

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

**Rehabilitation of Al Muares – Al Bageelah Rural Road
Al Hodeidah Governorate**

Environmental and Social Management Plan

14 November 2022

Table of Contents

Summary Sheet	4
1. Introduction	4
2. Subproject description	4
2.1. Institutional arrangements	4
2.2. Location and coordinates	5
2.3. Scope of work	8
3. Environmental and social baseline conditions	10
3.1. Environmental aspects	10
3.2. Socioeconomic aspects	12
4. Environmental and social management at the subproject area	13
4.1. Subproject potential risks and impacts	13
4.2. Environmental and social risks management and monitoring plan	18
5. Stakeholder engagement and information disclosure	30
5.1. Consultation during implementation	31
5.2. Subproject sustainability	31
6. Grievance mechanism	31
7. Reporting of ESMP	33
8. Implementation budget	34
Annex 1 Subproject environmental and social screening form	35
Annex 2 Environmental and social requirements for contractors	37
Annex 3 Subproject photos	49
Annex 4 Public consultation questionnaires	52
Annex 5 Consultation records samples	54
Annex 6 GM Complaint and suggestion form	56
Annex 7 Due diligence report	57
Annex 8 Relocation activities summary	57

Abbreviations

BoQs	Bill of Quantities
C-ESMP	Contractor Environmental and Social Management Plan
cm	centimeter
cu m.	Cubic Meter m ³
EHS	Environmental, Health and Safety
E&S	Environmental and Social
ESF	Environmental and Social Framework
ESHS	Environment, Social , 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
GM	Grievance Mechanism
HSSE	Health, Safety, Social and Environment
km	Kilometer
L.M.	Linear Meter
LMP	Labor Management Procedures
mm	millimeter
OHS	Occupational Health and Safety
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	Al Muares – Al Bageelah Rural Road Rehabilitation
ID Number	ELC-HOD-002
Estimated Cost	
Subproject Location	Al Zuhrah District – Al Hodeidah Governorate
Implementing Partner	RAP
Subproject Proposed Risk	Moderate
Date of the field visits	16 May 2022
Consultation date	16 May 2022, 13 September 2022
Observations/Comments	Indicated below
Signature of ESSO	
Date	

1. Introduction

In December 2021, the World Bank approved Yemen Emergency Lifeline Connectivity Project (YELCP) with objectives to provide climate resilient road access and employment and entrepreneurship opportunities to the food insecure rural population of Yemen. YELCP will be implemented through the United Nations Office for Project Services (UNOPS) in partnership with the Rural Access Program (RAP) as a local implementation partner. The Project will finance the rehabilitation of lifeline rural access roads in selected areas in Yemen to contribute toward addressing road access to food and other humanitarian needs. Al Muares – Al Bageelah rural road is one of the roads that has been selected and will be rehabilitated as part of the YELCP support.

Environmental and Social Management Framework (ESMF) for the YELCP was prepared by the UNOPS to meet the requirements of the World Bank's Environmental and Social Framework (ESF), UNOPS requirements and the national laws and regulations. For YELCP UNOPS has in parallel also prepared the following instruments: (i) a Labor Management Procedures (LMP), (ii) a GBV/SEA/SH Plan, (iii) a Security Management Plan (SMP), (iv) a Resettlement Framework (RF), and (v) a Stakeholder Engagement Plan (SEP).

Subproject screening was performed jointly by the UNOPS and RAP as guided by the YELCP ESMF, screening table is available in annex 1. The risk level of the subproject was identified as moderate as the subproject will be mainly rehabilitation of existing unpaved road, further information on the associated risks is detailed in section 4.1 hereinafter. Accordingly, the current Environmental and Social Management Plan (ESMP) has been prepared based on the guidelines available in the YELCP ESMF section 7.3.2.

2. Subproject description

2.1. Institutional arrangements

The subproject location was selected based on the needs and priorities and in consultation with the relevant stakeholders and authorities.

The implementation period is expected to be 9 months in which UNOPS will carry out tender bidding, bids analyses, signing the contract and the overall management in cooperation with its implementing partner RAP. Onsite supervision of the civil work activities at subproject level will be handled by the RAP in which a dedicated supervision team will be appointed.

The interventions will provide opportunities for small contractors, skilled, semi-skilled and unskilled labor from local communities which will reduce the negative impacts of the recent crisis in the country and will generate positive impacts on the economy, education, and health in the subproject areas.

The Environmental and Social Safeguards Officer (ESSO) within UNOPS will follow the overall implementation of the environmental and social requirements at the project and subprojects level. The RAP has in place ESSO at central level to follow up and report the level of compliance to the environmental and social requirements across all subprojects. RAP will hire and use a resident supervision engineer at the subproject site to monitor the progress and report on Environmental, Social, Health and Safety (ESHS) performance. The contractor shall appoint a qualified safety officer responsible for the follow-up of day-to-day activities and to ensure compliance with the requirements stated in this ESMP. A summary of the ESHS requirements for contractors is available in annex 2 of this ESMP. Moreover, the Contractor Environmental and Social Management Plan (C-ESMP) shall be prepared by the contractor and submitted to RAP/ UNOPS for approval prior to the civil work commencement. C-ESMP shall provide a detailed explanation of how the contractor’s performance will meet the project requirements.

A Community committee will be established from the different stakeholders’ groups 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, RAP, local authorities and contractor.

UNOPS and RAP will provide the required guidance and capacity building for the contractor and community committee in terms of environmental and social safeguard management before commencing the civil work activities at the subproject areas.

Activities under the subproject will be closely followed up and monitored, and the management of environmental and social safeguards will be part of the subproject main agenda that will result in enhancing the capacity of contractors and their workers.

2.2. Location and coordinates

This subproject will be implemented in a rural road in flat lowlands terrain located in Al Hodeidah Governorate, Al Zuhrah District, Al-Sharqi sub-district, 108 km North of Al Hodeidah city (Capital of the governorate). Total length of the targeted road rehabilitation is 8.914km and the whole road track already exists but unpaved and partially ruined. The alignment of the subproject and the whole intervention follows an already existing track, generally 6 meters width.

The expected total number of direct and indirect beneficiaries who will benefit from this subproject are 76,522 inhabitants of which 38,411 are men and 38,111 are women

Table 2 Subproject coordinates

Road Name	Start Point		End Point		Length Meter	Width Meter
	Latitude	Longitude	Latitude	Longitude		
AL Muares – Al Bajeelah rural road	15.653739	43.176100	15.650814	43.102928	8,914	6

Maps available in Figure 1 and 2 include the Yemen Map as well as Al Hodeidah districts.

