REPUBLIC OF IRAQ

MINISTRY OF PLANNING

Iraq Social Fund for Development
SFD
(P163108)

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)

FOR THE

CONSTRUCTING (5) BOX CULVERTS IN THE VILLAGE OF (MOJAMAA HATEN)

IN
SINJAR COUNTY

WITHIN
NINEVEH GOVERNORATE

29TH NOVEMBER 2023

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IRAQ: Social Fund for Development Project

PART A: **GENERAL PROJECT AND SITE INFORMATION**

INSTITUTIONAL & ADMINISTRATIVE	
Country	**IRAQ**
Project Title	**CONSTRUCTING (5) BOX CULVERTS IN THE VILLAGE OF (MOJAMAA HATEN) IN SINJAR COUNTY WITHIN NINEVEH GOVERNORATE**
Introduction	Iraq faces a historic opportunity for national reconciliation through the effective delivery of critical social services, economic growth and recovery programs. The reinstatement of trust between the State and its citizens is highly dependent on the Government of Iraq (GOI) demonstrating its capacity to deliver security, jobs and economic growth to all Iraqis, with a focus on the poor, the vulnerable and the millions of Internally Displaced People (IDP). The GOI, represented by the Ministry of Planning (MOP), requested the World Bank's support in the design and financing of a Social Fund for Development (SFD) project to support locally driven initiatives to improve the living conditions and opportunities of the poor and most vulnerable in Iraq. The GOI has demonstrated its commitment and support to the design of this operation and established a high-level national team to guide and coordinate the development and institutionalization of the SFD, as well as five technical teams to work on the different aspects of the fund. The Project Development Objectives (PDOs) are to: (1) Improve access to basic services and; (2) Increase short-term employment opportunities, in targeted communities. This environmental and social management checklist reflects the main issues (project description and activities, baseline conditions, impact analyses, mitigation measures and monitoring arrangements). The main objective of this document is to examine the environmental and socio-economic impacts of the project (both construction and operation phases), and to propose mitigation measures. The project is expected to result in significant socio-economic benefits for the local communities and surrounding areas in addition to developing social awareness and group responsibility.
PROJECT LOCATION & SITE DESCRIPTION	

Project Location

According to the Environmental and Social Management Framework (ESMF) which was prepared for the Iraq Social Fund for Development Project disclosed locally in Iraq and on the World Bank's website[1]. Environmental and Social Management plan (ESMP)/ Environmental and Social Management should be prepared, cleared, publicly consulted and disclosed prior to the commencement of any rehabilitation activity. The World Bank Operational Policy 4.01 on Environmental Assessment was triggered as the proposed Subprojects has some potential negative environmental and social impacts. Accordingly, this Environmental and Social Management is required to implement the Sub-project in accordance with the requirements of the World Bank's Operational Procedures and applicable Iraqi national legislation.

The governorate of Ninewa (also sometimes referred to as "Nineveh") is located in northwestern Iraq. It shares borders with Syria and several Iraqi governorates. Ninewa is the third largest governorate in terms of size. The provincial capital is Mosul city, located in the northeast. Sinjar district borders and is a crossing point with Syria. The district is 136 km from Mosul city. The Tigris and Greater Zab rivers irrigate much of Mosul. The Tigris River extends from the governorate's northwest to the south. There are arid, semi-desert plains south of Mosul city (as shown in figure below).

The proposed location of these culverts will be in an open area. Below is the google site map.

Table 1: Information about the villages

No.	Village	No. culverts	Population	Coordinates
1	MOJAMAA HATEN	- 5	21176	36.482898,41.75187

[1] https://documents1.worldbank.org/curated/en/221731554372651925/pdf/Environmental-and-Social-Management-Framework.pdf

The area adjacent to these subprojects' sites are characterized as rural residential and semi-desertic to agricultural in some area. There are no protected areas or endangered species (there are no critical or high biodiversity values that might be affected) in the vicinity of the sites. There are no close sensitive receptors located at the subproject site.

Figure 1: Project Location

The subproject aims to provide a good sanitary environmental condition of the village and subsequently protect public health.

Project Duration	The anticipated project duration is 180 days
Proposed Project Activities	The proposed activities for the construction of the box culverts (2.5m*2.5m) within the village in the Sinjar County/ Ninawah Governorate are presented in the following: 1- Removing the dirt and debris out of the site so that the site is ready for planning and work and preparing materials of subbase layers. The place where the culvert exists should be located and the center line should be marked 2- Providing the necessary materials and equipment for excavating trenches taking in account the side. 3- Before excavation, proper barricading along with reflective marking with cautionary sign boards shall be provided. 4- Fine to coarse sand should be laid to the required length, width, and thickness. However, the sand should be compacted properly with plate vibrators. 5- The concrete should be placed correctly for the raft, then side walls, and finally the top slap. It is important that proper care should be taken to the returning walls, Expansion joints, and backfilling. 6- The excavated soil resulting from the digging will be used for backfilling and refilling. However, if any surplus materials (excavated soil) remained, there will be coordination with the municipal local authority to properly dispose of the remaining material in the designated landfill. The anticipated duration of construction works in the village is about 6 months with about 10-15 workers per day per site and most of them are local workers and the rest are engineers and technicians. Workers from other villages will need to have their accommodation facilities in the camp, during the construction phase. The setup of a camp will be on vacant state-owned lands. Also, storage of equipment and construction materials will be on vacant state-owned lands.
Land Use and Acquisition	The area adjacent to the project's site is characterized as rural residential and semi-desertic to agricultural area. However, the construction activities will not cause an impact on agricultural areas or cause any crop damage.

	The box culverts will be constructed on state land and hence there are no issues related to land acquisition and free of encroachers or squatters. The implementation activities will not cause relocation of people, vendors, and any individuals. No sensitive receptors or critical habitats in the footprint or close to sub-project activities.
Contractor's Camp	The construction of culverts will need about 10-15 workers per day. Workers are expected to be hired locally, however if a construction camp is deemed necessary, it will be installed on vacant state-owned land. Portable holding tanks will be installed in the subproject, waste will be collected and disposed in an authorized waste treatment plant/authorized disposing site to be determined later by the local municipality. The contractor will establish his storage on vacant state-owned land for equipment and material within the area close to the construction area. The construction camp should have independent sources of water and electricity, and an adequate septic tank for sanitary effluent disposal. Due to its geographical location, an influx of workers to the subproject area is not expected. Most of the workers will be locals from the surrounding areas and will return to their homes.
PROJECT BASELIN CONDITIONS	
Geographic Conditions	Mosul stands 230 meters above sea level in the Upper Mesopotamia region of the Middle East. To the south west of Mosul is the Syrian Desert and to the East is the Zagros Mountains. Sinjar district borders and is a crossing point with Syria. The district is 136 km from Mosul city, the capital of the Nineveh Governorate. The Sinjar Mountains are located in the district
Climate, Air Quality and noise	The governorate of **Ninewa** is located in northwestern Iraq. Mosul is the capital or city center of Ninewa and it is about 400Km from Baghdad. It shares borders with Syria and several Iraqi governorates. In general, the climate is the most important factor affecting the quality of surface water, groundwater and the hydrological cycle in the study area. Mosul is situated 36.19 N, 43.09 E, at 230 m above sea level in a hilly area between the Mountains in the North and the Al-jazeera plane in the South and the West, Tigress River divides the city into two parts. The climate of Mosul is characterized by hot and dry summers and cold

	winters with rare snow. Annual mean temperature is 19.5◦ C and rainfall is 383 mm. The year is divided into two influential seasons. A long warn dry summer, a short cold rainy winter cold season and sunny weather often year-round. The summers are hot and dry, with average high temperatures reaching above 40°C while the winters are mild. Rainfall is between the months of November-April and averages 383 mm annually. These subprojects sites are located in open areas, so the expected concentration of air pollutants is low. Air pollutants in the villages are caused mainly from movement of vehicles and trucks. Therefore, the ambient air quality is expected to be within the WHO ambient air quality standards (Annex3). Currently, there is no traffic congestion and consequently the existed noise level is within the normal levels.
Hydrogeology Conditions	The depth of ground water in the area ranges of range from 5-44 meters. Flooding of the area near the project has not been reported in the past years.
Ecology Conditions	There are no Nature Reserves or other legally protected areas in the vicinity of the project or in a close proximity. The project areas do not contain any globally important habitats or ecosystems.
Heritage Environment	There are no sites of historical or cultural importance in the area. There are no cemeteries, historical-cultural monuments, churches, mosques near the project that need to be removed or will be impacted due to the rehabilitation activities.
Socio-economic Aspects	The population of these projects area is approximately 21167. The suggested areas of the subproject will be on state land, where no land or property expropriation will be necessary and is free from encroachers or squatters. All the areas around the sites remain clear of any settlement or economic use and are ready for construction works, no interference is registered from the local community which is eager for the works to be completed. It is important to mention that during the construction of the subproject, it is not expected to cause restriction of access or livelihood impacts. Some of the population have a degree or equivalent to Bachelor level, and some have equivalent to middle school., some of them operating small businesses and they have only a few years of basic education.
LEGISLATION & POLICIES	
National &	The applicable national legislation is as follows:

Local Legislation and World Bank Policies that Apply to the Project	➢ The Law for the Protection and Improvement of Environment No. 27, 2009; ➢ Public Health Law No. 89 of 1981, amended by Resolution No.54 of 2001; ➢ Law No.3,1997 regarding to Environment protection ➢ Instructions No. 2 of 2014 on Environmental Protection from Municipal Waste; ➢ Law No. 2 of 2001 on Conservation of Water Resources. ➢ Instructions no. 3 of 2015 on Hazardous Waste Management; ➢ Law No. 6 of 1988 concerning the National Commission for Occupational Hygiene and Safety; ➢ Instructions No. 12 of the year 2016: Occupational Health and Safety; ➢ Labor Law No. 37 of 2015; ➢ Law no. 89 of the year 1981, amended by Decree No.54 of 2001: Public Health; ➢ Law No. 41 for the year of 2015: Noise Protection and Control; ➢ Public Roads Law No. 35 of 2002; ➢ Instructions No.3 of 2012: National Emissions' Determinants for Activities and Businesses by the Ministry of Health and Environment; ➢ Regulation No. 4 for the year of 2012: Ambient Air Quality; ➢ World Health Organization (WHO) Guidelines for Drinking Water Quality[2] The main WB safeguard policies applicable for SFD are: ➢ OP 4.01 Environmental Assessment ➢ OP 4.12 Involuntary Resettlement (There might be a probability of storage of construction materials within the project area. Until the date of report development, no land acquisition is anticipated.). ➢ OP 4.11 Physical and Cultural Resources (The proposed construction activities are not expected to pose risks of damaging cultural property). ➢ labor influx guidance note (2016). ➢ WB General Environmental, Health, and Safety guideline[3] The EHS guidelines entail effective methods for managing environmental, health and safety issues in accordance with WBG requirements. This includes understanding the likelihood, magnitude, and priority of the EHS risks. The EHS guidelines include 4 primary sections and respective subsections (applicable segments from the EHS guidelines for the sub-project are highlighted in **Red**): 1. <u>Environmental Guidelines</u> **1) Ambient Air Quality** – Limits and Guidelines **2) Energy Conservation** – Energy Conservation and Efficiency

[2] https://www.who.int/publications/i/item/9789241549950

[3] https://www.ifc.org/wps/wcm/connect/29f5137d-6e17-4660-b1f9-02bf561935e5/Final%2B-%2BGeneral%2BEHS%2BGuidelines.pdf?MOD=AJPERES&CVID=nPtguVM

	Methods **3) Water and Sanitation[4]-** The EHS Guidelines for Water and Sanitation include information relevant to the operation and maintenance of (i) potable water treatment and distribution systems, and (ii) collection of sewage in centralized systems (such as piped sewer collection networks) or decentralized systems (such as septic tanks subsequently serviced by pump trucks) and treatment of collected sewage at centralized facilities. **4) Wastewater and Ambient Water Quality** – Effluent water quality and indicators for water discharge and treatment **5) Water Conservation** – Methods for ensuring reduction in water consumption **6) Hazardous Material Management** – The appropriate Methods for managing hazardous waste and instructions on community and worker protection **7) Waste Management** – Instructions on waste management and planning, waste prevention and safe waste disposal **8) Noise** – Methods for prevention and control of Noise, and the applicable noise limits for different activities and exposure period **9) Contaminated Land** – Management approaches for contaminated land due to different hazardous substances or waste or oil. Includes Risk Reduction measures 2. Occupational Health and Safety Guidelines[5] **1) General Facility Design and Operation** – ensuring appropriate facility integration of H&S, that integrates safety measures in design for different physical hazards **2) Communication and Training** – Ensuring there is an appropriate level of communication between workers and management, and that there is sufficient training for all workers prior to operations **3) Physical Hazards** – Methods for prevention of accidents or injuries that can occur due to exposure to mechanical or other physical works, including Noise and Vibrations **4) Chemical Hazards** – Injuries and accidents that could occur due to usage of chemicals and methods of protection and

[4] https://www.ifc.org/wps/wcm/connect/0d8cb86a-9120-4e37-98f7-cfb1a941f235/Final%2B-%2BWater%2Band%2BSanitation.pdf?MOD=AJPERES&CVID=nPtk0wW

[5] https://www.ifc.org/wps/wcm/connect/1d19c1ab-3ef8-42d4-bd6b-cb79648af3fe/2%2BOccupational%2BHealth%2Band%2BSafety.pdf?MOD=AJPERES&CVID=nPtgxyx

prevention. Includes management of fires and explosions

5) Biological Hazards – Protection and Management of different biological agents
6) Radiological Hazards – Management and Limits for Radiation Exposure
7) **PPE** – Guidance on usage of PPE and clearly highlighting that it should be considered the last resort
8) Special Hazards Environments – Guidance on Managing different environments that can present a risk to workers such as confined spaces.
9) **Monitoring** – Efficient monitoring of occupational health and safety programs and mitigation measures. This includes the Occupational Accident Reporting frequency

3. Community Health and Safety Guidelines[6]

1) **Water Quality and Availability** – Ensuring the protection of nearby water resources such as groundwater and surface water sources.
2) **Structural Safety of the Project** – Potential Hazards that could occur due to poor design and methodology for dealing with those hazards. Includes the general approach that architects/structural engineers must follow to ensure community safety is considered during design
3) **Life and Fire Safety (L&FS)** – Ensuring that building design is in accordance with local regulations and requirements, and that it integrates Fire safety standards (more focused on buildings rather than infrastructure)
4) **Traffic Safety** – Includes the potential risks and impacts on traffic and from traffic that occurs due to the project. Includes recommend measures to deal with traffic risk
5) **Transport of Hazardous Material** – Approach and Guidelines for transporting hazardous material, including a hazard assessment and emergency response plan.
6) **Disease Prevention** – Includes the recommended interventions and methods to protect the community from communicable diseases and vector borne diseases
7) **Emergency Response and Preparedness** – This sub section requires a plan and response system in place to respond to any potential emergency that could occur due to the works or operation

[6] https://www.ifc.org/wps/wcm/connect/eeb82b4a-e9a8-4ad1-9472-f1c766eb67c8/3%2BCommunity%2BHealth%2Band%2BSafety.pdf?MOD=AJPERES&CVID=nPtgxTd

	4. Construction and Decommissioning Guidelines[7] **1) Environment** – covers the different environmental factors that could be affected by the construction activities including soil erosion, disturbance to water bodies, disturbance to air quality, wastewater discharges etc. **2) Occupational Health and Safety** – Different OHS risks due to construction or decommissioning works **3) Community Health and Safety** – Different Hazards that can occur due to the project and affect the surrounding community. **4)** Grievance Redress Service
PUBLIC CONSULTATION & GRIEVANCE REDRESS MECHANISMS	
Public Consultation Process	The consultations were carried out in the village for the construction of the box culverts on the Sep. 2023, One on one interviews were conducted. Accordingly, a questionnaire was formatted to cover the key environmental and social aspects related to the subproject. The purpose of conducting the consultation activities is to achieve the below: 1. Introduce the construction subproject of the box culverts. 2. Disclose information regarding the Grievance Mechanism resources in place. 3. Discuss anticipated environmental and social impacts associated with the project. 4. Propose extensive mitigation measures to address potential environmental and social risks associated with the project activities. The formatted questionnaire was then addressed to 2 women and 5 men in five villages the surrounding community randomly to have their opinions and thoughts regarding the construction activities. **Consultation Results:** All those interviewed expressed their support to the project. All interviewees expressed their hope that the completion of the project will lead to more goods moving through their areas. Therefore, they link the project with improving their living conditions and the development of the area economically. They also stressed the

[7] https://www.ifc.org/wps/wcm/connect/7d708218-2a9e-4fcc-879d-9d5051746e7d/4%2BConstruction%2Band%2BDecommissioning.pdf?MOD=AJPERES&CVID=nPtgy6x

	importance of providing a timetable for the completion of the project because they heard of many planned projects in their district but have not seen them being completed. The participants emphasized that they know that the project's benefits are far greater than its negative impacts and confirmed their willingness to cooperate with the project. All participants in the village expressed that the construction of the box culvert will have a positive impact on their social daily life. Please refer to Annex 1 and Annex 2 for sample of the consultations for both men and women in these villages. The full list of participants for public consultations and individual interviews are attached in standalone document to reduce the size of the instrument. As per the questionnaire prepared for individual interview, below are the main findings: 1) No claims from any locals were recorded or alleged regarding the ownership of the land where the box culvert will be constructed. 2) No infrastructure will be affected negatively due the construction activities. 3) All interviewed locals agreed that the construction activities of box culvert will serve all the people in the village and have a strong positive impact from the social perspectives on the locals via improve their achievements and performance via simplifying the ways of communications. 4) No vegetation covers, crops, plants, trees…etc. will be removed in order to execute the construction activities of the box culverts. 5) No deportation, or dislocation of any of the local community will be needed due to these activities. 6) The construction of the project will enhance the economic situation of the people via saving transportation fares to achieve their daily requirements.
GRM Process	The Grievance Redress Mechanism is a procedure that aims to facilitate the most satisfactory solution and/or guidance to stakeholders seeking to submit their comments or complaints. Before the start of the project, local community members will be informed about the GRM via communication channels. For example, they will be informed verbally by their community leader or through social media online. Visible sign boards, hard copies of the GRM brochures, and online platforms will also be made available posting GRM-relevant contact information and an explanation of the grievance process.

The SFD established a central free hotline, and it is functioning properly in addition to the email and WhatsApp application. The digital system with multi-channels for receiving complaints, inquiries, feedback or comments like WhatsApp, Facebook, email and complain boxes for each subproject. Additionally, GRM focal points will be assigned at local level and central level to be in charge of handling complaints. The focal point will maintain a log and report on grievance management, which includes minutes of meetings, resolutions and recommendations as part of an annual project progress report. The information for the central office is:

#	Name	Job Title	Phone Number	E-mail
1	Husam A. Shaael	GRM Team leader	07833344263 07733344263	Sfd.grm.iraq@gmail.com

Meanwhile, in order to comply with the WB requirements, SFD has assigned staffs as focal points with their cell phone numbers to be disseminated at each subproject level for receiving calls and handling complaints. The contact details will be posted on subproject signboard and the complaint boxes will be installed in each location as shown in the below table.

