

GM Contact details:

Address:	Haddah Street, former European Union Office Building, Sana'a
Tel:	Landline +967 1 504914 and +967 1 504915, Tool Free 8000190
SMS and WhatsApp:	+967 739888388
Email	grm-yemen@unops.org
Website:	www.unops.org

The GM contact information will be posted in Arabic in the subproject areas and be communicated through multiple channels to ensure all groups can easily access contact information and relevant mechanisms to provide feedback.

Grievances can be brought up by affected people in case of: (i) non-fulfillment of contracts or agreements; (ii) disputes related to destruction of assets or livelihoods; (iii) disturbances caused by rehabilitation activities; (iv) concerns around safety and protection related to project's activities.

Anonymous complaints will be admissible to their attention verbally or in writing by subprojects affected communities or individuals and will relay these concerns in writing to UNOPS on a next day basis. UNOPS will determine if these concerns rise to the level of a complaint.

UNOPS will register the complaint in a dedicated log by gender, age, and location, and include a copy of the complaint and supporting documents. A draft template for registering grievances is annexed.

UNOPS will record and document complaints received in the subproject file and the subproject progress reports, including the number and type of complaints and the results of their resolution.

9.2 Tracking, investigating and resolving complaints

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

More specifically, the GM focal point will register complaints; Inform the complainant if the complaint is accepted or rejected within 3 days from receiving the complaint; as well as to work with engineers, local partners, and contractors to resolve the complaint within 21days of its submission.

The ESSO will coordinate with local partners, local field staff and local government officials to ensure prompt follow up action in response to each complaint.

9.3 Grievance categories

The grievance could be among but not limited to the following categories:

- Access to project benefits (e.g., no or insufficient jobs created for local communities);
- Non-equal distribution of project services among target beneficiaries;
- Disputes (e.g. matters raised by/related to beneficiaries.
- Disturbance (e.g. noise, traffic road access and public safety etc.).
- GBV/SH grievance
- Internal grievance (workers grievance)

9.4 Steps to handle GM

- Publicizing: stakeholder's consultation, printed materials;
- Receiving and registering complaints: staff at local and central level who will be responsible for receiving, registering and tracking complaints;
- Acknowledging: The GM staff (team) acknowledges receipt of the complaint within 2-3 working days. Inform the complainant on the eligibility of his/her complaint;
- Anonymous complaints: To be studied as well;
- Reviewing and investigating, collecting, reviewing and analyzing related documents;
- Conducting interviews of the people involved, officers and staff;
- Analyzing the related national legislations & regulations, World Bank Policies & Guidelines and UNOPS standards;
- Summarizing the facts and findings;
- Developing resolution options: based on the collected evidence, the GM staff (team) will draw conclusions, make recommendations for solutions, and present it to the complainant;
- If the solution is not accepted, the complaint will be presented to the Program Manager as a second level to appeal who can make the resolution and/or can delegate an arbitrary to investigate the investigate on the complaint and propose recommendations for resolution; the complainant can still initiate legal process for his complaint if not satisfied with the proposed resolution.
- Implementing resolution: If the solution is accepted, then it will be implemented;
- Monitoring and closing: the complaint should be monitored for a reasonable period of time to make sure that the complainant does not express additional concerns, and then the complaint could be closed.
- Reporting (recording): prepare concise summary reports of the complaints received, with the resolutions taken and status of resolutions implementation, and fill in the database with detailed records. Annex 2 summarizes the complaints management review process.

10. Reporting of ESMP

The RAP ESSO will report to UNOPS on a monthly basis the implementation of the ESMP and UNOPS will report the ESMP implementation to the WB. There will also be irregular reports based on the situation and updates. The RAP Supervision Consultant assigned as a worksite resident engineer is in charge of all construction activities. The environmental specialist will make monthly visits to each subproject to ensure that all mitigation measures are in place. As guided in this ESMP as well as Annex 1, the contractors shall monitor, keep records and report on the environmental and social issues : safety, environmental incidents and near misses, major works, ESHS requirements, ESHS

inspections and audits: workers, training on ESHS issues, footprint management, external stakeholder engagement, details of any security risks, worker grievances, external stakeholder grievances, major changes to Contractors environmental and social practices, deficiency and performance management.

The following table provides an indicative reporting plan.

Table 7 Reporting plan

What	How	Who	When
Compliance level to the ESMP including environmental and social issues, OHS, GM, etc.	Based on monitoring and inspections, log, the consultant reports, GM log	ESSO	Monthly from RAP to UNOPS and quarterly from UNOPS to WB.
Compliance level to the ESMP and environmental and social issues: safety, environmental incidents and near misses, major works, ESHS requirements, ESHS inspections and audits: workers, training on ESHS issues, footprint management, external stakeholder engagement, details of any security risks, worker grievances, external stakeholder grievances, major changes to Contractors environmental and social practices, deficiency and performance management.	Based on monitoring, inspection, records, logs, and contractor reports.	RAP Supervision consultant	Monthly and based on cases
Environmental and social issues: safety, environmental incidents and near misses, major works, ESHS requirements, ESHS inspections and audits: workers, training on ESHS issues, footprint management, external stakeholder engagement, details of any security risks, worker grievances, external stakeholder grievances, major changes to Contractors environmental and social practices, deficiency and performance management.	Contractor ESSO based on monitoring, inspection, records, logs.	Contractor	Monthly and based on cases

Annex 1 Environmental and social requirements for contractors

Contractors shall meet the following Environmental, Health, Safety and Social (including labor) requirements – thereafter called ESHS requirements[8].

The ESHS requirements include the following sections

1. Contractor Environmental and Social Management Plan (C-ESMP)
2. ESHS Training
3. Construction Site Management
4. Occupational Health and Safety (OHS)
5. Road safety and Traffic Safetys
6. Emergency Preparedness and Response

[8] The ESHS requirements build on the General EHS Guidelines of the World Bank Group, but also take into account other World Bank guidelines, and good practice notes

7. Stakeholder Engagement
8. Labor Management including Code of Conduct
9. Contractor Environmental and Social Reporting

1. General Provision

Contractor Environmental and Social Management Plan (C-ESMP)

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

2. ESHS Training

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

Orientation Training

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

Visitor Orientation

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

New Task Employee and Contractor Training

- Ensure that all workers and subcontractors, prior to commencement of new assignments, have received adequate training and information enabling them to understand work hazards and to protect their health from hazardous ambient factors that may be present. The training should adequately cover the step-by-step process that is needed for Project activities to be undertaken safely, with minimum harm to the environment, including:

- Knowledge of materials, equipment, and tools
- Known hazards in the operations and how they are controlled
- Potential risks to health
- Precautions to prevent exposure
- Hygiene requirements
- Wearing and use of protective equipment and clothing
- Appropriate response to operation extremes, incidents and accidents

3. Construction Site Management

Vegetation

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

Protection of the Existing Installations

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

Waste from Construction Activities

- Collect and properly store and manage all solid wastes and hazardous wastes (separated hazardous wastes from solid wastes) resulting from the construction activities, including construction debris and spoils, to prevent the contamination of soil and groundwater. In case chemicals are present they should be stored and disposed according to their Material Safety Data Sheets (MSDSs)
- Remove unneeded excavation material from construction sites as soon as possible
- Agree with relevant municipalities about construction waste disposal
- Carefully select waste disposal sites, to be approved by UNOPS or RAP.
- Minimize littering of roads by ensuring that vehicles are licensed and loaded in such a manner

as to prevent falling off or spilling of construction materials, and by sheeting the sides and tops of all vehicles carrying mud, sand, other materials or debris

- Transfer construction waste to assigned places in the selected waste disposal sites with documented confirmation.
- Properly dispose of solid waste and debris and hazardous waste (separately) at designated permitted sites, waste disposal sites allocated by the local authorities, and obtain a receipt of waste from the authorized landfill authority.