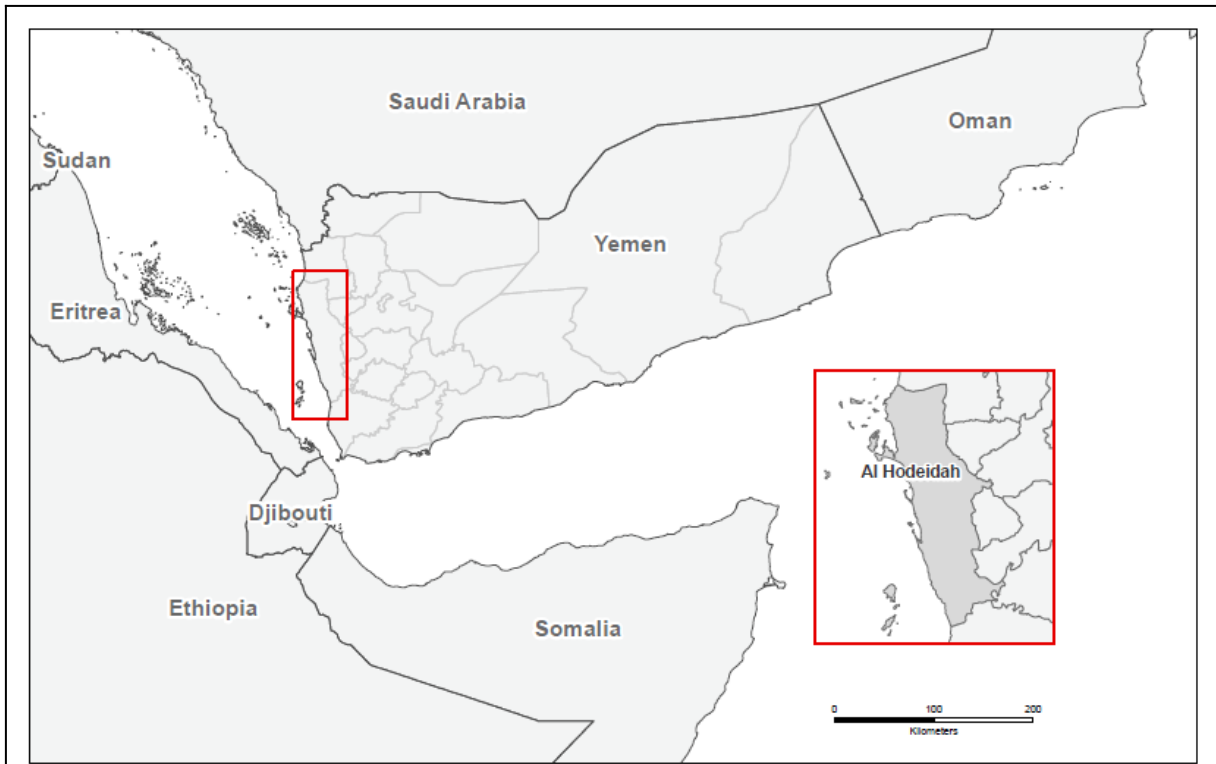


Figure 1 Yemen map

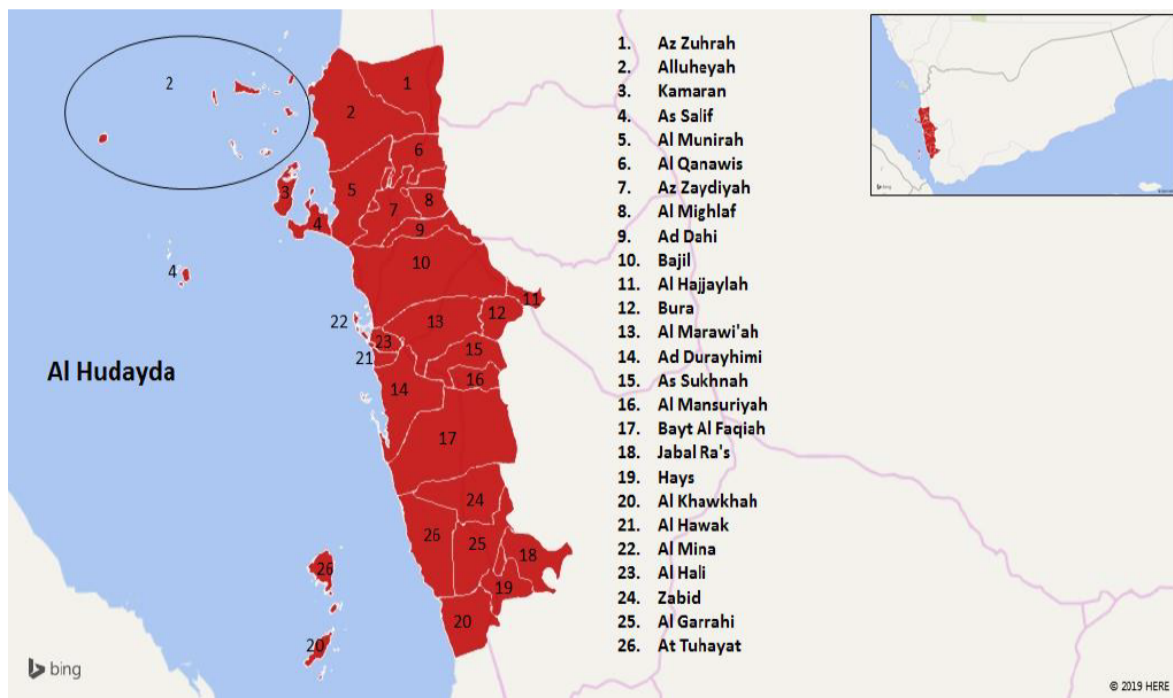


Figure 2¹ Al Hodeidah governorate and its districts

The subproject alignment begins 4 kilometers from Al Khoshm town at the international asphaltic road leading to Hajjah governorate and ends at Al Bajeelah village (high population village). Approximately 15 villages are located in areas close to the road alignment including Al Bagelah, Murdaf Al Abeed, Kadef Abu Harba, Kadef Al Audhbi, Mahel Al Dalalah, Mahel Abd, Mahel Al Salm, Mahel Kemt, Mahel Sareh, Jabel Muktarh, Mahel Duhnah, Mahel Al Saied, Kedauh, and Kedmt Beni

¹ Mapping of Local Governance in Yemen Governorates

Kumietand Al Dhanbe.

In general, the path of the road at all sections consists of backfilling materials in flat terrain. Figures 3 to 6 below provide an overview of the road sections. Road photos with its current condition are available in annex 3.

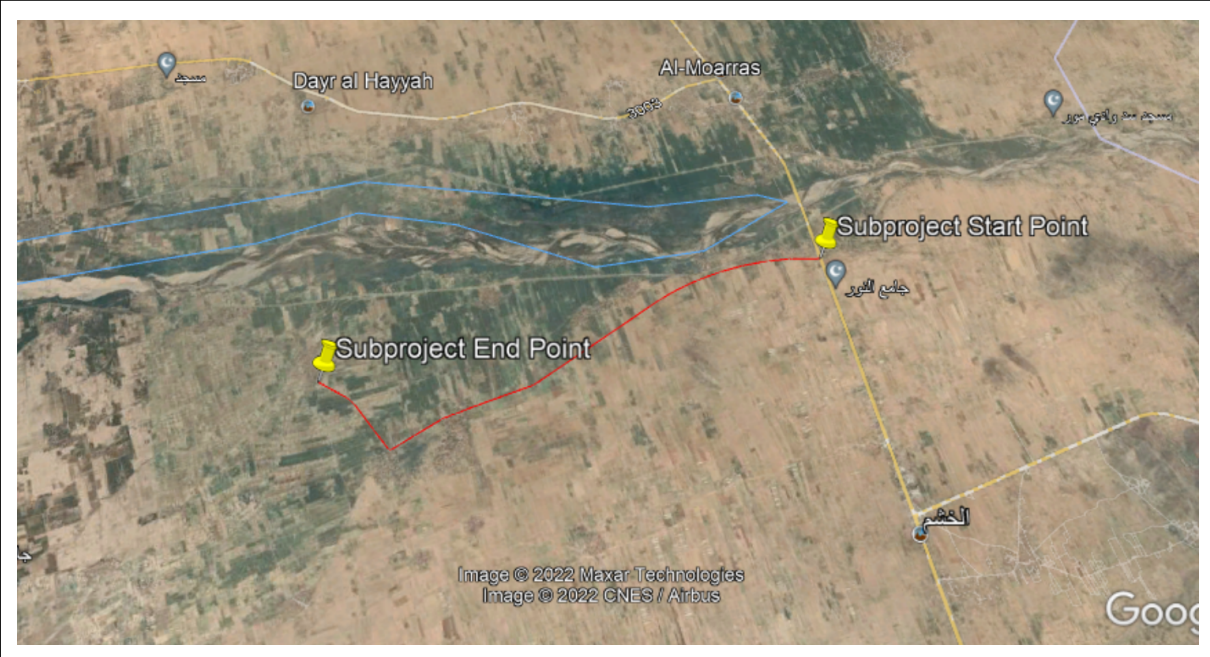


Figure 3 Road track including the start and end points, google map



Figure 4 Road track from 0+000 Km to 3+000 Km, google map



Figure 5 Road track from 3+000 Km to 7+000 Km, google map



Figure 6 Road track from 5+600 Km to end point at Albajeelah village, google map

2.3. Scope of work

The proposed rehabilitation will take place entirely on the existing road alignment at its right of way, public land where there is no cultivation nor fruit trees. The activities under the subproject will include generally earth excavation, fill of borrow materials, subgrade preparation, granular base coarse, bitumen prime coat, asphalt concrete wearing, structural excavation for culverts, Irish crossing and retaining walls, reinforced concrete pipe culverts, Irrigation plastic pipes, concrete mixture, high tensile steel, cyclopean concrete, grouted riprap and stone masonry for retaining walls and culverts and are described entirely with safety and environmental works in the scope of works and Bill of

Quantities (BoQs). The civil work materials will be sourced from authorized quarries located outside of ecologically sensitive zones, archeological zones, conflict zones, and high OHS risk zones, with no child labor employment allowed. Summary of activities under the subproject included hereafter.

2.3.1 Engineer's Facilities²

- Provision of rented site office, housing and accommodation for the Engineer staff for 9 months.
- Provision of 2 vehicles for the Engineer staff including operation cost 9 months.
- Provision of rented laboratory equipment for the Engineer staff including Operation cost 9 months.
- Provision of rented Survey Equipment for the Engineer staff including Operation cost 9 months.

2.3.2 Excavation Works³

- Roadway common excavation 51.25 Cu. m.
- Fill of suitable material from common excavation and/or rock excavation within all haulage distance 10,600 cu. m.

2.3.3 Earthworks

- Disposal of surplus and/or unsuitable excavated material outside the right of way to the locations approved by the engineer 89 Cu.m.
- Remove vegetation and invasive weeds and plants out of road alignment and fill back with common soil as required 16,000 Sq. m.
- Subgrade preparation to the design limits specified on the drawings 14,260 Sq. m.
- Shoulder preparation using screened materials 17,830 Sq.m

2.3.4 Pavement and Shoulders

- Granular Base Course Layer 150 mm thickness 11,600 Cu. m.
- Provision and spray Bituminous Prime Coat, as per Specification 57,275 Sq. m.
- Provision and lay Asphalt Concrete Wearing Course 40 mm thickness 2,150 Cu. m.

2.3.5 Structural Works

- Structural Excavation 25-150cm for Culverts, Retaining Walls, Irish Crossings 2,530Cu. m.
- Cyclopean Concrete Class 210/20 (Culvert / Retaining Walls Beds, barriers, Paving) 142 Cu. m.
- Grouted Riprap 25 cm thick (Irish Crossing, roadside ditches, slope protection and culvert inlet & outlet) 7,995 Sq.m.
- Stone Masonry Dressed Coursed with Mortar for Retaining Walls, Culverts, and Safety Barriers 595 Cu. m.
- Boulder Masonry for Retaining Walls, Culverts, Safety Barriers 263 Cu. m.

2.3.6 Safety Works

- Project Name Board with their support, fittings and concrete foundation) (1 No).
- Small Signs (not exceeding 1 Sq.m. area) with their signal posts 24 No.
- Thermoplastic, reflectorized paint for Pavement Marking of 10 cm (23,175 L.m).
- Relocation of public assets into public lands⁴:
 - o Existing walls 235 L.m.
 - o Relocation of existing fences 170 L.m.
 - o Relocation of drinking water pipeline 300 L.m.

² 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 a limited number of personnel and to be provided with the proper sanitation premises.

³ Excavation works in the road vary from section to section based on the road condition and the necessary alignment, maximum excavation depth is 80 cm.

