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 (P177053)

Environmental and Social Management Plan
Rehabilitation of Zamen – Wadi Humam Rural Road
Hadhramout Governorate – Al Mukalla District

18 December 2022

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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
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
GM	Grievance Mechanism
HSSE	Health, Safety, Social and Environment
km	Kilometer
L.M.	Linear Meter
LMP	Labor Management Procedures
m	meter
mm	millimeter
N.A.	Not Applicable
OHS	Occupational Health and Safety
PPE	Personal Protective Equipment
RF	Resettlement Framework
RAP	Rural Access Program
SEA	Sexual Exploitation and Abuse
SH	Sexual Harassment
SEP	Stakeholder Engagement Plan
SMP	Security Management Plan
sq.m.	square meter m^2
TPM	Third Party Monitoring
UNOPS	United Nations Office for Project Services
YELCP	Yemen Emergency Lifeline Connectivity Project

Summary Sheet

Table 1 Subproject summary sheet

Subproject Name **ID Number**	Zamen – Wadi Humam Rural Road Rehabilitation ELC-RAP-HDR-001
Subproject Location	Hadhramout Governorate - Al Mukalla District
Implementing Partner	Rural Access Programme (RAP)
Subproject Proposed Risk	Moderate
Date of the field visits	11 September 2022
Consultation date	11 September 2022
Subproject Estimated Total Cost	US$ 2,900,000
ESMP Estimated Implementation Cost	US$ 20,000
Implementation period	14 months
Observations/Comments	Indicated below

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 in Yemen by 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. Zamen – Wadi Humam rural road that is located in Mukalla district within Hadhramout governorate, is one of the roads that has been selected and will be rehabilitated as part of the YELCP support. The subproject location was selected based on local needs and priorities in consultation with the relevant stakeholders and authorities at various levels.

An Environmental and Social Management Framework (ESMF) for the YELCP was prepared by UNOPS to meet the requirements of the World Bank's Environmental and Social Framework (ESF), UNOPS requirements and national laws and regulations. For YELCP UNOPS has 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 UNOPS and RAP following the YELCP ESMF requirements, and the screening table is available in annex 1. The risk level of the subproject was identified as moderate as it is mainly limited to rehabilitation and improving of existing unpaved road following the applicable design requirements. Further information on the associated risks is detailed in section 4.1 hereinafter. The current Environmental and Social Management Plan (ESMP) has been prepared based on the guidelines available in the YELCP ESMF section 7.3.2[1].

[1] YELCP ESMF. Retrieved from https://documents1.worldbank.org/curated/en/099210001112224568/pdf/P1770530ESMF020210120310FNL.pdf

2. Subproject description

2.1. Location details

This subproject lies in Hadhramout governorate, Al Mukalla district. Hadhramout is located in the southeastern part of the Republic of Yemen, 794 kilometers east of the capital Sana'a, between Al-Mahra to the east and Al-Jawf, Marib, and Shabwah to the west. The governorate is divided administratively into 28 districts, with Al Mukalla city as its capital. Hadhramout is the largest governorate of Yemen by area, and it borders the Kingdom of Saudi Arabia in the north.[2]

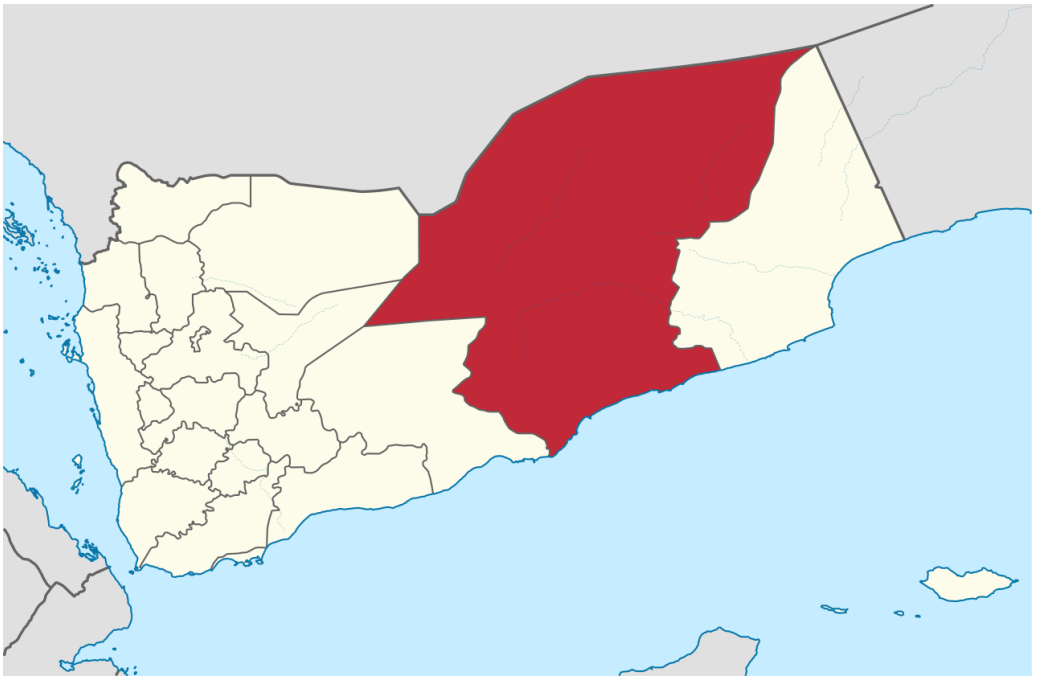

Figure 1 Yemen map with Hadhramout governorate marked in red

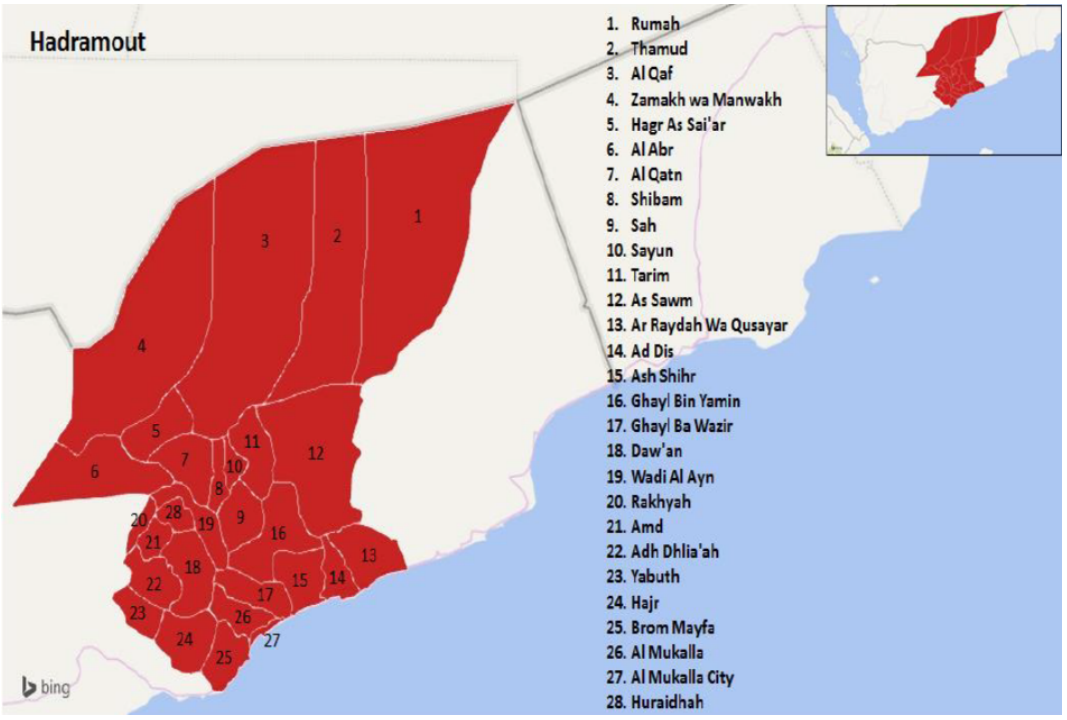

Figure 2[3] Hadhramout governorate and its districts, subproject located in Al Mukalla district no 26 in the Map

[2] Yemen National Information Center

[3] Mapping of Local Governance in Yemen Governorates

Zamen – Wadi Humam rural road is located in the Southeast region of the Republic of Yemen in which the average elevation is approximately 850 meters above sea level. The starting point of the subproject is reached via Al Mukalla - Wadi Humam Asphaltic Road, at a distance of 35 km from Mukalla city exactly at Zamen Al Sufla village. The subproject path continues toward the northwest through a flat to rolling terrain with a length of 9.5 km as it passes through a number of directly beneficiary villages namely Zamn Al Aulia, Al Guyaydhah, Annumair, and Humam. The targeted road links the aforementioned villages to the center of Al Mukalla district and its ending point is located at Humam village.

The table below includes subproject start and end points coordinates as well as the rehabilitation length and width that will be maintained across the road track.

Table 2 Subproject details and coordinates

Road	Start Point		End Point		Length (meter)	Average Width (meter)
	Latitude	Longitude	Latitude	Longitude		
Zamen – Wadi Humam	14.73261	49.017761	14.763459	48.948099	9,500	6

The alignment of the subproject and the whole intervention follows an already existing track. The road alignment can be divided into 2 main sections based on the current characteristics of each section. Road sections are categorized below:

Section 1 station 0+000 km (subproject start point, Zamen village) to station 5+000 km

This road section has a length of 5 km, 5 to 7 m width and it passes through rolling and mountainous terrain of medium slope. The road alignment of this section passes parallel to Wadi Humam watercourse, distance varies between 100 and 500 meters, and it doesn't cross the Wadi stream.