Air Quality

The most common pollutant involved in fugitive emissions is dust or particulate matter (PM) that is released during the transport and open storage of solid materials, and from exposed soil surfaces, including unpaved roads. Accordingly, the Contractor shall:

- Use dust control methods, such as covers, water suppression, or increased moisture content for open materials storage piles, or controls, including air extraction and treatment through a baghouse or cyclone for material handling sources, such as conveyors and bins;
- Use water suppression for control of loose materials on paved or unpaved road surfaces. Oil and oil by-products are not a recommended method to control road dust.
- Use wheel washes at quarries, ready-mix plants, construction sites, and other facilities to prevent track-out of mud, dust and dirt on to public roads.
- Regularly clean road surfaces within the construction sites to remove accumulated fine material, and regularly clean transportation vehicles.
- Cover open bodied trucks handling sand, gravel or earth.
- Minimize smoke from diesel engines by regular and proper maintenance, in particular by ensuring that the engine, injection system and air cleaners are in good condition.

Hazardous and Toxic Materials

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

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

Borrow Pits and Quarries

Materials required for site fill, backfill or the construction of permanent works that are not available from the surface will be obtained from borrow areas and quarries that the Contractor will identify, subject to approval by the RAP following the applicable regulations..

The Contractor shall adhere to the following standards when sitting, developing, operating, and reinstating borrow pits and quarries:

- Obtain all necessary permits for borrow pits and quarry operations.
- Locate quarry sites as far away from settlements as possible. Quarry operations will produce noise and dust that will impact on nearby inhabitants even if controls are imposed.
- Fence and secure quarry sites. Steep quarry faces are a hazard to people and livestock.
- Locate borrow pits and quarries at least 100 m from watercourses or human habitations.
- Avoid all use of explosives for stones quarrying
- Locate borrow pits on land that is not used for cultivation and is not wooded.
- Avoid areas of local historical or cultural interest and locate pits more than 25 m of grave sites.
- Hide, to the extent possible, pits from the road. Quarries and borrow pits should be designed to minimize visible scarring of the landscape.
- Develop and implement plan to reinstate borrow pits and quarry sites as closely as possible to their original state

Area Signage

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

Chance Find Procedures

Actions to be taken if previously unknown cultural heritage is encountered, including:

- Train construction crews and supervisors to spot potential archaeological finds
- Keep records and ensure expert verification
- Provide chain of custody instructions for movable finds
- notify the Department of Archaeology at the Ministry of Culture or a local university, for quick assessment and action
- Define clear criteria for potential temporary work stoppages required for rapid disposition of issues related to the finds.
- Avoid indirect damage to existing cultural heritage, such as affecting masonry through vibration

Decommissioning of Worksites and Plant

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

4. Health and Safety

Severe Weather and Facility Shutdown

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

evacuation plan.

Lavatories and Showers

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

Potable Water Supply

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

Clean Eating Area

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

Personal Protective Equipment (PPE)

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

Noise

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

- Avoid exposure to a noise level greater than 85 dB(A) for a duration of more than 8 hours per day without hearing protection. In addition, no unprotected ear should be exposed to a peak sound pressure level (instantaneous) of more than 140 dB(C).
- The use of hearing protection should be enforced actively when the equivalent sound level over 8 hours reaches 85 dB(A), the peak sound levels reach 140 dB(C), or the average maximum sound level reaches 110 dB(A).
- Provide hearing protective devices capable of reducing sound levels at the ear to at most 85 dB(A).
- Reduce the "allowed" exposure period or duration by 50 percent for every 3 dB(A) increase in excess of 85 dB(A).
- Perform periodic medical hearing checks on workers exposed to high noise levels.
- Rotate staff to limit individual exposure to high levels.
- Install practical acoustical attenuation on construction equipment, such as mufflers.
- Use silenced air compressors and power generators

- Keep all machinery in good condition
- Install exhaust silencing equipment on bulldozers, compactors, crane, dump trucks, excavators, graders, loaders, scrapers and shovels.
- Post signs in all areas where the sound pressure level exceeds 85 dB(A).
- Shut down equipment when not directly in use
- Provide advance notice to occupants if an activity involving high level impact noise is in close proximity to buildings.

Slip, trip and Falls

Slips and falls on the same elevation associated with poor housekeeping, such as excessive waste debris, loose construction materials, liquid spills, and uncontrolled use of electrical cords and ropes on the ground, are also among the most frequent cause of lost time accidents at construction and decommissioning sites.

To prevent slips and falls from, or on, the same elevation, the Contractor shall

- Implementing good house-keeping practices, such as the sorting and placing loose construction materials or demolition debris in established areas away from foot paths
- Clean up excessive waste debris and liquid spills regularly
- Locate electrical cords and ropes in common areas and marked corridors
- Ensure that workers use slip retardant footwear

Working at Heights

The contractor shall implement fall prevention and protection measures whenever a worker is exposed to the hazard of falling more than two meters, or through an opening in a work surface. The Contractor shall:

- Install guardrails with mid-rails and toe boards at the edge of any fall hazard area
- Train workers on the proper use of ladders and scaffolds
- Install fall prevention devices, including safety belt and lanyard travel limiting devices to prevent access to fall hazard area, or fall protection devices such as full body harnesses used in conjunction with shock absorbing lanyards or self retracting inertial fall arrest devices attached to fixed anchor point or horizontal life-lines
- Train workers in the use, serviceability, and integrity of the necessary PPE
- Include rescue and recovery plans, and equipment to respond to workers after an arrested fall

Struck By Objects

The Contractor shall:

- Use a designated and restricted waste drop or discharge zones, and/or a chute for safe movement of wastes from upper to lower levels
- Conduct sawing, cutting, grinding, sanding, chipping or chiseling with proper guards and anchoring as applicable
- Maintain clear traffic ways to avoid driving of heavy equipment over loose scrap
- Use temporary fall protection measures in scaffolds and out edges of elevated work surfaces, such as handrails and toe boards to prevent materials from being dislodged
- As necessary, require workers to wear appropriate PPE, such as safety glasses with side shields, face shields, hard hats, and safety shoes

First Aid and Accidents

- Ensure that qualified first-aid by qualified personnel is always available. Appropriately equipped first-aid stations should be easily accessible throughout the place of work.
- Provide workers with rescue and first-aid duties with dedicated training so as not to inadvertently aggravate exposures and health hazards to themselves or their co- workers. Training would include the risks of becoming infected with blood–borne pathogens through contact with bodily fluids and tissue.

