UNITED NATIONS OFFICE FOR PROJECT SERVICES

(UNOPS)

# YEMEN INTEGRATED URBAN SERVICES EMERGENCY PROJECT

YIUSEP-ll

## Environmental and Social Management Plan

ESMP No. 8

Stone Paving Sub-Project in Urban Areas

One Sub-project

14 December 2022

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# Abbreviations

| | |
|---|---|
| **BOQs** | Bills of Quantities |
| **CSO** | Central Statistical Organization |
| **CoC** | Code of Conduct |
| **HNO** | Humanitarian Needs Overview |
| **CHM** | Complaint Handling Mechanism |
| **COVID-19** | Coronavirus disease |
| **E&S** | Environmental and Social |
| **EHS** | Environmental, Health, and Safety |
| **ESMF** | Environmental and Social Management Framework |
| **ESMP** | Environmental and Social Management Plan |
| **ESR** | Environmental and Social Responsiveness |
| **ESS** | Environmental and Social Standards |
| **GBV** | Gender-Based Violence |
| **G M** | Grievance Mechanism |
| **HNO** | Humanitarian Needs Overview |
| **HQ** | Head Quarter |
| **IBAs** | Important Bird Areas |
| **IDPs** | Internally Displaced Persons |
| **IDs** | Personal Identifications Cards |
| **IP** | Implementing Partner |
| **IPC** | Integrated Phase Classification |
| **N** | North |
| **O&M** | Operation and Maintenance |
| **OHS** | Occupational Health and Safety |
| **PPEs** | Personal Protective Equipment's |
| **PWP** | Public Works Project |
| **SEA** | Sexual Exploitation and Abuse |
| **SEP** | Stakeholder Engagement Plan |
| **SFD** | Social Fund for Development |
| **SH** | Sexual Harassment |
| **SRM** | Stakeholder Response Mechanism |
| **TPM** | Third-Party Monitoring |
| **UNDP** | United Nations Development Program |
| **UNICEF** | United Nations International Children's Emergency Fund |
| **UNOPS** | UNITED NATIONS OFFICE FOR PROJECT SERVICES |
| **YIUSEP-II** | Second Yemen Integrated Urban Services Emergency Project |
| **WASH** | Water, Sanitation, and Hygiene |
| **WBG** | World Bank Group |
| **SP** | Sub-Project |

# 1. Introduction:

Under the umbrella of the YIUSEP-II[1] environmental and social management framework (ESMF)[2], which was prepared in accordance with the requirements of the WB's ESF, PWP had prepared environmental and social management plan (ESMP) for the sub-project proposed to be implemented by PWP. In this ESMP, PWP studies all the environmental and social aspects within the sub-project and the impacts and risks that may emerge due to the implementation. Additionally, the ESMP reflects methodologies of analyzing, handling, and managing environmental, social, and OHS impacts, and the procedures that PWP must follow while reflecting the roles of the different implementation parties as well.

In this ESMP, the sub-project falls under the stone paving sector which is to implement stone paving for urban secondary street in Sheikh Othman District - Aden governorate in Yemen.

PWP will invest US $ 172,977 to complete the civil works of this sub-project. The sub-project will be implemented by contractor. PWP completed its field visits in October 2022 for physical environmental and social screening purposes and the stakeholder and public consultation with all affected parties of the sub-project to ensure the sustainability of this intervention.

The sub-project risk under this ESMP is rated as moderate based on the primary screening and the study of the anticipated risks and impacts, and considering that no significant adverse environmental and social, and occupational health and safety impacts are anticipated and any potential impacts that may emerge during the sub-project life cycle will be managed according to the project ESMF and WB's ESF. Table 1 below presents the general information relating to the sub-project positioning, location and cost

*Table 1 General information about the project*

| | |
|---|---|
| Name of the Sub-project: | Stone Paving in Urban Area |
| Sub-project ID: | 02-5-16046 |
| Sub-project Locations | Aden |
| Sector and Type of Sub-project: | Stone Paving in urban area |
| Implementing of the Sub-project: | PWP |
| Estimated Cost of Sub-project: | 172,977 US$ |
| Estimated Cost of ESMP | ( 8,995 US$) |
| Field Visit (Yes/No; Include Date): | Yes- October - 2022 |
| Was Consultation Carried out? (Yes/No): | Yes- Refer to Public Consultation Section |
| Implementation Period | 3 months |
| Proposed Class of Subproject (Low to High): | Moderate |
| Implementation Modality | Contracting Modality |

[1] http://pwpyemen.org/index.php/en/media-center-en/publications/category/13-integrated-urban-services-emergency-project-ii-p175791-iusep-ii

[2] https://documents1.worldbank.org/curated/en/099854511242137276/Final0ESMF0YIUSEP0II0AF.docx

## 2 Sub-Project Description:

The sub-project will implement stone paving in secondary urban street in Sheikh Othman District - Aden governorate in Yemen.

The sub-project targets the paving of a total area of about 5,380 $m^2$ of the secondary streets, the target total length is 311 m with an average street width of 17.3 m. The stone paving sub-project will follow the current secondary street existing footprint. There are trading stores, shops, hotels, restaurants, banks, health centers, houses and other services along the road . The road is vital for traffic in Aden City and serves the whole population of the city . The types of business and economic activities vary between small shops, trading stores, restaurants, groceries, vehicles workshops. The total number of economic activities is 39 (20 groceries, 4 Pharmacy stores, 5 restaurants, 10 other economic activities), while the exact number of houses is, unfortunately, unavailable but the number of families living in the area is about 300. The work will be implemented section by section in a short period in coordination with local community and local authority.

The total number of direct beneficiaries who will benefit from this subproject in general is 6,400 persons (including 3,000 men and 3,400 women). The number of neighborhoods benefiting from the road directly is 4, moreover, 10 neighborhoods benefiting from the road indirectly, .

The targeted area is suffering from the collection of rainwater in the street during the rainy season, which leads to the presence of an unhealthy environment that attracts all kinds of mosquitoes and diseases, as well as vehicles being damaged from entering pits that collect rainwater (The natural flow of rainwater is designed with the consideration that it won't flood the area or location after it ).

This sub-project will enhance the living environment and conditions for the targeted community and improve access and mobility and enhance access and road safety. Moreover, the new roads made of stones will be easily accessible for persons living with disabilities applying the universal accessibility. The sub-project will provide work opportunities during implementation for skilled and unskilled workers from local community and from internally displaced people whom they are taking more in consideration to reduce the economic impacts of the COVID-19 pandemic and will generate positive impacts on the economy, and health in the targeted area. Also, the sub-project will enhance the community's protection and resilience.

The sub-project will be implemented through a contracting modality and the implementation period of three months based on the work size and depending on the needs. The total estimated cost of the sub-project is 172,977 US$. The estimated cost of ESMP implementation will be 8,995 US$ some of this amount will be part of the sub-project contracted costs such as PPEs, COVID-19 requirements, and providing latrines in site (the contractor will rent an apartment in the sub-project with latrines for workers and in case of female employees if any, they will be provided with a separate latrines); other costs, staffing, consultations, and awareness materials, will be covered from the ESMP budget.

The contractor will hire the workforce from the targeted area. Given the fact that some parts of the activities require skilled labor, these tasks will be undertaken by appropriately skilled workers from the targeted area and when not available, the contractor will hire skilled laborers from nearby areas(Aden city is large enough to get all types of skilled workers and the subproject is within the city); therefore, they will be able to return to their homes daily after finishing their time of work. Each of the civil works will maximize the use of manual labor to support local employment and provide income for local community during the sub-project implementation period. The contractor will be responsible for protecting their

workers and community during implementation and applying the E&S and H&S mitigation measures and providing the required training, tools, and necessary PPEs for workers.

## 2-1 Scope of Work:

This ESMP is prepared for one urban stone paving sub-project. The sub-project will follow the existing footprint of the current street and will follow the same path. The activities will require stones for pavement in urban areas that will be bought directly from local market[3].

The sub-project activities will include but are not limited to the following:

- Leveling and compaction work with proper materials.
- Cutting of previous stones and/or remaining asphalt in some locations.
- Adjusting manhole level when required.
- Transporting paving stones from the market, and other construction materials to the worksite.
- Mixing the concrete.
- Implement a 10 cm plain concrete under the stone paving.
- Implement the stone paving [4] with cement mortar including cutting and shaping stones by using manual equipment and tools[5].
- Implement the concrete paving by using manual equipment and tools.
- Implement reinforced concrete beams at the end of the paving to protect the paving.
- Collecting and transporting construction residues to areas appointed by local authority.[6]
- Planting native non-invasive trees[7] on the footpaths in the section of the sub-project.

Table 2 below shows the name of sub-project and the technical details related to the area of the stone paving, estimated cost for the sub-project, ESMP cost, and estimated number of labors.

[3] Tipper trucks are used to load and unload the stones; no manpower is used in this process.

[4] The standard stones dimensions are (25*30*30) cm, the source of stones is from the local market. The type of stones usually are igneous or metamorphic rocks, and the estimated cost of the stone is 0.8 US$ after formulation. .

[5] List of equipment and tools are wheel loader, dump truck, concrete mixing machine, compactor, vibrators, wheelbarrow, screeds, shovel, and hammers.

[6] construction residues will be collected and transported and disposed to the authorized location in coordination with the local authority.

[7] Tree planting is included as a priced item in the Bills of Quantities priced by the contractor for the subproject, as positive Environmental improvement measure. Contractor will deliver the plants from local Nurseries trees, and numbers of trees/saplings will differ from one road to another as per the site engineer recommendations, as described in the BOQs of subproject. Location of tree planting will be in suggested locations by The supervisor engineer in coordination with the subarea branch staff is the responsible to select the suitable places for planting in the beginning of the implementation.

*Table 2 shows the details of the proposed stone paving*

| N | ID | Subproject Name | Governorate | Road Length (meter) | Average Width[8] (m) | Area of Paving[9] (m2) | SP Estimated Cost US$ | Estimated cost for ESMP Implementation US$[10] | Estimated/ planned No. of Labour[11] |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 02-5-16046 | Stone paving for Street extending from intersection of Shamsan Mall with Ghurairy restaurant to Abdullaziz Area - Sheikh Othman District | Aden | 311 | 17.3 | 5,380 | 172,977 | (5.2%) 8,995 | 287 |
| **Total** | | | | **311** | **17.3** | **5,380** | **172,977** | **8,995** | **287** |

[8] The design width is the same as existing width of targeted streets, hence the design width will not require additional land

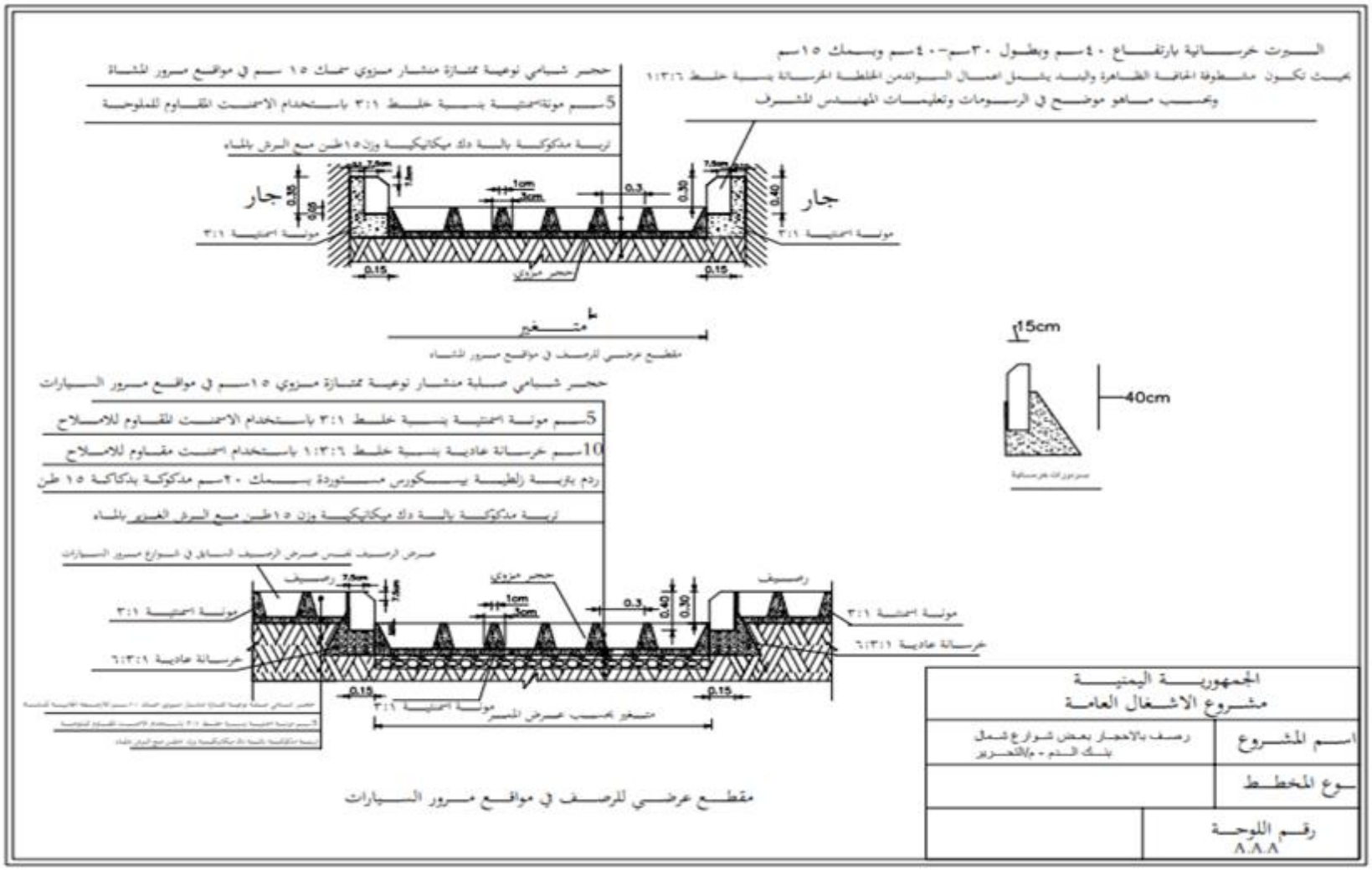
[9] The area of paving was calculated by using ground survey (Total Station). The width of the streets is an Average which differ from on street to another and sometime differ along in the same street. As a result, when multiplying the width with the length we will not have the area mentioned accordingly.