Contact Information for GRM

#	Name	Job Title	Phone Number	E-mail
1	Sofyan M. Saeed Abid	SFD Team leader	07725082273	dr.eng.sofyan@gmail.com
2	Abdulah Yassen Salh	GRM Officer	07701854249	Ba11197500@gmail.com
3	Naseem K. Sulaiman	Environmental Officer	07703015888	naseemalmamo70@gmail.com

The process of managing complaints will be as follows:

The grievance note should be signed and dated by the aggrieved person. Where the affected person is unable to write, s/he should obtain assistance from the community to write the note and mark the letter with his/her thumbprint. Individuals who submit their comments or grievances have the right to request that their name be kept confidential, though this may mean that the social officer in charge of the GRM is unable to provide feedback on

how the grievance is to be addressed. However, an anonymous complaint can receive a code and should be investigated appropriately and treated courteously.

After receiving the comments and complaints, they will be summarized and listed in a Complaints/Comments LogBook, containing the name/group of commenter/complainant, date the comment was received, brief description of issue, information on proposed corrective actions to be implemented (if appropriate), and the date of response sent to the commenter/complainant. Complaints should be sorted out according to complexity; Significantly, the GRM classifies feedback in two categories, high-level and standard, each has its own procedure as explained further below.

High-Level Feedback

Feedback received to be categorized as 'high' level instances will include issues that meet the following criteria:

- Incidents that caused or may potentially cause significant or great harm to the environment, workers, communities, or natural resources;
- Incidents which entail failure to implement environmental and social measures with significant impacts or repeated non-compliance with E&S policies;
- Incidents for which failure to address may potentially cause significant impacts that are complex and/or costly to reverse; and
- Incidents that may result in a fatality or some level of lasting damage or injury.

This type of feedback will be acknowledged, and an investigation will be launched by the PCU/PMO and any other relevant stakeholders with 24 hours during work days and within 48 hours if the feedback was received over the weekend. It should be noted that some types of incidents, including accidents and fatalities need to be reported to the World Bank. This guidance is provided in the Environment & Social Incident Response Procedures.

Standard-Level Feedback

If the identity of the aggrieved person is known and the grievance is classified as 'standard', the acknowledgement of grievance will be within 3 working-days and the response will be within 20 working-days (depending on the type of grievance i.e. high or standard). The GRM Social Officer will keep a grievance log and report on grievance management (i.e. minutes of meeting, recommendations, and resolutions made) as part of annual project progress reports. At the 20 business-day mark, if a complaint/question is still pending, the GRM focal point will provide an update to the aggrieved person and

	inform them of the reason of delay in resolving their case, and provide the date for which a response will be provided. Aggrieved people who are dissatisfied with the outcome of their complaint can appeal the decision by resubmitting their complaint to the GRM Social Officer within 30 working days of receiving a response to the original submitted grievance. Subsequently, the GRM Social Officer and other relevant personnel have 30 working days to investigate and address the issue. Additionally, the GRM Social Officer has 10 working days to prepare a comprehensive response, including the findings of the investigation and the rationale of the determination. Accordingly, within a maximum of 40 working days, the appeal case should be closed. Lastly, if the aggrieved person is still not satisfied with the solution provided, s/he has the option to go to court. Individuals who submit their comments or grievances have the right to request that their name be kept confidential. An anonymous complaint will receive a code and should be investigated appropriately and treated courteously. Ensuring confidentiality when dealing with cases of sexual harassment, sexual exploitation and sexual abuse. In order to mitigate those issues/ complaints, assigning female GRM officer in case of facing any SEA/SH incidents, in addition, all GRM officers/ focal points must be trained on how to handle SEA/SH related grievances. In addition to PMO, the MOP, project offices in governorates, and Community Development Groups (CDGs), the World Bank's Grievance Redress System (GRS) can also be approached for reporting and resolving issues. **Disclosure activities** As soon as the site-specific ESMP gets clearance from the World Bank and approval from the Ministry of planning, the following disclosure procedures will be adapted. A final report, in English and in local language, will be published on the WB, SFD and Ministry of Planning websites and also will be available locally (such as at local SFD office.
INSTITUTIONAL CAPACITY BUILDING	
Will there be any capacity building?	[ ] N or [x]Y It is recommended to provide safety training and induction sessions for the workers and engineers who will be employed throughout the construction phase. Moreover, there needs to be more training on GRM implementation in order to ensure its proper functioning in the future.

PART B: **SAFEGUARDS SCREENING AND TRIGGERS**

ENVIRONMENTAL /SOCIAL SCREENING FOR SAFEGUARDS TRIGGERS			
	Activity / Typology	**Status**	**Triggered Actions**
Will the site activity include/involve any of the following?	1. Re/construction of box culverts	[X] Yes [ ] No	This subproject is a construction of box culverts
	2. Reconstruction of / impacts on surface drainage system	[ ] Yes [X] No	The subproject doesn't have an impact on Surface drainage system
	3. Activities in Historic building(s) and districts	[ ] Yes [X] No	The construction activities do not take place anywhere near historic buildings or districts and
	4. Required acquisition of land or temporary / permanent impacts on livelihoods	[ ] Yes [X] No	No land acquisition is required for this subproject as the activities will be constructed on state owned land.
	5. Handling or presence of hazardous or toxic materials	[X] Yes [ ] No	There are toxic or hazardous materials generated by the project.
	6. Impacts on forests and/or protected areas	[ ] Yes [X] No	There are no forests or protected areas surrounding the subproject area.
	7. Risk of unexploded ordinance (UXO)	[ ] Yes [X] No	An official clearance letter has been provided by authorities (Annex 4).

PART C: ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP) FOR THE SUBPROJECT PHASES

Receptor/ EHS Aspect	Impact	Mitigation Measures	Means of Supervision	Responsibility		Estimated Cost
				Implementation	Supervision	
Construction Phase						
Air Quality[8]	Dust and exhaust emissions	• Have a maintenance plan for the construction equipment to minimize exhaust emissions. • Adopt a policy of switching off machinery and equipment when not in use (idle mode). • Spray the soil before and during excavation activities, if necessary, to reduce dust emissions. • Store construction materials in pre-identified storage areas. For example, any excavated material must remain in a confined area until disposal from site. • Set an appropriate speed limit (typically 10-15 km/h) for the vehicles operating within the site boundaries. • Demolition debris, excavated soil and aggregates shall be kept in controlled area and sprayed with water mist to reduce debris dust when necessary • There will be no open burning of construction / waste material at the site. • Providing some indigenous species of vegetation, which will also reduce dust level. • Demolition debris, excavated soil and	• Site inspection • Review equipment maintenance records. • Review the complaints reports	Contractor	Resident Engineer / the assigned E&S specialists from PMT	Within contractor's cost

[8] https://www.ifc.org/wps/wcm/connect/4e01e089-ad1a-4986-b955-e19e1f305ff0/1-1%2BAir%2BEmissions%2Band%2BAmbient%2BAir%2BQuality.pdf?MOD=AJPERES&CVID=nPtgvbS

Receptor/ EHS Aspect	Impact	Mitigation Measures	Means of Supervision	Responsibility		Estimated Cost
				Implementation	Supervision	
		aggregates shall be kept in controlled area and sprayed with water mist to reduce debris dust when necessary • proper stacking of material and avoiding excavation or other activities during high wind periods.				
Noise[9]	The operation of heavy construction equipment will lead to an increase in ambient noise levels.	• Switch off any equipment if not in use. • Ensure that machinery is in good condition by implementing a maintenance plan. • Construction noise will be limited to restricted times agreed to in the permit	Site inspection Review the equipment maintenance records. Review complaints/ grievance log.	Contractor	Resident Engineer / the assigned E&S specialists from PMT	Within contractor's cost
Waste Generation	Inappropriate handling of hazardous or non-hazardous waste can lead to soil contamination. Also, not removing domestic waste on a periodic basis will lead to its accumulation and consequently	Implement a waste management plan consisting of the following measures. **For solid waste:** • Identify waste types and quantities • Allocate a skip/bin to each type of waste • Create a confined area on site to store excavated material, if there is a need to. • Allocate a space on site to store construction debris and scrap material such as old pipes, broken doors and windows. • Contract a licensed solid waste contractor/scrap dealer to collect domestic waste on a daily basis and other scrap waste also on a regular basis.	• Field investigations. • Review waste register. • Review the complaints reports.	Contractor	Resident Engineer / the assigned E&S specialists from PMT	Within contractor's cost

[9] https://www.ifc.org/wps/wcm/connect/4a4db1c5-ee97-43ba-99dd-8b120b22ea32/1-7%2BNoise.pdf?MOD=AJPERES&CVID=nPtgwZY

Receptor/ EHS Aspect	Impact	Mitigation Measures	Means of Supervision	Responsibility		Estimated Cost
				Implementation	Supervision	
	to significant bacterial presence on site.	• The waste management areas must be part of the construction site and should not interfere with any activities outside the boundaries of the subproject. • Procedures will be put in place for rapid response to accidental spills of fuels, lubricants and other toxic or noxious substances, and for their recovery and appropriate disposal. • The excavated soil resulting from the digging will be used for backfilling and compacted very well. However, if any surplus materials (excavated soil) will remain, there is a need to coordinate with the municipal local authority to properly dispose of the remaining material. **For Hazardous waste and substances:** • If there will be a diesel tank on site, it must be shaded and placed on an impervious surface such as concrete. • Store used oils in barrels until final disposal and place them on a retention basin. • Contract a hazardous waste contractor to collect the hazardous waste and transport it to an authorized facility/dumping site, which will be identified by local authorities. • Safe handling using the proper PPEs and safety precautions. • Make a register of the quantities that have been disposed of. **For Liquid waste:** • The holding tank connected to the site offices must be emptied on a frequent basis by a				