Section 2 station 5+000 km to station 9+500 km (subproject end point, Humam)

This road section has a length of 4.5 km, 5 to 7 m width and it passes through flat and rolling terrain of low slope. The alignment passes parallel to Wadi Humam watercourse, distance varies between 70 and 300 meters, in which some agricultural lands exist, outside the right of way .

Figures 3 to 8 below provide an overview of the road sections, road photos with the current condition at the different sections are available in annex 2.

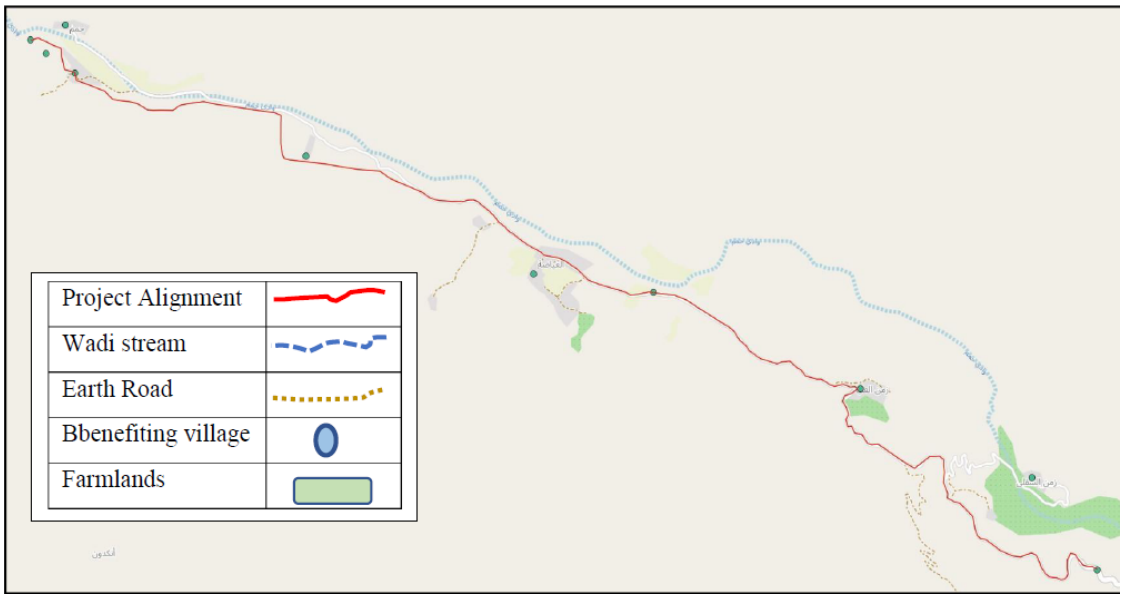

Figure 3 road alignment with its surrounding premises

Figure 4 Overview of the targeted road rehabilitation track marked in red with the start and end points

Figure 6 road track from 3+500 km to 5+000 km

Figure 7 road track from 5+000 km km to 7+000 km

Figure 8 road track from 7+000 km km to 9+500 km (subproject end point)

2.2. Scope of work

The subproject includes the rehabilitation of an existing unpaved road and upgrading the pavement surface to asphalt standards. Activities include the widening of the road by 1 meter maximum in some sections to fulfill the design and safety requirements. The widening will take place entirely within the existing road alignment at its right of way, and on public land where there is no cultivation nor fruit trees. Road length under the subproject is 9,500 meter with 6 meter width, 2 lanes for the 2 directions, asphalt surface will be maintained.

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 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 with safety and environmental works.

The subproject 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. The road safety requirements including the drainage design capacity have been determined and applied during the design phase in which such design has been reviewed and verified through multiple stages to ensure the applicable standards following the UNOPS/RAP requirements are met.

All materials, equipment and tools that are needed for the road civil work activities shall be stored in a dedicated location fully controlled by the contractor.

All cross drains in the subproject design are culverts in which every culvert is correlated with catchment area. Every culvert's peak discharge is calculated by using (Rational formula) which inputs are; runoff coefficient, catchment area, rainfall intensity. Catchment areas are delineated by utilizing topographical maps generated by using digital elevation models taken from; Japanese Aerospace Exploration Agency . Satellite aerial imagery & site visit information are also used for this purpose. Rainfall intensity is taken from Intensity Duration frequency curve by inserting the time of concentration for every catchment area & choosing the required return period. Time of concentration

is calculated based on specific characteristics of the catchment area such as length, difference in Elevation.

Exact location of the civil work materials not yet identified, potential locations were recommended during the assessment and the final source will be determined by the Contractor and agreed by the supervision engineer. All civil work materials shall 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.

2.3.1 Engineer's Facilities[4]

- Provision of rented site office, housing and accommodation for engineer staff for 14 months.
- Provision of 2 vehicles for the Engineer staff including operation cost for 14 months.
- Provision of rented laboratory equipment including operation cost for 14 months.
- Provision of rented survey equipment including operation cost 14 months.

2.3.2 Excavation Work[5]

- Roadway common excavation 54,758cu.m.
- Roadway rock excavation 31,058cu.m.
- Fill of suitable material from common excavation and/or rock excavation 49,608cu.m.
- Fill of borrow material 8,873 Cu.m.
- Disposal of surplus and/or unsuitable excavated material outside the right of way to the locations approved by the engineer and authorities 36,186cu.m

2.3.3 Pavement and Shoulders

- Preparation of 20cm subgrade layer 9,350cu.m.
- Preparation of subgrade layer, in cut locations. The work shall include scarifying to a depth of not less than 15 cm, watering and compacting 29,250 cu.m.
- Granular base course layer 150mm thickness 9,930cu.m.
- Provision and spray bituminous prime coat, as per specification 64,350sq.m.
- Provision and lay asphalt concrete wearing course 40mm thickness 2,490cu.m.
- Shoulder preparation using screened materials 14,250sq.m.

2.3.5 Safety Work

- Project sign board with their support, fittings and concrete foundation) (2 No).
- Small signs (not exceeding 1 sq.m. area) with their posts (67No).
- Thermoplastic, reflectorized paint for pavement marking of 10 cm (28,800L.m).
- Relocation of public assets into public lands[6]:
    - Relocation of existing electrical poles (5 No).
    - Relocation of telephone poles (6 No).
    - Relocation of drinking water pipes 150L.m.
- Provision and installation of road cats eyes (two face) (216No).
- Provision and installation of galvanized steel fences, guardrails 600L.m
- Provision and installation of galvanized steel fences, handrails 60L.m

2.3.6 Environmental Work

- Stone masonry dressed coursed with Mortar (for safety barriers) 713L.m.
- Irrigation pipes[7] 300 mm diameter including excavation and filling 348L.m.

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[4] 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. Further details on the labor management available in section 4.1.1

[5] Excavation works in the road vary from section to section based on the road condition and the necessary alignment, maximum excavation depth is 100 cm.

[6] All assets (poles and pipes) that require relocation are public and will be relocated into public lands to avoid any damage from the vehicles movement and civil works activities.

[7] 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.

3. Environmental and social baseline conditions

3.1. Environmental aspects

The targeted road under this subproject is located near Wadi Humum catchment areas that discharges to the Arabian Sea and the road doesn't cross the main Wadi stream at any point.

In Al Mukalla, the summers are hot, arid, and mostly cloudy and the winters are warm, humid, dry, and mostly clear. Over the course of the year, the temperature typically varies from 21°C to 33°C and is rarely below 18°C or above 35°C. Figures 9 and 10 provide further details on the temperature and precipitation ranges in Hadhramout governorate.

The targeted road lies in the isohyetal zone of (50 to 130 mm) average annual rainfall. Isohyets of average annual rainfall in Yemen have been used to determine the rainfall pattern of the project area. These isohyets for the entire Yemen are available in figure 10. AlMukalla does not experience significant seasonal variation in the frequency of wet days (i.e., those with greater than 1.00 millimeters of liquid or liquid-equivalent precipitation). The frequency ranges from 0% to 2%, with an average value of 1%. The month with the most days of rain alone in AlMukalla is February, with an average of 0.3 days. Based on this categorization, the most common form of precipitation throughout the year is rain alone, with a peak probability of 2% on April 3. The sliding 31-day quantity of rainfall in Al Mukalla does not vary significantly over the course of the year, staying within 1 millimeter of 1 millimeter throughout[8].

Population concentrations are found in some of the subproject areas which have the highest agricultural potential due to the availability of wadi streams as well as the 'land characteristics. Most of the productive land around the targeted road outside the right of way , is used for agriculture, and the farmers are dependent on the rainfall as well as wadi streams and water wells. Notably dates, cereals, and cash crops are the most important crops produced within the subproject area.