[10] The estimated cost of ESMP implementation will differ from sub-project to another. Some of these expenses will be part of the subproject-contracted cost such as PPEs, Covid-19 requirement, and providing latrines in site; other cost, staffing, consultations, and awareness materials, will be covered from the safeguarding budget that is mentioned in the ESMF. From our previous experience the ESMP implementation need around 7% from the civil works amount. The needed percent is 7% the existing fund is 5.2 where 4% from the 5.2% covers the civil works and the rest 1.2% covers operation cost

[11] Number of workers is calculated as follows: 40% of estimated project cost of all projects / (daily wages for each worker (11$)/no of working days per month (22); Skilled labors is estimated as 1/3 of total no of labors; Non-Skilled labor is estimated as 2/3 of total no of labors.

**Typical Drawings:**

Figure 1 below is a typical cross-section of stone paving with cement mortar in urban areas. This will be used as a typical design for the proposed stone paving activity, it included the different layers of the pavements.



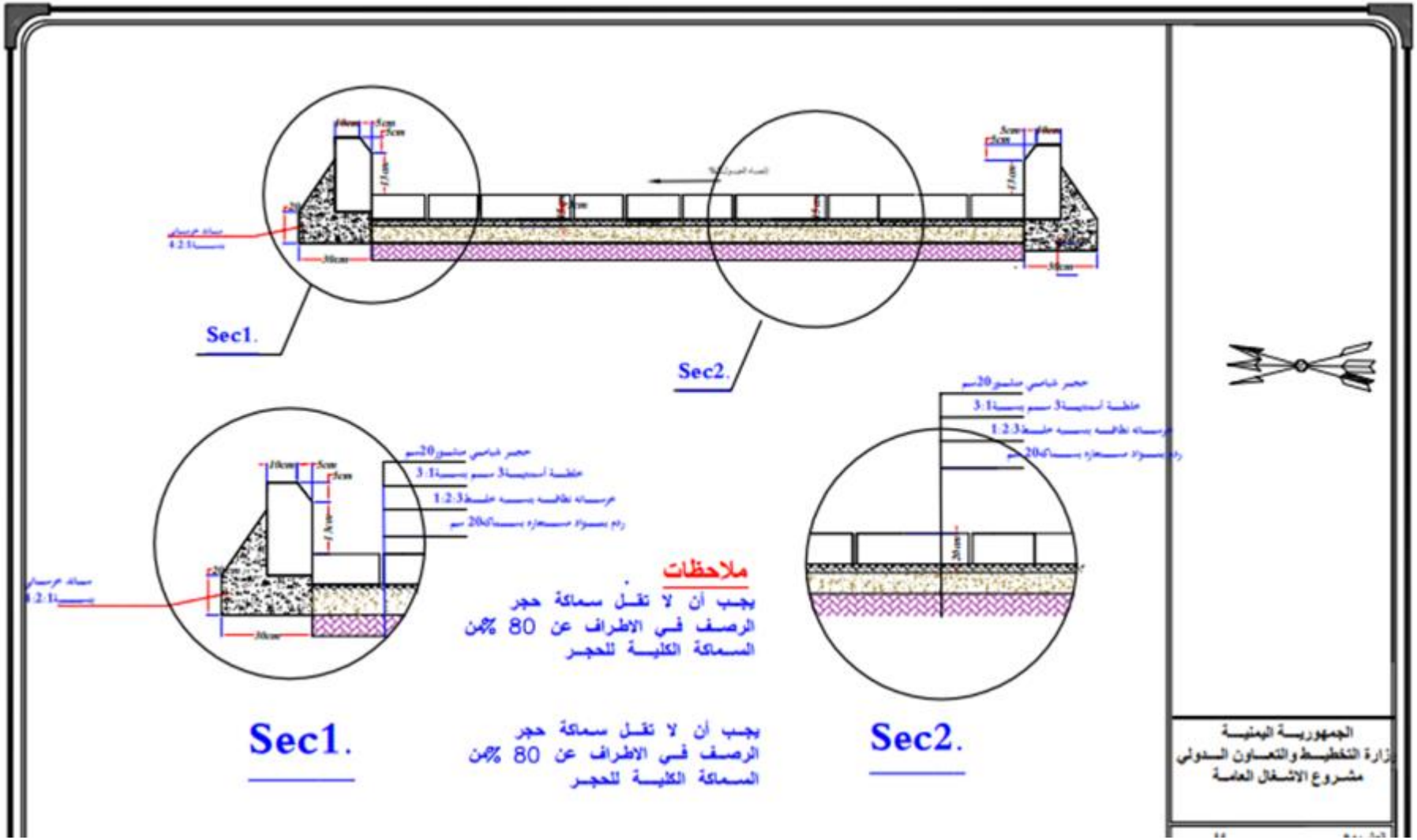



*Figure 1 Typical cross-section for stone paving with cement mortar.*

## 2-2 Location:

The sub-project will be implemented in Sheikh Othman District - Aden governorate in Yemen. The area is selected based on the communities' highest priorities and in line with sectors for COVID-19 response. The transparent allocation of funds is based on national statistics indicators at the governorate and district levels, and is coordinated with local actors in an inclusive and participatory manner. Table 3 below shows the name of the sub-project and the coordinates of the Location:

*Table 3 Name of the sub-project and the coordinates of the Location*

| Governorate | Subproject-ID | Subproject Name | E (Y) | N (X) |
|---|---|---|---|---|
| Aden | 02-5-16046 | Stone paving for Street extending from intersection of Shamsan Mall with Ghurairy restaurant to Abdullaziz Area - Sheikh Othman District | E 44°59'37.93" | N 12°51'57.79" |

The satellite picture included in figure 2 below show the plan of the targeted streets where the sub-project will be located the respective ID

**Plan for the targeted Streets (SP ID: )**

Stone paving for Street extending from intersection of Shamsan Mall with Ghurairy restaurant to Abdullaziz Area - Sheikh Othman District

*Figure 2 Sub-project Map Location taken from Google satellite*

# 3 Environmental and Social Baseline conditions[12]:

This part describes the conditions in the sub-project prior to implementation. The subproject is located within Aden City which is located in the inland South of Yemen. Baseline data provides description of the current conditions along the road including the Hydrology, Cultural Heritage , Soil ,Geology , Rainfall, Climate, Weather, air quality, noise, and socio- economic aspects. The information was obtained from the Yemeni National Information Center and /or Central Statistical Organization. The sub-project will be implemented in Sheikh Othman District - Aden governorate in southern Yemen:

**Aden governorate** Aden is a city and major seaport in southern Yemen. Situated approximately 170 km east of the Bab Al Mandeb strait, which connects the Gulf of Aden to the Red Sea. Aden possesses one of the world's largest natural harbours, with a naturally deep and protected port that allows for the docking of large oil tankers. It has an area of 293.4 square mile and a population is about 987,000 estimated in 2019 according to Humanitarian Needs Overview (HNO) data. The climate of the site area is semi-arid to arid. The summer is hot and it includes a light rainy season. According to Central Statistical Organization (CSO) data, the total average annual rainfall in Aden is around 48 mm and the temperature ranges from 20C to 41,5C with an average relative humidity of 59% .The socioeconomic profile in Aden is represented by commerce, industry, fishing, and tourism. The socio-economic conditions of the beneficiaries, in general, are affected by the ongoing conflict and the decline in purchasing power, some of them depend on salaries in various sectors, while others have micro-projects, and most of them are unemployed.

## 3.1 Hydrology:

The sub-project will be located on existing streets, so there is no change in the runoff patterns(if the subproject has been implemented will improve the runoff patterns ), and the stone paving will not lead to a blocked change in rainwater runoff path, no wadi, or major water drainage area will be diverted or blocked and no downstream community will be impacted. Additionally, there are no groundwater tables and main surface water paths in the targeted area. Thus, there will not be any anticipated impacts on the hydrology system in the targeted area.

## 3.2 Cultural Heritage:

The district where sub-project is located do not encompass any archaeological site and it is not located near by any of the cultural heritage areas of the city.

## 3.3 Soil and Geology:

The soil in the targeted area is sandy, and graduated soil.

## 3.4 Rainfall, Climate, and Weather:

The climatology of Yemen cities is divided between the highlands, desert landscape, and coastal regions. The subproject area is located in Aden which is a coastal city with long, hot summers, relatively warm and windy winters. The hottest period of the year is between April and June, with the greatest maximum temperatures in 2016 at 41,5°C in Aden.

[12] National Information Center, https://yemen-nic.info/

The climate of the site area is semi-arid to arid. The summer is hot and it includes a light rainy season. The average annual precipitation is around 48mm. The temperature is ranging from 20C to 45C.[13]

## 3.5 Climate change:

Climate change poses a significant threat to Yemen's development across many sectors. Challenges include short-burst and intense rainfall which often leads to flash floods, which can result in significant damage and high losses in urban areas due to their concentrated physical assets and population. Rainfall intensity, and therefore flooding, is projected to increase with climate change; Greater rainfall variability could result in prolonged drought periods. Yemen's water crisis ranks among the worst in the world, and water stress is observed to be increasing, with groundwater reserves likely to be mostly depleted in two to three decades regardless of climate change.

## 3.6 Air Quality and Noise:

Data on air and noise quality in Yemen in general and in the areas within the sub-project are extremely scarce. No air and noise quality monitoring data for the sub-project's area were found. The implementation of the sub-project will improve the air and noise conditions in the area.

## 3.7 Wind and wind direction

During the summer months, from May to August, in south of Yemen the north blows, very hot winds that carry sand and create additional inconvenience to the people in Yemen. The average monthly wind speed in Aden ranges between 1.8 Meter/sec in June and about 4 Meter/sec in March.

## 3.8 Existing Situation of the Targeted Area:

The subproject will be implemented in Sheik Othman district ,which people work in trade and are employees with the government. The unemployment rate in that region is 80%. The percentage of poor families in the region is about 60% , and the rest of the percentage for middle-income families. It is difficult to calculate the number of IDPs in that region, because they have become part of society, However, they are estimated to be approx 1%.

The targeted road condition is deteriorated in many sections particularly in intersections. There are potholes, cracks, raveling, and waves and corrugation on asphalt. This condition makes the movement of vehicles very difficult for people to access services. The current condition of the road causes impacts on the environment as well as accidents. The targeted area is suffering from the collection of rainwater and sewage in the street during the rainy season , which leads to the presence of an unhealthy environment that attracts all kinds of mosquitoes and diseases, as well as vehicles being damaged from entering pits that collect rainwater. The sub-project will help in avoiding rainwater accumulation on these streets, enhancing the environmental situation and natural slope of the street, and making street clean, safe for walking, and easy for mobility.

The intervention will reduce the community's suffering and provide a cleaner environment and enhance the living condition in the targeted area and will provide opportunities during implementation for skilled and unskilled workers from local community. Below are some photos from the targeted area explaining the current situation:

[13] There is no specific rainfall, climate, weather data specific for the targeted location, due to absence of weather stations in the specific location, hence General data has been utilized.

Stone paving for Street extending from intersection of Shamsan Mall with Ghurairy restaurant to Abdullaziz Area - Sheikh Othman District

Figure 3 Existing Situation of the Targeted Area the source is the design and social study that was done by consultants on October 2022

## 3.9 Targeted Beneficiaries:

The intervention is selected based on the communities' highest priorities[14] and in line with sectors for famine / COVID-19 response. The activities of the sub-project will serve the local community that is considered the project's direct beneficiaries. Table 4 below shows the total number of beneficiaries segregated by gender:

*Table 4* ***Total number of beneficiaries segregated by gender***

| Subproject-ID | Subproject Name | Benefited Neighborhoods | Beneficiaries[15] | | |
|---|---|---|---|---|---|
| | | | Male | Female | Total |
| 02-5-16046 | Stone paving for Street extending from intersection of Shamsan Mall with Ghurairy restaurant to Abdullaziz Area - Sheikh Othman District – Aden District | 4 | 3000 | 3400 | 6400 |
| **Total** | | **4** | **3, 000** | **3, 400** | **6,400** |

During the consultative meeting with the community, it was agreed to form a community committee of men and women for the subproject. This committee aims to coordinate to carry out awareness-raising work, supervise and solve problems during implementation. The beneficiaries' representatives could be the head of the community committee, local council members, district managers, or any entity representing the beneficiaries. Before the sub-project is handed over from the contractor to the beneficiaries representatives at the completion of the implementation, the PWP sub-area manager invites the beneficiaries' representative to participate in this occasion. The site handing over ends with minutes of sub-project handing over minutes between the PWP sub-area manager and the contractor with the signing of the beneficiaries' representative. During this occasion, the sub-area manager will emphasize the importance of sub-project maintenance to ensure the sustainability of the intervention.

Through the transparent allocation of funds that is based on national statistics indicators at the governorate and district levels, followed by coordination with local actors and an inclusive participatory process, PWP will be reducing conflict over resources. The selection of the community beneficiaries is based on transparent eligibility criteria (climate change effects, Internal Displaced Persons IDPs, Integrated Phase Classification IPC, and Humanitarian Need Overview HNO) and consultations with community and local leaders. Before implementation and during the participatory consultations with local community to define the intervention, PWP's teams confirmed the priority of the need of the society and ensure the need for the intervention for the society.

[14] According to the local communities' public consultations and stakeholder engagements.

[15] The number of beneficiaries calculated from the visits of the social mobilized team who take the number from the community's leaders. Mostly the population numbers are taken from 2004 Residential census multiplied by the increase equation. 2004 census is the last one made in Yemen.

# 4 Environmental and Social Impacts Assessment:

## 4.1 Applicability:

The World Bank Environmental and Social Framework ESF[16] (ESS1, ESS2, ESS3, ESS4, and ESS10) and YIUSEP-ll ESMF have been applied because this sub-project may trigger minor environmental and social and Occupational Health and Safety (OHS) impacts. The relevant ESSs according to the screening table below are ESS1,ESS2,ESS3,ESS4 and ESS10.

## 4.2 Eligibility (Responsive Criteria and Exclusion List):

This sub-project are eligible for support as per the PWP Environmental and Social Responsiveness (ESR) Criteria and UNOPS Exclusion List at the Proposal Stage- see Annex 2.