Receptor/ EHS Aspect	Impact	Mitigation Measures	Means of Supervision	Responsibility		Estimated Cost
				Implementation	Supervision	
		licensed waste company.				
Water Pollution	Surface water may be polluted by improper waste handling.	• The contractor must follow the solid and hazardous waste mitigation measures presented in this ESMP to limit the possibility of water pollution that may result from inappropriate handling of waste. • No washing, maintenance or service of vehicles and machinery close to water bodies. • The contractor must follow the solid and hazardous waste mitigation measures presented in this ESMP to limit the possibility of water pollution that may result from inappropriate handling of waste. • Construction material and stockpiles should be covered to avoid run-off to water bodies. • Wastewater from the worker rest areas or construction offices should be contained in septic tank and should be removed regularly from site by the authorized wastewater trucks • In case of the need to change engine, oils or refuel some construction equipment, a proper maintenance workshop or shelter should be installed to ensure containment of any fuel or oil spills.	Field investigation	contractor	Resident Engineer / the assigned E&S specialists from PMT	Within contractor's cost
Soil	Contamination through leakages from equipment, holding tanks or chemical containers improper	• The contractor must follow the solid and hazardous waste mitigation measures presented in this ESMP to minimize the possibility of leakages to the soil. Other measures to minimize soil contamination include: • Adopting strict spill control procedures and developing a spill response and management	Field investigation	Contractor	Resident Engineer / the assigned E&S specialists from PMT	Within contractor's cost

Receptor/ EHS Aspect	Impact	Mitigation Measures	Means of Supervision	Responsibility		Estimated Cost
				Implementation	Supervision	
	disposal of solid or hazardous waste.	plan. • Storing oil and chemical materials in an appropriate location that has a protective base and a lip, such as a concrete slab, to prevent any penetration into the ground. • Reuse the excavated soil when it deemed technically appropriate. • Preventing loose material (soil and equipment) from falling or rolling into the excavation by removing this material to a minimum of 0.5 meter from the edge of the excavation • Marking excavation with physical boundaries (barriers, tape or fence). • Follow the solid and hazardous waste mitigation measures presented in this ESMP to minimize the possibility of leakages to the soil. • Restoration of topsoil and damaged areas must take place after the construction phase ends. • Ensure appropriate and safe storage of containments such as fuels, construction materials, and wastes.				
Worker's safety	Occupational health and safety	• The Contractor shall prepare an Occupational Health and Safety Plan and job hazard instructions during the construction phase. • The contractor will also assign a competent person to supervise the plan. Some of the main mitigations measures that must be included in the plan are as follows: • Workers should be trained to identify and evaluate fall hazards and be fully aware of how to control exposure to such risks. • Workers and site personnel must always use	• Contractual clauses + Field supervision	Contractor's health and safety officers	Resident Engineer/ the assigned E&S specialists from PMT	Within contractor's cost

Receptor/ EHS Aspect	Impact	Mitigation Measures	Means of Supervision	Responsibility		Estimated Cost
				Implementation	Supervision	
		personal protective equipment when dealing with toxic material. • To prevent heavy construction equipment risk, workers should follow construction safety guidelines designed to eliminate the exposure to such injuries and accidents • Emergency equipment (spill-kit, fire extinguishers, etc..) must always be available on-site and functional. • Initial and periodic health checks must be provided to the workers. • Workers must be provided with health care insurance (that covers provision of medical support in case of being infected by diseases) and safety insurance (that covers workers in case of incidents and accidents) • Suitable working platforms, with suitable guard rails and toe boards, should be provided for work at height. Safe means of access and egress should be provided for the working platform. • Suitable guardrails and toe-boards should be installed at the edges. Openings should be properly covered where persons are liable to fall from height, to land surfaces or into water. • Use fall protection equipment when working at heights; • Maintain work areas to minimize slipping and tripping hazards; • Use proper techniques for trenching and shoring; • Implement fire and explosion prevention measures by internationally accepted				

Receptor/ EHS Aspect	Impact	Mitigation Measures	Means of Supervision	Responsibility		Estimated Cost
				Implementation	Supervision	
		standards; • When installing or repairing mains adjacent to roadways, implement procedures and traffic controls, such as: o Establishment of work zones to separate workers from traffic and equipment as much as possible o Reduction of allowed vehicle speeds in work zones; o Use of high-visibility safety apparel for workers in the vicinity of traffic o For night work, provision of proper illumination for the work space, while controlling glare so as not to blind workers and passing motorists • Locate all underground utilities before digging. • Proper use of ladders and scaffolds by trained employees· • Use of fall prevention devices, including safety belt and lanyard travel limiting devices to prevent access to fall hazard area, or fall protection devices such as full body harnesses used in conjunction with shock absorbing lanyards or self retracting inertial fall arrest devices attached to fixed anchor point or horizontal life-lines • Appropriate training in use, serviceability, and integrity of the necessary PPE · • Make sure all walking areas and work surfaces are clean, dry, clear of debris, etc. • Keep all gear secure when not in use. • Wear footwear with slip-resistant soles. • Eliminate unusable impounded water, and apply vector control programs • Erect suitable and adequate warning signage along culvert cleaning and excavation sites				

Receptor/ EHS Aspect	Impact	Mitigation Measures	Means of Supervision	Responsibility		Estimated Cost
				Implementation	Supervision	
		• Signs and awareness should be installed close to the excavation area to protect road users and the community.				
Local Community[10]	Community health and safety	• Prepare and implement a security plan to prevent public access to the work site, hazardous materials, and waste • The contractor must abide by the waste management plan in order not to negatively affect the safety of the surrounding communities. • A grievances mechanism should be provided to ensure effective communication regarding community concerns • People with disability and school children should be provided with safe access roads to their schools and commercial areas, particularly, as the project will dig streets. Safe access roads can be provided with lights to avoid falls of pedestrians during night.	• - Grievances log • Accidents log	Contractor	Resident Engineer / the assigned E&S specialists from PMT	Within contractor's cost
Local Community	Traffic safety	• Safety signs must be installed to notify the community that construction vehicles will be using the roads leading to the box culverts • The contractor must set a speed limit for construction vehicles while they operate outside the site boundaries.	• Accidents log • Community grievance mechanism	Contractor in coordination with the traffic department	Resident Engineer / the assigned E&S specialists from PMT	Within contractor's cost
Local Communit	Child Labour	• The ToR of the contractor must prohibit all forms of child labor in the subproject (below	• Workers attendance	Contractor	Resident Engineer/	Within contractor'

[10] https://www.ifc.org/wps/wcm/connect/1d19c1ab-3ef8-42d4-bd6b-cb79648af3fe/2%2BOccupational%2BHealth%2Band%2BSafety.pdf?MOD=AJPERES&CVID=nPtgxyx

Receptor/ EHS Aspect	Impact	Mitigation Measures	Means of Supervision	Responsibility		Estimated Cost
				Implementation	Supervision	
y		18 years old) and specify the appropriate penalties. • The ToR shall also oblige the contractor/subcontractor to keep a copy of IDs of workers to monitor their age.	sheets		the assigned E&S specialists from PMT	s cost
Local Community	Cultural heritage	• Chance find procedures are included in Annex 6 to guide in case of finding any cultural heritage objects	• The chance find procedures are available	Contractor	Resident Engineer/ the assigned E&S specialists from PMT	Within contractor's cost
Local Community	Temporary labour influx	• Prepare a code of conduct that stipulates the different commitments of labour towards community groups. The CoC must be signed by the contractor. • All workers should be trained on the Code of Conduct. • Apply Penalties to workers who violate the code of conduct • Ensure smooth operation of the grievance mechanism and the anonymous channels • Raise the local population's awareness about the subproject's commitment towards communities, and the measures taken through public consultation and focus group discussions • Conduct initial and periodic health check-ups on workers and provide the necessary care accordingly	• Site visit • Monthly reporting • GRM • Meetings with surrounding communities	Contractor	Resident Engineer/ the assigned E&S specialists from PMT	Within contractor's cost
Local Community	Social Impact	• The code of conduct (CoC) must include the prevention of sexual exploitation and sexual harassment at the workplace	• Monthly reporting • GRM	Contractor	Resident Engineer/	Within contractor's cost

Receptor/ EHS Aspect	Impact	Mitigation Measures	Means of Supervision	Responsibility		Estimated Cost
				Implementation	Supervision	
		• CoC needs to consider privacy in setting up the household connections. • Ensuring confidentiality when dealing with cases of sexual harassment, sexual exploitation, and sexual abuse. To mitigate those issues/ complaints, assigning female GRM officer in case of facing any SEA/SH incidents, in addition, all GRM officers/ focal points must be trained on how to handle SEA/SH related grievances.			the assigned E&S specialists from PMT	
Local Community	Infrastructure and underground utilities	• Coordinate with the departments of potable water, wastewater, electricity, and telecom authorities to obtain maps/ data on underground utilities, whenever available • In case an underground utility and infrastructure pipe is subjected to damage by the subproject activities, standard procedures should be followed, in addition to preparing a documentation report for the accident. • In case of water outage, the community people should be informed prior to any cut to store water. • Maintain an efficient grievance mechanism. • In case an underground utility and infrastructure pipe has been damaged, standard procedures should be followed, as described before, in addition to preparing a documentation report for the accident. The documentation report should include: - Time and place of accident; - Name of contractor; - Type of underground utilities and infrastructure line;	• Review infrastructure accidents reports.	Contractor	Resident Engineer / PMT	Within contractor's cost