- Provide eye-wash stations and/or emergency showers close to all workstations where immediate flushing with water is the recommended first-aid response.
- Provide dedicated and appropriately equipped first-aid room(s) where the scale of work or the type of activity being carried out so requires.
- Equip first aid stations and rooms with gloves, gowns, and masks for protection against direct contact with blood and other body fluids.
- Make widely available written emergency procedures for dealing with cases of trauma or serious illness, including procedures for transferring patient care to an appropriate medical facility.
- Immediately report all accidental occurrences with serious accident potential such as major equipment failures, contact with high-voltage lines, exposure to hazardous materials, slides, or cave-ins to UNOPS and RAP.
- Immediately investigate any serious or fatal injury or disease caused by the progress of work by the Contractor, and submit a comprehensive report to UNOPS and RAP.

Communicable Diseases

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

- Conduct Information, Education and Consultation Communication (IEC) campaigns, at least every other month, addressed to all construction site staff (including all the Contractor's employees, all subcontractors of any tier, consultants' employees working on the site, and truck drivers and crew making deliveries to the site for Works and Services executed under the Contract, concerning the risks, dangers and impact, and appropriate avoidance behavior of communicable diseases.
- Provide for active screening, diagnosis, counseling and referral of workers to a dedicated national STD and HIV/AIDS program, (unless otherwise agreed) for all Site staff and labor.
- Provide male or female condoms to all Site staff and workers, as appropriate.
- Provide treatment through standard case management in on-site or community health care facilities.
- Ensure ready access to medical treatment, confidentiality and appropriate care, particularly with respect to migrant workers.
- Promote collaboration with local authorities to enhance access of workers' families and the community to public health services and ensure the immunization of workers against common and locally prevalent diseases.
- Provide basic education on the conditions that allow the spread of other diseases such as COVID-19, Lassa Fever, Cholera and Ebola. The training should cover sanitary hygiene education.
- Prevent illness in immediate local communities by:
    - Implementing an information strategy to reinforce person-to-person counseling addressing systemic factors that can influence individual behavior as well as promoting individual protection, and protecting others from infection, by encouraging condom use
    - Training health workers in disease treatment
    - Conducting immunization programs for workers in local communities to improve health and guard against infection
    - Providing health services
    - Contracting an HIV service provider to be available on-site

COVID-19

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

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

5. Road safety and Traffic Safety

The Contractor shall ensure traffic safety by all project personnel during displacement to and from the workplace, and during the operation of project equipment on private or public roads. The Contractor shall adopt best transport safety practices across all aspects of project operations with the goal of preventing traffic accidents and minimizing injuries suffered by project personnel and the public, including:

- Emphasize safety aspects among drivers
- Improve driving skills and requiring licensing of drivers
- Institute defensive driving training for all drivers prior to starting their job
- Adopt limits for trip duration and arranging driver rosters to avoid overtiredness
- Avoid dangerous routes and times of day to reduce the risk of accidents
- Use speed control devices (governors) on trucks, and remote monitoring of driver actions
- Require that drivers and co-passengers wear seatbelts, and duly sanction defaulters.
- Regularly maintain vehicles and use manufacturer approved parts to minimize potentially serious accidents caused by equipment malfunction or premature failure.

Where the project may contribute to significant changes in traffic along existing roads the Contractor shall:

- Commence activities that affect public motorways and highways, only after all traffic safety measures necessitated by the activities are fully operational.
- Arrange diversions for providing alternative routes for transport and/or pedestrians
- Minimize pedestrian interaction with construction vehicles, particularly at crossing points to schools, markets, and any animal crossing points of significance, through appropriate signage, engineered footpaths or traffic slowing devices.
- Organize meaningful road accident awareness events at all roadside schools and communities

within 150 meters of the road centerline, covering safe road crossing, road accident hazards from weather conditions and vehicle roadworthiness, overloading and driver alertness, dangers posed by parked and broken-down vehicles, etc.

- Collaborate with local communities and responsible authorities to improve signage, visibility and overall safety of roads, particularly along stretches located near schools or other locations where children may be present.
- Collaborate with local communities on education about traffic and pedestrian safety (e.g. school education campaigns).
- Coordinate with emergency responders to ensure that appropriate first aid is provided to all affected persons in the event of accidents.
- Use locally sourced materials, whenever possible, to minimize transport distances, and locate associated facilities close to project sites.
- Employ safe traffic control measures, including road signs, traffic cones, removable barriers, and flag persons to warn of dangerous conditions.

6. Emergencies

- Establish and maintain an emergency preparedness and response system, in collaboration with appropriate and relevant third parties including to cover: (i) the contingencies that could affect personnel and facilities of the project to be financed; (ii) the need to protect the health and safety of project workers; (iii) the need to protect the health and safety of the Affected Communities. The emergency preparedness and response system shall include:

    - Identification of the emergency scenarios
    - Specific emergency response procedures
    - Training of emergency response teams
    - Emergency contacts and communication systems/protocols (including communication with Affected Communities when necessary)
    - Procedures for interaction with government authorities (emergency, health, environmental authorities)
    - Permanently stationed emergency equipment and facilities (e.g., first aid stations, firefighting equipment, spill response equipment, personal protection equipment for the emergency response teams)
    - Protocols for the use of the emergency equipment and facilities
    - Clear identification of evacuation routes and muster points
    - Emergency drills and their periodicity based on assigned emergency levels or tiers
    - Decontamination procedures and means to proceed with urgent remedial measures to contain, limit and reduce pollution within the physical boundaries of the project property and assets to the extent possible.

7. Stakeholder Engagement

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

8. Labor Force Management

The contractor shall

- Provide opportunities for workers to regularly return to their families
- Provide opportunities for workers to take advantage of entertainment opportunities away from rural host communities

- Pay adequate salaries for workers to reduce incentive for theft
- Pay salaries into workers' bank accounts rather than in cash
- Get an appropriate mix of locally and non- locally procured goods to allow local project benefits while reducing risk of crowding out of and price hikes for local consumers
- Establish substance abuse prevention and management programs
- Hire workers through recruitment offices, and avoid hiring "at the gate" to discourage spontaneous influx of job seekers
- Identify authorized water supply source and prohibiting use from other community sources;
- Put in place measures to reduce water and electricity consumption;
- Employ locals to the extent possible;
- Develop and adopt a Gender Action Plan to promote the transfer of construction skills to local women, to facilitate their employment at the Project site, including training and recruitment targets.