## 4.3 Environmental and Social Screening:

**Positive impacts:**

An Environmental and Social screening has been conducted by PWP safeguards, field staff, and designer engineers through site visit to sub-project site. The sub-project will have a positive impact on the environment and community in the targeted area such as providing job opportunities during implementation for workers from local community as well as for internally displaced people (IDPs) in different sectors such as economy, and health services in the targeted area, and will enhance the community's protection and resilience.

From security prospective and from the subproject screening, PWP has concluded that the subproject site is safe and there are no security concerns that require specific additional attention.

**Negative risks and/or impacts**

Based on the screening the sub-project may trigger minor to moderate environmental and social impacts such as air and noise pollution, residual wastes, hazardous waste, raw materials, and OHS issues. The intervention does not require land acquisition as it will be implemented on existing streets. It is expected to have minor effects on the neighborhoods side shops trading stores, hotels, restaurants, banks, health centers, houses and vendors. Also, the civil works may cause temporary disruption of traffic and congestion and may bother the civilians by traffic jams due to the movement of vehicles from/to worksite. Alternative streets will be available for road users during implementation, and PWP will coordinate with local authority and community to mitigate this impact. Financial exploitation including bribes, fraud, or some other form of corruption is also an important risk that may happen during the intervention.

In such intervention, minor and moderate injuries may occur during the sub-project's activities even for the workers or the local community. The main activities that people may be harmed from are excavation works (depth 40-50 cm), Implementation of reinforced concrete, Paving the stones, manual handling of works materials, traffic accident, and using of such equipment in the workplace like asphalt cutting, cement mixer, trucks, excavators, working in bad weather conditions … etc. PWP will ensure OHS measures are in place including conducting a risk assessment of all activities to measure the impacts on the safety of workers and community.

[16] https://drive.google.com/file/d/1K-0lt74YJFWsgByQKWHHtfqHdenBEE89/view?usp=share_link

In terms of environmental impacts, it is expected to have minor pollution during the activities even from workers or from the work activities, for instance, open defecation and solid waste produced by workers (trash and plastic bags) accumulates and pollutes the environment. Also, very limited, localized, and short-term air pollution, loud noise, and gas emission may be generated by machines and vehicles. Soil contamination because of excavation activities, spilled oil, and hazardous wastes from an oil change of vehicles and equipment on the worksite. Moreover, vibration impact is anticipated due to compaction activities.

The sub-project will be located on existing streets, so there is no change in the runoff patterns, and the stone paving will not lead to a block or change in rainwater runoff paths , no major water drainage areas will be diverted or blocked and no stream community will be impacted. Additionally, there are no groundwater tables and main surface water paths in the targeted area. Thus, there will not be any anticipated impacts on the hydrology system in the targeted area. PWP will ensure the slope in the stone paving will be as per the slope designs.

The district where sub-project is located does not encompass any archaeological site and there are no recognized cultural heritage areas nearby. However, the contract will include provisions about chance finds procedures and the training of staff/supervisors to deal with the emergence of any potential archaeological discoveries, including the need to contact the Antiquities Department in the Ministry of Tourism and the local council to assess the situation quickly.

During the site visit, it is noticed that the sub-project will be implemented in very dense area and inside the internal lanes where the children and pedestrians are present. Accordingly, impacts on community health and safety are anticipated. PWP will ensure community health and safety and coordinate with the public, and local authority before implementing any activities and raise public awareness regarding the potential risks and impacts as well as secure the activities location from the children and pedestrians.

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

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

### 4.3.1 Environmental and Social Screening Form

| Question | Answer | | ESS relevance | Due to diligence/ Actions[17] |
|---|---|---|---|---|
| | Yes | No | | |
| Does the sub-project involve civil works including new construction, expansion, upgrading, or rehabilitation of existing infrastructure? | X | | ESS1 | ESMP, SEP |
| Does the sub-project involve land acquisition and/or restrictions on land use? | | X | | SEP |
| Is the sub-project associated with any external waste management facilities such as a sanitary landfill, incinerator, or wastewater treatment plant? | | X | | NA |
| Does the sub-project have an adequate system in place (capacity, processes, and management) to address waste? | X | | ESS1, ESS3 | ESMP |
| Does the sub-project involve the recruitment of workers including direct, contracted, primary supply? | X | | ESS2 | LMP, SEP, ESMP |
| Does the sub-project have appropriate OHS procedures in place and an adequate supply of PPE (where necessary)? | X | | ESS2 | LMP, ESMP |
| Does the sub-project have an overall project GM in place, to which all stakeholders have access and a GM for workers designed to respond quickly and effectively? | X | | ESS10, ESS2 | SEP, LMP, GBV Action Plan |
| Does the sub-project involve the use of security or military personnel during the construction and/or operation of healthcare facilities and related activities? | | X | | SMP |
| Does the Sub-project 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 | | ESS4 | ESMP, SEP |
| Does the sub-project apply the concept of universal access were technically and financially feasible? | | X | ESS4 | ESMP, SEP |
| Is the sub-project located within or in the vicinity of any ecologically sensitive areas? | | X | | NA |

[17] Stand alone documents

| | | | | |
|---|---|---|---|---|
| Is the sub-project located within or in the vicinity of any known cultural heritage sites? | | X | | ESMP, SEP |
| Do the sub-project area present potential Gender-Based Violence (GBV) and Sexual Exploitation and Abuse (SEA) risk? | X | | ESS1, ESS10, ESS2, ESS4 | ESMP, SEP, LMP, GBV Action Plan |

### 4-4 Land Acquisition:

Land acquisition refers to all methods of obtaining land for project purposes, which may include outright purchase, expropriation of property, and acquisition of access rights, such as easements or rights of way. A land acquisition may also include: (a) acquisition of unoccupied or unutilized land whether the landholder relies upon such land for income or livelihood purposes or not; (b) repossession of public land that is used or occupied by individuals or households; and (c) project impacts that result in land being submerged or otherwise rendered unusable or inaccessible. "Land" includes anything growing on or permanently affixed to lands, such as crops, buildings, other improvements, and appurtenant water bodies. The intervention does not require land acquisition as it will be implemented on the existing public streets[18]. There are no squatters or other informal users along the alignments where the works will be implemented. Moreover, PWP conduct social agreement with local authorities which include that the local authority and the community committee ensure that there is no land acquisition in the targeted sub-project, and if these occur during the implementation, they are the ones who are responsible for solving the argument with the one who claimed the ownership. Also, they are the ones who are responsible for any compensations if needed in such situation. Otherwise, PWP will exclude the intervention (see annex 4 & 5). The confirmation of that should be stated from the local council the entity that has the rights to identify the ownership of the land use according to the local council law to guarantee the legal aspects of this matter which should be documented according to ESS5. PWP use the social agreement as part of documentation. The local council has to take the responsibility of the confirmation he did if the opposite of what he stated in the declaration is proven and anyone give approvals of the ownership of such lands. From legal prospective, this document is important for PWP as well as WB that transfer the responsibility and deliver it from our part to the local council part. In addition, the sub-project will be implemented section by section and the sidewalk pedestrians placed will be maintained open to avoid any economical resettlement.

### 4-5 Resources and Services' access restrictions:

The sub-project will be implemented on the existing street which may cause temporary restrictions on the services and resources. Therefore, PWP will ensure the activities will be conducted section by section and each section will be implemented at a maximum distance of around 150 meters and will require three to four days to close the section, and alternative streets[19] will be available for streets users during implementation. PWP and the contractor will coordinate with local community and local authority to ensure on-going safe access to services and resources for people. Furthermore, tender documents specify the contractor's obligation to provide temporary access and safety for the public.

[18] There is not any land donation expected at any sub-project site, as per the current designs.

[19] The subproject may cause temporary restriction for the services and resources, during implementation PWP and contractor are responsible for coordination with beneficiaries to avoid road blockage.

### 4-6 COVID-19 Sensitivity

Due to the outbreak of COVID19 in Yemen, the proposed sub-project will be at risk of COVID-19. Therefore, the COVID-19 control measures have been applied during the consultation process with targeted community such as the distribution of masks, providing hand sanitizer, and maintaining a distance of at least 1.5 meters between consulted people (social distancing). Moreover, the COVID19 precautionary measures including face masks, hygiene kits, soap, clear water, and hygiene etiquette will be available in the sub-project's site during the implementation as well as social distancing in the work site. Furthermore, awareness sessions will be conducted for workers and community members regarding COVID19 risks.

### 4-7 Gender and Social -related issues:

Both males, females, and people with disabilities[20] were considered beneficiaries when designing the sub-project. The sub-project will highly contribute to improving the living standards of about 49,650 people including women, men, people with disabilities, and their children as well as IDPs. The intervention will generate positive impacts on livelihoods and the beneficiaries.

### 4-7- 1 Child Labor:

No child labor will be hired for these activities. The minimum age of work has been specified in the tender documents for contractor. Verification of legal documents will be done before starting the work. The minimum accepted age is 18 years old and verification of age by checking IDs and other available documents will be strictly applied. A labor log will be kept, and all workers will be registered. Additionally, no forced labor will be used, and the contractor will be obligated and monitored to implement the LMP. In case of age fraud, PWP will deliver a warning to the contractor and scale up procedures will be used to prevent the reoccurrence of this issue.

### 4.7.2 Gender:

PWP has ensured gender equity in the sub-project's cycle as a core principle for the sub-project's success. PWP is mainstreaming Gender in all aspects of the sub-project's cycle as well as raising awareness amongst the community both males and females on job opportunities during sub-project implementation. The total number of targeted beneficiaries for the sub-project is 6,400 including women, men, and disabled people. PWP will involve the beneficiaries in the consultation process to ensure their concerns and feedback are taken into consideration without any discrimination.

The consultation was conducted with **35** males and **15** females of subproject, see date and record in section 8. During consultation process , PWP social consultants' team established the community committee in the targeted area conducted focal group discussion including women and men to enable participation in the electing of the community committee. The elected community committee and the members including women and men participated in the decision-making, need assessment, and public consultation. Also, community committee will participate in the monitoring of implementation, receiving the sub-project, as well as operation and maintenance.

The number of elected community committee members was **4** for the sub-project **2** males and **2** females. PWP conducted **four** training and awareness-raising for consulted beneficiaries and community committee on GBV, SEA/SH, COVID-19, and other disease prevention measures, and health & hygiene. This also includes

[20] the new roads made of stones easily accessible for persons living with disabilities

using the GM to report any gender-based violence, gender discrimination, SEA, and SH cases with the highest level of confidentiality and anonymity of complaints (more details in GBV Action Plan)[21]. Furthermore, the Gender & Social coordinator[22] will hence direct its activities to attain the PWP principles regarding gender, most importantly mainstreaming gender and equal participation into the sub-project cycle phases and creating job opportunities.

Table 5 below provides the figures on Sub-project's beneficiaries, public consultations, and community committees per gender.

*Table 5 Subproject's beneficiaries, public consultations, community committee per gender*

| Subproject ID | Beneficiaries | | | Public Consultation | | | Community Committees | | |
|---|---|---|---|---|---|---|---|---|---|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| 02-5-16046 | 3,400 | 3,000 | 6,400 | 35 | 15 | 50 | 2 | 2 | 4 |
| **Total** | 3,400 | 3,000 | 6,400 | 35 | 15 | 50 | 2 | 2 | 4 |

### 4.7.3 Gender-Based Violence "GBV", and Sexual Exploitation and Abuse "SEA":

Based on the screening process, the sub-project may generate such kinds of gender-related risks including discrimination against women during the implementation, different kinds of abuse towards the beneficiaries, and risks related to GBV, SE, or SH. PWP raised the awareness of community members, both men, women, and disabled people regarding GBV & SEA during the public consultation process as well as raising community awareness on GM processes and how they can be used to report gender-based violence, gender discrimination, and SEA/SH cases with the highest level of confidentiality and anonymity of complaints. **four** training and awareness-raising sessions were conducted for **35** males and **15** females as well as for members of elected community committee both male and female. To ensure effectiveness, repeated mandatory awareness training and sessions about refraining from unacceptable conduct towards local community members, specifically, women will be performed by PWP through the supervision engineer and sub-area staff for contractor and workers. This also includes informing workers about the national laws that make sexual harassment, abuse, and gender-based violence a serious and punishable offense.

### 4.7.4 Conflict sensitivity and Do No Harm

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

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21 https://drive.google.com/file/d/16zn-_Ng3WYDFVJmalz7pW-wVQiHxwpC7/view?usp=sharing

22 she is the responsible to monitor compliance to gender requirements and gender inclusion during implementation, ensure sub project team trained on prevention of GBV and SEA, conduct field visit for sample of sub projects and participate in GBV and SEA investigation

# 5 Environmental and Social Impact Analysis Plan and Mitigation Measures

## 5.1 Environmental and Social Management Plan[23]:

*Table 6 ESMP*

| Sous-Project phase | Potential Impact Factor | Mitigation Measure | Personnel / Institution Responsible For Execution[24] | Estimated Cost/ SP |
|---|---|---|---|---|
| Construction | Children are pushed by their families to work due to the need for money | - Ensure child labor is not permitted; all workers are 18 Years old and above<br>-Verifying age by checking IDs and other available documents.<br>-Ensure a Labor Log is available, and all workers are registered. | Contractor/ Resident Engineer / Community Committee | N.A |
| | Sexual harassment, abuse, gender-based violence, and discrimination | -Mandatory and repeated training and awareness-raising for the workforce about refraining from unacceptable conduct toward local community members, specifically women.<br>-Informing workers about national laws that make sexual harassment and gender-based violence a punishable offense that is prosecuted.<br>-Raise awareness of the GM system and how it can be used to report any GBV cases | Contractor/ Resident Engineer / Community Committee / Gender Focal Point | N.A |
| | Discrimination against women and persons with disabilities when selecting beneficiaries | PWP adopts a non-discrimination policy that ensures a non-discriminatory and inclusive manner, including women and persons with disabilities when selecting sub-project. The policy also ensures the inclusion of women in community committees as well. | PWP Sub-area Staff/ Community Committee / Gender Focal Point[25] | Mandatory |