Receptor/ EHS Aspect	Impact	Mitigation Measures	Means of Supervision	Responsibility		Estimated Cost
				Implementation	Supervision	
		- Description of accident circumstances and causes; - Actions taken and responses of different parties, such as infrastructure company; - Duration of fixing the damage; and - Damage caused (description shall be according to observation, expertise judgment, reports of infrastructure company)				
Workers	Management of onsite facilities	• Ensure installation of adequate workers facilities for the construction phase; i.e. construct a holding tank to be used to collect domestic wastewater generated by the workers. • Follow the waste management best practices and mitigation measures outlines in this ESMP. • Monitor closely the working conditions, and impose measures that control transmission of infectious diseases. • Train workers on the Code of Conduct and keep close eye on any violation of the COC • A list of recommendations, instructions, and restrictions will have to be prepared to minimize the negative ecological and social impact of the workers facilities and the restoration of the site after the construction phase. • Provide for appropriate amenities (eating, provision of drinking water, prayer etc).	• Site inspections	Contractor	Resident Engineer/ the assigned E&S specialists from PMT	Within contractor's cost
Operation Phase						

Receptor/ EHS Aspect	Impact	Mitigation Measures	Means of Supervision	Responsibility		Estimated Cost
				Implementation	Supervision	
Waste Generation	Inappropriate handling of solid and liquid waste	Potential impact on soil, groundwater, and surface water, in the context of protection, conservation and long-term sustainability of water and land resources, should be assessed when land is used as part of any waste or wastewater treatment system;	Field investigations. Review the complaints reports.	The water Authority	Nineveh Water Directorate	Operation cost
Water Pollution	inappropriate handling of solid and liquid waste	No washing, maintenance or service of vehicles and machinery close to water bodies.	Field investigations. Review the complaints reports.	The water Authority	Nineveh Water Directorate	Operation cost

PART D: MONITORING PLAN/ CONSTRUCTION PHASE

Receptor/EHS aspect	Monitoring indicators	Responsibility of monitoring	Frequency of monitoring	Location of monitoring	Methods of monitoring	Estimated Cost of monitoring
Construction Phase						
Air Quality[11]	- Number of complaints related to air quality. - Compliance with dust abatement measures	Resident Engineer & PMT, contractor	Bi-weekly, or as soon as complaints	- Near excavation and backfilling	- Site inspection - Following up with complaints	No additional cost

[11] https://www.ifc.org/wps/wcm/connect/4e01e089-ad1a-4986-b955-e19e1f305ff0/1-1%2BAir%2BEmissions%2Band%2BAmbient%2BAir%2BQuality.pdf?MOD=AJPERES&CVID=nPtgvbS

Receptor/EHS aspect	Monitoring indicators	Responsibility of monitoring	Frequency of monitoring	Location of monitoring	Methods of monitoring	Estimated Cost of monitoring
			are received	activities.		
Noise & Vibration[12]	- Noise level - Number of complaints related to high noise levels.	Resident Engineer & PMT, contractor	Bi-weekly, or as soon as complaints are received	On site	- Site inspection - Complaints log	No additional cost
Solid and Liquid waste	- Waste segregation - Storage conditions of hazardous waste and materials; - Disposal receipts - Condition of the holding tank	Resident Engineer & PMT, contractor	Bi-weekly	- Waste areas on site - Holding tank	- Site inspection - Checking waste register	No additional cost
Water Pollution	- Signs of inappropriate waste disposal (including hazardous waste and materials).	Resident Engineer & PMT, contractor	Monthly	The river	- Visual inspection - Documentation in H&S monthly reports	No additional cost
Soil	- Signs of spillage of hazardous materials	Resident Engineer & PMT, contractor	Bi-weekly	Within site boundaries	- Site inspection - Documentation in H&S monthly reports	No additional cost
Occupational Health and	• An Occupational Health and Safety Plan is in place	Resident Engineer	Monthly inspections	Subproject site in general	Maintaining records of injuries	No additional

[12] https://www.ifc.org/wps/wcm/connect/4e01e089-ad1a-4986-b955-e19e1f305ff0/1-1%2BAir%2BEmissions%2Band%2BAmbient%2BAir%2BQuality.pdf?MOD=AJPERES&CVID=nPtgvbS

Receptor/EHS aspect	Monitoring indicators	Responsibility of monitoring	Frequency of monitoring	Location of monitoring	Methods of monitoring	Estimated Cost of monitoring
safety[13]	• Availability of a competent supervisor • Availability of an accident log • Number of accidents and injuries on site. • Worker's health checkups • Total number of trained workers • Complaints raised by workers	& PMT, contractor			and accidents with cause and location - Maintaining record recurring health conditions if any	cost
Community health and safety	• Number of accidents and injuries involving local community. • Presence of warning signs in and around the site. • Complaints raised by locals with regards to community health and safety.	Resident Engineer & PMT, contractor	Monthly inspections	Site boundaries	- Site inspection with photo documentation - Grievances log	No additional cost
Traffic Safety	• Presence of warning signs and speed limits for construction vehicles.	Resident Engineer & PMT, contractor	Daily	The access road leading to the site	Site inspection with photo documentation	No additional cost
Child labour	• The ToR of contractor includes a contractual term related to prohibiting child labour. • Presence of IDs of workers at the site	Resident Engineer & PMT, contractor	Daily	Construction site	Site inspection and desk work	No additional cost

[13] https://www.ifc.org/wps/wcm/connect/1d19c1ab-3ef8-42d4-bd6b-cb79648af3fe/2%2BOccupational%2BHealth%2Band%2BSafety.pdf?MOD=AJPERES&CVID=nPtgxyx

Receptor/EHS aspect	Monitoring indicators	Responsibility of monitoring	Frequency of monitoring	Location of monitoring	Methods of monitoring	Estimated Cost of monitoring
Cultural heritage	• The chance find procedures are available	Resident Engineer & PMT, contractor	Once	Construction site	Desk work	No additional cost
Temporary labor influx	• Appropriate code of conduct is in place (at the site) • Number of workers trained on the code of conduct • Breaches to the code of conduct and how they are managed • Complaints raised by the local community due to labor influx • Engagement activities related to code of conduct • Availability of health checkup	Resident Engineer & PMT, contractor	On Monthly basis	Subproject area	- Grievances log - Site inspection	No additional cost
Social Impact	• The code of conduct includes preventive sexual exploitation and prohibition of harassment • Complaints raised by the local community	Resident Engineer & PMT, contractor	Monthly	Subproject site	- The code of conduct - Grievances log	No additional cost
Infrastructure and underground utilities	• Minutes of coordination meeting • Availability of underground utility maps • Incidents of damaging infrastructure • GRM is available at the site • Complaints raised due to	Resident Engineer & PMT, contractor	As soon as complaints are received	Subproject site	- The code of conduct - Grievances log	No additional cost

Receptor/EHS aspect	Monitoring indicators	Responsibility of monitoring	Frequency of monitoring	Location of monitoring	Methods of monitoring	Estimated Cost of monitoring
	infrastructure and water service damages					
Resident Engineer & PMT, contractor	• Availability of adequate waste management system • Monitoring reports of working conditions • Training reports, including list of participants of workers received training on the code of conduct • Recommendation and instructions related to the facilities is available at the site	Resident Engineer & PMT, contractor	As soon as complaints are received	Subproject site	- The code of conduct - Grievances log	No additional cost
Operation Phase						
Waste generation	- Status of waste management areas on site.	Nineveh Water Directorate	Twice a year	- Waste areas - Holding tank (s)	- Site inspection - Review waste register	No additional cost
Water Pollution	- Signs of inappropriate waste disposal (including hazardous waste and materials). - Drinking Water quality indicators - Observation of spillage	Resident Engineer & PMT, contractor	Monthly	- The river	- Visual inspection - Documentation in H&S monthly reports	No additional cost

ANNEXES
Annex 1: Consultations Photos

Public Consultations at MOJAMAA HATEN Village

Annex (2): Sample individual interviews for both men and women in the village

استبيان الصندوق الاجتماعي للتنمية لمحافظة الجيزة/إسكان

عزيزي المواطن... عزيزي المواطن...

أجرى [وزارة التخطيط] الصندوق الاجتماعي للتنمية] مسح ميداني لغرض التشور المجتمعي مع إنشاء القرية حول الإجراءات البيئية والاجتماعية التي سيتم اتخاذها بخصوص تنفيذ المشاريع في القرية ومدى تأثيرها على المجتمع المحلي والبيئة المحيطة، راجين الإجابة بصدق وحيادية عن الاستبيان الملقى بين الجانبة لذكر الاسم أو وسيلة الاتصال .

أجرى [وزارة التخطيط] الصندوق الاجتماعي للتنمية] مسح ميداني لغرض التشور المجتمعي مع إنشاء القرية حول الإجراءات البيئية والاجتماعية التي سيتم اتخاذها بخصوص تنفيذ المشاريع في القرية ومدى تأثيرها على المجتمع المحلي والبيئة المحيطة، راجين الإجابة بصدق وحيادية عن الاستبيان الملقى بين الجانبة لذكر الاسم أو وسيلة الاتصال .