⁴All assets (walls, fences, poles and pipes) that require relocation are public and will be relocated into public lands. Further details available in annex 8

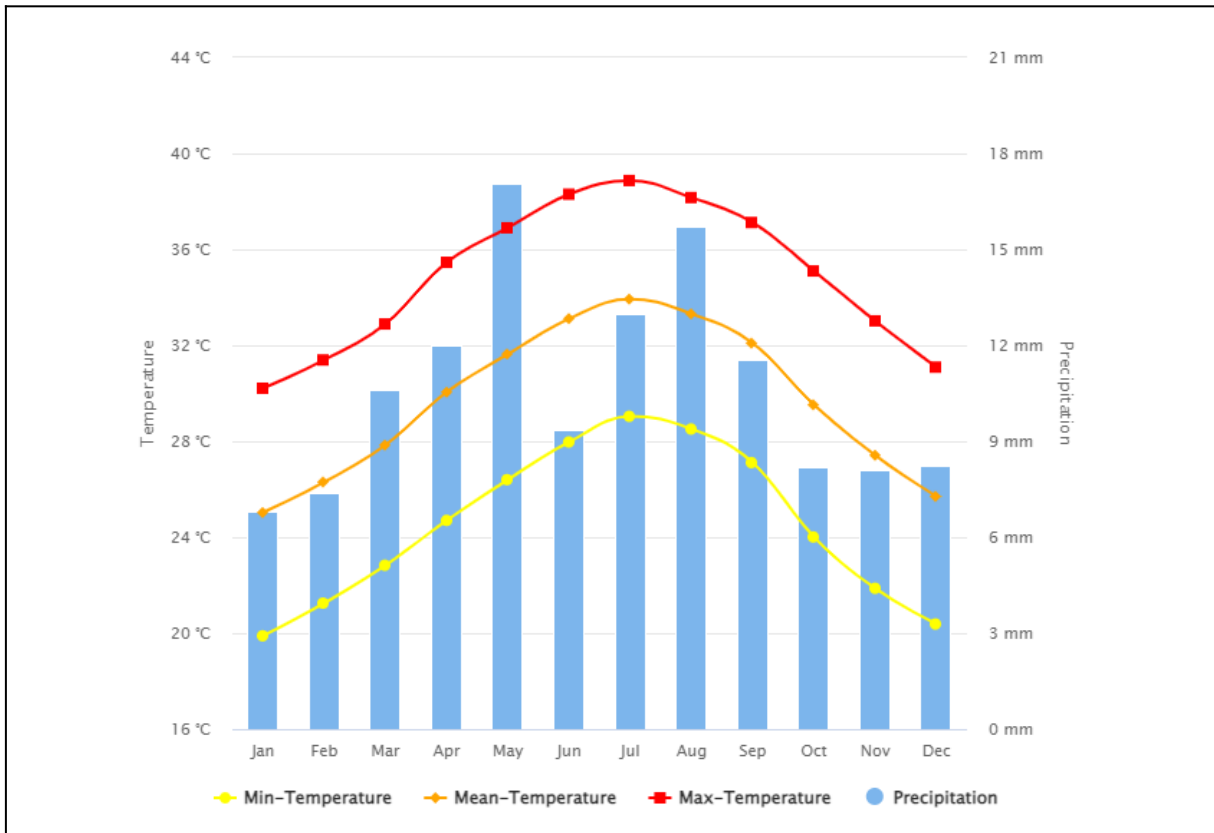
2.3.7 Environmental Works

- Reinforced Concrete Pipe Culvert 100 cm diameter including plain concrete for cradle & sand for fill 203 L.m.
- Reinforced Concrete Pipe Culvert 90 cm diameter including plain concrete for cradle & sand for fill as per typical drawings 424 L.m
- Irrigation Pipes⁵ 300 mm diameter including excavation and filling 118 L.m.
- Irrigation Pipes 10 mm diameter including excavation and filling 180 L.m.
- Stone Masonry Dressed Coursed with Mortar, which serves as safety barriers at the road curves 60 Cu.m.

3. Environmental and social baseline conditions

3.1. Environmental aspects

Al-Hodeidah Governorate is located in the far west of the Republic of Yemen along the Red Sea coast. It is 226 kilometers west of the capital city of Sana’a. The governorate is divided into 26 districts, and the city of Al-Hodeidah is the governorate’s capital. Al-Hodeidah port, alongside Aden port, is one of the main commercial ports of the country. Al-Hodeidah Governorate is characterized by its flat sandy terrain and its hot climate specifically in the period April-August as well as its high humidity of 70-85%. Its elevation ranges between 5-135 meters above Mean Sea Level. Al Hodeidah governorate has a semi-arid climate, characterized by cold nights and hot days where the yearly evapotranspiration is higher than the yearly precipitation.⁶



⁵ 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.

⁶ Yemen National Information Center

Figure 7⁷ Al Hodeidah Governorate Monthly Climatology of Min-Temperature, Mean-Temperature, Max Temperature & Precipitation 1991-2020

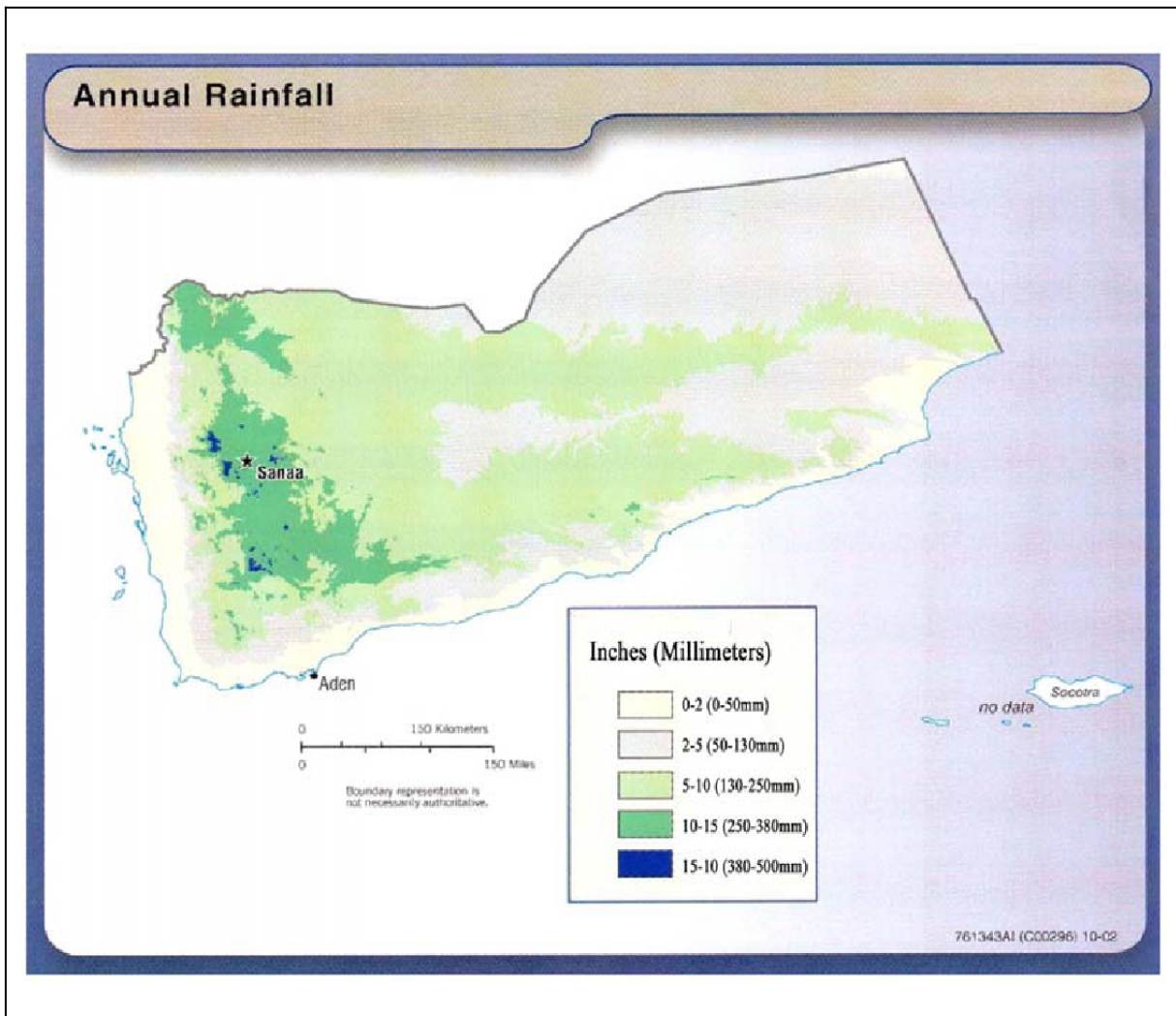


Figure 8⁸ Annual rainfall ranges in Yemen in which the subproject is located in 0-50 mm range

Agriculture constitutes the main economic activity in the Governorate of Al-Hodeidah. The governorate is the largest agricultural producer in the country, accounting for 28.6% of total agricultural production. The most important crops produced in Al-Hodeidah are vegetables, fruits, and fodder.

Agriculture dominates land use in the targeted road area. Ranching is also common in that area. The majority of the road surrounding areas, on the other hand, are dominated by rainfall agriculture. Maize, melon, and tobacco are among the crops farmed.

The agricultural season in Al Hodeidah Governorate lasts around 110 days and agricultural activities are dependent on seasonal rainfall and irrigation from wells.

Water harvesting enables farmers to supplement rainfall with runoff water gathered from uncultivated areas, wadis and roadways and conveyed to cultivated lands. Several systems could be used as water harvesting systems in the area including irrigation from groundwater for agriculture purposes

⁷ [Yemen, Rep. - Climatology | Climate Change Knowledge Portal \(worldbank.org\)](http://www.worldbank.org)

⁸ Yemen Annual Rainfall Map

During the site visit, the observed fauna and flora are not those of particular interest and there are no protected or endangered species in the subproject areas.

In general, there is a lack of air quality data in Yemen however high levels of dust covering all the vegetation along the road was noticed during the site visit.

Noise is seen as a minor concern in Yemen, the concept of noise pollution is not readily recognized, and the potential adverse impacts on health are not generally understood. 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 where there is no major traffic nor economical activities.

3.2. Socioeconomic aspects

Ministry of Public Works and Highways 2013 appraisal report indicates that there are around 2,200 km of roads in Al Hodeidah of which around 1,159 km are asphalted, and the rest are gravel topped or earthen roads. Some residential units in the subproject area do not have any access to a transport network.

On 2 October 2022, the UN-mediated truce in Yemen came to an end despite the efforts made to reach an extension agreement. The overall security condition within the country remains stable without any conflict escalation post the truce end. The truce had first come into effect on 2 April 2022 and was renewed twice for two-month periods, in June and August. Among other things, it provided for a halt to offensive military operations. Overall, the six months of truce brought several tangible benefits to the Yemeni population, including improved access to humanitarian aid, greater economic opportunities, and a significant reduction in violence and casualties countrywide. The security situation in the subproject area is stable where there were no active conflict areas.