Labor Conditions

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

Insurance

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

Grievance Mechanism for Workers

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

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

accompanied by a colleague, friend or union representative.

- Keeping records. Written records should be kept at all stages. The initial complaint should be in writing if possible, along with the response, notes of any meetings and the findings and the reasons for the findings. Any records on SEA shall be registered separately and under the strictest confidentiality.
- Relationship with collective agreements. Grievance procedures should be consistent with any collective agreements.
- Relationship with regulation. Grievance processes should be compliant with the national employment code.

Protection from Sexual Exploitation and Abuse

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

Protection from Child Labor

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

Code of Conduct

- Contractors shall ensure that all employees, including those of subcontractors, are informed about and sign Code of Conduct. Code of Conduct sample is available below in which the contractor shall adopt and include all provisions in their own Code of Conduct:

CODE OF CONDUCT FOR CONTRACTOR'S PERSONNEL

We the Contractor [enter name of Contractor] have signed a contract with UNOPS for [enter description of the activities]. These activities will be carried out at [enter the Site and other locations where the activities will be carried out]. Our contract requires us to implement measures to address environmental and social risks related to the activities, including the risks of sexual exploitation and assault and gender-based violence.

This Code of Conduct is part of our measures to deal with environmental and social risks related to the activities. It applies to all our staff, including laborers and other employees at the at all the places where the activities are being carried out. It also applies to the personnel of every subcontractor and any other personnel assisting us in the execution of the activities. All such persons are referred to as "Contractor's Personnel" and are subject to this Code of Conduct.

This Code of Conduct identifies the behavior that we require from all Contractor's Personnel.

Our workplace is an environment where unsafe, offensive, abusive or violent behavior will not be tolerated and where all persons should feel comfortable raising issues or concerns without fear of retaliation.

Required Conduct

Contractor's Personnel shall:

1. carry out his/her duties competently and diligently;
2. comply with this Code of Conduct and all applicable laws, regulations and other requirements, including requirements to protect the health, safety and well-being of other Contractor's Personnel and any other person;
3. maintain a safe working environment including by:
4. ensuring that workplaces, machinery, equipment and processes under each person's control are safe and without risk to health;
5. wearing required personal protective equipment;
6. using appropriate measures relating to chemical, physical and biological substances and agents; and
7. following applicable emergency operating procedures.
8. report work situations that he/she believes are not safe or healthy and remove himself/herself from a work situation which he/she reasonably believes presents an imminent and serious danger to his/her life or health;
9. treat other people with respect, and not discriminate against specific groups such as women, people with disabilities, migrant workers or children;
10. not engage in any form of sexual harassment including unwelcome sexual advances, requests for sexual favors, and other unwanted verbal or physical conduct of a sexual nature with other Contractor's or Employer's Personnel;
11. not engage in Sexual Exploitation, which means any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another. In Bank financed projects, sexual exploitation occurs when access to or benefit from Bank financed Goods, Works, Consulting or Non-consulting services is used to extract sexual gain;
12. not engage in Sexual Assault, which means sexual activity with another person who does not consent. It is a violation of bodily integrity and sexual autonomy and is broader than narrower conceptions of "rape", especially because (a) it may be committed by other means than force or violence, and (b) it does not necessarily entail penetration.
13. not engage in any form of sexual activity with individuals under the age of 18, except in case of pre-existing marriage;
14. complete relevant training courses that will be provided related to the environmental and social aspects of the Contract, including on health and safety matters, and Sexual Exploitation and Assault (SEA);
15. report violations of this Code of Conduct; and
16. Not retaliate against any person who reports violations of this Code of Conduct, whether to us or the Employer, or who makes use of the Grievance mechanism for Contractor's Personnel or the project's Grievance Mechanism.

Raising Concerns

If any person observes behavior that he/she believes may represent a violation of this Code of Conduct, or that otherwise concerns him/her, he/she should raise the issue promptly. This can be done in either of the following ways:

1. Contacting the Individual designated by the Contractor [enter name of Contact)
2. In writing at this address [ ]
3. By telephone at [ ]
4. In person at [ ]

5. Calling [ ] to reach the Contractor's hotline and leave a message (if available)

The person's identity will be kept confidential, unless reporting of allegations is mandated by the country law. Anonymous complaints or allegations may also be submitted and will be given all due and appropriate consideration. We take seriously all reports of possible misconduct and will investigate and take appropriate action. We will provide warm referrals to service providers that may help support the person who experienced the alleged incident, as appropriate.

There will be no retaliation against any person who raises a concern in good faith about any behavior prohibited by this Code of Conduct. Such retaliation would be a violation of this Code of Conduct.

Consequences of Violating the Code of Conduct

Any violation of this Code of Conduct by Contractor's Personnel may result in serious consequences, up to and including termination and possible referral to legal authorities.

For Contractor's Personnel

I have received a copy of this Code of Conduct written in a language that I comprehend. I understand that if I have any questions about this Code of Conduct, I can contact [enter name of Contractor's contact person with relevant experience in handling gender-based violence] requesting an explanation.

Name of Contractor's Personnel: [insert name]
Signature: _____
Date: (day month year): _____
Countersignature of authorized representative of the Contractor:
Signature: _____
Date: (day month year): _____

9. Contractor Environmental and Social Reporting

The Contractor shall report work-related incidents, accidents to UNOPS within 24 hours of their occurrence.

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

Safety: hours worked, lost time injury (LTI), lost workdays, recordable incidents and corresponding Root Cause Analysis (lost time incidents, medical treatment cases), first aid cases, high potential near misses, and remedial and preventive activities required (for example, revised job safety analysis, new or different equipment, skills training, and so forth).

Environmental incidents and near misses: environmental incidents and high potential near misses and how they have been addressed, what is outstanding, and lessons learned.

Major works: those undertaken and completed, progress against project schedule, and key work fronts (work areas).

ESHS requirements: noncompliance incidents with permits and national law (legal noncompliance), project commitments, or other ESHS requirements.

ESHS inspections and audits: by Project Company, Independent Engineer, UNOPS and its implementing partners, or others—to include date, inspector or auditor name, sites visited and records reviewed, major findings, and actions taken.

Workers: list of workers at each site, confirmation of ESHS training, indication of origin (expatriate, local, nonlocal nationals), gender, age with evidence that no child labor is involved, and skill level (unskilled, skilled, supervisory, professional, management).

Training on ESHS issues: including dates, number of trainees, and topics.

Footprint management: details of any work outside boundaries or major off-site impacts caused by ongoing construction—to include date, location, impacts, and actions taken.