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

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

[25] The Gender Focal Point is responsible for conducting Public Consultation, ensuring women participation in the selection of subproject, consensus on the subproject, site location, establishing Community committees including women representatives, resolving complaints related to GBV, SEA issues and monitoring during construction phases. PWP staff participate in the public consultation,

| | | | | |
|---|---|---|---|---|
| Construction | Lack of workers' awareness and knowledge on respecting local community cultures, and social safeguard issues on Gender, SEA/SH, and GBV. | - Contactor and its workers to sign the Code of Conduct.<br>- Ensure workers respect and adhere to the Code of Conduct (CoC) for the local community's protection and do no harm.<br>- GM system in place to handle any issues on Gender, SEA/SH, and GBV. | Contractor/ Resident Engineer / Community Committee / Gender Focal Point | N.A |
| | Financial exploitation of community or beneficiaries | - Inform the beneficiaries that the sub-project is provided for free, and they should not pay anyone to get benefits from the sub-project.<br>-Raise awareness among PWP consultants and resident engineers that there is zero tolerance for any cases of financial exploitation.<br>- Raise the awareness of the community committee, workers, and communities on the GM system and how it can be used to report any financial exploitation<br>-Inform consultants, resident engineers, and the community about PWP regulations that make financial exploitation a serious contravention. | PWP / Community Committee | N.A |
| | COVID-19 spread causing illnesses | -Ensure adherence to COVID-19 precautionary measures by all workers.<br>-Ensure face masks are available and used by all workers.<br>-Ensure awareness sessions are conducted on COVID-19 with all workers.<br>-Ensure availability of hygiene kits, soap, clear water, and hygiene etiquettes are followed.<br>-Ensure social distancing is applied on the worksite. | Contractor/ Resident Engineer | $ 500 for the sub-project. |

discuss details, raise awareness on SEP, and discuss stakeholder concerns vis a vis the subproject community committee's formation and collection of community data / profiles. Community committee is responsible for raising the awareness between society, helping in solving problem and obstacles, accordingly, supporting the monitoring in sites and helping to solve GRM complaints in site as possible.

| | | | | |
|---|---|---|---|---|
| Construction | No latrines near the project site and workers may have to practice open defecation. | - Renting houses with latrines that discharge into existing cesspits linked to the sewerage network.<br>-Maintain good housekeeping in rented houses and cesspits.<br>-Ensure the cesspits are properly covered.<br>-Ensure soap and water are always present in rented houses with latrines<br>-Ensure any domestic waste is disposed of at designated areas<br>- For women labor, as there are mostly from the same area of work, they use their latrines in their houses.<br>- From a cultural and traditional point of view, even women labor coming from the remote area would use the latrine of the houses of the women labor living in the same sub-project area. | Contractor/ Resident Engineer | $200 for the sub-project/month |
| | Damage to the utilities and services located underground (electricity, water, telephone, etc.) | - Coordination with local authority and locating service lines before starting work.<br>- Get detailed drawings of underground utilities & services.<br>- Before starting drilling, manual drilling is applied to avoid damaging the underground infrastructure.<br>- The area that will be scanned for underground services and allowed to be obtained from the relevant government institutions before starting work.<br>-Ensure contractor repairs time for any services that were destroyed during implementation. | Contractor/Resident Engineer | N.A |
| | Air pollution due to dust from activities | -Spray the work area with water regularly to reduce the dust. Ensure water management throughout the spray process as follows:<br>1. water spraying will be done efficiently to avoid wasting water. | Contractor | BOQ Items.<br>Mandatory (Contractual Obligation) |

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| | | 2. Using rainwater collected, if possible, in water spraying activities<br>3. Use dust sweeping methods to avoid wasting water in dust suppression<br><br>-Ensure workers wear masks.<br>-Material loads must be suitably secured/cover during transportation to prevent the scattering of soil, sand, materials, or dust[26].<br>-Exposed soil and material stockpiles must be protected against wind erosion and the location of stockpiles shall take into consideration the prevailing wind direction.<br>- Use well-maintained equipment.<br>- Covering trucks that transport construction materials.<br>- Properly maintain construction machinery to minimize suspended particulate emissions.<br>In the critical areas where dust is emitted in the populated areas, inform locals to close windows, and distribute masks to people nearby. | | |
| | Gas emissions are generated from machines and vehicles. | Maintain machinery in good working conditions to minimize emissions including exhaust emissions of CO, NOx, and fumes<br>Provide adequate protective wear/gear for workers, and equipment must be maintained regularly to avoid any emissions.<br>Offer good practice awareness to workers to turn off vehicles and machinery when not in use | Contractor | N.A |
| | Loud noise and severe vibration are caused by machines and vehicles. | Measures to reduce noise to acceptable levels (below 70 dBA over 24-hours (75 dBA over 8-hours) ) must be implemented and could include silencers, and mufflers. Avoiding or minimizing transportation through or processing material in community areas (like concrete mixing). | Contractor | N.A |

[26] WBG General EHS Guidelines as good practice references are used during the implementation as Guidelines.

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| | | Machinery must be maintained regularly to avoid exceeding noise emissions from poorly maintained machines.<br>- Limit noisy activities to normal daylight hours.<br>- Limit vehicle speed at critical locations (Limits of 10, 15 or 20 mph may be appropriate depending on the vehicles used, site layout and hazards).<br>In the narrow streets in neighborhoods, use small machines and equipment to avoid vibration on buildings. | | |
| | Soil contamination | - Properly store all types of waste and hazardous chemicals (paints, oil, etc., used PPEs in manholes, etc.) if any in insulated areas to avoid spillage and away from runoff areas.<br>- Ensure oil change, machine maintenance or mixing cement is done at designated insulated areas away from the soil, water areas, and drains,<br>Carry out machine maintenance and oil change at service centers if present.<br>- Only use well maintained equipment to avoid potential leaks.<br>-Ensure the presence of spill prevention kits<br>- Ensure hazardous chemicals and waste, are stored, handled, and disposed of according to their Material Safety Data Sheets (MSDSs).<br>- Construction waste should be stored and handled in designated areas away from the working site<br>- Avoid working during rainy seasons.<br>- | Contractor/ Resident Engineer | N.A |
| | Impacts by vibration due to compaction and maintenance machinery equipment | - The Contractor should utilize manual activities inside the neighborhood.<br>- Use small equipment. | Contractor/ Resident Engineer | N.A |
| | Climate change | Tree planting using native non-invasive species is a positive Environmental improvement measure. The contractor will deliver the plants from local Nurseries for native trees, and the numbers of trees/saplings will differ from one road to another | Contractor/ Resident Engineer | N.A |

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| | | as per the site engineer's recommendations. The location of tree planting will be as suggested by Project engineers.<br>- Maintain machinery in good working conditions to minimize emissions.<br>- Offer good practice awareness to workers to turn off vehicles and machinery when not in use.<br>- Reducing the number of transport vehicles and distances and increasing transportation efficiency. | | |
| | Probability of an archaeological discovery during the activities | - Ensure to stop the work in the discovery area and inform the Antiquities Authority and the local authority.<br>- Ensure that seizing any archaeological items and deliver them to the Antiquities Authority with an official report.<br>- Ensure that awareness sessions are held for all workers on the importance of archaeology and to report any archaeological items that are found during the implementation of project activities. | PWP/ Contractor/ Resident Engineer / Community Committee | N.A |
| | Solid and stones waste produced by workers (trash and plastic bags) accumulates and pollutes the environment | - -Ensure that workers regularly collect all solid trash in well-insulated bags and transport them to the designated landfill or dispose of it in a proper way that does not impact the environment. This should be done through a certified contractor or at an authorized area<br>- Waste management procedures will be added to the tender documents to ensure proper management of waste in the worksite.<br>- An appropriate mechanism was agreed upon for the management of waste resulting from the cutting and processing of stones to be transported to pre-designated areas. Dust residues that may be produced are moved to the designated areas.<br>- Properly collect, transport, and dispose of solid waste and hazardous waste at designated permitted sites or landfills identified by the local authorities and cleaning funds | Contractor/ Resident Engineer | N.A |

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| | | - Properly covering trucks that transport collected waste to avoid spillage during transportation<br>- Attach the waste receipt from the relevant landfill authorities.<br>- The Contractor's staff should be trained in waste handling. | | |
| | The low aesthetic value of the landscape such as damage to existing trees on the median island, accumulation of waste and debris on the median island, and damaged curbs and tiles. | - Plant new trees and replant those damaged and dry trees in the median island from the same type used in each street.<br>- Remove the accumulated waste and debris in the maintenance site and median island.<br>- Reconstruct the damaged curbs and tiles.<br>- Rehabilitation sites must be cleaned when repairs are completed. | Contractor/ Resident Engineer | N.A |
| | Hazardous materials/waste | - Ensure proper storage of hazardous materials and wastes. Any potentially hazardous materials or wastes will be stored, handled, and disposed of according to their Material Safety Data Sheets.<br>- Ensure that hazardous wastes (i.e., oil containers, etc.) are properly stored and insulated away from drainage areas and runoffs, managed and disposed of safely and legally.<br>- -Ensure the presence of spill prevention kits if possible.<br>- -Ensure workers do not spend long exposure times to chemicals<br>- -Ensure hazardous wastes and materials are handled by trained workers | Contractor/ Resident Engineer | N.A |
| | The road traffic may temporarily be interrupted during implementation, impeding people from accessing their needs. | - The beneficiaries and the community committee of the project have discussed the need to temporarily block the main road during implementation and the necessary arrangements to provide alternative sub-roads for pedestrians to mitigate the impact of the temporary suspension of the road. Inform shop owners and public and roadside residents of the maintenance schedule.<br>- Coordinate with local councils and the public on the | Contractor/ Resident Engineer / Community Committee | N.A |

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| | | maintenance schedule.<br>- Shorten the work period.<br>- Avoid complete closure to the streets by doing pavement in sections.<br>- Accelerate the implementation activity and open up the site as soon as possible by doubling workers and equipment.<br>- Carry out r oad pavement in sections. | | |
| | Temporary disruption of economic activities, including disruption of traffic and congestion<br><br>Temporary disruption of access to the home, due implementation process | - Ensure closure of street sections will not cause income loss to roadside businesses, kiosks, or vendors by providing alternative access to residences and roadside businesses.<br>- Activities are to be conducted section by section in a manner to avoid any disruption to people's daily routines.<br>- Coordinate with the public on the implementation time of each activity and inform them well in advance to avoid any delay or disruption.<br>- Never disturb citizens from access to homes, markets, and daily subsistence zones;<br>- Provide alternative temporary access to homes, markets, and daily subsistence zones.<br>- In residential areas where dust is emitted, inform locals to close their windows and distribute masks to nearby people. | Contractor/ Resident Engineer | N.A |
| | Traffic jams due to the movement of vehicles from/to worksite and transporting of materials | - Before construction, the contractor should carry out consultations with local authorities and the community. Vehicle trips must be included in a construction plan before approval. Routings, especially heavy vehicles, need to take into account sensitive sites such as schools, hospitals, and markets.<br>It is strictly forbidden to transport materials for construction during rush hour.<br>- Coordinate with the traffic authority in the City on the maintenance schedule.<br>- Find alternatives (detours) to either side of the existing road before excavating and reconstructing existing road | Contractor/ Community Committee | N.A |

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| | | surfaces.<br>- Control and manage traffic, by arranging detours and alternate bypasses for traffic and roadside residences and businesses for each maintenance site by using traffic cones, barriers, fences, or lights as appropriate with coordination with traffic officers and according to the work plan conducted by the Contractor and approved by PWP.<br>- Do not start any maintenance activities before the installation of traffic safety and control safeguards.<br>- Install signs to detour were necessary to guide the driver to follow.<br>- Where required, allocate persons to direct traffic in areas where construction is taking place.<br>- Park the machines and equipment away from the streets in an area allocated for.<br>- | | |
| | Public Health includes risks of public and children's access to the worksite. | - Install fences, barriers, and dangerous warning/prohibition sites around the construction area which show potential danger to the public people.<br>- Place appropriate warning and directional signs at areas where construction is taking place.<br>- Keep road surfaces clear from materials such as soil and gravel.<br>- Limit in coordination with traffic authorities the movement of heavy vehicles on roads/lanes used by the public during traffic peak hours.<br>- Conduct management and safety plans for implementation activities.<br>- Erect removable barriers.<br>- Protect proper shielding scaffolds.<br>- Ensure construction work is carried out during the daylight<br>- Ensure maintaining noise and air quality mitigation measures<br>- Be sure to identify the locations of the ground services extensions and coordinate with the relevant authorities to provide the plans and their delegates to come to the | Contractor/ Resident Engineer | N.A |

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| | | site and put signs on them before starting the excavation work.<br>- Facilitating the safe passage of people, especially those with special needs, to their homes.<br>- Before drilling begins, perform manual drilling to avoid damaging the underground infrastructure. | | |
| | | | | |
| | Rainwater is stagnant after the rainy season because of the inadequate slope of the road after the stone paving. | Leveling and surveying should be conducted by the total station to guarantee the drainage of the stormwater and no flooding of water during the rainy season in the targeted areas. | Contractor | N.A |
| | Changing the oil of vehicles on the worksite | - Oil change and vehicle maintenance and fueling should be done in designated areas (at service centers if present) that are well insulated to ensure no leakage on soil<br>- Keeping an oil spillage kit on site<br>- Oil and other hazardous materials should be properly stored and handled and their residues (i.e., containers)<br>- should be properly disposed of or sell them as reused oils. | Contractor | N.A |
| | Community dissatisfaction by Sub-project activities and Community participation | - Hold public interviews to address concerns/comments about construction and bypass issues;<br>- Inform public/beneficiaries before activities commencement about GM;<br>- Install an on-site, identification stand, containing how to communicate GM.<br>- Ensure that Complaint forms are available on the site. | Contractor, PWP | N.A |
| | Complaints Occurrence | - GM should be established by the Contractor and PWP<br>- Inform the public about GM contact information and the method of submitting complaints;<br>- Details of complaints received should be incorporated into the audits as part of the monitoring process and respond to settle the complaint quickly and accordingly. | Contractor, PWP | N.A |
| | Labor related risk | - Offer employment opportunities to locals;<br>- Sensitization of communities on employment | Contractor/ Resident Engineer / Community | N.A |

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| | | opportunities.<br>- Mandatory and repeated training and awareness-raising for the workforce about refraining from unacceptable conduct toward local community members, specifically women, and children.<br>- Inform workers about national laws that make sexual harassment and gender-based violence a punishable offense that is prosecuted;<br>- Introduce a Worker Code of Conduct as a part of the employment contract including sanctions for non-compliance (e.g., termination)<br>- Raise awareness of the GM system and how it can be used to report any GBV cases. | Committee | |
| **Operational phase** | Maintenance of streets and related activities | - Raise public awareness of the avoided actions that lead to blocking the stone paving.<br>- Inform the public of maintenance times and ensure providing alternative road access during maintenance work<br>- Ensure same but relavant mitigation measures from the previous sections will be applied during operation and maintenance activities.<br>-<br>- Handing the sub-project to the respective local authorities.<br>- Sign an agreement with local authorities on the maintenance requirements. | Community committee, Local Authority | Mandatory |
| **Total cost estimate for ESMP Mitigation Measures** | | | | 1, 100 $ |