The targeted road is suffering from bumpy and unpaved areas with risky characteristics during the rainy and windy weather. This situation makes the movement of cars restricted resulting in difficulties for people to access services such as hospitals, schools, and markets; 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.

The rate of unemployment in the subproject area is high and the majority of the locals are working in agriculture and herding livestock with a minority working in the governmental sector. No developed markets nor shops are located in the area, and the establishment of commercial activities could improve the residents' economic condition.

The subproject will be implemented within the existing unpaved road and there is no record of any archaeological or historical sites in the subproject area.

According to the 2014 Households Budget Survey, 58.1% of residents of Al Hodeidah governorate were under the poverty threshold. This rate has dramatically increased during the past few years as a result of the war and current estimates suggest that the poverty rate may well have reached 80-90% in the governorate.

Table 3 Population and Settlements of Al Hodeidah Governorate and Alzuhrah district⁹

	2022 Estimation			
	Male	Female	Total	Area KM ²
Al Hodeidah	1,880,000	1,774,000	3,654,000	17,504
Alzuhrah District	121,179	115,598	236,777	776

⁹ Population estimation; Yemen Central Statistical Organization CSO based on 2004 census.

4. Environmental and social management at the subproject area

4.1. Subproject potential risks and impacts

The subproject implementation will result in significant improvement for the communities. Such positive impacts include an improved condition of the targeted road 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. The risk level of this subproject is estimated to be moderate, which requires preparation of ESMP as the activities will mainly be rehabilitation of existing unpaved road in the existing right of way.

Site specific impacts may be triggered include noise, dust generation, 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.

RAP and UNOPS will carry out monitoring and inspection on a daily, weekly and monthly basis to ensure full compliance particularly to OHS measures. The subproject has established an appropriate quality management system to minimize risks and impacts on community and safety. RAP coordinates closely with local authorities and plans to establish a community committee, which will be formed prior to civil work activities commencement, to facilitate implementation and enhance coordination at all levels. The community committee will have a role in the monitoring of project progress and will help ensure E&S compliance in coordination with UNOPS and RAP.

Section 4.2 and annex 2 hereinafter provide further details on the mitigation and prevention measures that need to take place during the subproject implementation as well the monitoring arrangements. The ESMP requirements will be included in the subproject tendering and contracting documents. The contractor shall prepare his own C-ESMP that reflects the environmental and social requirements including those stated in this ESMP. The C-ESMP shall be reviewed and approved by RAP/UNOPS prior commencing any activities at the subproject areas. Moreover, the contractor shall sign the UN/UNOPS Code of Conduct as part of the contracting process while the workers involved in subproject implementation shall be aware of and sign the personnel CoC that is available within the annex 2 hereinafter.

An assessment was conducted to evaluate whether any assets will be affected by the subproject civil work but all assets were found outside the corridor of impact. Further details on the assessment results are available in annex 7.

UNOPS has established a Grievance Mechanism (GM) system under the YELCP to enable beneficiaries to communicate their concerns regarding the project activities, further details are available in section 6. The Contractor shall put in place a Grievance Mechanism for workers that is proportionate to its workforce, further details are available in annex 2. Any GBV complaints will follow a dedicated protocole.

Potential risks and impacts have been communicated to the communities at the subproject level during the site visits. Required mitigation measures, GM channels and system have been also detailed to the interviewees. Consultation details are available in section 5 of this ESMP.

4.1.1 Labor management

While a substantial number of jobs will be created through the subproject lifetime, it is not expected that labor influx will be experienced as the majority of the workers required for the subproject implementation will be sourced from local communities.

The subproject is expected to provide approximately 12,827 labor days over the course of its life cycle, with 3,366 labor days by skilled workers, 5317 labor days by semi-skilled workers and 4,144 labor days by unskilled workers for which the contractor is accountable. Estimated maximum number

of workers who will be sourced from the surrounding cities and governorates is 10 to 15, will be working in intermittent periods, in which such workers will be provided with the necessary accommodation by the contractor.

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 that is proportionate to its workforce. Contractor GM system shall be communicated to all workers with a transparent mechanism for resolving complaints in addition to ensuring confidentiality. Further details on the workers GM requirements are available in annex 2 hereinafter. The Project level Grievance Mechanism, detailed in section 6, can be used by workers if the contractor does not respond to their complaint, or if the contractor's response is not satisfactory. Further details on the labor related issues can be found in the YELCP LMP.

4.1.2 Occupational health and safety

Workers involved in the subproject might be affected by the civil work activities. Hazards associated with the subproject include manual handling, exposure to noise/dust/hazardous substances, slip, trip and fall. Additional hazards are associated with vehicles/equipment movements, work on powered systems, work in quarries, work at height and excavation activities. Workers might not be provided with adequate work/rest areas and might be exposed to extreme weather conditions or biological hazards. Worker's injuries might result from the subproject activities, however with appropriate management of the working area, adequate selection of workers, close supervision and appropriate management of emergencies the risk level will be significantly managed.

The contractor shall maintain occupational health and safety system in the site to protect workers from associated hazards and provide adequate training, close supervision, required PPE, first aid kits, potable drinking water, appropriate rest hours, 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 or the waste shall be transported to authorized sewage system if the backfilling option is not feasible.

The contractor shall provide the workers with the necessary PPE that is reliable and appropriate to the risk level and implemented tasks. Worker's training and toolbox talks shall be conducted by the contractor on a regular basis in which the associated risks and impacts need to be clearly and frequently communicated with focus on the importance of compliance with PPE requirements. Adequate emergency management system shall be arranged by the contractor in the working area with provision of insurance to all workers following the Yemen labor law.

This subproject, like other sectors, will be under the risks of Covid-19 pandemic. The precautionary measures against it shall be strictly applied in the subproject worksites and workers' accommodation place during implementation. The contractor shall protect the workers from any risk that may be encountered during the implementation including exposure to the COVID-19 virus.

4.1.3 Noise and air quality

The activities implemented as part of the road rehabilitation will potentially have a noise impact on the laborers and community members. This could be the result of civil work, equipment movement, but the impact and magnitude are expected to be low and largely contained within the civil work area.

To reduce the impacts of noise on the workers involved in subproject implementation, the contractor shall ensure the integrity of provided tools (adequate selection of equipment), implement

engineering control to reduce noise level in addition to provide workers with ear protection equipment where needed. Strict supervision from the contractor side as well as the supervision engineer is required to ensure compliance. Time and work duration of noise generation activities shall be reduced to the minimum, to limit human exposure.

Potential impacts on air quality might be caused by the generated dust resulting from different site activities such as excavation, civil work, cleaning, building, transportation, road paving ... etc. Volatile components might be emitted and cause irritation to the eye and respiratory system of the workers. Such impacts are expected to be limited to low magnitude and effect if the necessary precautionary measures are well implemented and monitored.

Therefore, the mitigation measures required to avoid impacts on air quality are to reduce the dust generation during civil work by spraying water in addition to installing barriers around the civil work to avoid any emissions to the occupied areas. Additionally, provision of the necessary Personal Protective Equipment PPE to the workers with enforcement of compliance as well as regularly conducting the appropriate training and supervision.

The generation of Greenhouse Gasses emission from the fuel combustion and the other volatile organic compounds are expected to be low with neglected impacts. Meanwhile, the contractor shall provide low fuel consumption equipment and ensure integrity by performing the regular inspection or maintenance for the fuel driven engines. Usage of renewable energy supply sources is recommended and to be implemented by the contractor where feasible. Usage of environmentally friendly and low hazardous effect substances is required for all subproject activities and shall be strictly implemented by the contractors.

Air quality at the subproject areas will be visually assessed and monitored through evaluation of the emitted dust, particulate matters and the affected areas by the supervision engineer as well as the contractor safety officer.

4.1.4 Water, biological resources and landscaping

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 will be negligible.

There will be no resettlement or displacement during the rehabilitation work, 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. An assessment was conducted to evaluate whether any assets will be affected by the subproject civil work, but all assets were found outside the corridor of impact and would likely not be impacted. Further details on the assessment results are available in annex 7.

4.1.5 Waste generation

Generated rehabilitation waste will be limited to the sand and stones that will be deposited at external waste management facilities represented by the public landfill in the governorate. Waste from the project activities, vehicles or equipment repair shall be deposited in the designated areas and waste shall not be disposed of in any of the subproject areas.

Guidelines for the contractor on the handling, transportation and disposal of various waste types are available in section 4.2 as well as annex 1 hereinafter. Close coordination shall take place by the contractor with the local authorities in order to transport, treat and dispose safely the various waste types.

4.1.6 Community health and safety

The subproject will contribute to improving living standards, facilitate access to services, reduce the travel times and create additional job opportunities that will improve the overall economic condition in the area. The interventions will generate positive impacts on the livelihoods of the beneficiaries

and the environment. During public consultations at all levels, RAP and UNOPS investigated whether the subproject is a priority, free of conflict, or had significant negative effects during the implementation. It was concluded that the subproject is an urgent priority for the community and beneficiaries and it is completely supported by various stakeholders and all consulted individuals 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.

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.

On the other hand, some temporary negative impacts might be resulting from the implemented activities such as dust, noise, vehicle movements and disturbing the services across the road and potentially can affect the health and safety of communities. Movement restriction in some areas might result as well and there will be a need for alternative routes provision. Therefore, all work areas shall be controlled, provided with physical barriers, sufficient lighting during the night, and clear signs / instructions to avoid any unauthorized entry or any traffic incidents. Additionally, the stakeholder engagement activities cover such issues with the communities on a regular basis. The project GM system is already established and communicated to ensure that community members can raise any concerns related to the implementation of the subproject.

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, banksman or lights as appropriate in coordination with traffic officers and according to the work and traffic plan included in the contractor (C-ESMP). Moreover, there will be an action plan which will include arrangements for each section that should be prepared by the contractor in consultation with RAP, local authorities, community committee and beneficiaries. The contractor will not start any rehabilitation activities until the required plans are agreed by the various stakeholders and approved by RAP. The action plan shall include among other aspects the traffic safety and control measures, workers access, civil work equipment access, safe pedestrian pathways, alternative routes, physical barriers and other measures as needed. Additional precautions shall be taken during the subproject implementation at areas close to the buildings and services in consultation with household owners, authorities and affected parties in which the priority will be the safety of local communities.