External stakeholder engagement: highlights, including formal and informal meetings, and information disclosure and dissemination—to include a breakdown of women and men consulted and themes coming from various stakeholder groups, including vulnerable groups (e.g., disabled, elderly, children, etc.).

Details of any security risks: details of risks the Project Company may be exposed to while performing its work—the threats may come from third parties external to the project.

Worker grievances: details including occurrence date, grievance, and date submitted; actions taken and dates; resolution (if any) and date; and follow-up yet to be taken—grievances listed should include those received since the preceding report and those that were unresolved at the time of that report.

Stakeholders grievances: grievance and date submitted, action(s) taken and date(s), resolution (if any) and date, and follow-up yet to be taken—grievances listed should include those received since the preceding report and those that were unresolved at the time of that report. Grievance data should be gender-disaggregated.

Major changes to Contractors environmental and social practices.

Deficiency and performance management: actions taken in response to previous notices of deficiency or observations regarding ESHS performance and/or plans for actions to be taken should continue to be reported to UNOPS until it determines the issue is resolved satisfactorily.

Annex 2 GM Complaint and Suggestion Form

YEMEN EMERGENCY LIFELINE CONNECTIVITY PROJECT YELCP
Sample of GM
Complaint and Suggestion Form

استمارة توثيق ومتابعة شكاوى المستفيدين

برنامج تنمية الطرق الريفية
نموذج لآلية التظلمات والشكاوى

"Documenting and Monitoring Complaints Form of Beneficiaries of Yemen Emergency Life Line Connectivity Project YELCP

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

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

موضوع الشكوى:
Complaint Subject

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

- الجهة التي يجب أن يقدم لها الشكوى:..UNOPS – Tool Free No 8000190 Tel: 01 504914/915 - SMS: 739888388 Email:
.....GrM.yemen@unops.org
:The entity, which the complaint should be forwarded to
-الرأي في جدية الشكوى:.....
Opinion on the seriousness of the complaint
-الجهة المحول لها الشكوى :.....
The complaint transferred to
- المدة الزمنية اللازمة للبت في الشكوى:.....
Time required for response
-مدى رضا المستفيد عن الاستجابة لحل شكواه:.....
Satisfaction of beneficiary in responding to his/her complaint

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

اسم مستلم الشكوى ووظيفته: .....
Name of person received the complaint and his/her position
التاريخ/ Date : **.....** **توقيع الموظف المختص/** Signature
.....:

Annex 3: Samples of Public Consultation Questionnaires

برنامج تنمية الطرق الريفية.

إن الهدف الرئيسي لبرنامج تنمية الطرق الريفية على المدى البعيد هو تحسين حياة ومعيشة سكان المناطق النائية بما في ذلك سكان الأرياف وتقليل العزلة التي يعيشونها وكذلك تواصل المجتمع الريفي بسكان المناطق الأخرى وتسهيل الدخول إلى الأسواق والحصول على الخدمات العامة من مياه – تعليم –صحة – كهرباء – وتحسين الطرق وربط تلك المناطق بالمراكز الإدارية لمراكز المديريات والمحافظات . وعلى ضوء ما تقدم تم إختيار مسار مشروع طريق المعرص – البجيلة .ضمن المشاريع المستهدف تنفيذها (إنشاء الطريق / (صيانة الطريق) والذي يتوقع أن يساهم في تحسين حياة ومعيشة المواطنين.

وعليه يرجى إكمال الاستبيان أدناه لما فيه المصلحة العامة :

اسم المشروع..... ..... رمز المشروع..... مديرية:..... محافظة:.....	
اسم منفذ الاستبيان :	التاريخ: ...../...../.....
اسم مشارك الاستبيان :	النوع: ☐ ذكر ☐ أنثى
(العمر: .....(اقل من15) (16-30) (31-45) (46 –أكثر	:رقم الهاتف
المهنة:	

م	**الآثار الإيجابية لمشروع الطريق : ما مدى موافقتك على ما يلي:**	**موافق**	**غير موافق**	**لا أعرف**
1	صيانة الطرق سيخفف من الازدحام المروري			
2	تأهيل الطريق سوف يساعد في الحفاظ على المركبات			
3	تنفيذ المشروع سوف يساعد في تحسين السلامة المرورية للمركبات والأشخاص وخاصة المعوقين والأطفال			
4	تنفيذ المشروع سيساهم في تحسين الخدمات : ماء – كهرباء – غاز-تعليم –صحة -تقليل زمن المواصلات – تسويق المحاصيل الزراعية			
5	المشروع سوف يساهم في تشجيع تشغيل عمالة من السكان المحليين وتحسين دخلهم.			
6	المشروع سوف يساهم في الحد من الحوادث داخل القرى التي يمر بها الطريق.			
7	المشروع سيساهم في تقليص زمن الوصول إلى الخدمات كالمدارس والمستشفيات.			
8	سيساهم المشروع في مساعدة الأسرة بالتنقل بسهولة وزيارة الأقارب .			
9	سيساهم المشروع في التخفيف من معاناة النازحين والفقراء والسكان بشكل عام			
10	تنفيذ المشروع سيساهم في تحسين الأنشطة الاقتصادية			
11	أي آثار إيجابية أخرى تتوقعها			

م	**المخاوف من المشروع الطريق : هل لديك تخوف مما يلي**	**نعم**	**لا**	**لا أعرف**
1	بعد تنفيذ المشروع ستزداد سرعة المركبات على الطريق وتكثر الحوادث			
2	انقطاع الطرق سيؤدي إلى صعوبة الوصول إلى مرافق الخدمات مثل المستشفيات والمدارس والأسواق العامة أثناء فترة العمل بمشروع الطريق			
3	الخسارة الاقتصادية للمحلات التجارية في فترة التنفيذ وإغلاق الطريق			
4	عدم الاستجابة لشكاوى الأهالي في حين حدوث ووجود مخالفات في فترة التنفيذ من قبل المقاول			
5	عدم مراقبة المقاول أثناء تنفيذ عن العمل من قبل أصحاب العمل			

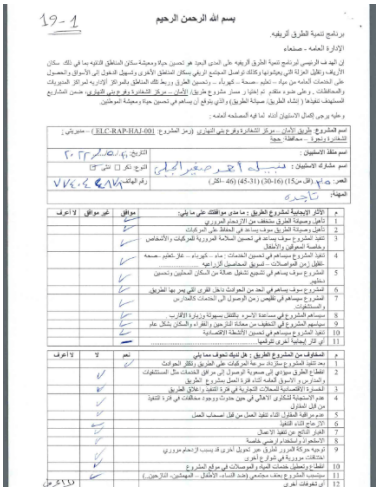
6	الازعاج اثناء التنفيذ			
7	الغبار الناتج عن الأعمال			
8	الاستحواذ واستخدام ارضي خاصة			
9	توجيه حركة المرور لطرق عبر تحويل أخرى قد يسبب ازدحام مروري اختناقات مرورية في شوارع اخرى			
10	انقطاع وتعطيل خدمات المياه والمواصلات في موقع المشروع			
11	سيتسبب المشروع بعنف مجتمعي (ضد النساء- الأطفال – المهمشين- النازحين..)			
12	أي تخوفات أخرى			
13	أي احتياجات أخرى:.....			