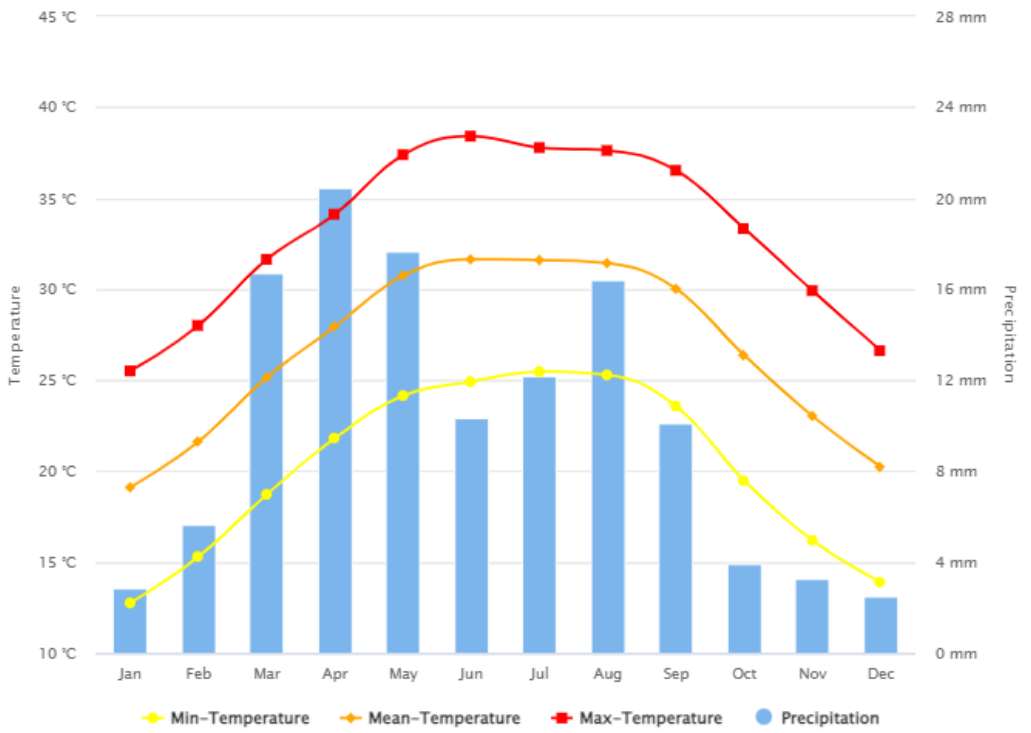


Figure 9[9] Hadhramout governorate Monthly Climatology of Min-Temperature, Mean-Temperature, Max Temperature & Precipitation 1991-2020

[8] https://weatherspark.com/y/104784/Average-Weather-in-Al-Mukall%C4%81-Yemen-Year-Round

[9] Yemen, Rep. - Climatology | Climate Change Knowledge Portal (worldbank.org)

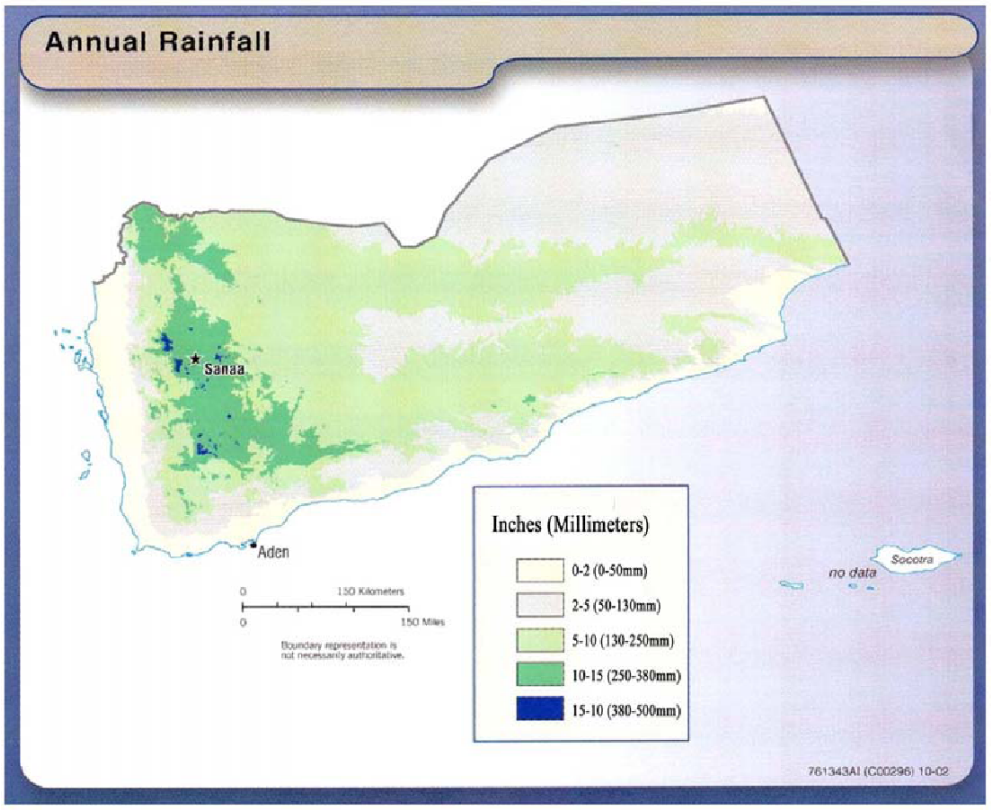


Figure 10[10] Annual rainfall ranges in Yemen in which the subproject lies in 50-130 mm range

Communities around the road alignment use water from Wadi Humam valley to meet their demand for drinking water and other household purposes.

The observed fauna and flora are not those of particular interest and no protected or endangered species in the road alignment areas. The subproject areas do not include designated or protected areas or critical natural habitats[11]. The vegetation within subproject areas is used by the residents for their daily lives, for firewood and as rangeland for livestock.

Noise is considered a minor concern, the concept of noise pollution is not readily recognized, and the potential adverse impacts on health are not generally known by the public. On the other hand, typical existing noise levels near the subproject site are generally limited as it is located in a relatively underdeveloped area.

3.2. Socioeconomic aspects

According to the 2014 Household Budget Survey, the poverty rate in Hadhramout governorate was 60%. With the decline of economic conditions in the country and the current crisis, this number has likely increased significantly. The approximate total number of direct and indirect beneficiaries who will benefit from the road rehabilitation are 24,328 inhabitants of which 12,808 are men and 11,521 are women. The majority of the beneficiaries are the poor, vulnerable and those in acute need.

[10] Yemen Annual Rainfall Map

[11] For protected areas, biological resources in Yemen refer to https://www.undp.org/yemen/publications/protected-areas-yemen and https://www.cbd.int/doc/world/ye/ye-nr-05-en.pdf

Table 3 Population of Hadhramout governorate and Al Mukalla District[12]

	2022 Estimation			Area km^2
	Men	Women	Total	
Hadhramout governorate	905,000	787,000	1,692,000	187,542
Al Mukalla district	14,736	12,960	27,696	955

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 conflict escalation post the truce end. The truce first came 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 in which there is no active conflict across the Hadhramout governorate.

Agriculture is the most important source of income l in the subproject areas and a cornerstone of its economy with a minority of locals working in the public sector. In addition, there are people who work in herding livestock such as sheep, goats, cows and camels. Moreover, some of the families are dependent on cash remittances from its members working in or outside the country.

There are three primary health care facilities in the subproject areas. These health units are supported by the local authority and the humanitarian organizations. This support has allowed service continuity with limited expansion in some of the provided services. Despite the availability of functioning health facilities, the services provided are insufficient to meet the demands of the population and local communities are seeking advanced medications in the governorate capital, Al Mukalla city.

There are three schools in the subproject areas (1 educational compound at Thilah Ba Omer, 1 school at Alluseb and 1 school at Wadi Humam). The salaries of teachers and other public workers are being paid regularly and education has continued without disruptions.

The subproject will be implemented within existing road alignments in which there is no record of archaeological or historical sites at any of the road sections or surrounding areas[13].

The targeted road is bumpy and unpaved in several sections lacking proper engineering characteristics that has resulted in risky conditions during rainy and windy conditions. This situation makes the movement of cars restricted resulting in difficulties for communities to access services such as hospitals, schools, and markets. This also affects the cost of living as the transportation and commodity prices in the surrounding areas are relatively high, which also causes an increase of the produced crops transportation cost.

Manual classified traffic counts were conducted for the road in 2 locations, one at the subproject start point and the second at the subproject end point, over 7 days / 18 hours per day. It was observed that in both traffic counting locations, passing vehicles included four-wheel drive, goods transportation vehicles and small/medium trucks.

4. Environmental and social management at the subproject area

4.1. Subproject potential risks and impacts

The subproject implementation will result in a significant improvement for the population along the road as well the neighboring villages. Such positive impacts include an improved condition of the

[12] Population estimation; Yemen Central Statistical Organization CSO based on 2004 census.

[13] Yemen tourism map is available in https://yemen-nic.info/tourism_site/info/map/ in which no archaeological sites are identified within the subproject area.

targeted road and prevention of further deterioration, improving drainage, environment status, and health and safety conditions of residents. 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 of local communities to health and education services and transportation costs will be reduced.

The risk level of this subproject is estimated to be moderate, which requires the preparation of the ESMP as the activities will mainly consist of the rehabilitation of existing roads in the existing right of way and widening. Site specific and temporary impacts may be triggered including 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 (OHS).

An assessment was conducted to evaluate whether any assets will be affected by the subproject civil work in which all assets were found outside the corridor of impact. Further details of the assessment results are available in annex 6. However, as indicated in section 2.3.5 some public assets will require relocation into public lands including electrical, telephone poles and water drinking pipes to avoid any damage from the movement of vehicles and civil works activities.

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

4.1.1 Labor management

The interventions will provide opportunities for 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 healthcare services for communities in the subproject areas. All workers employed in the subproject are considered contracted workers.

While a substantial number of jobs will be created through the subproject lifetime, it is not expected that the labor influx will be experienced as the majority of the workers required by contractor will be sourced locally. Over its lifetime, 14 months, the subproject is expected to provide approximately 35,544 labor days over the course of its life cycle with 6,644 labor days by skilled workers, 13,288 labor days by semi-skilled workers and 15,590 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 15 to 20, will be working in intermittent periods, in which such workers will be provided with the necessary accommodation by the contractor. Such accommodation needs to be located away from the local communities in reasonable distance to the work areas and the location to be determined/approved in coordination with the local authorities and communities. The workers shall be provided with facilities appropriate to the circumstances of their work, including access to canteens, hygiene facilities and appropriate areas for rest. The accommodation is expected to be in portable portacabins and/or rented buildings provided with the necessary water and electrical supply. As a minimum 4 m^2 per person should be assured, the number of the collective room should be minimized, 2-6 workers per room will be acceptable.