The community committee that is planned to be formed before the civil works commencement will work to ensure and confirm community participation and help in facilitating implementation. The committee will be formed from local councils, utilities, representatives of youth and women. The key duty of such a committee is to ensure smooth implementation and sustainability of the subproject after the completion. The committee will play a role in monitoring subproject progress, contractors' compliance and will participate in resolving any issues that may arise.

4.1.7 Gender-Based Violence GBV and Sexual Exploitation and Abuse SEA, Sexual Harrassment

Although with low magnitude and occurrence probability due to the cultural aspects in the country, UNOPS has already taken the following steps in regards the GBV/SEA/SH issues which will be maintained during the subproject implementation:

- During the stakeholder engagement activities, the project GBV SEA/SH action plan has been discussed. Although the consultation meetings targeted both males and females, more attention has been paid to females' participants. The consultations highlighted how the GBV GMs is intended to be secure, and confidential with a focus on a survivor-centered approach..
- UNOPS has developed visibility materials to promote awareness for SEA/SH in local language (Arabic) the materials and messages used are adapted to be suitable for the Yemen context

and sensitivity of the subject.

- GM focal point received specialized training about SEA/SH cases and the way to deal with it using Victim centered approach
- UNOPS has in place protocol for GM in how to deal with SEA/SH cases.
- UNOPS has conducted refresh sessions for Project Personnel in GBV/SEA/SH and trained retainers' sites engineers as well
- 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.
- 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 limited knowledge and capacity. Hence, UNOPS developed an action plan template for contractors, which covers key 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 the project life cycle.

4.2. Environmental and social risks management and monitoring 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 as well as requiring contractors to comply with the applicable rules and guidelines. The 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:

Prevention and Mitigation Measures	Monitoring Parameters	Measures Responsibility	
		Implementation	Monitoring
1. Occupational Health and Safety			
1.1. Work related accidents and injuries			
<ul style="list-style-type: none"> - 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. - Conduct occupational health and safety training to all subproject workers. - 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. Records of inspections shall be maintained by the contractor. - 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. 	<ul style="list-style-type: none"> - 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 implemented onsite and followed by regular monitoring visits. <p style="text-align: center;">Indicators</p> <ul style="list-style-type: none"> - Number of reported incidents - Occupational health and safety training records - Documents for insurance coverage of workers - Number of fatalities, number of injuries - Number of workers not adhering to wearing PPE - Number of injured workers due to not 	Contractor	Contractor (Daily), RAP (Daily) UNOPS and TPM (Frequent)

Prevention and Mitigation Measures	Monitoring Parameters	Measures Responsibility	
		Implementation	Monitoring
<ul style="list-style-type: none"> - 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. 	<ul style="list-style-type: none"> adhering to PPE - PPE availability and distribution records - Workers grievances 		
1.2. Workers exposure to hazardous substances such as fuel, lubricating oil, bitumen, paints and chemicals			
<ul style="list-style-type: none"> - Workers shall be trained on the hazardous materials and wastes handling procedure. - Hazardous substances shall be stored properly in dedicated areas following the Material Safety Data Sheets (MSDSs) as well as the national and international guidelines. - Ensure availability of fire extinguishers and the workers need to be trained on 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 secured areas, inaccessible to the public. 	<ul style="list-style-type: none"> - Inspection and photographic documentation - Maintaining a record of injuries and accidents specifying cause and location. <p style="text-align: center;"><u>Indicators</u></p> <ul style="list-style-type: none"> - Number of reported incidents - Training records on the handling of hazardous materials and wastes - MSDS availability - Workers grievances 	Contractor	Contractor (Daily), RAP (Daily) UNOPS and TPM (Frequent)
1.3. Poor onsite sanitation or water supply, leading to illness and disease			
<ul style="list-style-type: none"> - 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, covered and waste is disposed of in an authorized area. - Provision of potable drinking water through distributing drinking water containers/ 	<ul style="list-style-type: none"> - Site inspection <p style="text-align: center;"><u>Indicators</u></p> <ul style="list-style-type: none"> - Number of recorded complaints - Number of reported incidents - Presence of pests in latrines and project site 	Contractor	Contractor (Daily), RAP (Daily) UNOPS and TPM (Frequent)

Prevention and Mitigation Measures	Monitoring Parameters	Measures Responsibility	
		Implementation	Monitoring
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.			
1.4. Risk of manual handling			
- Avoid manual handling activities to the extent possible. - 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)	- Inspection and photographic documentation - Maintaining a record of injuries and accidents specifying cause and location. - Number and type of injuries recorded - Workers grievances	Contractor	Contractor (Daily), RAP (Daily) UNOPS and TPM (Frequent)
1.5. 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.	- Visual inspection and health inspections <u>Indicators:</u> - Number of infected workers - Number of workers adhering to wearing PPEs	Contractor	Contractor (Daily), RAP (Daily) UNOPS and TPM (Frequent)
1.6. Working at quarries and transporting stones			
The contractor is not expected to develop his own queries and shall rely on the existing quarries to source civil works materials. Required mitigation for working in quarries or stones transportation are: - 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 to UNOPS any serious workplace accident or incident within 24 hours.	- Inspection and photographic documentation - Maintaining a record of injuries and accidents specifying cause and location. <u>Indicators</u> - Number and type of injuries recorded	Contractor	Contractor (Daily), RAP (Daily) UNOPS and TPM (Frequent)

Prevention and Mitigation Measures	Monitoring Parameters	Measures Responsibility	
		Implementation	Monitoring
<ul style="list-style-type: none"> - 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 - Ensure that the quarries are safe and construct barriers to protect workers from falling with no child labor allowed. - 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. - 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 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 weather impact and provide drinking water. 	<ul style="list-style-type: none"> - Workers grievances 		
1.7. Risk of electrical shock			
<ul style="list-style-type: none"> - 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. 	<ul style="list-style-type: none"> - Visual observation and photographic documentation of equipment including the connections - Condition of the electrical equipment - Number of related incidents/failures 	Contractor	Contractor (Daily), RAP (Daily) UNOPS and TPM (Frequent)

Prevention and Mitigation Measures	Monitoring Parameters	Measures Responsibility	
		Implementation	Monitoring
2. General environmental impacts			
2.1. Dust generation during rehabilitation work, excavation, backfilling, and compaction of the pavement layers. Air pollution due to emissions from machinery and vehicles			
<ul style="list-style-type: none"> - 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 graywater 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 rehabilitation 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. 	<ul style="list-style-type: none"> - Visual observation and photographic documentation of equipment induced dust clouds during rehabilitation activities <p>Indicators:</p> <ul style="list-style-type: none"> - Visual presence of dust clouds - Quantity of consumed fuel - 	Contractor	Contractor (Daily), RAP (Daily) UNOPS and TPM (Frequent)
2.2. Increased levels of noise and vibration due to heavy vehicles and equipment, which may be a nuisance to the community around the rehabilitation areas			
<ul style="list-style-type: none"> - 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. 	<ul style="list-style-type: none"> - Site supervision/inspection and documentation to ensure compliance with the noise mitigation measures <p>Indicators:</p> <ul style="list-style-type: none"> - Number of complaints concerning noise 	Contractor	Contractor (Daily), RAP (Daily) UNOPS and TPM (Frequent)

Prevention and Mitigation Measures	Monitoring Parameters	Measures Responsibility	
		Implementation	Monitoring
2.3. Disruption of environment by borrow pits and quarries			
<ul style="list-style-type: none"> - 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. - Locate 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. 	<ul style="list-style-type: none"> - Site supervision/inspection and documentation to ensure compliance 	Contractor	Contractor (Daily), RAP (Daily) UNOPS and TPM (Frequent)
2.4. Leakage of vehicles lubricants and oil in worksites			
<ul style="list-style-type: none"> - Avoid any leakage of oil in the worksite. - Refueling vehicles or changing lubricants will be done at allocated locations only. - 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. 	<ul style="list-style-type: none"> - Visual observation and photographic documentation of equipment and soil leaks (detected through changes in soil color). <p>Indicators:</p> <ul style="list-style-type: none"> - Presence of spills - Change in soil color 	Contractor	Contractor (Daily), RAP (Daily) UNOPS and TPM (Frequent)
2.5. Soil/ groundwater/ runoff contamination			
<ul style="list-style-type: none"> - 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 	<ul style="list-style-type: none"> - Inspection and photographic documentation. - Photographic detection of changes in soil color at particular sites. - Presence of waste stored near runoffs 	Contractor	Contractor (Daily), RAP (Daily) UNOPS

Prevention and Mitigation Measures	Monitoring Parameters	Measures Responsibility	
		Implementation	Monitoring
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 - 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.	or at undesignated areas		and TPM (Frequent)
2.6. Blockage of culverts, drainage ditches, stormwater catchment basin and channels			
- Clean and maintain drainage structures. - Provide adequate drainage works.		Contractor	
2.7. Waterlogging 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 waste to be stored in drainage areas	- Site inspection and photographic documentation of cleaning activities Indicators: - Presence of materials and waste within culverts	Contractor	Contractor (Daily), RAP (Daily) UNOPS and TPM (Frequent)
2.8. Low aesthetic value of landscape such as accumulation of waste and debris in the rehabilitation site and damaged curbs and tiles.			
- Replant damaged and dry trees with native non-invasive trees, available in local nurseries at subproject areas. - Remove the accumulated waste and debris in the work site - Reconstruct damaged curbs, and tiles. - Rehabilitated sites must be cleaned when work is completed.	- Site inspection and documentation of general landscape <u>Indicators:</u> - Presence of waste in undesignated zones - Number of complaints related to aesthetic value	Contractor	Contractor (Daily), RAP (Daily) UNOPS and TPM (Frequent)
2.9. Production and disposal of rehabilitation work's debris and waste materials			