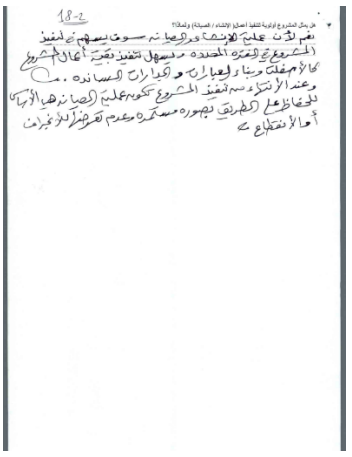
هل يمثل المشروع أولوية لتنفيذ أعمال(الإنشاء / الصيانة(ولماذا؟

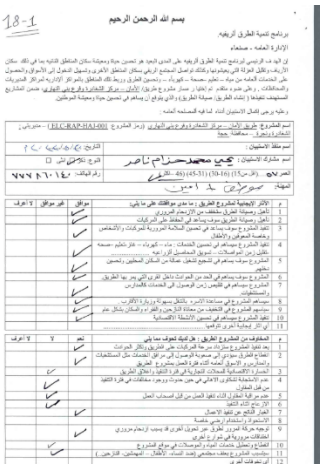
.....
.....
.....
.....
.....

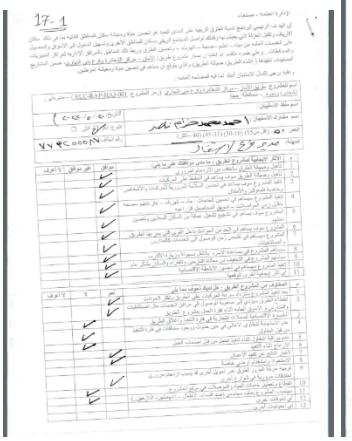
Annex 4 Samples of Consultation Records

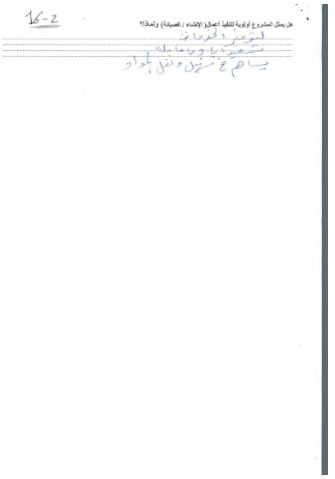
قائمة الأشخاص المستهدفين من المشاورات (المشاورات الرجالية والنسائية)