Women employment in the subproject civil work areas is not feasible considering the existing cultural and social aspects in the country. However, women employment is emphasized by UNOPS and RAP within the contractor head office in the administration and engineering roles.

Child labor will not be allowed and the minimum age of workers, 18 years, will be specified in the bidding and contracting documents. Such aspects will be verified closely by the supervision team as well as the TPM. On the other hand, forced, involuntary or unpaid labor will not be accepted in the subproject. A labor log including names, ages and other details shall be maintained by the contractor, and all related details need to be registered. RAP and UNOPS will regularly monitor this issue and will verify the registers as well as the workers' documentation. The contractor is required to provide regular awareness training, and toolbox talks to all workers involved in the implementation where all associated risks, mitigations and prevention measures need to be explained.

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 3 hereinafter. As guided by the YELCP LMP, 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 and electrical shocks from working near electrical poles or while transferring electrical poles. 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 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 reduced.

The contractor shall maintain appropriate occupational health and safety aspects 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 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 temporary mobile toilets will be located away from groundwater sources and surface water runoff zones. Special attention shall be provided when working on the road track that requires widening within the existing right of way to avoid any falling objects. 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 workers for the insurance 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 temporary noise impact on the laborers and community. This could be the result of civil work or equipment movement. Impact and magnitude are expected to be low and contained within the civil work area.

To reduce the impact 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, so the human exposure risk is limited.

Potential temporary 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 temporary, limited with low magnitude and effect if the necessary precautionary measures are well implemented and monitored. Therefore, the mitigation measures required to avoid impacts of air quality are to reduce the dust generation during

civil work by spraying water and dust sweeping 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 Gas emissions from the fuel combustion and the other volatile organic compounds are expected to be low with negligible 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 is recommended and will 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 HSE officer.

4.1.4 Water, biological resources

Since the proposed intervention is limited to the rehabilitation of an existing road, disturbance to wildlife will be minor, temporary and localized and mostly due to noise and air emissions. This risk is relevant for the road section located next to agricultural lands where agrobiodiversity is expected to be present. With proper management of air, noise, waste and air emissions this impact during rehabilitation will be negligible. In addition, proper management of vehicles, equipment and truck movement is required to avoid any damage to the existing structures and plantations. Additionally, Accidental spills of chemicals such as bitumen and paint may impact soil and in turn indirectly impact plants and animals of the area. However, this risk is highly unlikely with proper management in place.

4.1.5 Land Acquisition

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. 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 and would likely not be impacted. Assessment results details are available in annex 6.

4.1.6 Solid waste generation

Generated rehabilitation waste will be limited to the sand and stones and domestic waste from workers that will be deposited at external waste management facilities represented by the public and authorized landfill within the governorate. Waste resulting from the workers activities, vehicles or equipment repair shall be stored and deposited in the designated areas and waste shall not be disposed of in any of the subproject areas. The vehicles transporting the generated waste need to be properly maintained with adequate movement arrangements and qualified drivers to avoid any traffic incidents.

Guidelines on the handling, transportation and disposal of various waste types are available in section 4.2 as well as annex 3 hereinafter. Close coordination shall take place by contractor with the local authorities in order to transport, treat and dispose safely of the various waste types.

4.1.7 Hazardous substances and waste

Risks associated with the handling of hazardous substances such as bitumen include workers/communities' exposure, pollution, soil contamination. With adequate management of such substances utilizing the guidance included in sections 4.3 and annex 3 hereinafter the impacts on workers, communities and environment can be largely minimized.

4.1.8 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 central, governorate and district 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 persons expressed their satisfaction with the selection. Moreover, it was proven that the subproject is free of conflict sensitivity and any negative effects that may hinder implementation according to screening and consultations. In general, the subproject will improve the condition of the road which in turn will strengthen community and climate change resilience and improve their living conditions.

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 negative temporary 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 night, and clear signs / instructions to avoid any unauthorized entry or any traffic incidents. Additionally, the stakeholder engagement activities will 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.

A Community committee will be established from the different stakeholder groups at the subproject 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. The committee shall be formed prior to the civil work implementation in coordination between RAP and local authorities and it shall include members from the various stakeholder groups including community leaders, affected parties, local authorities, youth and societies representatives.

Strict control and management for traffic by arranging detours and alternate bypass for traffic and roadside residences 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 a traffic 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 shall not start any rehabilitation activities until the required plans are agreed by the various stakeholders and approved by RAP. The traffic 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, private lands and services in consultation with household owners, authorities and affected parties in which the priority will be the safety of local communities. As extra precautions, light and low vibration equipment to be used near any structure that is located 3 meters or less from the corridor of impact. In addition, physical barriers such as wooden/metal plates shall be installed during the civil work activities that are implemented near such structures to avoid unauthorized entry and to reduce the impacts of associated risks.

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 committees is to ensure smooth implementation and sustainability of the subproject after completion. The committee will also play a role in monitoring subproject progress, contractor compliance and will participate in resolving any issues that may arise.

4.1.9 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 regard to the GBV/SEA/SH issues which it 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 meeting targeted both males and females, more attention is paid to female participants. The consultations highlighted how the GBV GM 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 the 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 a 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.
- Strengthen coordination and collaboration with relevant GBV actors in Yemen, in particular the Protection Cluster, GBV sub-cluster and Child protection sub-cluster to tap into the existing referral system
- 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 enhancing the contractors' capacity in this area. 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 ways 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. Institutional arrangements

The subproject implementation period is expected to be 14 months in which UNOPS will carry out tender bidding, bid analysis, 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 and a dedicated supervision team will be appointed.

UNOPS Environmental and Social Safeguards Officer (ESSO) and Health, Safety, Social and Environmental (HSSE) officers are responsible for the follow-up of overall implementation of the environmental and social requirements at the project and subprojects level. 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 day-to-day activities and to ensure compliance with the requirements stated in this ESMP as well as report on the areas of noncompliance. The summary of the ESHS requirements for contractors is available in annex 3 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 subproject requirements.

A Community committee will be established from the different stakeholder groups at the subproject 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. The committee shall be formed prior to the civil work implementation in coordination between RAP and local

authorities and it shall include members from the various stakeholder groups including community leaders, affected parties, local authorities, youth and societies representatives.

Section 4.2 and annex 3 hereinafter provide further details on the mitigation and prevention measures that need to take place during the subproject implementation as well as 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, 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, fully understand and sign the personnel CoC that is available as an example within the annex 3 hereinafter.

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. GBV grievances received through the YELCP GM channels will follow a dedicated protocol following the GBV action plan. The Contractor shall put in place a separate Grievance Mechanism for workers that is proportionate to its workforce, further details are available in annex 3.

4.3. Environmental and social risks management and monitoring

The following table includes the mitigation measures for the potential risks and impacts, and the cost of these measures will be handled by the contractor as part of the subproject and BoQ items implementation cost. Costs available in the table below are estimated and might vary during the implementation.

Monitoring responsibilities are: Contractor HSE officer, RAP resident supervision engineer, UNOPS ESSO/HSSE. 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.

Prevention and Mitigation Measures	Estimated cost US$	Monitoring Parameters	Measures Responsibility	
			Implementation	Monitoring
1. Occupational Health and Safety **1.1. Work related accidents and injuries**				
- Maintain insurance coverage for workers in subproject sites according to the requirements and conditions of insurance in the bidding documents which should comply with labor law, UNOPS and the World Bank requirements. - 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 safety 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/weather conditions (rainy seasons/sandstorms). - Add warning signs at a safe distance from the targeted road sections to warn drivers about the working area and to prevent them from running into workers while doing their work. - Shorten exposure time to heat or stress through frequent rest breaks. - Provide appropriate drinking water	1,000	- 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. Indicators - Number of reported incidents - Occupational health and safety training records - Documents for insurance coverage of workers - Number of fatalities / injuries - Number of workers not adhering to wearing PPE - PPE availability and	Contractor	Contractor HSE officer (Daily), RAP Supervision team (Daily) UNOPS HSSE and TPM (Monthly)

Prevention and Mitigation Measures	Estimated cost US$	Monitoring Parameters	Measures Responsibility	
			Implementation	Monitoring
- 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 and access and egress to such excavation zones must be controlled. - Work at height areas shall be properly marked and controlled, provision of safety belts for working at height, 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. - First aid equipment shall be present on site and workers shall be trained on first aid practice - Details of the nearest hospital and transfer vehicles shall be present on site		distribution records - Number and type of workers grievances.		
1.2. Workers exposure to hazardous substances such as fuel, lubricating oil, bitumen, paints and chemicals				
- Workers shall be trained on hazardous substances and wastes handling procedures. - Hazardous substances shall be stored properly in dedicated areas following the Material Safety Data Sheets (MSDSs), national and international requirements. - Ensure availability of fire extinguishers and train workers on emergency response measures. - Storage areas shall be well controlled, provided with clear identification, emergency response requirements. - All workers handling the cement, bitumen and hazardous substances shall be provided with reliable PPE relevant to the tasks implemented. - Flammable materials shall be stored in well ventilated and secured areas, inaccessible to the public.	500	- Inspection and photographic documentation Indicators - Number of reported incidents - Training records on the handling of hazardous materials and wastes - MSDS availability - Number and type of workers grievances. - Substances identification by the presence of clear labels on materials -	Contractor	Contractor HSE officer (Daily), RAP Supervision team (Daily) UNOPS HSSE and TPM (Monthly)
1.3. Poor onsite sanitation or water supply, leading to illness and disease				
- Ensure mobile toilets 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. - Ensure the mobile toilets are equipped with water and soap	900	- Site inspection Indicators - Number of recorded complaints	Contractor	Contractor HSE officer (Daily),