Prevention and Mitigation Measures	Monitoring Parameters	Measures Responsibility	
		Implementation	Monitoring
<p>Loading:</p> <ul style="list-style-type: none"> - 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 waste should be stored in designated zones and away from drains and runoff zones. - Hazardous waste should be handled and stored and disposed of according to their MSDSs. Storage of hazardous waste should be at designated sites and at well insulated zones, away from runoff/ drains - The contractor should immediately remove waste 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	Contractor (Daily), RAP (Daily) UNOPS and TPM (Frequent)
<p>Transportation:</p> <ul style="list-style-type: none"> - 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. 	<ul style="list-style-type: none"> - Site inspection and photographic - Level of cleanliness in the site - Documentation of the waste management and streams 		
<p>Final Disposal:</p> <ul style="list-style-type: none"> - Properly dispose of solid waste at designated sites, landfill allocated by the local authorities and cleaning funds; and provide where feasible the receipt of waste from the relevant landfill authorities to the site engineer. 			
<p>3. Social Impact</p> <p>3.1. Temporary disruption of traffic and congestion due to road closure and detours</p>			
<ul style="list-style-type: none"> - 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. 	<ul style="list-style-type: none"> - Site inspection and documentation of community economic activities nearby site. - Visual observation and photographic documentation of 	Contractor	Contractor (Daily), RAP (Daily) UNOPS and TPM (Frequent)

Prevention and Mitigation Measures	Monitoring Parameters	Measures Responsibility	
		Implementation	Monitoring
<ul style="list-style-type: none"> - 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 and RAP. - The contractor should not start any rehabilitation activities before the installation of traffic safety and control safeguards. 	traffic management plan Indicators: <ul style="list-style-type: none"> - Number of reported complaints 		
3.2. Temporary disruption of obtaining water and electricity during the relocation of water pipes and electrical poles			
<ul style="list-style-type: none"> - Informing local community members 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. 	Site inspection and documentation	Contractor	Contractor (Daily), RAP (Daily) UNOPS and TPM (Frequent)
3.3. Temporary disruption of the construction machinery noise during the construction phase			
<ul style="list-style-type: none"> - Working at night is not allowed. - 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 machinery maintained, inspected and in good condition - Install exhaust silencing equipment on bulldozers, compactors, cranes, dump trucks, excavators, graders, loaders, scrapers and shovels. 	<ul style="list-style-type: none"> - Visual observation and photographic documentation of safety measures. - Meeting with communities - Visual observation for installing warning signs, barricading of working areas with safety tapes and fencing/barricades to prevent unauthorized access of public and pedestrians to the working areas. Indicators: <ul style="list-style-type: none"> - Number of recorded complaints - Number of reported incidents 	Contractor	Contractor (Daily), RAP (Daily) UNOPS and TPM (Frequent)

Prevention and Mitigation Measures	Monitoring Parameters	Measures Responsibility	
		Implementation	Monitoring
<ul style="list-style-type: none"> - 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. 			
3.4. Public safety during the rehabilitation phase			
<ul style="list-style-type: none"> - 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, barricades and guardrails. - Protect proper shielding scaffolds. 	<ul style="list-style-type: none"> - Visual observation and photographic documentation of safety measures. - Meeting with communities Indicators: <ul style="list-style-type: none"> - Number of recorded complaints - Number of reported incidents 	Contractor	Contractor (Daily), RAP (Daily) UNOPS and TPM (Frequent)
3.5. Complaints			
<ul style="list-style-type: none"> - A complaints register will be kept on site, and this will feed into the GM. The different GM channels are posted at the subproject areas - Contractor shall develop and maintain GM for workers to ensure that all workers are fully aware of the mechanism 	<ul style="list-style-type: none"> - 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 	Contractor UNOPS, and RAP	Contractor (Daily), RAP (Daily) UNOPS and TPM (Frequent)
3.6. Influx of non-local manual labor and risk of GBV and SEA.			
<ul style="list-style-type: none"> - Ensure that local laborers are hired within the subproject to provide opportunities for local communities and to avoid labor influx to the extent possible. 	<ul style="list-style-type: none"> - Labor registers - Meeting with communities and workers 	Contractor, and RAP	Contractor (Daily), RAP (Daily) UNOPS and TPM (Frequent)
3.7. Sexual harassment, abuse, gender-based violence, and discrimination			

Prevention and Mitigation Measures	Monitoring Parameters	Measures Responsibility	
		Implementation	Monitoring
<ul style="list-style-type: none"> - Mandatory and repeated training and awareness-raising for the workforce about refraining from unacceptable conduct toward local community members, specifically women. - Informing workers about national laws that make sexual harassment and gender-based violence a punishable offense that is prosecuted. - Introducing a Worker Code of Conduct as part of the employment contract, and including sanctions for non-compliance (e.g., termination). - Set up a solid GM and code of conduct and contractual provisions to prevent the act of GBV and SEA. - 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. 	<ul style="list-style-type: none"> - Documentation of contractors. - Meeting with communities Indicators <ul style="list-style-type: none"> - Number of reported and registered cases of the SEA/SH through project GM. - Number of reported cases of contractors' noncompliance to SEA/SH obligation on work sites. 	Contractor	Contractor (Daily), RAP (Daily) UNOPS and TPM (Frequent)
3.8. Child Labor and Forced labor			
<ul style="list-style-type: none"> - All workers should be more than 18 years old. - Verifying age of workers by checking IDs and official documents. - Ensure a worker log is available, and all workers are registered. - 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. 	<ul style="list-style-type: none"> - Documentation check. - Site inspection and meeting with labors Indicators <ul style="list-style-type: none"> - Number of GM Reports - Number and type of workers 	Contractor	Contractor (Daily), RAP (Daily) UNOPS and TPM (Frequent)
3.9. 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).			
<ul style="list-style-type: none"> - 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. 	<ul style="list-style-type: none"> - Regular inspection. - Reinstatement activities status Indicators <ul style="list-style-type: none"> - Number of complaints or grievances - Number of incidents or damages 	Contractor	Contractor (Daily), RAP (Daily) UNOPS and TPM (Frequent)

Prevention and Mitigation Measures	Monitoring Parameters	Measures Responsibility	
		Implementation	Monitoring
<ul style="list-style-type: none"> - 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 street/ 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. 			
3.10. Discrimination in employment can occur in the workplace in various ways			
<ul style="list-style-type: none"> - The employment of all project workers will 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. - Comply with the relevant provisions of the Yemeni Labor Code which match ESS2 requirements 	<ul style="list-style-type: none"> - Inspection and auditing for workers’ documents. - Meeting with workers Indicators <ul style="list-style-type: none"> - GM reports regarding labor discrimination, rights and issues 	UNOPS, RAP, Contractors and workers	Contractor (Daily), RAP (Daily) UNOPS and TPM (Frequent)
3.11. Operation and maintenance of the rehabilitated road, lack of maintenance			
<ul style="list-style-type: none"> - Maintenance is required to ensure sustainability of this project. - Inform the local community members on maintenance periods and ensure alternative road access is provided during maintenance work - Ensure same mitigation measures are applied during maintenance works 	<ul style="list-style-type: none"> - Visual inspections on roads, culverts, electricity poles, water pipes etc. Indicator: <ul style="list-style-type: none"> - Number of grievances related to this project - Presence of failure in roads, and number of times they occurred 	Local authority	RAP

5. Stakeholder engagement and information disclosure

YELCP project level stakeholders' engagement and information disclosure activities took place regularly by UNOPS and RAP with the various stakeholders at central and local level. 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](#).

Consultation process takes the form of semi-structured and direct interviews with local communities and group discussions with stakeholders groups including, community leaders, beneficiaries, households, land and business owners in the different subproject areas.

Consultation sessions were conducted in the subproject different areas taking into consideration precautionary measures to avoid the spread of Covid-19; social distance was applied and implemented outdoors.

The consultation session summarized below in which consultation questionnaires distributed/asked to the interviewees is available in annex 4 and examples of the consultation records are available in annex 5.

Date	Location	Participants Details	Total Participants	
			Men	Women
16 May 2022		15 community members	11	5
13 Sep 2022	Al Zuhrah District	2 local officials, 5 community leaders, 65 community members	62	10
Total			73	15

The consultations with men and women at subproject areas covered several issues and aspects including:

- Ensure communities' needs and confirm the selection priority.
- Inform local communities about the subproject activities and its timetable.
- Inform them about their rights to have a job opportunity during implementation.
- Raise their awareness about potential risks associated with the contractors work such as safety, health, environmental, and social risks and required control measures.
- Document and address the local communities' concerns, expectations, and feedback.
- 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 risks that may occur during the implementation and the required measures that should be taken in case of occurrence.
- Provide full details on the Project GM system so they can send their opinions, concerns and inquiries regarding the subproject without fear with emphasis on the confidentiality of such mechanisms.

The consulted individuals and authorities have expressed their strong support to the subproject. They showed their interest in facilitating implementation and were eager for the subproject as improved infrastructure is considered critical for community development. Moreover, the

interviewees emphasized that the subproject will improve access to local services, schools and health care centers and other local services. 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.

Furthermore, stakeholders emphasized the importance of adequate selection of the contractors who would be able to complete the work activities safely within the agreed timetable.

5.1. Consultation during implementation

Consultations will continue during civil work implementation with the local communities, affected parties, community committee, local authorities as well as workers and business owners. The satisfaction of beneficiaries with regard to implementation of mitigation measures will be assessed. To accommodate all their concerns, broader consultations with additional representatives of local communities will be conducted.

Furthermore, the contractor will be required to undertake a process of stakeholder engagement with the various stakeholders groups in the subproject areas. The contractor shall 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.

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

- Continue consultation with local communities by interviews, meetings 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 stakeholders / beneficiaries.
- Utilize GIS-based portal mapping for all activities including sub projects supported to promote transparency to reach more stakeholders.
- Utilize engagement findings to improve project implementation and performance.
- Explore using UNOPS' remote monitoring tools for engaging stakeholders in monitoring and quality assurance of subproject activities.
- Include a TPM component in reaching various stakeholder groups during implementation.
- Receive feedback from stakeholders through the RAP and UNOPS personnel or through the established GM system of the project.

5.2. Subproject sustainability

The subproject 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 in which such aspects have been considered during the design stage.