## 2- The occupational health and safety Management Plan

*Table 7 Occupational and Health Safety Plan*

| Task/Activities | Hazard | Risk Rate before | Risk mitigation measures | Risk Rate after | Responsibility | Cost ($) |
|---|---|---|---|---|---|---|
| | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Paving Road Activities including (Excavations, Levelling, Implementation of reinforced concrete, Paving the stones)** | - Hands or feet get injured while excavating, levelling, fixing the concrete steels, and paving.<br>- Dust, sand, and small parts volatilize while excavating, levelling, and cutting stones, or paving.<br>- Exposure to the hot sun during drilling causes headaches and psychological and neurological disorders<br>- Exposure to cement while mixing, causing skin irritation and blisters<br>- Misuse of equipment.<br>- Eyes get injured while cutting stones<br>- Stones fall on workers while cutting, transporting, or loading.<br>- Workers fall while standing on stones to cut or walk on them<br>- Injuries of the shoulders and back muscles because of lifting the wrong way or lifting heavy load for long.<br>- Workers' ignorance of safety hazards at the work site.<br>- Injury due to poor quality of the equipment that is used for cutting stones, and paving stones.<br>- Serious accidents due to work close to heavy equipment in the workplaces such as cement mixture, graders, compactors, trucks…etc.<br>- Serious accidents for people and pedestrians due to entrance to the work locations. | Moderate | - The issuance of a work permit by the resident supervisor allows the commencement of work.<br>- Organizing awareness sessions in the field of occupational health and safety before starting work, including the risks of collapses, and to be documented.<br>- Ensure the necessary personal protective equipment (PPE) is always worn by workers and they get it for free.<br>- Allow regular breaks and ensure presence of potable water<br>- Avoid working in extreme weather conditions (Extreme heat, sand storms, dust storms, rain, etc.)<br>- High visibility clothing is used by any person in the worksite.<br>- Site preparation and proper organization of the stacked material to ensure the safety of workers.<br>- Maintenance of all work equipment before starting the work such as cement mixture, Graders, Compactors, trucks, etc.<br>- Always keep a safe distance with work equipment including Cement mixture, Graders, Compactors, trucks, etc. (use lower case in text above for graders, compactors etc)<br>- Use proper PPEs including gloves, safety shoes, to avoid irritation from cement.<br>- Ensure that concrete mixing equipment is in good condition. | Low | Contractor/ Resident Engineer | provide safety equipment for workers and excavation side supports 5000 $ |

| | | | | | | |
|---|---|---|---|---|---|---|
| | - Traffic accidents for road users. | | - Workers are aware of the dangers of concrete mixing equipment and maintaining a safe distance during its movement and rotation.<br>- Locating cement mixing equipment on fixed level ground to avoid collapse during operation, and away from traffic.<br>- Use gloves and handle and store cement according to its MSDS by trained workers<br>- Worksite provided with trainer and signaler to arrange the vehicle's movement.<br>- Fixing the warning signs for speed limits and traffic instructions to be followed by drivers and workers.<br>- Vehicles traffic routes should be segregated from workforce walkways in the worksite.<br>- Excavations are fenced and warning signs are placed around them.<br>- Ensure skilled workers are hired for this activity.<br>- Ensure that work residues are collected and transported to designated landfills.<br>- Using appropriate working tools.<br>- Banning the use of explosives should be enforced<br>- Periodic inspection to ensure that mitigation measures are implemented and stop any unsafe act or unsafe situation.<br>- Involving the community committee in the monitoring of | | | |

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| | | | safety procedures and reporting any risks.<br>- Provide a guard in the worksite 24 hours to ensure no unauthorized entrance to the worksite.<br>- Emergency response plan to be in place with details of the nearest hospital or medical center, responsibilities are understood for all works, first aid boxes are available and a list of trained first aiders is posted and known by all workers. | | | |
| **Cutting of previous stones, or remaining asphalt.** | - Serious accidents due to the use of unsafe cutting tools or the saw. | High | - Conduct awareness sessions about (OHS) occupational and health safety before the beginning of work by PWP. This includes hazards associated with the activity, mitigation measures, and worker's responsibility.<br>- Workers sign that they have received awareness about the implementation of the activity, and that they understood the special procedures that help mitigate, minimize, and avoid potential risks.[27]<br>- Permit to work approved for cutting activity and before starting the work to ensure safety precautions are in place.<br>- Ensure the necessary personal protective equipment (PPE) is available, especially the PPEs that are required to protect the | Low | Contractor/ Resident Engineer /Workers | estimated 750 $ |

[27] workers signing this letter is neither a disclaimer nor a legal discharge of responsibility of the employers to ensure safe work place

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| | | | workers during cutting activity.<br>- Use safe cutting tools or saws and ensure they are safe to use before start using them.<br>- Fence the area of cutting at a safe distance to avoid accidents for workers and pedestrians.<br>- Ensure the presence of suitable first aid equipment and trained employee<br><br>- Emergency response plan to be in place with details of the nearest hospital or medical center, responsibilities are understood for all works, first aid boxes are available and a list of trained first aiders is posted and known by all workers. | | | |
| **Traffic safety**<br><br>**Movement of people and vehicles in the worksite.**<br><br>**Movement of work equipment including trucks, excavators, and compactor.** | - People or workers struck by moving vehicles.<br>- Likely traffic accidents (collision) between moving vehicles.<br>- Falling workers from vehicles while moving.<br>- Falling vehicles from the road edge.<br>- Falling vehicles into excavations. | High | - Conduct as much work as possible during low traffic periods<br>- Emphasis on safety aspects among drivers<br>- Inform drivers on the local speed limit (Limits of 10, 15 or 20 mph may be appropriate depending on the vehicles used, site layout and hazards)., and monitor implementation<br>- Coordinate with local authorities to provide and manage alternative roads for smooth traffic if required<br>- Control and manage traffic, by using traffic cones, barriers, fences, or lights as appropriate<br>- Daily inspection and maintenance for the vehicles by the contractor to | Low | Contractor/ Resident Engineer /Workers | N.A |

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| | | | ensure they are in good condition prior to starting the work.<br>- Provide traffic signs in the worksite, especially for speed limits, route directions, parking places, entrance and exits, pedestrian walkways, and worksite warnings signs.<br>- Warning signs for vehicles should be added at a safe distance from work site to warn drivers to slow down prior to reaching the work area<br>- Stop the movement of vehicles in worksite in bad weather conditions to avoid collision. Provide the worksite with barriers in the road edges to protect workers and vehicles from falling.<br>- Arrangement and control of the worksite entrance and exits, and not allow for unauthorized persons or vehicles enter the worksite.<br>- Coordinate with local authorities and communities to provide alternatives for road users during closing the worksite. Provide the vehicles in the worksite with audible reversing alarms and flashing beacons.<br>- Prohibit workers to climb on the vehicles during moving to avoid falling. | | | |
| **Adjusting manholes level when required and working in sewers.** | - Serious accidents or death due to dangerous gases generated from the manholes when they are opened or when go inside the manholes.<br>- Serious accidents or death due to | High | - Conduct awareness sessions about (OHS) occupational and health safety before the beginning of work by PWP. This includes hazards associated | | Contractor/ Resident Engineer /Workers | Provide gas Detector and oxygen cylinders: 3000 $ for |

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| | falling into the open manholes. | | with the activity, mitigation measures, and worker's responsibility.<br>- Workers shall sign a COC that confirms that they have received awareness sessions about the implementation of the activity, and that they have understood the special procedures that help mitigate, minimize, and avoid potential risks.[28]<br>- Issuance of special permit before starting the work to ensure safety precautions are in place.<br>- Ensure the necessary personal protective equipment (PPE) is available especially the PPEs and ventilation means and tools that are required to protect the workers during working in confined spaces.<br>- Ensure safe work plan is in place to be followed step by step by the workers during working in manholes. L<br>- Ensure manhole workers spend limited times in manholes<br>- Ensure all workers in manholes and sewage related activities are equipped and are adhering to SCUB diving oxygen equipment and full body PPE.<br>- Ensure workers in manholes are attached by ropes for emergency pull | Low | | the subproject |

[28] workers signing this letter is neither a disclaimer nor a legal discharge of responsibility of the employers to ensure safe work place

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| | | | - Ensure extra oxygen tanks are present<br>- -Only trained workers are allowed in manholes<br>- Provide medical checkup for workers working in manholes<br>- Provide a guard in the worksite 24 hours to ensure no unauthorized entrance to the worksite.<br>- Fence surrounding the manhole's opening area with a safe distance to avoid falling accidents for workers and pedestrians.<br>- Place the awareness and warning signs surrounding the manholes for gases risks and falling risks as well as showing the required measures to avoid accidents.<br>- Emergency response plan to be in place with details of the nearest hospital or medical center, responsibilities are understood for all works, first aid boxes are available and a list of trained first aiders is posted and known by all workers. | | | |
| **Manual Handling** | - Risk of heavy, Bulky, or unwieldy load<br>- Risk of Unstable/ unpredictable loads<br>- Risk of PPE clothing hindering the movement or posture<br>- Risk of poor communication on safety between workers | Moderate | - Avoid unnecessary manual handling when suitable equipment in performing a certain function is present Reduce the load risk by using lighter weights or more stable containers.<br>- Reorganize the activity to further reduce the impact on the | Low | Contractor/ Resident Engineer /Workers | N.A |

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| | - Risk of workers' back injuries due to wrong manual handling. | | individual(s).<br>- Utilize mechanical lifting aids or equipment as appropriate.<br>- Ensure appropriate rest breaks, job rotation, and training are involved.<br>- Provide personal protective equipment (e.g., gloves, foot protection, and non-slip footwear).<br>- Provide training for workers on handling and storing any hazardous substances and materials. | | | |
| **Poor coordination, planning** | - Hands or feet get injured while excavating or constructing works.<br>- Dust, sand, and small parts volatilize while excavating or building works.<br>- Injuries to the shoulders and back muscles because of lifting the wrong way or lifting heavy loads for long.<br>- Risk of rain flood. | Moderate | - Conduct awareness sessions about (OHS) occupational and health safety includes (hazards associated with the activity, mitigation measures, and worker's responsibility as well as disciplinary action against any violation.<br>- Regular breaks to workers and provision of clean water to workers<br>- Workers sign that they have received awareness about the implementation of the activity, and that they understood the special procedures that help mitigate, minimize and avoid potential risks.<br>- Ensure the necessary personal protective equipment (PPE) is always worn by workers and they get it for free.<br>- -Ensure working in suitable weather conditions | Low | Contractor/ Resident Engineer | N.A |
| **Hazards risks** | - Disease to workers related to sanitation works. | Moderate | - Control mosquito breeding sites and invasive aquatic communities | Low | | N.A |

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| | | | - Use of proper care protective clothing and equipment.<br>- Use heavy-duty rubber gloves and boots and clothes to prevent skin contact with wastewater and sludge.<br>- Remove contaminated clothing after job completion.<br>- Shower at work and change into clean clothes and shoes.<br>- Wash hands with soap and water before eating or smoking and whenever hands contact wastewater and sludge. Care for cuts and abrasions promptly.<br>- Prevent eating, drinking, and smoking on the site<br>- Provide proper clean water sources and clean toilets at the working site<br><br>- Carry out the regular medical test for workers. | | Contractor/ Resident Engineer | |
| **Dealing with hazardous material and waste** | - -Skin and eye irritation and allergies from hazardous material handling.<br>- -Diseases and contamination from used manhole PPEs | Moderate | - Store hazardous material and waste according to their MSDSs<br>- Hazardous materials and wastes should be handled by trained workers.<br>- Workers should be provided with proper PPEs | Low | Contractor/ Resident Engineer | N.A |
| **Total cost estimate for OHS** | | | | | | $8,750 |

# 6 Environmental, Social, and OHS Clauses and Liabilities for Contractor

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

## 6.1 Conditions for the Eligible Contractor

1. Provision of adequate and suitable equipment for the activities of the sub-project
2. A financial capability that ensures the sub-project will be executed and completed as per agreed terms and conditions.
3. Provision of insurance policies in case of workplace injury or death for the workers as a condition of signing the contracts.
4. The OHS tools should be provided with acceptable quality according to the BOQ with conducting training for the workers. These materials should be conditional for the handover of the site to the contractor.
5. Contactor's strict compliance with the ban on the use of explosives.
6. Contractor and contractor's site representatives (E&S safeguard assistant[29] and technical engineer) have undertaken OHS training and are fully aware of the risks, mitigation measures, and responsibilities.
7. Contractor should abide by the principle of non-discrimination in all aspects of employment.
8. Banning the use of explosives should be enforced and monitored.
9. The contractor will be terminated if they do not comply with the E&S and OHS mitigation measures during implementation depending upon the nature of noncompliance.
10. Contractor shall ensure compliance with the Code of Conduct

## 6.2 Environmental and Social Specific Conditions for Contractor:

The contractor shall supply and execute the necessary works on-site to mitigate the environmental and social impacts of the sub-project in accordance with the bidding and contractual E&S requirements. The contractor is responsible for following a specific contractor-ESMP that will be included in their bidding documents as specific specifications, items in BOQ, and ES instructions and guidelines as attachments. The Environmental and Social specific conditions for Contractor should at least reflect the following which will be reviewed by the [PMU Safeguard specialist] and the procurement specialist and will also be

[29] There should be a request and review of CV's for key staff such as contractor E&S safeguard assistant that should be approved by Resident Engineer before works.

The responsibility of the safeguard assistant is to to help the consultant in monitoring the site

incorporated into the bidding documents avoiding duplication with standard clauses. This ESMP will also be attached to the tender documents.

1. Worker Health and Safety:

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

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

2. Labor Management Plan[30]:

The estimated / planned number of laborers for the stone paving sub-project is 287 which (35%) 100 skilled and 187 (65%) unskilled labor during the project life for the sub-project in which the expected life project contracts will be three months based on the work size which will be different from area to area depending on the needs. Contractors shall ensure that all workers are hired formally with proper contract, in accordance with national regulation, ESS2, and the LMP. The contractor is responsible for:

2.1 Wages and Deductions: The contractor shall be in line with the current market rates paid for skilled, semi-skilled, or unskilled labor. Also, the daily rates could differ from one governorate to another; hence, they should be equivalent to the wages paid in the specific location. PWP field staff shall monitor and ensure the contractor pays all workers based on market rates in the area.