Prevention and Mitigation Measures	Estimated cost US$	Monitoring Parameters	Measures Responsibility	
			Implementation	Monitoring
- Ensure when the cesspits are filled, to safely transfer and dispose sewage and sludge at designated areas/facilities by the authority - Provision of drinking water through distributing drinking water containers/ bottles to all working sites - Ensure proper housekeeping practices are maintained. - Ensure all surfaces are free from oil, grease or any other contaminants, particularly soluble contaminants.		- Number of reported incidents - Presence of pests in latrines and project site		RAP Supervision team (Daily) UNOPS HSSE and TPM (Monthly)
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)	500	- Inspection and photographic documentation - Maintaining a record of injuries and accidents specifying cause and location. - Number and type of injuries - Workers grievances	Contractor	Contractor HSE officer (Daily), RAP Supervision team (Daily) UNOPS HSSE and TPM (Monthly)
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 - Ensure social distancing is applied in the worksite.	300	- Visual inspection and health inspections Indicators - Number of infected workers - Number of workers adhering to wearing PPEs	Contractor	Contractor HSE officer (Daily), RAP Supervision team (Daily) UNOPS HSSE and TPM (Monthly)
1.6. Working at quarries and transporting stones				
The contractor will not develop his own quarries 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 subproject activities.	600	- Inspection and photographic documentation - Maintaining a record of injuries and accidents	Contractor	Contractor HSE officer (Daily),

Prevention and Mitigation Measures	Estimated cost US$	Monitoring Parameters	Measures Responsibility	
			Implementation	Monitoring
- Ensure all workers are aware of the risks associated with using explosive materials. - Report to UNOPS any serious workplace accident or incident within 24 hours. - Providing high visibility clothes for those who work in quarries. - Ensure activity is done by qualified workers from the targeted areas and in case such workers are not available in the targeted areas, workers from other neighboring areas shall be employed for the task - Ensure that the quarries are safe and construct barriers to protect workers from falling. No child labor is allowed. - Inspect quarries prior work and make sure that the rocks are cohesive and not lose to avoid falling risks - Daily check for the condition of 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 will 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 and have barriers for falling rocks. - Regular break to workers to reduce the weather impact and provide drinking water.		specifying cause and location. Indicators - Number and type of injuries recorded - Related workers grievances		RAP Supervision team (Daily) UNOPS HSSE and TPM (Monthly)
1.7. Risk of electrical shock				
- Minimize the potential for water or chemical spills on or near electrical equipment. - Use safe work practices every time electrical equipment is used. - Disconnect the power source before working on the electrical poles or connections.Ensure that workers are wearing suitable PPE	N.A	- Visual observation and photographic documentation of equipment including the connections	Contractor	Contractor HSE officer (Daily), Supervision team (Daily)

Prevention and Mitigation Measures	Estimated cost US$	Monitoring Parameters	Measures Responsibility	
			Implementation	Monitoring
- Avoid working during rainy seasons. - Workers on electrical connections or poles should be qualified and trained.		- Condition of the electrical equipment - Number of related incidents/failures		UNOPS HSSE and TPM (Monthly)
2. General environmental impacts **2.1. Dust generation during rehabilitation work, excavation, backfilling, and compacting of the pavement layers. Air pollution due to emissions from machinery**				
- 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 water quantities used to control dust, apply sweeping practices. - 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 and or wastes or any type of materials that can be easily spread in the air . - 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.	1,000	- Visual observation and photographic documentation of equipment induced dust clouds during rehabilitation activities Indicators - Visual presence of dust clouds - Quantity of consumed fuel	Contractor	Contractor HSE officer (Daily), RAP Supervision team (Daily) UNOPS HSSE and TPM (Monthly)
2.2. Increased levels of noise and vibration due to heavy vehicles and equipment movement				
- Use well-maintained and inspected equipment with low vibration levels at the road areas adjacent to structures/buildings. - Shut down equipment when not in use. - Use operational noise mufflers. - Limit noisy activities to normal daylight hours.	500	- Site supervision/inspection and documentation to ensure compliance with the noise mitigation measures Indicators	Contractor	Contractor HSE officer (Daily), RAP Supervision team (Daily)

Prevention and Mitigation Measures	Estimated cost US$	Monitoring Parameters	Measures Responsibility	
			Implementation	Monitoring
- Limit vehicle speed at critical locations. - Provide advance notice to occupants if an activity involving high level impact noise is near buildings.		- Number of complaints concerning noise		UNOPS HSSE and TPM (Monthly)
2.3. Disruption of environment by borrow pits and quarries				
- Materials required for rehabilitation must be obtained from approved borrow areas and quarries and avoid ecologically sensitive zones - Ensure measures present for air noise hazardous wastes and materials and solid waste, chemical leaks sections to protect the local biodiversity - Avoid any vehicles or equipment movement into the Wadi or its surrounded areas. - Protect the Wadi areas from any spillage or hazardous substances accumulation. - Remove the construction waste materials and avoid accumulation in the Wadi streams. - 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 borrow pits and quarries at least 100 m from watercourses, wadis 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.	500	- Site supervision/inspection and documentation to ensure compliance - Indicators: - Presence of dead animals and plants near the project site - Decrease in vegetation cover	Contractor	Contractor HSE officer (Daily), RAP Supervision team (Daily) UNOPS HSSE and TPM (Monthly)
2.4. Leakage of vehicles lubricants and oil and chemicals in worksites				
- Avoid any leakage of oil in the worksite. - Refueling vehicles and changing lubricants shall take place in allocated locations. - Use impervious surfaces for refueling areas and other fluid transfer areas. - Provision of spill prevention kits in the work area, carry out appropriate collection and cleaning of areas in case of leakage. - Ensure chemicals are stored away from runoff zones and at areas well insulated from the soil and according to their material safety data sheets (MSDSs)	500	- Visual observation and photographic documentation of equipment and soil leaks Indicators - Presence of spills, soil color change	Contractor	Contractor HSE officer (Daily), RAP Supervision team (Daily) UNOPS HSSE

Prevention and Mitigation Measures	Estimated cost US$	Monitoring Parameters	Measures Responsibility	
			Implementation	Monitoring
				and TPM (Monthly)
2.5. Soil/ groundwater/ runoff contamination				
- Pave in dry weather to prevent runoff of asphalt or concrete materials and avoid working during rainy seasons - Cover storm drain inlets and cesspits during paving operations - Conduct cleaning activities away from drainage structures - Properly store all types of waste and hazardous chemicals if any in insulated areas to avoid spillage and away from runoff areas and soil - Ensure mobile latrines if used are insulated from the ground and located away from runoff zones and groundwater 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 and groundwater zones. Ensure no clogged runoffs/drainage zones.	1,000	- Inspection and photographic documentation. - Photographic detection of changes in soil color. Presence of waste stored near runoffs or at undesignated areas	Contractor	Contractor HSE officer (Daily), RAP Supervision team (Daily) UNOPS HSSE and TPM (Monthly)
2.6. Blockage of culverts, drainage ditches, stormwater catchment basin and channels				
- Clean and maintain drainage structures. - Provide adequate drainage works. - Ensure no waste is stored near drainage ditches and runoff zones and nearby wadis	N.A	Inspection and photographic .documentation Indicators - Presence of waste stored near runoffs or at undesignated areas - Drainage structures are visible clear and unclogged	Contractor	
2.7. Waterlogging due to inefficient drainage for surface runoff in some locations or shallow water				

Prevention and Mitigation Measures	Estimated cost US$	Monitoring Parameters	Measures Responsibility	
			Implementation	Monitoring
- 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	N.A	- Site inspection and photographic documentation of cleaning activities Indicators - Presence of materials and waste within culverts	Contractor	Supervision team (Daily) UNOPS HSSE and TPM (Monthly)
2.8. Low aesthetic value of landscape such as accumulation of waste and debris in the rehabilitation site and damaged curbs and tiles				
- If necessary, replant damaged and dry trees with native non-invasive trees, available in local nurseries at subproject areas. - Remove accumulated wastes and debris in the work site - Reconstruct damaged curbs, and tiles. - Rehabilitated sites must be cleaned/reinstated once the work is completed.	N.A	- Site inspection and documentation of general landscape Indicators - Presence of waste - Number of complaints related to aesthetic value and waste mismanagement	Contractor	Contractor HSE officer (Daily), RAP Supervision team (Daily) UNOPS HSSE and TPM (Monthly)
2.9. Production and disposal of rehabilitation work's debris and waste materials				
Loading: - Properly collect and load the debris, construction and domestic waste using well maintained equipment 'to suitable trucks with suitable load and emphasize safeguard 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 inaccessible sites and at well insulated zones, away from runoff/ drains - The contractor should continuously remove the 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.	1,500	- Site inspection and photographic - Level of cleanliness in the site - Documentation of the waste management and streams	Contractor	Contractor HSE officer (Daily), RAP Supervision team (Daily) UNOPS HSSE and TPM (Monthly)

Prevention and Mitigation Measures	Estimated cost US$	Monitoring Parameters	Measures Responsibility	
			Implementation	Monitoring
Transportation: - Properly transport the loaded waste and debris and hazardous waste (separately) by suitable trucks with emphasis to cover trucks with appropriate traps to avoid spillage during transportation. Direct the drivers to follow traffic rules and driving safety instructions i.e. licensed and well-trained drivers, following speed limits and using well-maintained trucks.				
Final Disposal: - Properly dispose of solid waste at designated permitted sites allocated by the local authorities and cleaning funds; and attach the receipt of waste from the relevant landfill authorities to the site engineer.				
3. Social Impact/issues **3.1. Temporary disruption of traffic and congestion due to road closure and detours**				
- Prepare a traffic plan during implementation in coordination with the responsible authorities and affected communities. - Inform and coordinate with the local councils and traffic authority, public and roadside residents on the implementation schedule. - Shorten implementation period to the extent possible. - 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 and 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.	1,000	- Site inspection and documentation of community economic activities nearby site. - Visual observation and photographic documentation of traffic management plan Indicators: - Number of reported complaints	Contractor	Contractor HSE officer (Daily), RAP Supervision team (Daily) UNOPS HSSE and TPM (Monthly)
3.2. Temporary disruption of obtaining water and electricity during the relocation of water pipes and electrical poles				
- Informing locals prior starting the displacement activities of water pipes and electrical poles - Displaying signs alerting residents to the hazard of the construction zone. - Where applicable, supplying residents with tanks of drinkable water in emergencies.	N.A	Site inspection and documentation	Contractor	Supervision team (Daily) UNOPS HSSE and TPM (Monthly)