Furthermore, a community committee is planned to be established before the commencement date which will work with RAP, UNOPS and authorities in facilitating implementation. The community committee is formed from local councils, affected parties, representatives of youth and women. The key duty of this committee is to facilitate subproject implementation and ensure sustainability after the implementation phase. Also, coordination with local authorities / councils took place to inform them on activities, the importance of their role in facilitating implementation.

6. Grievance mechanism

UNOPS has established a GM system under the YELCP to enable beneficiaries to communicate their concerns regarding the project activities. 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.

Hard copies of the translated GM channels as available in annex 4 were introduced to interviewees and they have been informed that the GM contact information will be posted at the subproject site. Resolving complaints at community level, utilizing the established community committee, 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.

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. 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.

6.1. GM channels

Multiple access points to the GM system are provided 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 toll free number, landline, mobile SMS, email and website:

GM channels details

Address	Haddah Street, former European Union Office Building, Sana'a
Toll Free Number	8000190
Landline	01 504914 and 01 504915
SMS and WhatsApp	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.

6.2. Tracking, investigating and resolving complaints

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

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

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

6.3. Grievance categories

The grievance could be registered 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, SEA/SH grievance.
- Workers grievances.

6.4. 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 of 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 as appropriate.
- 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 arbitrator to investigate the complaint and propose recommendations for resolution; the complainant can appeal and 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 6 summarizes the complaints management review process.

7. 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 Engineer assigned as a worksite resident engineer is in charge of all construction activities. The RAP ESSO shall perform monthly visits to the subproject to ensure that all mitigation measures are in place. UNOPS ESSO as well as the assigned engineers shall perform regular visits to the subproject site to ensure compliance where needed.

As guided by this ESMP as well as annex 2 requirements, 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, stakeholder engagement, details of any security risks, worker grievances, stakeholder grievances, major changes to Contractors environmental and social practices, deficiency and performance management.

The following table provides an indicative reporting plan.

Table 4 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 engineer reports, GM log	RAP 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 Engineer	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, stakeholder engagement, details of any security risks, worker grievances, stakeholder grievances, major changes to Contractors environmental and social practices, deficiency and performance management.	Based on monitoring, inspection, records, logs.	Contractor	Monthly and based on cases

8. Implementation budget

The contractors shall cover the cost of their workers, training, PPE provision and other related costs within the overall subproject cost as part of their respective offers.

Items that require additional cost are available below with the estimated budget:

Item	Cost US\$
Travel of UNOPS team to the subproject areas for monitoring and supervisory purposes.	5,000
Development and deployment of awareness materials on the GM channels and OHS requirements.	1,000
Consultation and communication meetings with the various stakeholder groups at the subproject area.	3,000
Total	9,000

Annex 1 Subproject environmental and social screening form

Subproject Name	AL Muares – Al Bajeelah Rural Road Rehabilitation
Subproject ID	ELCP-HOD-002
Subproject location	Al Hodeidah governorate
Implementing Partner	RAP
Estimated Investment	
Was the site visited beforehand	Yes
Estimated Start/Completion Date	9 months from date of signing the contract
Observations/Comments	
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? ¹⁰		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
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		X	ESS2, ESS4	ESMP, LMP, SMP

¹⁰ 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 7 of this ESMP.

Question	Answer		ESS relevance	Due diligence/ Actions
	Yes	No		
operation of healthcare facilities and related activities?				
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

Conclusion

Risk level of the subproject is Moderate and Subproject ESMP preparation is required

Annex 2 Environmental and social requirements for contractors

Contractors shall meet the following Environmental, Health, Safety and Social requirements – thereafter called ESHS requirements¹¹.

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
5. Road safety and Traffic Safety
6. Emergency Preparedness and Response
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 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.

¹¹ 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

- 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 Contractor's 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 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 of 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
- Waste shall be disposed of in approved waste areas that is determined in coordination with 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 that is released during civil work, 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 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 and install warning signs where needed
- 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 running water, soap, and drying substances.
- Where workers may be exposed to poisonous substances by ingestion and skin contamination , 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.
- Determine requirements for standard and/or task-specific PPE based on Job specific Safety Analysis.
- 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 workers exposure to construction noise, including:

- 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 causes 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 sorting and placing loose construction materials or demolition debris in established areas away from footpaths
- 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 lifelines
- 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 waste 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 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 firstaid 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

The Contractor shall implement a combination of behavioral and environmental modifications to mitigate communicable diseases:

- Ensure ready access to medical treatment and appropriate care.
- Promote collaboration with local authorities to enhance access of workers 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.

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 organizing 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
- 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. 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 require 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
- 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 to 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 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 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. 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 get adequate rest period and 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 where possible and applicable
- 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 transparent process, and avoid hiring "at the gate" to discourage spontaneous influx of job seekers
- Identify authorized water supply source and prohibit 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 ESMP
- 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 all employees involved in the subproject 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 shall 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 noticeboards.
- 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 in any sexual activities that are exploitive or degrading to any person.
- Develop a GM 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 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 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 understand. 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 or 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.

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.

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

Major changes to Contractors environmental and social practices.

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

Annex 3 Subproject photos







Annex 4 Public consultation questionnaires

YEMEN EMERGENCY LIFELINE CONNECTIVITY PROJECT

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 المديرية والمحافظات . وعلى ضوء ما تقدم تم إختيار مسار المشروع (.....) ضمن المشاريع المستهدفة تنفيذها (إنشاء الطريق / (صيانة الطريق) والذي يتوقع أن يساهم في تحسين حياة ومعيشة المواطنين.

وعليه يرجى إكمال الاستبيان أدناه للمصلحة العامة ويمكن للمشارك عدم كتابة أي بيانات غير مرغوب في تضمينها

اسم المشروع:.....	رمز المشروع:.....	مديرية:.....
محافظه:.....		
اسم منفذ الاستبيان :	التاريخ:/...../.....	
اسم مشارك الاستبيان :	النوع: <input type="checkbox"/> ذكر <input type="checkbox"/> أنثى	
(العمر:(اقل من 15) (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؟

.....

.....

.....

.....

.....

Complaints or enquiries related to this project which is supported by the World Bank and implemented in the country by UNOPS and RAP can be sent via the below channels:

يمكن إرسال الملاحظات والاستفسارات بخصوص هذا المشروع (المشروع الطارئ للربط الحيوي للطرق) والممول من البنك الدولي عبر القنوات التالية والتي تقع تحت مسؤولية مكتب الأمم المتحدة لخدمات المشاريع:

Toll Free Number
Landline
SMS and WhatsApp
Email

8000190
01 504914 and 01 504915
739888388
grm-yemen@unops.org

رقم مجاني
رقم هاتف أرضي
رسائل نصية أو واتساب
بريد إلكتروني

المشروع الطراري لطريق شرويان الحياة
استبيان حول إعادة تأهيل الطرق الريفية

إن الهدف الرئيسي لبرنامج تنمية لبلدية الشرق الريفية هو تحسين حياة ومصلحة سكان المنطقة أثناء به بما في ذلك سكان الأرياف وتقليل الفجوة التي يعجزون بها وكذلك توسيع المجتمع الريفي سكان المناطق الأخرى وسهول الوصول إلى الأسواق والمصنوع على الخدمات العامة من مياه - تعليم - صحة - كهرباء - وتأمين الطرق وربط تلك المناطق بالمرافق الإدارية لمرافق الخدمات والمواصلات ، وعلى ضوء ذلك تم اختيار مسار مشروع طريق - المرحوم - الحياة... ضمن المشاريع المستهدفة تنفيذها (إنشاء الطريق / صيانة الطريق) والذي يتوقع أن يساهم في تحسين حياة ومصلحة المواطنين.

وحتى يرحى اكتمال الاستبيان أثناء لما فيه المصلحة العامة :

اسم (الطريق) مشروع طريق : المرحوم - الحياة
اسم البلديات: عدو الرحمن عبدالله زبارة
اسم المستفيد / الشخص المتوجه : **إبراهيم يحيى سليمان محمد** (صاحب) **الفرع (نوع) رقم** **الفرع (نوع) رقم**
التصنيف: (إل من 15) (30-16) (45-31) (46) (نظرة)
رقم الهاتف:
مهنة المستفيد: **عاشق**

م	الأثر الإيجابية: ما مدى موافقتك على ما يلي:	موافق	غير موافق	لا أعرف
1	تعمل الطريق مستفيد من الإزدحام المروري.		<input checked="" type="checkbox"/>	
2	تقليل المشروع سوف يساهم في تحسين السلامة المرورية للمركبات والأشخاص	<input checked="" type="checkbox"/>		
3	وعامة الممرات والأطفال	<input checked="" type="checkbox"/>		
4	تقليل المشروع سيساهم في تحسين الجوانب الاقتصادية لسكان	<input checked="" type="checkbox"/>		
5	المشروع سوف يساهم في تشجيع تشغيل صالة من السكان المحليين وتحسين	<input checked="" type="checkbox"/>		
6	تطوير	<input checked="" type="checkbox"/>		
7	المشروع سوف يساهم في الحد من الحوادث داخل المدن.	<input checked="" type="checkbox"/>		
8	المشروع سيساهم في تقصير زمن الوصول إلى الخدمات كمدارس	<input checked="" type="checkbox"/>		
9	والمستشفيات	<input checked="" type="checkbox"/>		
10	سيساهم المشروع في مساعدة الرجال والنساء بالتقليل بسهولة	<input checked="" type="checkbox"/>		
11	سيساهم المشروع في التقليل من معاناة الفلاحين والفقراء والسكان بشكل عام	<input checked="" type="checkbox"/>		
12	تقليل المشروع سيساهم في تحسين الأتمتة الاقتصادية	<input checked="" type="checkbox"/>		
13	أي أثر إيجابية أخرى تلاحظها	<input checked="" type="checkbox"/>		