اسم المشروع : أنشاء وتنظيم هندسي

اسم المشروع : أنشاء وتنظيم هندسي

القضاء: سمنا المدينة: البدراشين القرية: عزبة خيرالله

الجنس: ☐ ذكر ☑ انثى

العمر: 36 سنة

المهنة: ☐ موظف ☐ متقاعد ☐ كاسب ☐ طالب ☑ ربة بيت

القضاء: سمنا المدينة: البدراشين القرية: عزبة خيرالله

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العمر: 36 سنة

المهنة: ☐ موظف ☐ متقاعد ☑ كاسب ☐ طالب ☐ ربة بيت

١. هل هناك اعتراضات او مطالبات من قبل السكان المحليين بخصوص الارض المقام عليها المشروع؟

☐ نعم ☑ كلا ☐ ملاحظات

٢. هل سيكون هناك ضرر على التداعيات و المصالح اليومية للأهالي بسبب الاعمال الانشائية للمشروع؟

☐ نعم ☑ كلا ☐ ملاحظات

٣. هل هناك اي بأس لحقية ستتأثر بسبب الاعمال الانشائية للمشروع ؟

☐ نعم ☑ كلا ☐ ملاحظات

٤. هل هناك اعتداء لوطئ لشخص او لعدة اشخاص بسبب اقامة المشروع في القرية؟

☐ نعم ☑ كلا ☐ ملاحظات

٥. هل سوف يأثر المجتمع المحلي بصورة سلبية نتيجة المشروع المقترح؟

☐ نعم ☑ كلا ☐ ملاحظات

٦. هل اعمال انشاء او اعادة تأهيل المشروع ستؤثر بشكل سلبي على الجماميع الاكثر ضعفا والاكثر هشاشة (النساء والمعاقين) ؟

☐ نعم ☑ كلا ☐ ملاحظات

٧. هل تتواجد زراعة محاصيل زراعية او اشجار او اية اغطاء نباتي تعود ملكيته لمواطنين او سكان محليين بسبب الاعمال الانشائية للمشروع؟

☐ نعم ☑ كلا ☐ ملاحظات

٨. هل سيؤثر المشروع في انتقالة السكانية (إستقبة) قدوم مواطنين من مناطق اخرى الى القرية بسبب المشروع التي ستنفذ)؟

☑ نعم ☐ كلا ☐ ملاحظات

٩. هل تعتقد ان عملية انشاء او اعادة تأهيل المشروع لها اثار ايجابية من الناحية الاجتماعية بالنسبة للسكان القاطنين في المناطق القريبة من المشروع؟

☑ نعم ☐ كلا ☐ ملاحظات

شكرا على وقتكم ....

ANNEX (3): IRAQI STANDARDS FOR AIR, NOISE, and Water

Ambient Air Quality Guidelines

Pollutant	Iraqi Standards		WHO Standards
	Concentration	Average Time	Concentration
CO	10 ppm	8 hours	N/A
	35 ppm	1 hour	N/A
SO_2	0.1 ppm	1 hour	500 µg/m^3
	0.04 ppm	24 hours	20 µg/m^3
	0.018 ppm	1 year	N/A
NO_2	0.05 ppm	24 hours	200 µg/m^3
	0.04 ppm	1 year	40 µg/m^3
Ozone (O_3)	0.06 ppm	1 hour	100 µg/m^3
PM_{10}	150 µg/m^3	24 hours	50 µg/m^3
$PM_{2.5}$	65 µg/m^3	24 hours	50 µg/m^3
	15 µg/m^3	1 year	15 µg/m^3
Total Suspended Particles	350 µg/m^3	24 hours	N/A
	150 µg/m^3	1 year	N/A
Falling Dust	10 t/Km^2/month (Residential Zone)	30 days	N/A
	20 t/Km^2/month (Industrial Zone)	30 days	N/A
Hydrocarbons	0.24 ppm	3 hours	N/A
Pb	2 µg/m^3	24 hours	N/A
	1.5 µg/m^3	3 months	N/A
	1 µg/m^3	1 year	N/A
Benzene	0.003 µg/m^3	1 year	N/A
Dioxin	0.6 pico g/m^3	1 year	N/A

Noise:

Law no. 41 of the year 2015: Noise Protection and Control / Noise Limits for Different Working Zones

Type	Allowable (dB)
Industrial	70
Commercial	70
Residential	55

Water:

The table below shows the limits defined for discharges to both natural waters (water resources) and sewers (which generally have higher permissible discharge limits).

Pollutant	Limits for discharge to water resources	Limits for discharge to public sewers
Color	-	-
Temperature	Less than 35°C	45°C
Suspended solids	60	750
pH	6 – 9.5	6 – 9.5
Dissolved Oxygen (DO)	-	-
Biochemical Oxygen Demand (BOD)	Less than 40	1,000
Chemical Oxygen Demand (COD)	Less than 100	-
Cyanide (CN^-)	0.05	0.5
Fluoride (F^-)	5.0	10
Free Chlorine (Cl_2)	Traces	100
Chloride (Cl^-)	A. If the ratio of the amount of water discharged to the amount of source water is 1000:1 or less, the chloride concentration of the discharge is permitted at 1% of the concentration of the natural source before discharge. B. If the ratio of the amount of water discharged to the amount of source water is more than 1000:1 the wastewater discharge must not exceed a chloride concentration of greater than 600 mg/L. C. If the concentration of chloride in the source water is less than 200 mg/L then the permitted discharge limit must be established on a case by case basis	600
Phenol	0.01 – 0.05	5 – 10
Sulfate (SO_4^{2-})	A. If the ratio of the amount of water discharged to the amount of source water is 1000:1 or less, the sulfate concentration of the discharge is permitted at 1% of the concentration of the natural source before discharge. B. If the ratio of the amount of water discharged to the amount of source water is more than 1000:1 the wastewater discharge must not exceed a sulfate concentration of greater than 400 mg/L. C. If the concentration of sulfate in the source water is less than 200 mg/L then the permitted discharge limit must be established on a case by case basis	300
Nitrate (NO_3^-)	50	-
Phosphate (PO_4^{3-})	3	-
Ammonium (NH_4^+)	-	-

Pollutant	Limits for discharge to water resources	Limits for discharge to public sewers
DDT	Nil	-
Lead (Pb)	0.1	0.1
Arsenic (As)	0.05	0.05
Cupper (Cu)	0.2	-
Nickel (Ni)	0.2	0.1
Selenium (Se)	0.05	-
Mercury (Hg)	0.005	0.001
Cadmium	0.01	0.1
Zinc (Zn)	2.0	0.1
Chromium (Cr)	0.1	0.1
Aluminum (Al)	5.0	20
Barium (Ba)	4.0	0.1
Boron (B)	1.0	1.0
Cobalt (Co)	0.5	0.5
Iron (Fe)	2.0	15
Manganese (Mn)	0.5	-
Silver (Ag)	0.05	0.1
Total Hydrocarbons & Derivatives	Allows discharge of total hydrocarbons to water sources and A1 and A2 according to the concentrations and limitations set forth in the tables below; the concentration of hydrocarbons must be measured discharging to the water source. Hydrocarbons shall not be discharged to water sources A3 and A4. For rivers in continuous flow 10 mg/l according to the ratio of the amount of wastewater discharged to the amount of the water source should not be less than 1000:1. For a river in a continuous flow 3 mg/L and in accordance with the ratio of the amount of the wastewater discharged to the amount of water source should not be 300:1 or less.	-
Sulfide (S^{2-})	Nil	3.0
Ammonia (NH_3)	Nil	10
Ammonia gas (free NH_3)	Nil	6.0
Sulfur dioxide SO_2	Nil	7.0
Calcium Carbide CaC	Nil	Not allowed
Organic solvents	Nil	Not allowed
Benzene	Nil	0.5
Chlorobenzene	Nil	0.1
TNT	Nil	0.5
Bromine (Br_2)	Nil	1 – 3

Annex (4): Letter of clearance from UXO

REPUBLIC OF IRAQ
MINISTRY OF ENVIRONMENT
DIRECTORATE OF MINE ACTION
Regional Mine Action Center North
RMAC - N

جمهورية العراق
وزارة البيئة
دائرة شؤون الألغام
المركز الإقليمي الشمالي

No :
Date : / / 2022

السيد / وزارة التخطيط / الصندوق الاجتماعي للتنمية

م/مخلفات حربية والغام

تهديكم دائرتنا اطيب التحيات ...

لاحقاً بكتابنا ذي العدد ٩١٢ في ٢٠٢٢/٤/٢٨ المتضمن تزويدكم بالموقف النهائي عن المنطقة المطلوبة من تكليف الجهات العاملة في مجال شؤون الالغام لاجراء اعمال المسح والازالة نود بيان مايلي :-

- تم اصدار امر مهمة عمل الى المجموعة الاستشارية MAG بموجب كتابنا ذي العدد ٩٦٣ في ٢٠٢٢/٥/١١ لغرض اجراء اعمال المسح والازالة على المنطقة المطلوبة مدار البحث وتم العمل عليها وكانت نتائج المسح لم يتم العثور على اي عنصر من عناصر التلوث .

للتفضل بالاطلاع ... مع التقدير

المهندس
ظافر محمود خليل
مدير عام دائرة شؤون الألغام / وكالة
٢٠٢٢/٥/١٢

إضافة - 4

Annex (5): Contractor's Responsibilities (Arabic) مسئوليات المقاول

يجب على مقاول الإنشاء الالتزام بالإجراءات التالية:

جودة الهواء

- الترطيب المنتظم للطرق بالماء لمنع الغبار
- التحكم في نواتج الحفر والتسوية للحد من إنتشار الغبار.
- أي مواد بناء قابلة للتطاير (أسمنت جاف وخلافه) يتم تخزينها في أكياس محكمة الغلق وتغطيتها لمنع تولد الغبار.
- الاحتفاظ بالمازوت والزيوت والطلاء والمواد الكيميائية الأخرى المستخدمة في الموقع بأقل كميات ممكنة وتخزينها في حاويات محكمة الغلق للحد من الأبخرة ؛
- لا يتم تشغيل محركات المركبات والآلات الأخرى إلا عند الضرورة لتجنب الانبعاثات غير الضرورية ؛
- يتم الحفاظ على جميع المعدات والآلات والمركبات المستخدمة في الموقع في حالة عمل جيدة في جميع الأوقات لضمان الحد الأدنى من استهلاك الوقود وعوادم الدخان. ينطبق هذا على الحافلات المستخدمة لنقل العمال من وإلى الموقع.
- منع الحرق المكشوف للمخلفات.
- يتم تغطية الشاحنة الناقلة لمواد/مخلفات البناء أو المواد المتربة الأخرى وذلك بعد التأكد من الاحتفاظ بمسافة ٠.٣ متر تحت الحافة العلوية لجدران الشاحنة ، بالقماش المشمع للتحكم في الغبار؛
- تغطية درم الحفر المخزن بصفة مؤقتة في الموقع بالمواد المناسبة ، مثل البولي إيثيلين أو ألواح النسيج لتجنب تشتت التربة.
- تحديد سرعة قصوى للمركبات والمعدات التابعة للمشروع بحيث ألا تتجاوز السرعة القصوى داخل حدود الموقع عن ١٠-١٥ كم/ساعة.
- توفير خط ساخن لتلقي الشكاوي ٧/٢٤