Prevention and Mitigation Measures	Estimated cost US$	Monitoring Parameters	Measures Responsibility	
			Implementation	Monitoring
3.3. Temporary disruption of the construction machinery during the rehabilitation work				
- 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). - 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. - 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.	700	- 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: - Number of recorded complaints - Number of reported incidents	Contractor	Contractor HSE officer (Daily), RAP Supervision team (Daily) UNOPS HSSE and TPM (Monthly)
3.4. Public safety during the rehabilitation phase				
- 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 protective fencing, barricades and guardrails. - Protect proper shielding scaffolds.	1,500	- Visual observation and photographic documentation of safety measures. - Meeting with communities Indicators: - Number of recorded complaints - Number of reported incidents	Contractor	Contractor HSE officer (Daily), RAP Supervision team (Daily) UNOPS HSSE and TPM (Monthly)

Prevention and Mitigation Measures	Estimated cost US$	Monitoring Parameters	Measures Responsibility	
			Implementation	Monitoring
3.5. Complaints				
- A complaints register will be kept on site and this will feed into the GM. Project GM channels are posted at the subproject areas. - Contractor shall develop and maintain GM for workers in which the workers shall be fully aware of the mechanism	N.A	- 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 - Number of GM awareness sessions for workers	Contractor UNOPS, and RAP	Supervision team (Daily) UNOPS ESSO and TPM (Monthly)
3.6. Influx of non-local manual labor and risk of GBV and SEA				
- Ensure that local laborers are hired within the subproject to provide opportunities for local communities and to avoid labor influx to the extent possible.	N.A	- Labor registers - Meeting with communities and workers	Contractor, and RAP	Supervision team (Daily) UNOPS HSSE and TPM (Monthly)
3.7. Sexual harassment, abuse, gender-based violence, and discrimination				
- Mandatory and repeated training and awareness-raising for the workforce on 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 SEA/SH and GBV.	N.A	- Documentation of contractors. - Meeting with communities Indicators - 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 HSE officer (Daily), RAP Supervision team (Daily) UNOPS HSSE and TPM (Monthly)

Prevention and Mitigation Measures	Estimated cost US$	Monitoring Parameters	Measures Responsibility	
			Implementation	Monitoring
3.8. Child Labor and forced labor				
- All workers must be 18 years or older. - Verifying age of workers by checking IDs and official documents. - 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 and adequate working conditions are maintained.	N.A	- Documentation check. - Meeting with laborers Indicators - Number of GM Reports - Number and type of workers - Number of workers below the age of 18 based on ID checks	Contractor	Contractor HSE officer (Daily), RAP Supervision team (Daily) UNOPS HSSE and TPM (Monthly)
3.9. Discrimination in employment				
- Comply with the relevant provisions of the Yemeni Labor Code. - 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.	N.A	- Inspection and auditing for workers' documents. - Meeting with workers Indicators - GM reports regarding labor discrimination, rights and issues	UNOPS, RAP, Contractors and workers	Contractor HSE officer (Daily), RAP Supervision team (Daily) UNOPS HSSE and TPM (Monthly)
3.10. Poor coordination, planning of work that lead to the damage of underground structures (electric cables, telephone lines, water distribution networks)				
- Coordinate with local councils, community committee, and other 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 authorities to identify the location of the underground pipes and cables. - Repair any damage caused by the Contractor's activities, in coordination with concerned authorities. - The contractor should coordinate with the Traffic Department to prepare a Traffic Management Plan for traffic detours to ensure traffic transfers are smoothly managed for each site / work area with a clear plan and an engineering scheme.	N.A	- Regular inspection. - Reinstatement activities status Indicators - Number of complaints or grievances - Number of incidents or damages	Contractor	Contractor HSE officer (Daily), RAP Supervision team (Daily) UNOPS HSSE and TPM (Monthly)

Prevention and Mitigation Measures	Estimated cost US$	Monitoring Parameters	Measures Responsibility	
			Implementation	Monitoring
- 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.				
3.11. Operation and maintenance of the rehabilitated road, lack of maintenance				
- Maintenance is required to ensure the sustainability of this project. - Inform the locals on maintenance periods and ensure that alternative road access is provided during maintenance work - Ensure same mitigation measures are applied during maintenance works	N.A	- Visual inspections on roads, culverts, electricity poles, water pipes etc. Indicator: - Number of GM related to the infrastructure of this project - Presence of failure in roads, and number of times they occurred	Local authorities	Community Committee

4.4. Implementation budget

The contractors shall cover the cost of mitigation measures including the training of workers, PPE provision and other related costs within the overall subproject cost. Items requiring additional cost will be covered by UNOPS as indicated in the table below, number 1 to 3, with the estimated budget:

Table 5 Estimated budget

Item	Cost US$
1. Travel of UNOPS team to the subproject areas for monitoring and supervisory purposes.	4,000
2. Development and deployment of awareness materials on the GM channels and OHS requirements.	1,000
3. Consultation and communication meetings with the various stakeholder groups at the subproject areas.	3,000
4. Mitigation measures implementation	12,000
Total	**20,000**

4.5. ESMP reporting

The RAP ESSO will report to UNOPS on a monthly basis on the implementation of the ESMP and UNOPS will report the ESMP implementation to the WB. There will also be additional 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 make monthly visits to each 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 sites to ensure compliance where needed.

As guided by this ESMP as well as annex 3 requirements, the contractor 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 6 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, stakeholder engagement, details of any security risks, worker grievances, stakeholder grievances, major changes to contractors environmental and social practices,	Based on monitoring, inspection, records, logs, and contractor reports.	RAP Supervision Engineer	Monthly to RAP and based on cases

What	How	Who	When
deficiency and performance management.			
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 to RAP and UNOPS and based on cases

5. Stakeholder engagement and information disclosure

Stakeholder engagement activities at project level took place regularly by UNOPS and RAP with the various stakeholders at central and local level including central authorities, governor, district managers, local council members. 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.

The engagement process has taken the form of semi-structured and direct interviews with local communities and group discussions with stakeholders including, community leaders, beneficiaries, households, land and business owners in the different subproject areas. Further details on the project level engagement process are available in the latest YELCP SEP.

Meanwhile, consultation sessions on the proposed intervention were conducted within the subproject areas taking into consideration precautionary measures to avoid the spread of Covid-19; social distancing was applied and implemented outdoors. The participants in the subproject consultation are included below. Questionnaires were distributed and these are available in annex 4 and examples of the records are available in annex 5. Further consultations planned to be implemented will include additional beneficiaries, affected parties and other stakeholders with focus on the participation of women.

Date	Participants Details	Total Participants	
		Men	Women
11 September 2022	Local official, community leader	2	
11 September 2022	Farmers	11	2
11 September 2022	Students	3	1
11 September 2022	Public workers (teachers, doctors assistants)	4	
	Total	20	3

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

- Providing local communities with the subproject activities and its timetable.
- Raising the awareness about potential risks associated with the contractors work such as safety, health, environmental, and social risks and required control measures.
- Determine and address the local communities' concerns, expectations, and fairs.

- Discussion of positive impacts such as improved transportation, easier access to services, and enhanced road safety.
- Information provided on the potential negative impacts such as disruption of traffic and safety of workers and proposed mitigation measures and how to avoid and mitigate them.
- Information on the coordination requirements with subproject supervisors and contractors to manage the traffic.
- Provision of full details on the GM system that can be used to raise opinions, concerns and inquiries regarding the subproject without fear with emphasis on confidentiality.

The consulted individuals and authorities have expressed their support to the subproject showing their interest in facilitating implementation. Stakeholders fully support the subproject as it is the key factor for their development Moreover, the interviewees emphasized that the subproject will improve access to local services, schools and healthcare centers and other local services. However, concerns about the delay of commencement and implementation were raised in addition to the use of poor materials in rehabilitation. Emphasis was made on the importance of avoiding or reducing the time of complete closure of the road and suggestions made to implement section by section to allow essential movements of locals. Stakeholders emphasized the importance of selecting contractors who can complete the work activities safely within the agreed timetable in addition to performing close monitoring of the work quality.

Consultations will continue during civil work implementation with the local communities, affected parties, community committee, local authorities as well as workers to assess the overall satisfaction on implementation of mitigation measures and accommodation of all the concerns. Furthermore, the contractor will be required to undertake a process of stakeholder engagement with the various stakeholder groups in the subproject areas. The contractor shall maintain good relations with local communities throughout the subproject and will give the communities prior notice of subproject plans and schedules as they might be affected or might raise concerns.

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

- Continuous consultation with local communities by interviews, meetings and using questionnaires to assess beneficiaries' satisfaction on the subproject implementation as well as the compliance with safeguard requirements.
- Utilize GIS-based portal mapping for all activities including sub projects supported to promote transparency to reach more stakeholders.
- Utilize engagement findings to improve the Project implementation 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 utilizing the established GM system.

6. Grievance mechanism

UNOPS has established a GM system for the YELCP to enable beneficiaries to communicate their concerns regarding the planned activities and what improvement is needed in the scope. 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. Scans of hard copies in Arabic of the GM channels as available in annex 4. These were introduced to interviewees during the consultation sessions, and they have been informed about the focus on confidentiality.