م	المخاوف من المشروع: هل لديك مخاوف مما يلي:	نعم	لا	لا أعرف
1	زيادة السرعة بعد تنفيذ المشروع وكثرة الحوادث		<input checked="" type="checkbox"/>	
2	انقطاع الطرق وصعوبة الوصول إلى المرافق مثل المستشفيات والمدارس أثناء	<input checked="" type="checkbox"/>		
3	فترة العمل بالمشروع	<input checked="" type="checkbox"/>		
4	انقطاع الأتمتة للمحلات التجارية في فترة التنفيذ وانقطاع الطريق	<input checked="" type="checkbox"/>		
5	عدم الإجابة لتكثري الأخطى في حين حدوث وجود معوقات في فترة التنفيذ	<input checked="" type="checkbox"/>		
6	من قبل الفلاحين	<input checked="" type="checkbox"/>		
7	عدم مراقبة الفلاحين أثناء تنفيذ عن العمل من قبل أصحاب العمل	<input checked="" type="checkbox"/>		
8	الإزعاج الناتج عن الأضواء	<input checked="" type="checkbox"/>		
9	الاستخدام واستثمار أرضي خاصة	<input checked="" type="checkbox"/>		
10	توجيه حركة المرور لطرق أخرى لا بسبب ازدحام مروري لثقلات مرورية	<input checked="" type="checkbox"/>		
11	في مشاريع أخرى	<input checked="" type="checkbox"/>		
12	تقليل أو تعطيل خدمات المياه والموصلات في موقع المشروع	<input checked="" type="checkbox"/>		
13	مساكن المشروع بعنف معلمي (معد النساء - الأطفال - المهتمين -	<input checked="" type="checkbox"/>		
14	التأخرين	<input checked="" type="checkbox"/>		
15	أي مخاوف أخرى	<input checked="" type="checkbox"/>		
16	أي احتياجات أخرى:			

هل يمثل المشروع أعباءة تنفيذ أعمال التأهيل ؟ لماذا ؟

المشروع الطراري لطريق شرويان الحياة
استبيان حول إعادة تأهيل الطرق الريفية

إن الهدف الرئيسي لبرنامج تنمية لبلدية الشرق الريفية هو تحسين حياة ومصلحة سكان المنطقة أثناء به بما في ذلك سكان الأرياف وتقليل الفجوة التي يعجزون بها وكذلك توسيع المجتمع الريفي سكان المناطق الأخرى وسهول الوصول إلى الأسواق والمصنوع على الخدمات العامة من مياه - تعليم - صحة - كهرباء - وتأمين الطرق وربط تلك المناطق بالمرافق الإدارية لمرافق الخدمات والمواصلات ، وعلى ضوء ذلك تم اختيار مسار مشروع طريق - المرحوم - الحياة... ضمن المشاريع المستهدفة تنفيذها (إنشاء الطريق / صيانة الطريق) والذي يتوقع أن يساهم في تحسين حياة ومصلحة المواطنين.

وحتى يرحى اكتمال الاستبيان أثناء لما فيه المصلحة العامة :

اسم (الطريق) مشروع طريق : المرحوم - الحياة
اسم البلديات: عدو الرحمن عبدالله زبارة
اسم المستفيد / الشخص المتوجه : **إبراهيم يحيى سليمان محمد** (صاحب) **الفرع (نوع) رقم** **الفرع (نوع) رقم**
التصنيف: (إل من 15) (30-16) (45-31) (46) (نظرة)
رقم الهاتف:
مهنة المستفيد: **عاشق**

م	الأثر الإيجابية: ما مدى موافقتك على ما يلي:	موافق	غير موافق	لا أعرف
1	تعمل الطريق مستفيد من الإزدحام المروري.		<input checked="" type="checkbox"/>	
2	تقليل المشروع سوف يساهم في تحسين السلامة المرورية للمركبات والأشخاص	<input checked="" type="checkbox"/>		
3	وعامة الممرات والأطفال	<input checked="" type="checkbox"/>		
4	تقليل المشروع سيساهم في تحسين الجوانب الاقتصادية لسكان	<input checked="" type="checkbox"/>		
5	المشروع سوف يساهم في تشجيع تشغيل صالة من السكان المحليين وتحسين	<input checked="" type="checkbox"/>		
6	تطوير	<input checked="" type="checkbox"/>		
7	المشروع سوف يساهم في الحد من الحوادث داخل المدن.	<input checked="" type="checkbox"/>		
8	المشروع سيساهم في تقصير زمن الوصول إلى الخدمات كمدارس	<input checked="" type="checkbox"/>		
9	والمستشفيات	<input checked="" type="checkbox"/>		
10	سيساهم المشروع في مساعدة الرجال والنساء بالتقليل بسهولة	<input checked="" type="checkbox"/>		
11	سيساهم المشروع في التقليل من معاناة الفلاحين والفقراء والسكان بشكل عام	<input checked="" type="checkbox"/>		
12	تقليل المشروع سيساهم في تحسين الأتمتة الاقتصادية	<input checked="" type="checkbox"/>		
13	أي أثر إيجابية أخرى تلاحظها	<input checked="" type="checkbox"/>		

م	المخاوف من المشروع: هل لديك مخاوف مما يلي:	نعم	لا	لا أعرف
1	زيادة السرعة بعد تنفيذ المشروع وكثرة الحوادث		<input checked="" type="checkbox"/>	
2	انقطاع الطرق وصعوبة الوصول إلى المرافق مثل المستشفيات والمدارس أثناء	<input checked="" type="checkbox"/>		
3	فترة العمل بالمشروع	<input checked="" type="checkbox"/>		
4	انقطاع الأتمتة للمحلات التجارية في فترة التنفيذ وانقطاع الطريق	<input checked="" type="checkbox"/>		
5	عدم الإجابة لتكثري الأخطى في حين حدوث وجود معوقات في فترة التنفيذ	<input checked="" type="checkbox"/>		
6	من قبل الفلاحين	<input checked="" type="checkbox"/>		
7	عدم مراقبة الفلاحين أثناء تنفيذ عن العمل من قبل أصحاب العمل	<input checked="" type="checkbox"/>		
8	الإزعاج الناتج عن الأضواء	<input checked="" type="checkbox"/>		
9	الاستخدام واستثمار أرضي خاصة	<input checked="" type="checkbox"/>		
10	توجيه حركة المرور لطرق أخرى لا بسبب ازدحام مروري لثقلات مرورية	<input checked="" type="checkbox"/>		
11	في مشاريع أخرى	<input checked="" type="checkbox"/>		
12	تقليل أو تعطيل خدمات المياه والموصلات في موقع المشروع	<input checked="" type="checkbox"/>		
13	مساكن المشروع بعنف معلمي (معد النساء - الأطفال - المهتمين -	<input checked="" type="checkbox"/>		
14	التأخرين	<input checked="" type="checkbox"/>		
15	أي مخاوف أخرى	<input checked="" type="checkbox"/>		
16	أي احتياجات أخرى:			

هل يمثل المشروع أعباءة تنفيذ أعمال التأهيل ؟ لماذا ؟

Annex 6 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

			Beneficiary Name: الاسم الثلاثي للمستفيد:	
Tel Number رقم الهاتف للمتابعة for follow up		رقم البطاقة الشخصية: .ID No		
Permanent Address: العنوان الدائم:				
اسم النشاط المنفذ (مركز/وحدة) Name of Activity / Subproject				
المحافظة: Governorate	المديرية: District	القرية: Village	مكان تنفيذ النشاط: Place of activity implementation	
أخرى Other	مالية Financial	فنية Technical	إدارية Administrative	نوع الشكاوى Complaint Type

Complaint Subject

موضوع الشكاوى

		Current Situation: الوضع الحالي:	
		Reason of the situation: أسباب المشكلة:	
توقيع صاحب الشكاوى: Complainant Signature		التاريخ: Date	

The entity, which the complaint should be forwarded to

Toll Free No: 8000190

Tel: 01 504914/915

SMS: 739888388

الجهة التي يجب أن يقدم لها الشكاوى

Email: grm.yemen@unops.org

Opinion on the seriousness of the complaint.....: الرأي في جدية الشكاوى:

The complaint referred to.....: الجهة المحول لها الشكاوى:

Time required for response.....: المدة الزمنية اللازمة للبت في الشكاوى:

Satisfaction of beneficiary in responding to his/her complaint.....: مدى رضا المستفيد عن الاستجابة لحل شكواه:

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

Name of person received the complaint and his/her position: اسم مستلم الشكاوى ووظيفته:

.....: توقيع الموظف المختص / Signature

..... : Date / التاريخ

Annex 7 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. The entire civil work will take place 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	15.649466	43.144978	5
2	Structure	Soily fence covered by invasive shrub species (Prosopis Juliflora)	15.642663	43.121326	5
3	Structure	Soily fence covered by invasive shrub species (Prosopis Juliflora)	15.642249	43.120022	6
4	Structure	Soily fence covered by invasive shrub species (Prosopis Juliflora)	15.641792	43.118104	5
5	Structure	Steel net fence	15.653499	43.154542	5
6	Structure	House left side	15.654889	43.169664	5
7	Structure	Nearest house to left side	15.642491	43.121524	3
8	Structure	Mosque left side	15.642272	43.120719	5
9	Structure	House left side	15.641995	43.118905	4
10	Structure	School right side	15.639558	43.111561	6
11	Structure	Farm fence	15.647421	43.106867	2
12	Structure	Soily fence	15.640672	43.114701	5

Annex 8 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 roadside in safe public land. The existing location of the pipes and their dimensions are available in the below table:

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

06+050 ¹²	06+225	175	Adjacent to the ditch (within 1 meter)
06+225	06+350	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 data are available in the below table:

Distance from the start point of the subproject (KM+M)		Length (Meter)	Description	Current location
From	To			
06+100	06+135	35	Re building at same location in case affected by civil works activities	Adjacent to the ditch
06+175	06+250	75	Re building at same location in case affected by civil works activities	At the outer edge of the shoulder
06+250	06+300	50	Re building at same location in case affected by civil works activities	Out of the road shoulder
06+835	06+910	75	Re building at same location in case affected by civil works activities	Out of the road shoulder

- **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 fences' existing location and their dimensions are available in the below table:

Distance from the start point of the subproject (KM+M)		Length (Meter)	Description	Current location
From	To			
02+300	02+375	75	If affected by civil works, to be shifted 0.7 m.	at the inner edge of the shoulder
06+430	06+525	95	Re building at same location in case affected by civil works activities	at the outer edge of the shoulder

¹² (6+050 equals 6 Km+050 meters) which is representing the point within the road track which is in 6,050 meters distance from the subproject start point, point 0