2.2 Child Labor and Forced Labor: Ensure all workers are 18 Years old and above, and no child, forced, involuntary or unpaid labor will be used in any work.

2.3 Labor influx: The contractor should use workers from the local community as much as possible. Some parts of the activities include special works that require skilled labor, these tasks must be undertaken by appropriately skilled workers from the targeted area and when not available, the contractor may hire skilled laborers from nearby areas. Therefore, the contractor will provide appropriate accommodation for the workers in the worksite who are

[30] Public Works Project - Publications - Integrated Urban Services Emergency Project II -P175791- IUSEP II (pwpyemen.org)

not from the same city, and since most of the workers are from nearby areas so the workers will be able to back to their homes daily after finishing their work time.

2.4 Gender-based Violence (GBV)/Sexual Exploitation and Abuse (SEA)/Sexual Harassment (SH): The contractor and its workers should sign the Code of Conduct (CoC) and ensure workers respect and adherence to it for the local community's protection and do no harm. Ensure that workers respect local community cultures, and social safeguard issues on Gender, SEA/H, and GBV. Raise awareness of the GRM system and how it can be used to report any GBV cases.

2.5 Community Health and Safety: The contractor shall protect the local community from any risks that might be generated during the implementation including exposure to the virus (COVID-19) and as mentioned in the OHS plan above.

2.6 Occupational Health and Safety (OHS): The contractor shall maintain occupational health and safety system on the site to protect workers from hazards and risks and provide adequate health and safety training[31], required PPE, first aid box, toilets, and potable drinking water, and as mentioned in the OHS plan above.

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

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

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

2.10 Addressing worker grievances: Contactor shall provide the worksite with a GM system for all workers (contracted workers from the community or externals) including providing the complaints box and the project board with complaint means. The mechanism will also allow for anonymous complaints to be raised and addressed. Ensure that workers are aware that grievances will be handled positively. Contractor, resident engineer, and community committee are trained to handle grievances positively.

3. Supply and implement roadblocks and traffic signs to prevent the entry of non-workers to work sites (zinc - timber - concrete blocks - warning tapes - traffic signs).
4. Conduct work section by section and keep enough access to spaces on both sideways open and clear from any materials for continuous access of pedestrians, and residents including disabled persons in the targeted sub-streets sections.
5. Conduct work of stone paving by trained and skilled workers and ensure full supervision.
6. Assign a permanent safety supervisor to follow up on the implementation of an environmental and social management plan as well as OHS requirements during the implementation of work activities at the site
7. Apply a safety work permit system for all working activities at the site to ensure full implementation of ESMP and OHS requirements.

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

8. Supply of personal safety equipment and tools including boots, helmets, gloves, goggles, masks, earplugs, safety belts, air-breathing apparatus, full-body harness, etc. in quantities enough for all laborers at the expense of the contractor and ensure the adherence of using by all.
9. Provide first aid boxes in the worksite (as per the emergency response plan) which contain (adhesive plaster of different sizes - –sterile gauze - scissors – disinfectant- forceps - etc.).
10. Provide a contingency plan containing the names and numbers of the nearest health center and local assistants, the routes to be used, and the means of transport.
11. All necessary PPEs and COVID protection gears required for the job are distributed to each worker who will be participating in the implementation.
12. Ensure adherence to COVID-19 precautionary measures and social distancing are applied on the worksite and hygiene kits (water and soap) are available.
13. Provision of water and soap in rented apartment with bathrooms and or trenches with covers and obliging all workers and supervisors to use them.
14. Separate the material and store them accordingly and provide enough space for movement and maneuvering.
15. Removal of all waste during the implementation period to a dedicated location outside the work area (allocated landfills) and following the instructions of the consultant.
16. Commit to placing disturbing equipment away from populated places, not at accessible zones for the community, nor at sensitive zones and watercourses, and operating them at the appropriate times.
17. Commit to storing hazardous materials away from workers and not to change oils or leave grease residue in the work area.
18. Commit to the repair of public services (electricity, telephone, water, sewage) that are broken during the implementation of the project.
19. The Contractor shall coordinate with the competent authorities to regulate the traffic in the streets and shall not start work in any street until the completion of works in other streets to facilitate movement.
20. Report immediately any accident or injury occurring during the execution of the work and within a maximum period of 24 hours.
21. Conduct awareness sessions about OHS before the beginning of work by the contractor this includes hazards associated with the activity, mitigation measures, workers' responsibility, GRM, sexual harassment, abuse, and gender-based violence as well as the disciplinary action against any violation.
22. The contractor shall adhere to the use of the Permit to Work system (PTW) for all activities and ensure all workers are aware of the system.
23. Contractor must address the risk of gender-based violence, through:
    Mandatory and repeated training and awareness-raising for the workforce about refraining from unacceptable conduct toward local community members, specifically women.

    23.1.1 Informing workers about national laws that make sexual harassment and gender-based violence a punishable offense that is prosecuted.
    23.1.2 Introducing a Worker Code of Conduct as part of the employment contract, and including sanctions for non-compliance (e.g., termination)
    23.1.3 Adopting a policy to cooperate with law enforcement agencies in investigating complaints about gender-based violence.
24. Contractor must not employ workers below the age of 18 and must ensure verification of documents is conducted before hiring.
25. Provide proof of insurance for all laborers, including the third party, before the implementation of the project.

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

## 6.3 Environmental and Social Liabilities for Contractor

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

- Mitigation measures to be included in the contract will be specified in the sub-project bidding documents.
- Deductions for environmental non-compliance will be added as a clause in the Bill of Quantities (BOQ) section.
- The contractor should fully comply with all instructions; otherwise, according to the contract documents, suitable sanctions should be applied depending on the severity of the expected risk from this non-compliance, such as alert, final alert, and termination of the contract.

- Environmental penalties shall be calculated and deducted from each submitted invoice.
- Any impact that is not properly mitigated will be the object of an environmental/social notice by PWP.
- Any action from the perspective of PWP is severing and can cause a huge impact on occupational health and safety, in the environment or the social aspects, PWP has the power to terminate the contractor's contract, put the contractor in the blacklist, and Warranty confiscation.
- For minor infringements and social complaints: if an incident occurs, that causes temporary but reversible damage, the contractors will be given the notice to remedy the problem and restore the environment. No further actions will be taken if the PWP project engineer confirms that restoration is done satisfactorily.
- For social notices, the PWP project engineer will alert the contractor to remedy the social impact and to follow the issue until solved. If the contractor does not comply with the remediation request, work will be stopped and considered under no excused delay.
- If the contractor has not remedied the environmental impact during the allotted time, the PWP will stop the work and give the contractor a notification indicating a financial penalty according to the non-compli ed mitigation measure that was specified in the bidding document. No further actions will be required if that restoration is done satisfactorily. Otherwise, if the c ontractor has not remedied the situation within one day any additional days of stopping work will be considered no excused delay.
- In the event of repeated non-compliance totaling 5% of the contract value, the Project Engineer will bring the environmental and social notices to the PWP procurement to take legal action.

# 7 Environmental and Social Monitoring Plan

The implementation of the mitigation measures will be monitored through daily checks by the resident engineers, bi-weekly by the OHS/SES staff at the branches as well as monthly visits by PWP sub-areas managers and the regular TPM and UNOPS field monitoring visits.

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

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

The following table 8 shows aspects that will be monitored (though the list will be ke pt updated to accommodate any emerging issues or updated aspects that may be recommended by the monitoring reports):

*Table 8 Environmental and Social Monitoring Plan*

| Mitigation measure | Monitoring Indicators | Responsible[32] | Timeframe |
|---|---|---|---|
| Contractor and their workers are aware to respect the local community's protection and do no harm. | 100% of contractor, and their workers signed the Code of Conduct (CoC) The number of complaints received. | PWP Safeguard/ Contractor/ Resident Engineer/ Gender Focal Point | Before commencem ent of work |
| Adherence of contractor to permit to work system[33] for activities as identified by the | Number of permits issued for activities | Contractor/ Resident Engineer/ PWP safeguard | Daily as required |

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

[33] Permit to work system is a document written to operate a planned work procedure that requires special procedures and is designed to provide protection for workers working in hazardous situations to ensure work systems are followed in a manner that ensures that the job is done safely. Authorization to work includes the procedures for requesting, reviewing, authorizing, documenting, and terminating tasks.

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| risk assessment[34] and ensuring all safety measures for the task are in place | | | |
| All OHS requirements for the sub-project are identified and available in the place. | Incorporating OHS requirements into project documents.<br>Number of incidents | Subarea Staff<br>Resident Engineer | Within one week before commencement of work |
| Knowledge of the local community, the community committee, and workers about the GM, as well as the contact numbers. | Signboard with GM contact details in place | Sub-area Staff<br>Resident Engineer | Within one week before commencement of work |
| | Provide a complaint box, the number of awareness-raising, and brochures distributed. | Sub-area Staff<br>Resident Engineer | Bi-weekly |
| Local community and workers aware of the safety requirements are conducted | Number of awareness sessions for community and workers | Resident Engineer | Weekly |
| Regular awareness sessions to community members, the community committee, and workers about the use of GM | Number of awareness sessions for community and workers | Sub-area Staff<br>Resident Engineer<br>Gender Focal Point | At the onset of sub-project and regularly |
| Regular awareness sessions to community members, the community committee, and workers about the historical value of the worksite and the importance of reporting any archaeological discoveries | Number of awareness sessions to community members, the community committee, and workers about archaeological discoveries management procedures | Sub-area Staff<br>Resident Engineer<br>Antiquities Authority | Before commencement of the work |
| Occupational Health and Safety Hazards | Availability of the correct type of PPEs and the adherence to proper use of PPE by all workers<br>Number of workers adhering to PPEs | Contractor/ Resident Engineer | Before commencement of the work |
| Workers' satisfaction | Number of workers' grievances and type<br>Number of resolved grievances | Contractor/<br>Resident Engineer | Daily |

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

| | | | |
|---|---|---|---|
| All accidents and incidents are reported to head office within 24 hours and communicated to UNOPS | Number and types of accidents, and injuries reported and recorded and time of reporting number of reported accidents within 24 hours versus number of reported accidents after 24 hours | Contractor/ Resident Engineer | within 48 hours |
| An emergency response plan with details of the nearest hospital or medical center shall be in place and responsibilities are understood by all workers. First aid boxes are available and a list of trained First aiders is posted and known by all workers | Emergency plan banner in the site photo<br>Photos that reflect workers' training in the emergency plan<br>Photo for the first aid box on site | Contractor/ Resident Engineer / Safeguard Specialist | From the beginning of the implementation |
| Inspections are conducted to verify the safety measures are in place and documented | Forms and reports filled in every visit | Sub-area Staff<br>Resident Engineer | Daily<br>Monthly<br>Bi-monthly |
| No child labor is permitted, and workers must be 18 years or older. Verifying age by checking IDs and other available documents. Ensure a Labor Log is available, and all workers are registered | Worker registration log is kept at every work-site and includes recorded/verified age of all workers<br><br>Number of child labor (employed/ used or number of recorded workers under the age of 18 | Contractor/ Resident Engineer / Community Committee | Daily |
| Ensure full adherence to COVID-19 precautionary measures by all those involved in the implementation of the sub-project. | Number of workers wearing PPEs<br>Number of workers who have a fever Number or workers maintaining proper hygiene and social distancing | Sub-area Staff<br>Resident Engineer | Before commencement of work |
| Ensure all activities that require specific skills are done by skilled workers. | Number of skilled workers, and type of work | Resident Engineer | Daily |
| Tools and equipment to be regularly maintained and inspected to ensure they are of acceptable quality and in good working condition for the required activity | regular maintenance reports | Resident Engineer | Monthly |

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| Involvement of the community in the supervision of the implementation of the sub-project and reporting any findings | No. of GM complaints from the community and number of resolved complaints | Community Committee<br>Sub-area Staff<br>Gender Focal Point | Bi-monthly |
| All construction works are to be conducted during daylight and no work is to be done at night | No. of G M complaints and number of resolved complaints | Resident Engineer<br>Community Committee | Daily |
| Air pollution, gas emissions, noise, waste, and traffic management | Presen ce of fumes /dust observed<br>And the number of society complaints on the air quality, noise level or waste at work site<br>Number of times and areas with recorded wastes at undesignated areas | Resident Engineer | Daily |
| Trees planting shall be conducted as BOQs | Number of planted native trees<br>Photos | Resident Engineer<br>Sub-area staff | Before invoice No. 1 |
| Monitor improper waste management by visual inspection | Number of non-compliance with waste storage and handling<br>The number of times waste was improperly accumulated, or wasted was recorded and stored outside a designated area | Resident Engineer | Daily |
| Hazardous materials and wastes storage | Number of times hazardous materials and waste were recorded outside designated zones<br>Visible soil leak | Resident Engineer /contractor | Daily |
| Soil contamination | A visible change in soil color and visible soil leak<br>Records and number of spills events | Resident Engineer /contractor | Daily |
| Monitor the amount of traffic by visual inspection | Number of cars at work site | Resident Engineer | Daily |
| Ensuring awareness is raised regarding Gender-Based Violence GBV and Sexual Harassment SH among all workers as well | Number of awareness sessions<br>Photos | Gender Focal Point / Resident Engineer / Community Committee | Daily |

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| as the community. Ensure laws are enforced for any violations | | | |
| GBV/SEA/SH (if it occurs) to be reported in accordance with the law | Number of grievances and type of grievance and number of solved grievances | Gender Focal Point /Resident Engineer / Community Committee | When it happens |
| Ensure latrines and handwashing stations are available and supplied with water and soap | photos of hand soap<br>Presence of water<br>photos of bins<br>photos of improperly disposed waste<br>Presence of flies | Contractor/ Resident Engineer | Daily |
| Ensure non-discrimination and inclusion of women and persons with disabilities when selecting beneficiaries | Number of women beneficiaries versus men<br><br>Number of G M complaints regarding discrimination and solved complaints | Gender Focal Point / Sub-area staff / Resident Engineer / Safeguard Specialist / Community Committee | Before commencement of work and during implementation |
| Deliver awareness to the local community members including women, and marginalized groups.. | Photos for the awareness seasons | Gender Focal Point / Sub-area staff / Resident Engineer / Safeguard Specialist / Community Committee | During the project's preparation stages and the implementation |
| Monitoring and reporting GBV and SH issues and GM cases related to GBV, and SH are well treated and mitigated quickly. | Number of recorded grievances and number of resolved complaints | Gender Focal Point / Safeguard Specialist / G M Specialist | Daily |
| Ensure no explosives are used in the sub-projects and that all workers are aware of this. | The supervisor's daily form<br>The outputs of the inspection visits<br>Number of awareness sessions | Contractor/ Sub-area staff / Resident Engineer<br>Safeguard Specialist / Community Committee | Daily |
| Ensure no financial exploitation of communities or beneficiaries | GM complaints | Sub-area staff / Resident Engineer<br>Safeguard Specialist / Community Committee | Weekly<br>Monthly |
| Community satisfaction | Number of grievances raised and types and number of resolved complaints | Community Committee | quarterly |

| | | | |
|---|---|---|---|
| Operational phase monitoring: Visual inspection of the streets to assess needed maintenance work | Presence of damage to the pavement, visible Road safety/accidents<br>Presence of Flooded areas<br>Number of times maintenance was performed | Community Committee/ Local Authority | Monthly |

# 8 Stakeholders Engagement Plan and Public Consultation:

Stakeholder engagement has been conducted and all parties that will be targeted in this intervention have been involved including relevant local authority, community leaders, and local community members. This engagement process has included a discussion of community needs, making decisions on key priorities, and developing the sub-project designs and plans. Public consultations have been conducted by PWP social consultants' team (male and female) to inform the local community of the activities to take place and get feedback. Precautionary measures were taken to avoid the spread of COVID-19; social distancing was applied and implemented, outdoor consultations were held, masks were distributed, and all attendees were required to wear them.