Resolving complaints at community level is always encouraged to address the problem that a person may have during the implementation. RAP shall maintain records of grievances and complaints that

are resolved at community level including minutes of discussions, recommendations and resolutions made. Anonymous complaints will be treated like any other complaint and complaints may be delivered verbally or in writing by affected community members, or individuals and will relay these concerns in writing to UNOPS on a next day basis.

Multiple access points to the GM system are provided for beneficiaries to voice their concerns. These access points will be advertised in Arabic 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:

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

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

The GM focal point will register complaints; Inform the complainant if the complaint is accepted or rejected within 3 days of 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 grievance that could be raised include, 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, encroachment of farmland, etc.).
- GBV, SEA/SH grievances that will follow a different protocol as guided by the YELCP GBV action plan.
- Workers grievances if not satisfactory resolved at the contractor level GM, as stated in the YELCP LMP.

GM handling will follow the below main steps:

- Publicizing: stakeholder 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: Will be treated as seriously as any other complaints.
- Reviewing and investigating, collecting, reviewing and analyzing related documents.
- Conducting interviews of the people involved, officers and staff as appropriate.
- Analyzing relevant national legislation and associated regulations, World Bank Policies and 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 on the complaint and propose recommendations for resolution; the complainant can appeal and initiate legal process for his/her complaint if not satisfied with the 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 1 Subproject environmental and social screening form

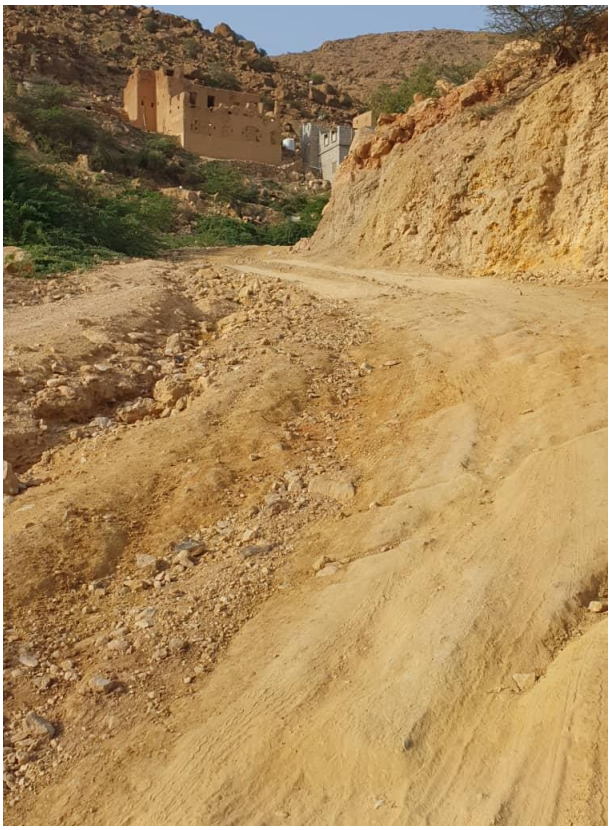
Question	Answer		ESS relevance	Due diligence/ Actions
	Yes	No		
Does the subproject involve civil works including new construction, expansion, upgrading or rehabilitation of existing infrastructure?	X		ESS1	ESMP, SEP
Does the subproject involve land acquisition and/or restrictions on land use?[14]		X	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 i) a project GM available to all stakeholders and ii) a GM to which all workers have access? Are both GMs designed to respond quickly and effectively?	X		ESS10, ESS2	SEP, LMP
Does the subproject involve use of security or military personnel during construction and/or operation of healthcare facilities and related activities?		X	ESS2, ESS4	ESMP, LMP, SMP
Does the subproject establish and implement an appropriate quality management system to anticipate and minimize risks and impact that services may have on community health and safety?	X		ESS2, ESS4	ESMP, SMP, 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

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

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

Annex 2 Subproject photos



Annex 3 Environmental and social requirements for contractors

Contractors shall meet the following Environmental, Health, Safety and Social requirements – thereafter called ESHS requirements[15].
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.

[15] 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 are always 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
- 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
- Usage of local species for replanting and species that are not listed as a noxious weed
- Repair, replant, reseed or otherwise correct, as directed by UNOPS or RAP, and at the Contractor's own expense, all unnecessary destruction, scarring, damage, or defacing of the landscape resulting from the Contractors operations
- Transport labor and equipment in a manner to avoid as much as possible damage to grazing land, crops, and property

Protection of the Existing Installations

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

Waste from Construction Activities

- Collect and properly store and manage all solid wastes and hazardous wastes (separated hazardous wastes from solid wastes) resulting from the construction activities, including construction debris and spoils, to prevent the contamination of soil and groundwater. In case chemicals are present they should be stored and disposed according to their Material Safety Data Sheets (MSDSs)
- Remove unneeded excavation material from construction sites and Wadi areas 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 the 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 life-lines
- Train workers in the use, serviceability, and integrity of the necessary PPE
- Include rescue and recovery plans, and equipment to respond to workers after an arrested fall

Struck By Objects

The Contractor shall:

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

First Aid and Accidents

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

Communicable Diseases

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 organize for the treatment of sick workers
- Building worker accommodations further apart, or having one worker accommodation in a more isolated area, which may be easily converted to quarantine and treatment facilities, if needed
- Establishing a procedure to follow if a worker becomes sick
- 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 requiring licensing of drivers
- Institute defensive driving training for all drivers prior to starting their job
- Adopt limits for trip duration and arranging driver rosters to avoid overtiredness
- Avoid dangerous routes and times of day to reduce the risk of accidents
- Require that drivers and co-passengers wear seatbelts, and duly sanction defaulters.
- Regularly maintain vehicles and use manufacturer approved parts to minimize potentially serious accidents caused by equipment malfunction or premature failure.

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

- Commence activities that affect public motorways and highways, only after all traffic safety measures necessitated by the activities are fully operational.
- Arrange diversions for providing alternative routes for transport and/or pedestrians
- Minimize pedestrian interaction with construction vehicles, particularly at crossing points to schools, markets, and any animal crossing points of significance, through appropriate signage, engineered footpaths or traffic slowing devices.
- Organize meaningful road accident awareness events at all roadside schools and communities within 150 meters of the road centerline, covering safe road crossing, road accident hazards from weather conditions and vehicle roadworthiness, overloading and driver alertness, dangers posed by parked and broken-down vehicles, etc.
- Collaborate with local communities and responsible authorities to improve signage, visibility and overall safety of roads, particularly along stretches located near schools or other locations where children may be present.

- Collaborate with local communities on education about traffic and pedestrian safety (e.g. school education campaigns).
- Coordinate with emergency responders to ensure that appropriate first aid is provided to all affected persons in the event of accidents.
- Use locally sourced materials, whenever possible, to minimize transport distances, and locate associated facilities close to project sites.
- Employ safe traffic control measures, including road signs, traffic cones, removable barriers, and flag persons to warn of dangerous conditions.

6. Emergencies

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

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

7. Stakeholder Engagement

The contractor will be required to undertake a process of stakeholder engagement with representative persons and communities directly affected by the activities it undertakes. 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 following the applicable market levels for workers Where applicable, 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 prohibiting use from other community sources
- Put in place measures to reduce water and electricity consumption

- Employ locals to the extent possible
- Develop and adopt a Gender Action Plan to promote the transfer of construction skills to local women, to facilitate their employment at the Project site, including training and recruitment targets.

Labor Conditions

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

Insurance

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

Protection from Sexual Exploitation and Abuse

- Provide repeated training and awareness raising to the workforce about refraining from unacceptable conduct toward local community members, specifically women

- Inform workers about national laws that make sexual harassment and gender-based violence a punishable offence which is prosecuted
- Prohibit its employees from exchanging any money, goods, services, or other things of value, for sexual favors or activities, or from engaging any sexual activities that are exploitive or degrading to any person.
- Develop a system to capture gender-based violence, sexual exploitation and workplace sexual harassment related complaints/issues.
- Adopt a policy to cooperate with law enforcement agencies in investigating complaints about gender-based violence.

Protection from Child Labor

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

Code of Conduct

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

CODE OF CONDUCT FOR CONTRACTOR'S PERSONNEL

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

This Code of Conduct is part of our measures to deal with environmental and social risks related to the activities. It applies to all our staff, including laborers and other employees at 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 comprehend. I understand that if I have any questions about this Code of Conduct, I can contact [enter name of Contractor's contact person with relevant experience in handling gender-based violence] requesting an explanation.

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

Signature: _____
Date: (day month year): _____

9. Contractor Environmental and Social Reporting

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

Contractors shall monitor, keep records and report on the following environmental and social issues: *Safety:* hours worked, lost time injury (LTI), lost workdays, recordable incidents and corresponding Root Cause Analysis (lost time incidents, medical treatment cases), first aid cases, high potential near misses, and remedial and preventive activities required (for example, revised job safety analysis, new or different equipment, skills training, and so forth).

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

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

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

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

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

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

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

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

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

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

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

Major changes to Contractors environmental and social practices.