الضوضاء

- تطبيق جدول زمني مناسب لتجنب أي أعمال قد تسبب ضوضاء واهتزازات خلال الفترة من ١٠ مساءا إلى ٦ صباحا.
- إقتصار تشغيل المعدات المستخدمة في أعمال البناء على أوقات محدودة خلال النهار حيث أنها ليست آمنة للعمل أثناء الليل. سيؤدي ذلك إلى تقليل اضطراب الضوضاء إلى حد كبير للمجتمعات القريبة من مواقع العمل ؛
- تقييد استخدام الآلات التي تصدر ضوضاء بالقرب من المستقبلات الحساسة ، واستخدام وسائل الحد من الضوضاء لآلات البناء ، إذا لزم الأمر ؛
- استخدام المركبات والمعدات المطابقة للمعايير الوطنية للضوضاء والاهتزاز ؛

- أثناء العمل ، يجب إغلاق أغطية المحرك للمولدات وضواغط الهواء وغيرها من المعدات الميكانيكية التي تعمل بالطاقة ، ووضع المعدات بعيدًا عن المناطق السكنية قدر الإمكان ؛
- يجب توفير أغطية للأذنين / معدات حماية السمع لجميع العمال
- لا يتم تشغيل محركات المركبات والآلات الأخرى إلا عند الضرورة للتحكم في الضوضاء الناتجة ؛
- تطبيق نظام الشكاوى لتلقي الشكاوى المتعلقة بالضوضاء.

إدارة المخلفات الصلبة والخطرة

التقليل من المخلفات:

- شراء المواد بالكمية الدقيقة المطلوبة ، لتقليل الاستخدامات المتبقية غير المستخدمة.
- تقليل تولد النفايات في الموقع.
- وضع خطة إدارة بسيطة للنفايات.
- يجب جمع النفايات العامة ونقلها إلى المكان المخصص لذلك من قبل البلدية.
- يجب جمع نفايات الطعام ، حيثما أمكن ، مع مراعاة النظافة الشخصية ، للتخلص منها خارج الموقع من خلال مقاولين مرخصين.
- يجب وضع حاويات لتجميع النفايات في كل موقع عمل.
- يجب جمع النفايات الكيميائية في براميل (أو حاويات محكومة مماثلة) ، معنونة بشكل مناسب ، وم ثم يتم إرجاعها إلى المورد أو نقلها بأمان إلى المكان المخصص من قبل البلدية. يحتوي مكب النفايات هذا على مكان مخصص لاستقبال النفايات الخطرة والطبية على حد سواء ، ويجب إجراء عمليات التخزين والنقل والتعامل مع جميع المواد الكيميائية وفقًا لجميع المتطلبات التشريعية ، من خلال المقاولين المرخصين وبالتنسيق مع البلدية.
- يجب تخزين جميع النفايات الخطرة بشكل ملائم في مناطق محدودة ويجب تحديدها بوضوح على أنها "خطرة".
- يجب أن يتم نقل النفايات الخطرة والتخلص منها من خلال مقاولين مرخصين وبالتنسيق الوثيق مع البلدية ذات الصلة ووفقًا للمتطلبات والتعليمات القانونية.
- يجب إدارة السوائل الخطرة ، مثل المذيبات وعوامل مقاومة الصدأ طبقاً لمتطلبات التشريعات ذات الصلة.
- يجب إعداد جرد للمواد الخطرة لفترة البناء.
- يجب توفير أصحيفة بيانات سلامة المواد (MSDS) للمواد الخطرة في الموقع أثناء البناء وإتاحتها وشرحها للعمال.
- يجب جمع نفايات المواد الهيدروكربونية ، بما في ذلك زيوت التشحيم ، للنقل الآمن خارج الموقع لإعادة استخدامها أو إعادة تدويرها أو نقلها أو التخلص منها في مكب معين من قبل البلدية.

إعادة استخدام النفايات وإعادة التدوير

- كلما أمكن ، سيعيد المقاول استخدام المواد القابلة للتدوير وإعادة تدويرها.

- يتم إعادة تدوير المخلفات التالية: الورق المقوى ، والمعادن ، وخردة المعادن مثل علب المشروبات الغازية ، وزيت مستهلك ، والورق ، والبلاستيك ، والخرسانة النظيفة ، وكذلك الغطاء النباتي المنزوع .

حفظ السجلات

- سيتم الاحتفاظ بكافة سجلات إزالة النفايات والإبلاغ عنها كما هو مطلوب في تقرير الأداء البيئي الشهري ؛
- السجلات التي سيتم الاحتفاظ بها تشمل: إيصالات وفواتير من مقاول نقل النفايات ومنشأة استلام النفايات
- يتم الاحتفاظ بالسجلات السالفة الذكر في سجل النفايات ، الذي يسجل تواريخ الجمع ونوع النفايات والكميات وشركة نقل النفايات والوجهة وتوقيع الشخص المفوض

تخزين النفايات ومعالجتها

- سيتم تخزين النفايات في حاويات أو صناديق. لن يتم تخزينها مباشرة على أرض غير مبطنة ؛
- سيتم تخزين نفايات إعادة التدوير في مناطق أو حاويات منفصلة ، ولن يتم خلطها مع أنواع النفايات الأخرى ؛
- يجب تخزين جميع النفايات الخطرة بشكل ملائم في المناطق المحصورة وتحديدها بوضوح على أنها "خطرة"
- معالجة النفايات وإدارتها بشكل صحيح من خلال فصل النفايات الصلبة عن النفايات الخطرة وعدم مزجها في مكب النفايات ؛
- سيتم جدولة إزالة النفايات من الموقع ، بحيث يكون لديك دائمًا سلة للنفايات متاحة للإستخدام في الموقع ، وللتأكد من عدم الملئ الكامل للنفايات/الحاويات ؛
- أي مناطق تخزين نفايات مؤقتة (غير متضمنة في صناديق أو حاويات) سيتم تغطيتها و / أو إحاطتها بسياج شبكي لمنع هبوب الرياح منها إلي الموقع ؛ و
- يتم تخزين النفايات السائلة ، بما في ذلك نفايات الزيوت والمواد الكيميائية السائلة ، في براميل / حاويات محكمة الإغلاق على سطح خرساني.

التخلص من النفايات

- يجب أن يتم نقل النفايات الخطرة والتخلص منها من خلال المقاولين المرخص لهم وبالتنسيق الوثيق مع البلدية المختصة بذلك.
- يجب جمع النفايات العامة ونقلها إلى المكب المعين من قبل البلدية.

جودة التربة

- وضع علامات لتحديد مكان الحفر عن طريق سور ولاصقات وعلامات ارشادية.
- إتباع الأساليب السليمة للحد من الانسكابات/التسربات؛
- التداول والإدارة السليمة للمخلفات ومواد البناء والمواد الخطرة.
- يتم تخزين النفايات داخل صناديق أو حاويات، وليس على الأرض مباشرة؛
- عدم دفن و / أو حرق النفايات المنزلية في موقع المشروع.

- التخزين المؤقت للنفايات الصلبة عن طريق الاحتواء المناسب لتجنب انتشار النفايات والرائحة وتجنب الغبار؛ احتواء ثانوي لمنع التسرب.
- ضمان أن تكون حاويات المواد السائلة الخطرة / حاويات النفايات محكمة الإغلاق بشكل صحيح دائمًا ومؤمنة من الانقلاب / السقوط / التلف / أشعة الشمس المباشرة أثناء النقل والتخزين؛
- تخزين المواد الكيميائية، مثل الزيوت ومضادات التآكل بكميات قليلة بالموقع.
- تحفظ جميع أنواع الوقود والمواد الكيميائية السائلة في أوعية أو براميل أو خزانات محكمة الإغلاق وفوق سطح الارض.
- يجب إجراء الصيانة والإصلاح الروتيني للمعدات / المركبات المتنقلة في ورشة عمل.
- يتم الاحتفاظ بمجموعات التنظيف الخاصة بالانسكابات بالقرب من المناطق المستخدمة لتخزين الوقود أو المواد الكيميائية السائلة وسيتلقى الموظفون تدريباً على استخدام أدوات تنظيف الانسكابات؛
- تخزين الزيت ومواد الطلاء في مكان مناسب له قاعدة واقية، مثل بلاطة خرسانية، لمنع أي تغلغل في الأرض؛
- التأكد من وجود البراميل والحاويات المستخدمة في تخزين الوقود أو المواد الكيميائية السائلة (بما في ذلك الزيوت المستعملة والدهانات) في حالة جيدة وخالية من الصدأ أو التلف؛
- تنظيف موقع البناء من المخلفات الصلبة قبل إغلاقه.
- تخصيص مناطق معينة لتخزين مخلفات التربة ومخلفات البناء.
- يجب أن يتم ترميم التربة السطحية والمناطق المتضررة بعد انتهاء مرحلة البناء.