Table 9 below shows the sub-project intervention and consultation date. The full list of attendance is in (annex 4).

*Table 9* ***subproject Consultation Date***

| Sub Project Intervention | Consultation Date | Consulted Beneficiaries | | |
|---|---|---|---|---|
| | | Male | Female | Total |
| Stone paving for Street extending from intersection of Shamsan Mall with Ghurairy restaurant to Abdullaziz Area - Sheikh Othman District –Ade n Governorate | 26/10/2022 | 35 | 15 | 50 |
| **Total** | | **35** | **15** | **50** |

## Topics of the Consultations and Information Disclosure:

- Ensure that subproject interventions are in line with local priorities.
- Inform local community about the activities to be undertaken, the sub-projects' timetable, and the work plan.
- Inform them about their rights to have a job opportunity during implementation.
- Raise their awareness about the subproject's potential risks such as safety, health, environmental, and social risks and required control measures.
- Inform them about their roles in monitoring the compliance of contractor and workers in the worksite and their rights to give their concerns.
- Document and address the local community's concerns, expectations, and feedback.

- Ensure the participation of subproject beneficiaries both females and males.
- Discuss the positive impacts that the subproject will have on improving services to the beneficiaries.
- Inform them that the road traffic may temporarily be interrupted during implementation and how to coordinate with sub-project supervisors and contractor to manage the traffic.
- Raise their awareness regarding social safeguards such as GBV, SH, and abuse, that may occur during the implementation and the required measures that should be taken in case of occurrence.
- Inform them about how to use the GM to give their opinions regarding social safeguards, OHS, and any complaints and concerns without fear.
- Raise their awareness of the COVID-19 pandemic and the measures to protect themselves and their families and inform them that during the implementation the control measures for COVID-19 will be applied.
- Raise their awareness regarding other diseases such as Cholera.
- Distribution of awareness posters about OHS, COVID-19, GM, and Gender with all beneficiaries to contribute to building positive culture regarding safeguarding.

## 8.1 Public Consultation Findings and Feedback

The consultation process took the form of face-to-face and group interviews with local community members (both males and females) and feedback collected through questionnaires and discussion. The COVID-19 control measures have been applied during the consultation such as distributing masks, providing hand sanitizers, and maintaining a distance of at least 1.5 meters between consulted people. The consultation started with a brief explanation of the nature and objectives of the sub-project and its potential impact and proposed mitigation measures. The consulted beneficiaries prioritize their needs which in this case are the stone paving, and have expressed their rights to obtain job opportunities in the project , The period of the project should not be long so as not to impede the shops from performing their activities , and Do not leave any residues after completing the project.

Generally, their feedback was positive as they are in great need of the proposed sub-project, and they expressed their full support to implement the sub-project as soon as possible.

## 8.2 Sustainability of Sub-project and Community Ownership

PWP engages all affected parties of sub-project within the sub-projects' cycle, consultations are conducted at various stages including consultation with the community for selection of intervention based on focal group discussions with women and men, formation of the Community committee by electing members including female members with the total number of 2 male and 2 females, training on various aspects for operation and maintenance. Also, coordination with Local Authority / Council to inform on activities taking place, the possibility of their role in operation and maintenance, their role as facilitators in case of security issues or any disputes, etc.." *following subproject screening, PWP has concluded that the subproject site is safe and there are no security concerns that require specific additional attention*"; as well as coordination with other IPs such as SFD, UNDP, other Clusters such as WASH and other agencies in the Field. Furthermore, PWP conducts public feedback sessions with targeted community during site visits to listen to their concerns and feedback as well as to ensure their acceptance of the intervention.

## 8.3 Stakeholders Engagement Plan:

PWP will continue to engage the stakeholders during the sub-project's implementation by conducting meetings with beneficiaries, the community committee, and the local authority to discuss any raised issues, and implementation aspects, as well as listen to stakeholders' concerns and feedback. The sub-area manager will conduct monthly meetings with community committee around four to six times during the implementation to coordinate with them for the implementation and safeguard issues, conducting awareness and training sessions regarding safeguard requirements and their monitoring roles.

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

## 8.4 Information Dissemination and disclosure

As part of a transparent approach, PWP will disseminate information about the subproject i n a variety of ways and at varying levels. It begins by coordinating with the local authority to create a solid coordination framework. The local community will be engaged through public consultations and different awareness sessions will be held during the preparation and implementation phases with the distribution of IEC (information, education, communication) regarding the benefits available under the project. This process will highlight sustainability and environmental and social aspects, GM tools, etc. Following the approval of this document PWP will develop an Arabic version of the ESMP which will be available to all local stakeholders. The translated ESMP will also be available on the PWP website.
The following pictures in Figure 4 below describe the different representations of the attendance during Stakeholders Engagement meetings in different neighborhoods.

Stone paving for Street extending from intersection of Shamsan Mall with Ghurairy restaurant to Abdullaziz Area - Sheikh Othman District

*Figure 4 Stakeholders Engagement*

## 9. Capacity Building

According to the ESMF, UNOPS will conduct capacity building for different levels throughout implementation. Annual comprehensive training will be done for PWP main and sub-areas staff in which revision and updates have been reflected according to the World Bank's new ESF. In public consultation, awareness session was held on all topics covered by section 8.1. Managing project implementation at the governorate level will include training with focus on responsibilities, liabilities, risk\impact assessment, and mitigation measures at different levels. Plans are presented to the different parties (contractor, community committee) as they should sign their commitment to these procedures. Also, another training session will take place for resident engineer where every person's responsibility, implementation procedures, needed forms, risk assessment methods, and general OHS procedures will be given. In site handing to the contractor, PWP sub-area representative will conduct awareness sessions for workers, community committee, and some present from the local community members that will represent the required Environmental, Social, and OHS needs. Different awareness sessions should be held during the implementation phase of the sub-project. In daily awareness sessions, the resident engineer and the contractor OHS assistant will explain to workers what risks they can expect in the course of their work. As part of this awareness, GBV/ SEA/SH, GRM, code of conduct, and COVID-19 procedures will be discussed. The PWP sub-area assistant will conduct sub-project site visits every two weeks to stay in touch with workers and community. In addition to raising awareness among workers, PWP sub-area manager outreach to the local community every month. As part of the project closing phase, local authority and community committee will be provided with project maintenance procedures on-site.

# 10 Grievance Mechanism (GM)

As part of an ongoing move to improve its accountability, PWP has developed a GM system for managing, responding to, and monitoring issues within its Programs. The GM system is accessible to all people engaged in PWP activities including workers, contractors, stakeholders, beneficiaries, etc. The accumulated experience in PWP to respond and interact with all partners and beneficiaries enables it to improve and adopt an efficient GM, focusing on institutionalizing the experience in dealing with complaints and mainstreaming it in the system context including MIS.

GM awareness sessions have been conducted to explain the mechanism and introduce the system to the local community, including female members and workers. GM brochures distributed to the local community that have full details on the system and complaint boxes placed in the sub-project sites which will be opened bi-weekly in a formal meeting with supervision from the local community committee -that is selected earlier during the early intervention stage and is usually consisted of 2 males and 2 females. The complaints are then registered and classified according to their type and raised to branch offices to be addressed and solved.

Other communication means are also introduced to beneficiaries and listed below

- Complaints box at sub-project location which is opened every week
- Telephone: 8002626
- SMS, Telephone, and What's up to no. 775626262
- Face to face by visiting PWP offices

For G M handling, PWP has staff at HQs and at subprojects. In each case, complaints are brought to the supervisor's attention, in cooperation with members of the local committee or to the Branch Office Manager for final resolution. During bi-weekly field visits, PWP staff with community committee collects complaints from the boxes. Achieve the registration of all complaints and address all matters that can be resolved in the field. It is the GRM officer's responsibility to ensure that complaints are resolved satisfactorily and that complaints are closed when they are resolved. Each complaint received will be recorded and investigated, and the person who submitted the complaint will be notified of the progress. In addition, the same level of seriousness will be applied to complaints that are received anonymously.

Every effort is made to resolve any issue at the community level and within a time frame of 14 days. UNOPS will monitor the implementation of the complaint handling mechanism (CHM) system and follow up on pending complaints and provide any needed assistance in case PWP is not able to solve the complaints themselves or higher involvement is required through Stakeholder Response Mechanism (SRM) to help project-affected stakeholders, governments and other partners jointly resolve concerns and disputes. GBV/SEA/SH-related complaints will be managed within the overall GM in which complaints will be managed according to GBV action plan procedures (more details in GBV Action Plan)[35]. After one year, the GM system will be reviewed to check how it can be improved. For instance, if the review finds that the gender distribution is very uneven, efforts should be made to develop a more gender-sensitive mechanism to ensure that everyone will have access.

[35] https://drive.google.com/file/d/16zn-_Ng3WYDFVJmalz7pW-wVQiHxwpC7/view?usp=sharing

## Annex 1 – Environmental and Social Checklist

*Table 11 Environmental and Social Checklist*

| Sub-Project No. | 02-5- |
|---|---|
| 1: The Natural Environment | |
| 1.1 Are there any environmentally sensitive areas or threatened species that could be adversely affected by the sub-project (specify below)?<br>Intact natural forests<br>Riverine forest<br>Wetlands (lakes/rivers/seasonally inundated areas)<br>If yes, how far are the nearest wetlands (lakes, rivers, seasonally inundated [flooded] areas)?<br>_____km<br>Habitats of endangered species for which protection is required under Yemeni laws and/or international agreements<br>Others (describe) (e.g., cultural sites, burial places, etc.) | NA<br><br><br><br>NA<br>NA<br><br><br><br>NA<br>NA |
| 2. Fauna and Flora | |
| 2.1 Will the sub-project involve the disturbance or modification of existing drainage channels (rivers, canals) or surface water bodies (wetlands, marshes)? | NA |
| 2.2 Will the sub-project lead to the destruction or damage of terrestrial or aquatic ecosystems or endangered species directly or by induced development? | NA |
| 2.3 Will the sub-project lead to the disruption/destruction of wildlife through interruption of migratory routes, disturbance of wildlife habitats, and noise-related problems? | NA |
| 3. Destruction/Disruption of Land and Vegetation | |
| 3.1 Will the sub-project lead to unplanned use of the infrastructure being developed? | NA |
| 3.2 Will the sub-project lead to long-term or semi-permanent destruction of soils in cleared areas not suited for agriculture? | NA |
| 3.3 Will the sub-project lead to the interruption of subsoil and overland drainage patterns (in areas of cuts and fills)? | NA |
| 3.4 Will the sub-project lead to landslides, slumps, slips, and other mass movements in soil? | NA |
| 3.5 Will the sub-project lead to erosion of lands? | NA |

| | |
|---|---|
| 3.6 Will the sub-project lead to health hazards and interference with plant growth by the dust raised and blown by vehicles? | NA |
| 4. Protected areas | |
| 4.1 Does sub-project occur within/adjacent to any protected areas designated by the government (national park, national reserve, world heritage site, etc.) | NA |
| 4.2 If the sub-project is outside of, but close to, any protected area, is it likely to adversely affect the ecology within the protected area (e.g., interference with migration routes of mammals or birds) | NA |
| 4.3 Would this sub-project increase the current impact on the surrounding environment for example by using more water, chemicals, or machinery than previously? If yes HOW | NA |
| 5. Geology and Soils | |
| 5.1 Based on visual inspection or available literature, are there areas of possible geologic or soil instability (erosion-prone, landslide-prone, subsidence-prone)? | NA |
| 5.2 Based upon visual inspection or available literature, are there areas that have risks of a large-scale increase in soil salinity? | NA |
| 6 Landscape/aesthetics | |
| 6.1 Is there a possibility that the sub-project will adversely affect the aesthetic attractiveness of the local landscape? | Minor |
| 7. Historical, archaeological, or cultural heritage site | |
| 7.1. Based on available sources, consultation with local authorities, local knowledge, and/or observations, could the sub-project alter any historical, archaeological, or cultural heritage site or require excavation nearby? | NA |
| 8. Resettlement and/or Land Acquisition | |
| 8.1 Will the sub-project require land acquisition? | NA |
| 8.2 If so, will this land acquisition be involuntary? | NA |
| 8.3 If so, will this involuntary land acquisition lead to relocation or loss of shelter, loss of assets, or access to assets? | NA |
| 8.4 If so, will this involuntary land acquisition lead to loss of income sources or means of livelihood (whether or not affected persons must move to another location)? | NA |
| 8.5 Will the sub-project lead to involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of displaced persons? | NA |
| 9. Noise pollution during Construction and Operations | |
| 9.1 Will operating noise level exceed allowable/ambient noise limits? | Minor |