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

Annex 4 Public consultation questionnaires

Yemen Emergency Lifeline Connectivity Project - المشروع الطارئ للربط الحيوي للطرق في اليمن

برنامج تنمية الطرق الريفية

إن الهدف الرئيسي لبرنامج تنمية الطرق الريفية على المدى البعيد هو تحسين حياة ومعيشة سكان المناطق النائية بما في ذلك سكان الأرياف وتقليل العزلة التي يعيشونها وكذلك تواصل المجتمع الريفي بسكان المناطق الأخرى وتسهيل الدخول إلى الأسواق والحصول على الخدمات العامة من مياه – تعليم –صحة – كهرباء – وتحسين الطرق وربط تلك المناطق بالمراكز الإدارية لمراكز المديريات والمحافظات. وعلى ضوء ما تقدم تم إختيار مسار المشروع (.....) ضمن المشاريع المستهدف 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:..... محافظة:.....	
اسم منفذ الاستبيان :	التاريخ: ...../...../.....
اسم مشارك الاستبيان :	النوع: ☐ ذكر ☐ أنثى
(العمر: .....(اقل من15) (16-30) (31-45) (46 –أكثر	:رقم الهاتف
المهنة:	

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

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

9	توجيه حركة المرور لطرق عبر تحويل أخرى قد يسبب ازدحام مروري اختناقات مرورية في شوارع اخرى			
10	انقطاع وتعطيل خدمات المياه والمواصلات في موقع المشروع			
11	سيتسبب المشروع بعنف مجتمعي (ضد النساء- الأطفال – المهمشين- النازحين..)			
12	أي تخوفات أخرى			
13	أي احتياجات أخرى:.....			

هل يمثل المشروع أولوية لتنفيذ أعمال الإنشاء / الصيانة ولماذا؟

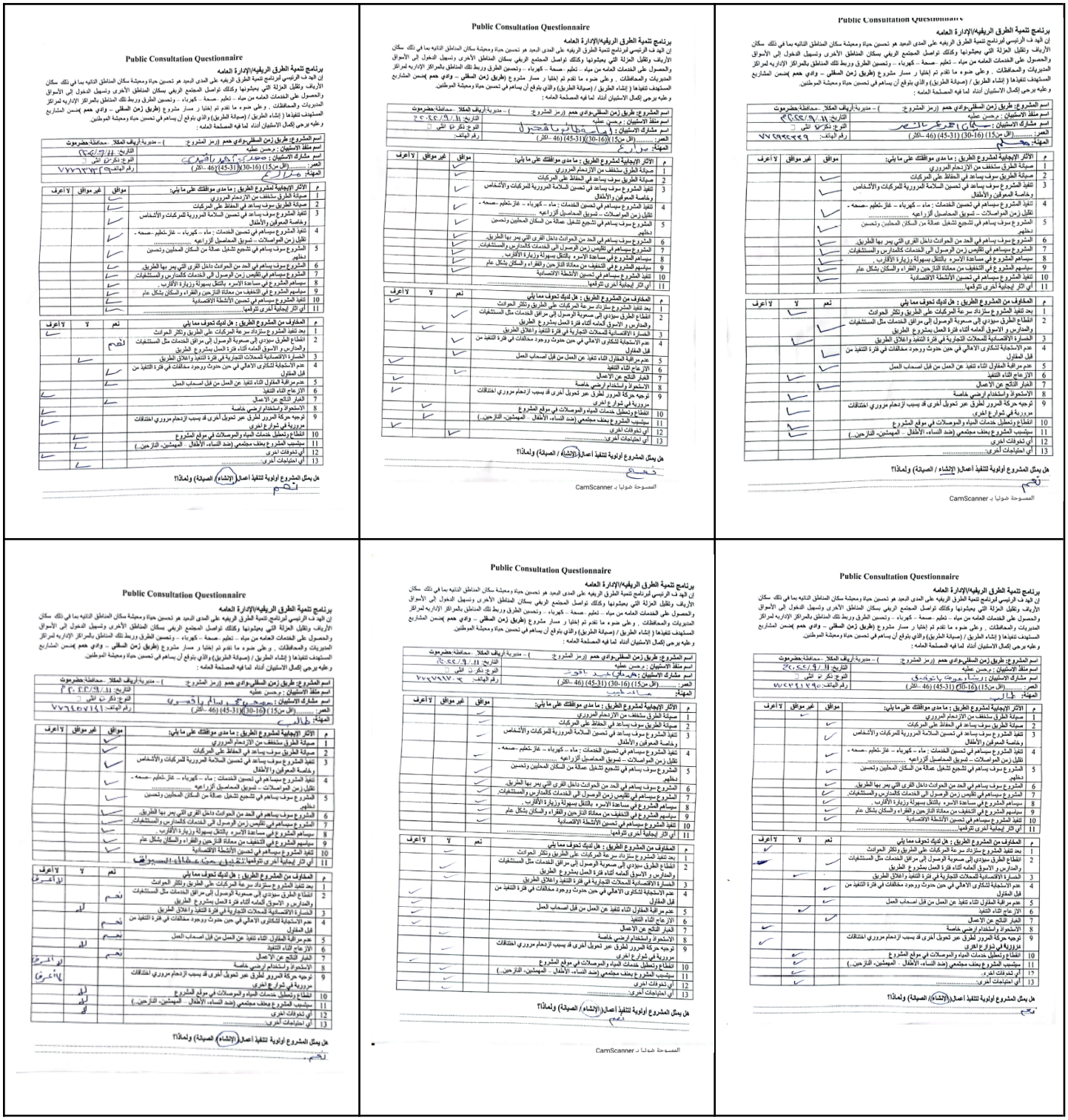
.....
.....
.....
.....
.....

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 في اليمن)** والممول من البنك الدولي عبر القنوات التالية والتي تقع تحت مسؤولية **مكتب الأمم المتحدة لخدمات المشاريع**:

Toll Free Number	**8000190**	**رقم مجاني**
Landline	**01 504914 and 01 504915**	**رقم هاتف أرضي**
SMS and WhatsApp	**739888388**	**رسائل نصية أو واتساب**
Email	grm-yemen@unops.org	**بريد إلكتروني**

Annex 5 Consultation records samples



Public Consultation Questionnaire

برنامج تنمية الطرق الريفية/الإدارة العامه

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

وعليه يرجى إكمال الاستبيان أدناه لما فيه المصلحة العامه :

اسم المشروع: طريق زمن المطلى-وادي هم (رمز المشروع:) – مديرية/أريف المكلا - محافظة:حضرموت	
اسم منفذ الاستبيان : م.حسن عطيه	التاريخ: 11/ 9/ 2022
اسم مشارك الاستبيان : [illegible]	النوع: ذكر ☑ انثى ☐
العمر: ..... (اقل من15) (16-30) (31-45) (46 -اكثر)	رقم الهاتف: 777777777
المهنة: [illegible]	

م	الأثار الإيجابية لمشروع الطريق : ما مدى موافقتك على ما يلي:	موافق	غير موافق	لا أعرف
1	صيانة الطرق ستخفف من الازحام المروري	✓		
2	صيانة الطريق سوف يساعد في الحفاظ على الممتلكات	✓		
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 -صحه - تقليل زمن المواصلات – تسويق المحاصيل الزراعيه	✓		
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 الى الخدمات كالمدارس والمستشفيات.	✓		
8	سيساهم المشروع في مساعدة الاسره بالتنقل بسهولة وزيارة الأقارب.	✓		
9	سيساهم المشروع في التخفيف من معاناة النازحين والفراء والسكان بشكل عام	✓		
10	تنفيذ المشروع سيساهم في تحسين الأنشطة الاقتصادية	✓		
11	أي اثار إيجابية أخرى تتوقعها.....			

م	المخاوف من المشروع الطريق : هل لديك تحوف 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 والاسواق العامه أثناء فترة العمل بمشروع الطريق	✓		
3	الخسارة الاقتصادية للمحلات التجارية في فترة التنفيذ وإغلاق الطريق	✓		
4	عدم الاستجابة لتكاوى الاهالي في حين حدوث ووجود مخالفات في فترة التنفيذ من قبل المقاول	✓		
5	عدم مراقبة المقاول اثناء تنفيذ عن العمل من قبل اصحاب العمل	✓		
6	الازعاج اثناء التنفيذ	✓		
7	الغبار الناتج عن الاعمال	✓		
8	الاستخدام واستخدام ارضي خاصة	✓		
9	توجيه حركة المرور لطرق غير تحويل أخرى قد يسبب ازدحام مروري اختناقات مرورية في شوارع أخرى	✓		
10	انقطاع وتعطيل خدمات المياه والموصلات في مواقع المشروع	✓		
11	سيتسبب المشروع بخلف مجتمعي (ضد النساء- الأطفال - المهمشين- النازحين..)	✓		
12	أي تخوفات أخرى	✓		
13	أي احتياجات أخرى.....	✓		

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

نعم

Annex 6 Due diligence report

Assessment was conducted to evaluate whether any assets will be affected by the subproject civil work in which all assets were 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 found out of the corridor of impact; approximate distance from the end of the corridor of impact is added in the below table along with the structures details and coordinates.

No	Asset Category	Description	Latitude	Longitude	Distance from end of corridor of impact (m)
1	Structure	Cemetery fence	14.742399	49.001557	5
2	Structure	Concrete water tank	14.742129	49.001682	4
3	Structure	House	14.743617	49.002027	3
4	Plantation	Farm boundaries	14.748131	48.992561	2
5	Plantation	Farm boundaries	14.749853	48.987285	5
6	Plantation	Farm boundaries	14.749669	48.986709	3
7	Structure	House	14.752155	48.980869	5
8	Plantation	Farm boundaries	14.754734	48.977184	1
9	Plantation	Farm boundaries	14.754699	48.977147	2
10	Plantation	Farm boundaries	14.755043	48.976864	2
11	Plantation	Farm boundaries	14.754921	48.976924	1
12	Plantation	Farm boundaries	14.755762	48.973964	2
13	Plantation	Farm boundaries	14.757921	48.966291	2
14	Plantation	Farm boundaries	14.757810	48.966327	1
15	Plantation	Farm boundaries	14.758001	48.965383	2
16	Plantation	Farm boundaries	14.762022	48.955635	2
17	Plantation	Farm boundaries	14.761813	48.955275	1
18	Plantation	Farm boundaries	14.761560	48.954788	1.5