<u>جودة المياه</u>

- يجب تنفيذ أعمال الأرض (إزالة الغطاء النباتي، والحفر، والتسوية) خلال فترات الطقس الجاف.
- يجب أن يتم تخزين التربة على مسافة آمنة بعيداً عن المجاري المائية.
- يتم تخزين النفايات داخل صناديق أو حاويات ، وليس على الأرض مباشرة لمنع التسرب ؛
- عدم إلقاء / التخلص من النفايات الصلبة (غير الخطرة أو الخطرة) ومياه الصرف في المسطحات المائية أو بالقرب منها.
- التنظيف الجيد لتقليل الانسكابات / التسريبات.
- الاستجابة السريعة للانسكابات العرضية للوقود ومواد التشحيم والمواد السامة أو الضارة الأخرى ، واستعادتها والتخلص منها بشكل مناسب (يجب على المقاول إعداد خطة استجابة للطوارئ).
- عدم غسل أو صيانة المركبات والآلات بالقرب من المسطحات المائية.

<u>المياه الجوفية:</u>

- سيتم تخزين النفايات داخل حاويات أو حاويات نفايات ، وليس مباشرة على الأرض لمنع التسرب ؛
- يجب إجراء الصيانة والإصلاح الروتينية للمعدات / المركبات المتنقلة في ورشة ؛
- إجراء الصيانة والتفتيش الدوريين على خزانات الصرف الصحي والسباكة ومرافق الصرف الصحي المرتبطة بها لضمان ظروف صحية جيدة

السلامة والصحة المهنية

يجب على المقاول إعداد خطة الصحة والسلامة المهنية وتحليل مخاطر العمل خلال مرحلة البناء. سيقوم المقاول أيضًا بتعيين شخص متخصص للإشراف على الخطة. فيما يلي بعض تدابير التخفيف الرئيسية التي يجب تضمينها في الخطة:

- يجب تدريب العمال على تحديد وتقييم مخاطر السقوط وأن يكونوا على دراية كاملة بكيفية التحكم في التعرض لمثل هذه المخاطر.
- يجب على العمال وموظفي الموقع دائمًا استخدام معدات الحماية الشخصية خاصة عند التعامل مع المواد السامة.
- يجب على العمال الامتثال لقاعدة إدارة الصحة والسلامة المهنية التي تخص الاستخدام الآمن للسلالم.
- لمنع مخاطر معدات البناء الثقيلة ، يجب على العمال اتباع إرشادات سلامة البناء المصممة للقضاء على التعرض لمثل هذه الإصابات والحوادث
- يجب أن تكون معدات الطوارئ (مواد تنظيف الانسكاب ، طفايات الحريق ، إلخ ..) متوفرة دائمًا في الموقع.
- يجب توفير الفحوصات الصحية الأولية والدورية للعمال.
- يجب أن تتضمن الخطة تدابير الاستجابة لـفيروس كورونا المستجد كما هو موضح في الملحق ٤.
- يجب تزويد العمال بتأمين صحي (يغطي تقديم الدعم الطبي في حالة الإصابة بالأمراض) وتأمين السلامة (الذي يغطي العمال في حالة الحوادث

السلامة المجتمعية

- يجب وضع خطط أمن وأمان كافية لمنع وصول الجمهور إلى مواقع العمل والمواد الخطرة والمخلفات
- يجب على المقاول الالتزام بخطة إدارة المخلفات لتجنب أي عوائق أو مخاطر على السلامة.
- يجب توفير آلية للتظلمات لضمان التواصل الفعال فيما يتعلق بمخاوف المجتمع.

السلامة المرورية

- يجب تثبيت لافتات أمان لإخطار المجتمع بأن مركبات البناء ستستخدم الطرق المؤدية إلى محطة المياه
- يجب على المقاول التأكد من أن النقل المرتبط بالبناء يتوافق مع حدود السرعة

عمالة الأطفال

- يجب كتابة شروط صارمة في عقد المقاول لحظر تعيين الأطفال دون سن ١٨ عامًا
- يجب أن يحتفظ المقاول بنسخة من هويات جميع العاملين

التراث الثقافي

- اتباع إجراء العثور على الآثار (مرفق رقم (٣))

تدفق العمالة و العنف القائم على النوع الإجتماعي

- إعداد مدونة سلوك مناسبة تنص على التزام العمال تجاه فئات المجتمع والسلوكيات التي يجب تجنبها
- يجب تدريب جميع العاملين على قواعد السلوك.
- يجب توقيع قواعد السلوك من قبل المقاول من الباطن
- تعريف بمدونة قواعد السلوك يتم إجراؤه كل أسبوعين للعاملين الدائمين والوافدين الجدد قبل بدء العمل.
- تطبيق المتطلبات الكاملة المتعلقة بتشغيل آلية التظلم بما في ذلك القنوات المجهولة
- زيادة وعي السكان المحليين حول التزام المشروع تجاه المجتمعات والتدابير المتخذة لذلك من خلال المشاورات العامة ومناقشات على شكل مجاميع.
- تطبيق العقوبات على العاملين المخالفين لقواعد السلوك

البنية التحتية والمرافق

- في حالة تلف أحد المرافق الموجودة تحت الأرض وأنابيب البنية التحتية ، يجب اتباع الإجراءات القياسية ، بالإضافة إلى إعداد تقرير توثيقي للحادث.
- في حالة قطع المياه، يجب إعلام المجتمع المحلي قبل القطع
- تنفيذ آلية للشكاوى

إدارة الخدمات الموقعية

- إقامة المخيم داخل أراضي محطة المياه
- ضمان إقامة كرفانات البناء الملائمة ومرافق الصرف الصحي للبناء، أي إنشاء خزان لتخزين المياه العادمة المنزلية الناتجة عن المخيم.
- اتباع أفضل ممارسات إدارة المخلفات وتدابير التخفيف الواردة في خطة الإدارة البيئية والاجتماعية.
- مراقبة ظروف العمل عن كثب ، وفرض تدابير للتحكم في انتقال الأمراض المعدية.
- الحفاظ على آلية فعالة للتظلم (تمت مناقشتها في فصل مشاركة أصحاب المصلحة). يجب أن تكون آلية معالجة المظالم هذه حساسة للنوع الاجتماعي وتضمن السرية
- انخراط محدد مع النساء والفتيات يتضمن التوعية بالعنف القائم على النوع الاجتماعي والوصول إلى قنوات مجهولة للإبلاغ عن الحالات.

العقوبات وإلغاء التعاقد

إذا فشل المقاول في الوفاء بأي من الالتزامات المذكورة أعلاه بموجب العقد ، فسيتم تطبيق العقوبات التالية:

المراحل	الإجراء	التفاصيل
المرحلة الأولي	التحذير	يجب أن يتلقى المقاول بيان تحذير يتضمن الإجراء التصحيحي المقترح. يجب أن تبدأ جميع الإجراءات التصحيحية في مدة لا تزيد عن أسبوعين. يجب على المقاول اتخاذ الإجراء التصحيحي بشكل سريع.
المرحلة الثانية	الدفعات النقدية	في حالة عدم التزام المقاول بخطة الإدارة البيئية والاجتماعية ، لا يحق للمقاول الحصول على الدفعات النقدية بموجب شروط هذا العقد. لن يتم صرف المدفوعات حتى يتم وضع خطة عمل واضحة ويبدأ المقاول في تنفيذ الإجراءات المتفق عليها.
المرحلة الثالثة	إلغاء التعاقد	لن يتم إنهاء العقد بسبب عدم الوفاء بالتزامات خطة الإدارة البيئية والاجتماعية. ومع ذلك ، سيخصم مالك المشروع تكلفة تنفيذ خطة الإدارة البيئية والاجتماعية من العقد. وفي هذه الحالة يجب إرفاق دليل واضح على فشل المقاول في تنفيذ خطة الإدارة البيئية والاجتماعية

Annex (6): Cultural Heritage Chance Find Procedure

Cultural property includes monuments, structures, works of art, or sites of significance points of view, and are defined as sites and structures having archaeological, historical, architectural, or religious significance, and natural sites with cultural values. During the project induction meeting, all contractors will be made aware of the presence of an on-site archaeologist who will monitor earthmoving and excavation activities.

The initial phase of the proposed emergency rehabilitation operations pose limited risks in damaging cultural property since subprojects will largely consist of small investments in community infrastructure and income generating activities, rehabilitation of existing structures, and minor public works. Further, it is understood by the Consultant that any activity that would adversely impact cultural property would make a subproject ineligible. Nevertheless, the Consultant will check that the following procedures for identification, protection from theft, and treatment of discovered artifacts should be followed in the event that archaeological material is discovered:

- Stop all construction activities in the area of the chance find.
- Delineate the discovered site or area.
- Record the find location, and all remains are to be left in place.
- Secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a night guard shall be present until the responsible local authorities and the Ministry of Culture immediately (within 24 hours or less);
- Notify the supervisory Engineer who in turn will notify the responsible local authorities and the Ministry of Culture (within 72 hours). The significance and importance of the findings should be assessed according to the various criteria relevant to cultural heritage; those include the aesthetic, historic, scientific or research, social and economic values.
- Decisions on how to handle the findings shall be taken by the responsible authorities and the Ministry of Culture. This could include changes in the layout (such as when finding an irremovable remain of cultural or archaeological importance) conservation, preservation, restoration and salvage.
- Implementation for the authority decision concerning the management of the finding shall be communicated in writing by the Ministry of Culture; and
- Construction work could resume only after permission is given from the responsible local authorities and the Ministry of Culture concerning safeguard of the heritage.
- The Consultant will ensure that during project supervision, the Site engineer will monitor the above regulations relating to the treatment of any chance find encountered and observed. Relevant findings will be recorded in World Bank Project Supervision Reports (PSRs), and Implementation Completion Reports (ICRs) will assess the overall effectiveness of the project's cultural property mitigation, management, and activities, as appropriate.