| | |
|---|---|
| 10. Solid or Liquid Wastes, including Medical Waste | |
| 10.1 Will the sub-project generate large amounts of residual wastes (solid or liquid wastes), including medical waste? | Minor |
| 10.2 If “Yes”, does the sub-project include plan for collection & disposal? | Minor |
| 11. Pesticides, Insecticides, Herbicides, or any other Poisonous or Hazardous Chemicals | |
| 11.1 Will the sub-project require the use of such chemicals? | NA |
| 11.2 If, “Yes”, does the sub-project include plan for safe handling, use & disposal? | NA |
| 12. Water and Soil Contamination | |
| 12.1 Will the sub-project require large amounts of raw materials/construction materials? | Minor |
| 12.2 Will the sub-project generate large amounts of residual wastes, construction material waste, or cause soil erosion? | Minor |
| 12.3 Will the sub-project result in soil or water contamination (e.g., from oil, grease, and fuel from equipment)? | Minor |
| 12.4 Will the sub-project lead to contamination of ground and surface water bodies by herbicides for vegetation control and chemicals for dust control? | NA |
| 12.5 Will the sub-project lead to an increase in suspended sediments in streams affected by a road cut erosion, a decline in water quality & increased sedimentation downstream? | NA |
| 12.6 Will the sub-project lead to the destruction of vegetation and soil in the right-of-way; burrow pits, waste dumps, and equipment yards? | NA |
| 12.7 Will the sub-project lead to the creation of stagnant water bodies in borrow pits, quarries, etc., encouraging mosquito breeding and other disease vectors? | NA |
| 12.8 Will this sub-project include the development of a large irrigation scheme? | NA |
| 12.9 Will this sub-project aim at improving an irrigation scheme (without expansion)? | NA |
| 12.10 Will this sub-project change the water quality and quantity in the project area or areas connected to it | NA |
| 12.11 Will this sub-project involve the intensification of production systems that leads to land-use changes (e.g., deforestation), higher nutrient inputs leading to soil or water pollution, and changes in water regimes (drainage, irrigation)? | NA |
| 13. Decent Work | |
| 13.1 Will this sub-project affect the current or future employment situation of the rural poor and in particular the labor productivity, employability, labor conditions, and rights at work of self-employed rural producers and other rural workers? | NA |
| 14. Gender | |

| | |
|---|---|
| 14.1 Could this sub-project risk overlook existing gender inequalities in access to productive resources, goods, services, markets, decent employment, and decision-making?<br>For example, by not addressing existing discrimination against women and girls, or by not taking into account the different needs of men and women | Mi no r |
| 15. Community Health, Safety, and Working Conditions | |
| 15.1 Are indigenous peoples present in the Project area (including the Project area of influence)? | NA |
| 15.2 Is it likely that the Project or portions of the Project will be located on lands and territories claimed by indigenous peoples? | NA |
| 15.3 Would the proposed Project potentially affect the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples? | NA |
| 15.4 Would the Project adversely affect the development priorities of indigenous peoples as defined by them? | NA |
| 15.5 Will this sub-project permanently or temporarily remove people from their homes or means of production/livelihood or restrict their access to their means of livelihood? | NA |
| 15.6 Will the sub-project bring about consolidation or adjustment of tenure rights? | NA |
| 15.7 Would elements of Project construction, operation, or decommissioning pose potential safety risks to local communities? | Minor |
| 15.8 Would the Project pose potential risks to community health and safety due to transport, storage, and construction? | Moderate |
| 15.9 Would the sub-project pose potential risks to community health and safety due to the use and/or disposal of hazardous or dangerous materials (e.g., explosives, fuel, and other chemicals during construction and operation)? | Mino r |
| 15.10 Would the failure of structural elements of the sub-project pose risks to communities? (e.g., collapse of buildings or infrastructure)? | Minor |
| 15.11 Would the sub-project result in potential increased health risks (e.g., from water-borne or other vector-borne diseases)? | NA |
| 15.12 Does the sub-project pose potential risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during Project construction, operation, or decommissioning? | Moderate |
| 15.13 Will the sub-project activities cause any risks for workers during the construction? | Moderate |

## Annex 2 – PWP Environmental and Social Responsiveness (ESR) Criteria and UNOPS Exclusion List at Proposal Stage

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

| | | |
|---|---|---|
| Proposal Title | Stone paving for Street extending from intersection of Shamsan Mall with Ghurairy restaurant to Abdullaziz Area - Sheikh Othman District | |
| Proposal Location | Aden Governorate | |
| ESR Criteria at the Proposal Stage | | Confirmation<br>Write Yes or No |
| Consultation with the local community including a community leader, men, women, and girls was conducted in the proposal stage regarding the design and location of the project. Their opinions were included in the proposal. | | Yes |
| Poor and vulnerable beneficiaries were defined, and the community was obliged to provide help for them in the subproject implementation. | | Yes |
| The project will not have a significant adverse environmental and social impact | | Yes |
| The project will not raise land acquisition problems | | yes |
| Stakeholders are aware of the PWP policy and have agreed to follow/apply them towards a successful implementation of the urban road pavements. | | Yes |
| Targeted beneficiaries are highly in need of this project | | Yes |
| All communities including (Male, females, and children) will benefit from the intervention. | | Yes |
| The operation and maintenance requirements of the project were explained to the community, and an acceptable system was developed for this purpose | | Yes |
| Responsibility for operation and maintenance are defined and committed | | Yes |
| Local communities are aware of project risks and G M. | | Yes |
| The project will not cause any conflict among communities | | Yes |
| *If the answer to any of the above questions is 'NO' then the project will be dropped at the proposal stage. If the answer is 'Yes' then incorporating this information in the project proposal* | | |

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

## Annex 3 - PWP Checklist of Expected Environmental and Social Impacts to be Addressed at the Design Stage

| Project Name | Stone paving for Street extending from intersection of Shamsan Mall with Ghurairy restaurant to Abdullaziz Area - Sheikh Othman District |
|---|---|
| Project Location | Aden Governorate |
| Check List of the E&S Issues to be Addressed for the construction subproject at the Design Stage | Confirmation<br>Write Yes or NO |
| The relevant authorities were consulted on the design and all their observations were taken into consideration. | Yes |
| The design of the project will include the ES & OHS monitoring plan | Yes |
| The project design will ensure local community participation during implementation. | Yes |
| The design and the urban road contractual materials for example stone are in harmony with the surrounding environment and the architectural character of the village. | Yes |
| GRM tools have been included in the project document. | Yes |
| A safe work plan has been developed to project activities to control risks. | |
| OHS measures and Personal Protection Equipment (PPEs), were added to the bidding documents. | Yes |
| Temporary latrine and wash hand facilities have been included in the project document. | Yes |
| *If any of the answers are "No", then the reasons must be stated in the design report.* | |

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

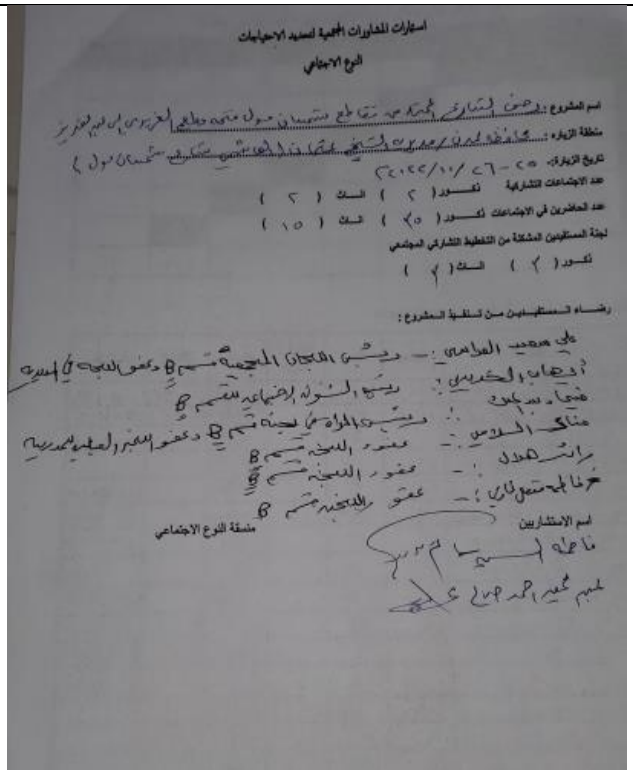
### Exclusion List:

| # | Statement | Yes | No |
|---|---|---|---|
| **1** | Production or activities involving harmful or exploitative forms of forced labor/harmful child labor; | | X |
| **2** | Production or trade in any product or activity deemed illegal under host country laws or regulations or international conventions and agreements; | | X |
| **3** | Production or trade in weapons and munitions; | | X |
| **4** | Gambling, casinos, and equivalent enterprises; | | X |

| | | | |
|---|---|---|---|
| **5** | Trade-in wildlife or wildlife products regulated under CITES; | | X |
| **6** | Production or trade in radioactive materials; | | X |
| **7** | Production or trade-in or use of unbonded asbestos fibers; | | X |
| **8** | Production or trade in wood or other forestry products from unmanaged forests; | | X |
| **9** | Production or trade-in products containing PCBs; | | X |
| **10** | Production, trade, storage, or transport of significant volumes of hazardous chemicals, or commercial scale usage of hazardous chemicals; | | X |
| **11** | Production or trade in pharmaceuticals subject to international phase-outs or bans; | | X |
| **12** | Production or trade in pesticides/herbicides subject to international phase-outs or bans; | | X |
| **13** | Production or trade in ozone-depleting substances subject to international phase-out; | | X |
| **14** | Production or activities that impinge on the lands owned, or claimed under adjudication, by indigenous peoples, without full documented consent of such people; | | X |
| **15** | Power plants; | | X |
| **16** | Large-scale transport infrastructure such as highways, expressways, urban metro-systems, railways, and ports; | | X |
| **17** | Investments in extractive industries; commercial logging; | | X |
| **18** | Dams, or projects involving allocation or conveyance of water, including inter-basin water transfers or activities resulting in significant changes to water quality or availability; | | X |
| **19** | Activities that would significantly convert natural habitats or significantly alter potentially important biodiversity and/or cultural resource areas; | | X |
| **20** | Activities that would require the relocation of residential households and/or significant involuntary land acquisition; or | | X |
| **21** | Activities in disputed areas. | | X |

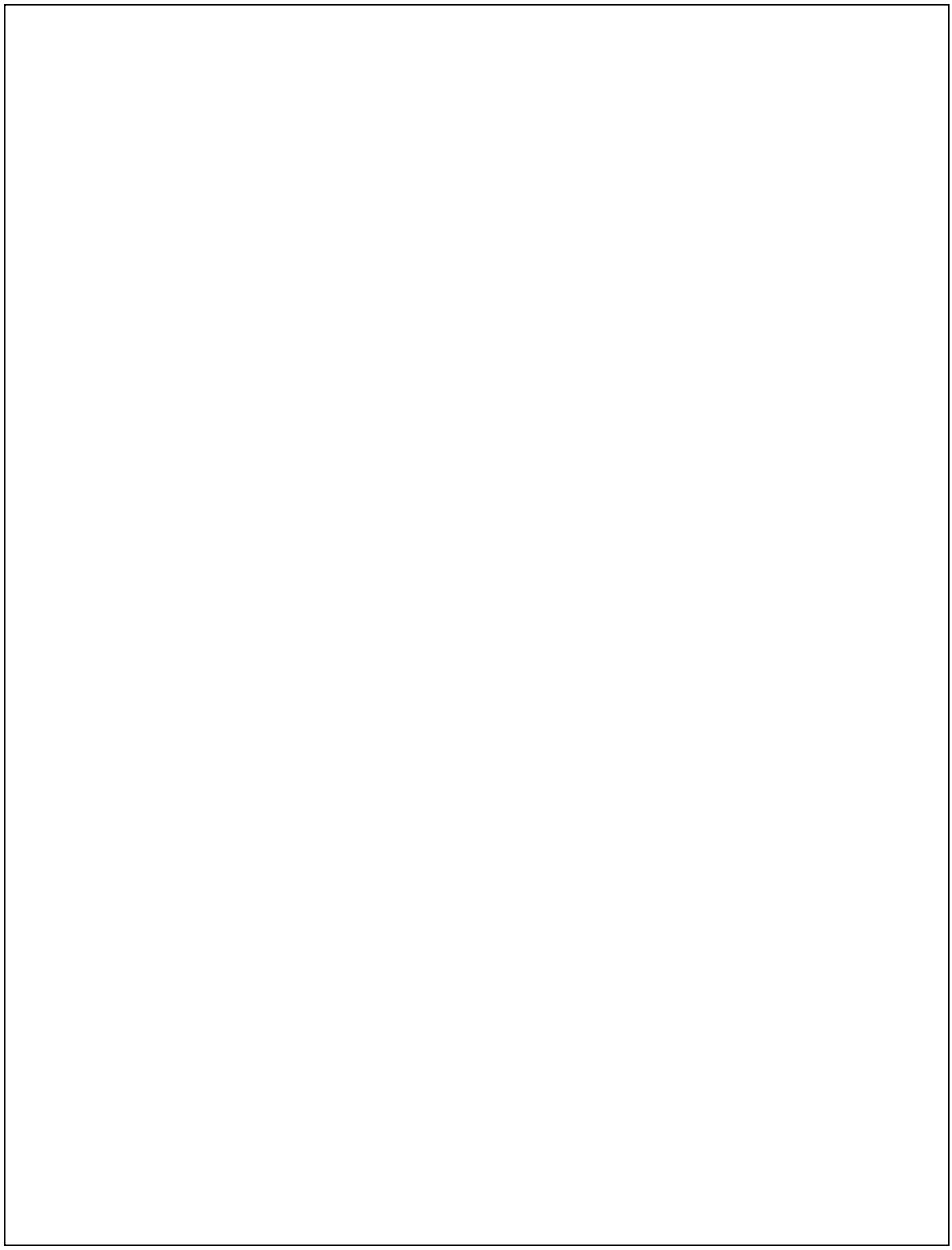
*Table 14 Exclusion List*

## Annex 4. – Public Consultation Reports (Social agreements & consultation attendance sheets) – Arabic



Stone paving for Street extending from intersection of Shamsan Mall with Ghurairy restaurant to Abdullaziz Area - Sheikh Othman District

*Figure 5 Public Consultation Reports (Social agreements & consultation attendance sheets) – Arabic*



## Annex 6 – PWP Complain Handling Mechanism


*Figure 6 PWP Complain Handling Mechanism*