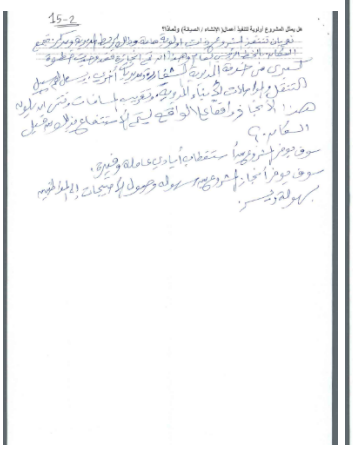


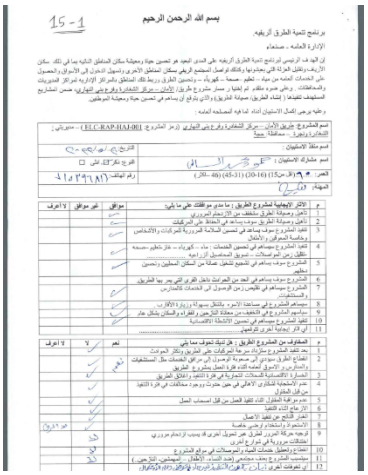


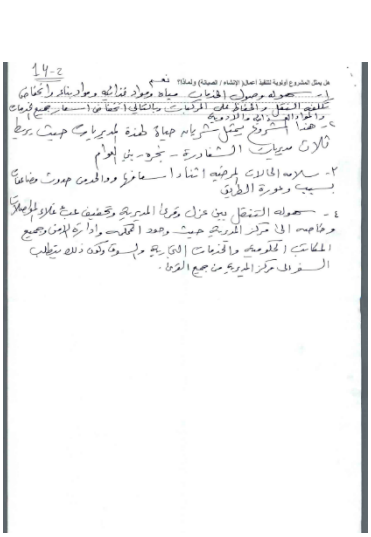


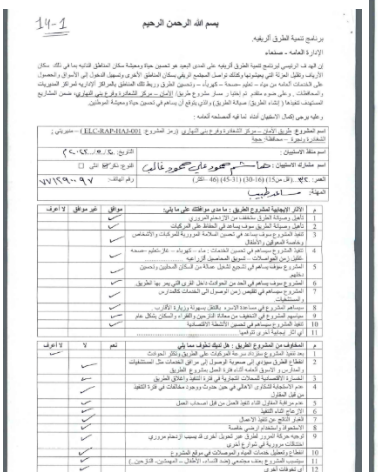


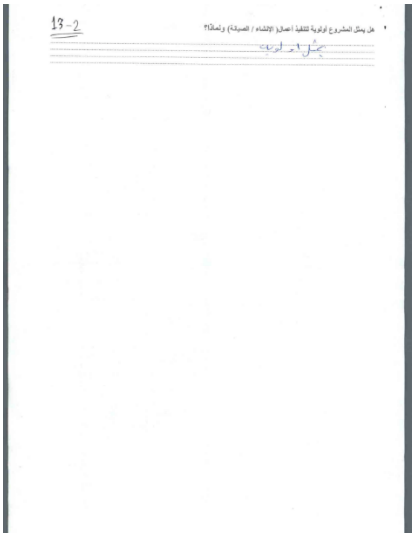


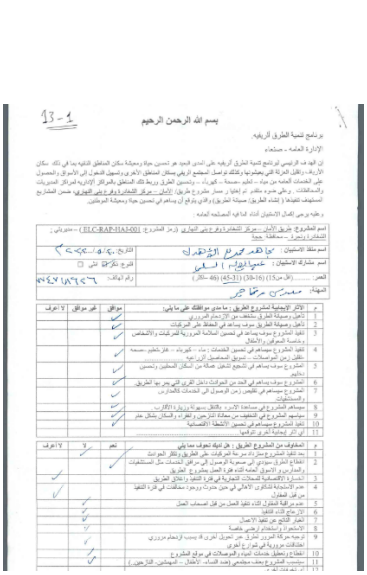


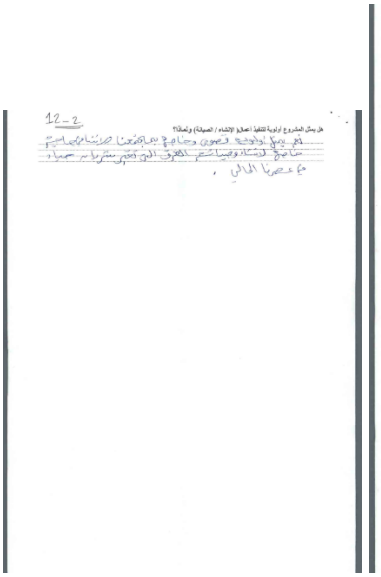


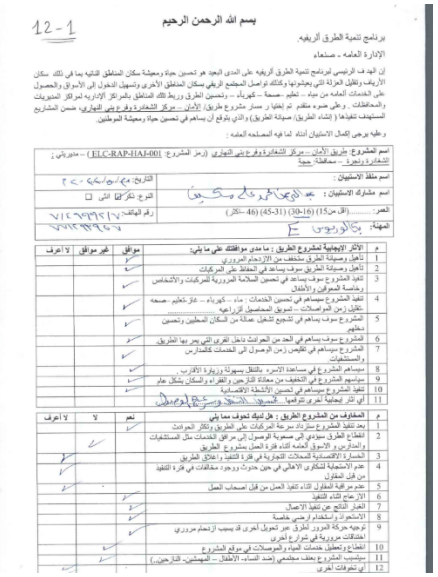


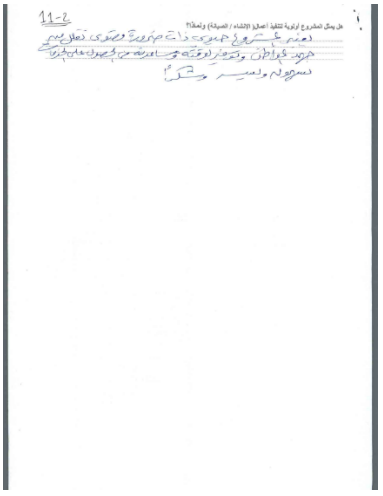


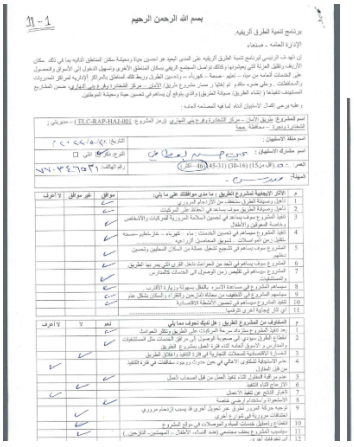


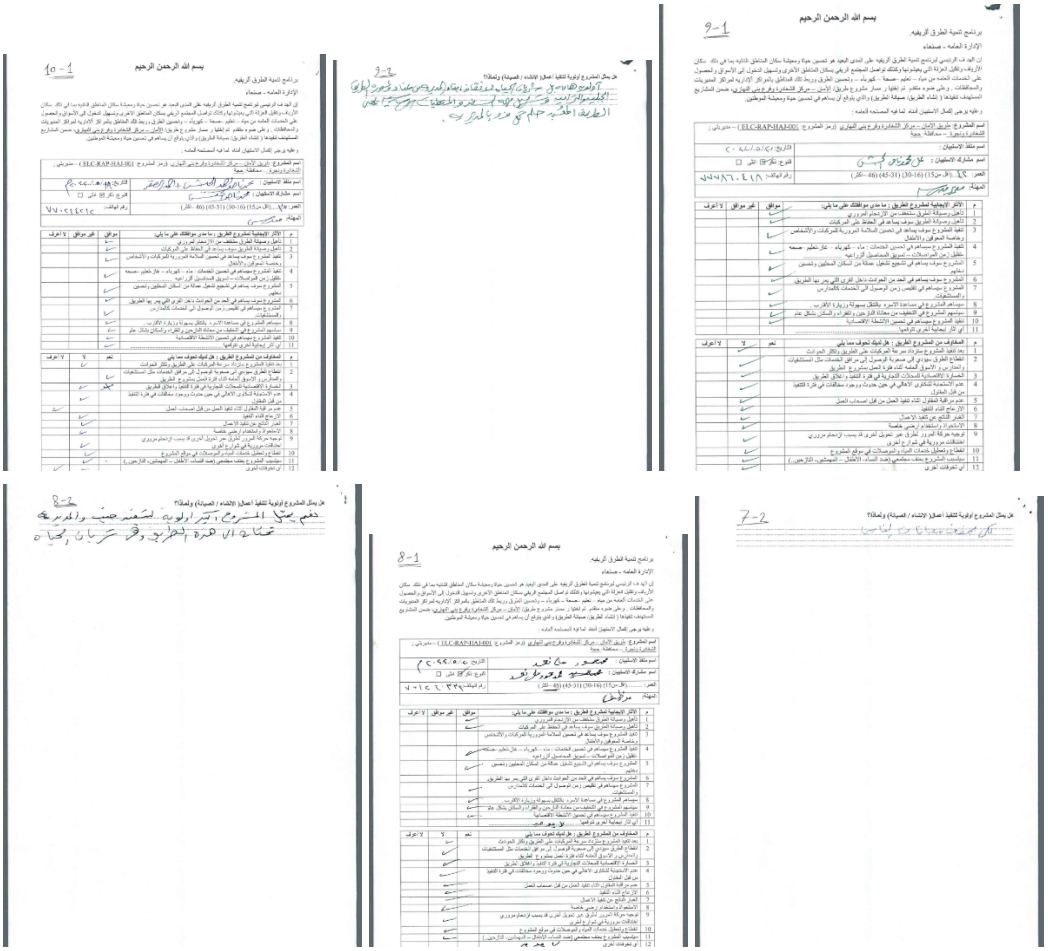


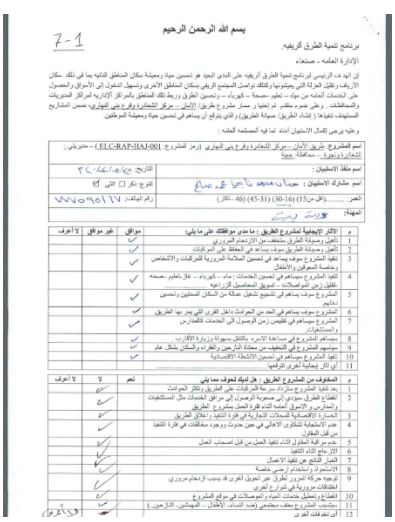


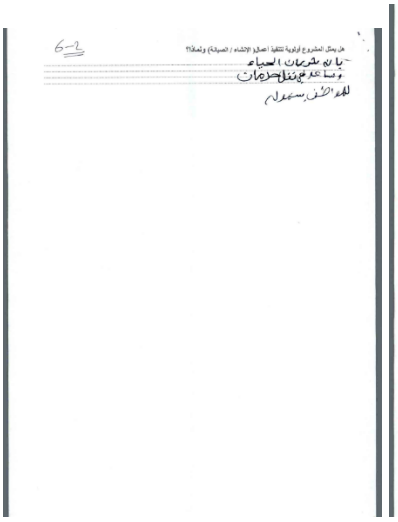


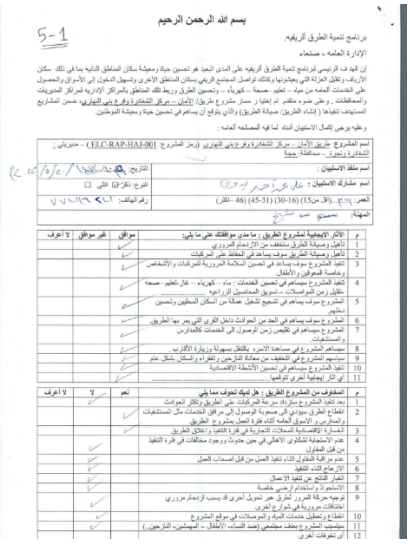












Annex 5 Subproject Photos

Annex 6 Due diligence report

Assessment was conducted to evaluate whether any assets will be affected by the subproject civil work in which all assets found outside the corridor of impact without any potential impact that could be resulted. The entire civil work will be implemented within the existing right of way, public land where there is no cultivation nor fruit trees. The following assets were identified along the road and all assets were out of the corridor of impact; distance from the end of the corridor of impact is added in the below table.

No	Category of asset	Description	Latitude	Longitude	Distance from end of Corridor of impact (meter)
1	structure	Residential house	15.649198	43.521454	2.50
2	structure	Residential house	15.649282	43.521631	2.50
3	structure	Jaradah Village	15.648199	43.522153	2.50
4	structure	Residential house	15.644041	43.520730	5.24
5	structure	Villagers residents	15.639644	43.518212	3.83
6	structure	Villagers residents	15.634066	43.521964	5.85
7	structure	Residential house	15.631400	43.524652	5.75
8	structure	Residential house	15.627645	43.526223	1.00
9	structure	Water tank	15.627294	43.526321	2.80
10	structure	Residential house	15.627179	43.526392	1.00
11	structure	Oil station	15.626777	43.526486	1.50
12	structure	Residential house	15.626602	43.526751	1.00
13	structure	Residential house	15.626171	43.527007	1.00
14	structure	Residential house	15.625885	43.527466	1.00
15	structure	Residential house	15.624686	43.527015	1.00
16	structure	Residential house	15.624129	43.526902	1.00
17	structure	Residential house	15.623769	43.527219	1.00

Annex 7 Relocation activities summary

This annex has been added to clarify the activities stated under the scope of work which includes any relocation activities. All assets that will be relocated are public assets and will be relocated into public lands.

- **Relocation of existing public water pipes**

  This item is related to the transferring of the existing public water pipes so such pipes will not be affected by the movement of equipment or civil work activities. Water pipes will be secured and relocated adjacent to the road side in safe public lands. Existing location of the pipes and its dimensions are available in the below table:

Distance from the start point of the subproject (KM+M)	Length (Meter)	Location

From	To		
2+750[9]	0+455	150	Adjacent to the ditch (within 1 meter)
0+700	0+950	250	Adjacent to the ditch (within 1 meter)
1+450	2+100	550	Adjacent to the ditch (within 1 meter)
4+900	5+000	100	Adjacent to the ditch (within 1 meter)
3+000	3+105	130	Adjacent to the ditch (within 1 meter)
6+200	6+325	125	Adjacent to the ditch (within 1 meter)

- **Relocation of existing public walls**

  This item is about the reinstallation/rebuilding of existing public walls if affected by the civil work or equipment/vehicles movement. Those walls are public and will be rebuilt as required immediately after completing the civil work at the relevant road section in public lands. The walls existing location and its dimensions are available in the below table:

Distance from the start point of the subproject (KM+M)		Length (Meter)	Description	Current location
From	To			
2+725	2+775	50	Re building at same location in case affected by civil works activities	Adjacent to the ditch
0+025	0+040	15	Re building at same location in case affected by civil works activities	At the inner edge of the shoulder
6+300	6+325	25	Re building at same location in case affected by civil works activities	Out of the road shoulder
6+125	6+150	25	Re building at same location in case affected by civil works activities	Out of the road shoulder
5+350	5+375	25	Re building at same location in case affected by civil works activities	At the outer edge of the ditch
4+100	4+125	25	Re building at same location in case affected by civil works activities	Out of the road shoulder
2+140	2+180	40	Re building at same location in case affected by civil works activities	Out of the road shoulder

- **Relocation of existing public electrical poles**

  This item is about the transferring of the existing public electrical poles so such infrastructure will not be affected by the equipment movement or civil work activities. Poles will be secured and relocated by the official authorities in safe public lands away from the equipment movement. Location of such infrastructure and its dimensions are available in the below table:

Distance from the start point of the subproject (KM+M)	Current location
1+750	Adjacent to end of the ditch (within 2 meter) end of the corridor
1+600	Adjacent to end of the ditch (within 2 meter) end of the corridor
9+200	Adjacent to end of the ditch (within 2 meter) end of the corridor

[9] (3+750 equals 3 Km+750 meters) which is representing the point within the road track which is in 3,750 meters distance from the subproject start point, point 0

8+700	Adjacent to end of the ditch (within 2 meter) end of the corridor
6+100	Adjacent to end of the ditch (within 2 meter) end of the corridor

- **Relocation of existing public telephone poles**

  This item is about the transferring of the existing poles so such infrastructure will not be affected by the equipment movement or civil work activities. Poles will be secured and relocated by the official authorities in safe public lands away from the equipment movement. Location of such infrastructure and its dimensions are available in the below table:

Distance from the start point of the subproject (KM+M)	Current location
1+910	Adjacent to end of the ditch, within 2 meter from end of the corridor
1+960	Adjacent to end of the ditch, within 2 meter from end of the corridor
2+875	Adjacent to end of the ditch, within 2 meter from end of the corridor

- **Relocation of public fences**

  This item is about the reinstallation of existing public fences if affected by the civil work or equipment/vehicles movement. Those fences are public and will be reinstalled in public lands as required immediately after completing the civil work at the relevant road section. The current location and its dimensions are available in the below table:

Distance from the start point of the subproject (KM+M)		Length (Meter)	Description	Current location
From	To			
2+190	2+210	20	Re building at same location in case affected by civil works activities	at the inner edge of the shoulder
1+760	1+790	30	Re building at same location in case affected by civil works activities	out of the road shoulder
1+825	1+875	50	Re building at same location in case affected by civil works activities	out of the road shoulder