MUNICIPALITY OF MOSUL

EMERGENCY OPERATION DEVELOPMENT PROJECTS (EODP)

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)

FOR

Roads Rehabilitation in Al Kafa'at Neighborhood, Mosul District, Nineveh Governorate, Iraq

W08

Final Report

December 2021

Presented to:

Reconstruction Fund for Areas Affected by Terroristic Operations (REFAATO)

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Report Version History

Version	Date of Submission by EcoConServ	Date of Review by the WBG
Draft I	23.09.2021	
Draft II	11.11.2021	
Final	05.12.2021	

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ABBREVIATIONS LIST

BOQ	Bill Of Quantities
E&S	Environmental and Social
EODP	Emergency Operation for Development Project
EODP-AF	Emergency Operation for Development Project-Additional Finance
EPID	Environment Protection and Improvement Directorate
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
FGD	Focus Group Discussion
GBV	Gender Base Violence
GRM	Grievance Redress Mechanism
HAVS	Hand And Vibration Syndrome
HSE	Health, Safety and Environment
IFC	International Finance Cooperation
IOM	International Organization for Migration
ISIS	Islamic State of Iraq and Syria
MSDS	Materials Safety Data Sheet
MoHE	Ministry of Health and Environment
NGOs	Non- Governmental Organizations
OHS	Occupational Health and Safety
OHSP	Occupational Health and Safety Plan
OP	Operational Policy
OSHA	The Occupational health and safety Administration
PAPs	Project Affected Persons
PCU	Project Coordination Unit
PMT	Project Management Team
REFAATO	Reconstruction Fund for Areas Affected by Terroristic Operations
USD	United States Dollars
UXO	Unexploded Ordinance
VOCs	Volatile Organic Carbons
WB	World Bank
WHO	World Health Organization

EXECUTIVE SUMMARY

1. Introduction

The Emergency Operation for Development Project (EODP) is expanding its support to Nineveh governorate. This ESMP establishes a framework for the identification of environmental and social potential impacts, mitigation, and monitoring measures to be taken during all phases of the subproject that take place east of Tigris river in the Saydeen road, Al Kafa'at neighborhood, city of Mosul, Nineveh governorate.

The scope of the EODP consists of ten components, the proposed project in this study falls under component 10. The World Bank Operational Policy 4.01 on Environmental Assessment was triggered as the proposed Subproject has some potential negative environmental and social impacts. Accordingly, this Environmental and Social Management Plan (ESMP) is required to implement the Sub-project in accordance with the requirements of the World Bank's Operational Procedures and applicable Iraqi national legislation. This ESMP is guided by the ESMF of the EODP.

2. Institutional and Legal Framework

a. National Policy, Legal, Regulatory and Administrative Frameworks

General Environmental Legislations

- Law no. 27 for the year 2009: Protection and Improvement of Environment
- Law no. 37 for the year 2008: The Ministry of Environment

Air Quality

- Regulation No. 4 for the year of 2012: Ambient Air Quality

Noise

- Law No. 41 for the year of 2015: Noise Protection and Control

Water Resources

- Law no. 50 of the year 2008, Ministry of Water Resources
- Law no. 2 of the year 2001: Water Systems Protection
- Act no. 25 of the year 1967: The Regulation for the Protection of Rivers
- Law No. 12 of 1995: Maintenance of Irrigation and Drainage Network

Waste Management

- Instructions no. 3 of 2015 on Hazardous Waste Management
- Instructions no. 2 of 2014 on Environmental Protection from Municipal Waste
- Directive No. (67) of 1986 Regulating the Debris Collection Areas

Occupational Health and Safety

- Instructions No. 12 of the year 2016: Occupational Health and Safety
- Law No. 6 of 1988 concerning the National Commission for Occupational Hygiene and Safety, governing the enforcement of OHS regulations.

Labor Laws

- Law no. 37 of the year 2015: The Iraqi Labor Law
- Law no. 89 of the year 1981, amended by Decree No.54 of 2001: Public Health

Roads

- Public Roads Law No. 35 of 2002

b. World Bank Safeguard Policies

The World Bank (WB) has identified 10 environmental and social safeguard policies that should be considered in its financed projects. The proposed project is classified as Category B according to the World Bank, this mandates an Environmental and Social Management Plan (ESMP). OP/BP 4.01 on Environmental Assessment, the World Bank Policy - Access to Information, Environmental, Health and Safety Guidelines (EHS), Labor Influx Guidance Note (2016) and Good Practice Note – Addressing Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH) in Investment Project Financing (2020) are applicable to this project.
With regards to OP 4.12, it was triggered for the parent EODP-AF project, but it is not applicable to this sub-project as no involuntary land acquisition is predicted to occur. The lands needed for storage, laydown area, installation of day use caravan will be either obtained from the municipality (public land) or leased from the community based on willing buyer willing seller approach.

3. Project Description

a. Project Location

The subproject is located in Al Saydeen street, Al Kafa'at neighborhood, Mosul city, Nineveh governorate, Iraq. Mosul is a major city northern Iraq, located approximately 400 km north of Baghdad, in Nineveh governorate. The project is located in a semi-urban area. Most of the buildings on the sides of the road are residential buildings and shops. The following figure illustrates the proposed road rehabilitation activities that is going to include the construction of a rainwater drainage network and rehabilitation of the existing road.

Figure 0-1 Subproject area surroundings

b. Project Duration

The project is expected to be completed in 240 days.

c. Rehabilitation Activities

Rainwater Drainage Network

The main activities include the following:

- Excavating side trenches by removing the top asphalt/concrete layers as well as any layers below until reaching the depth at which pipes will be placed. The asphalt/concrete layers will be cut using a jack hammer.
- Laying the pipes, installing all related accessories, backfilling using good quality gravel and then restoring the street back to its original condition. Pipes to be installed have diameters ranging between 315 mm to 1200 mm and a cumulative total length of around 3500 meters.
- Constructing manholes. The work includes asphalt cutting, excavating, pouring the concrete body of the manhole, installing the steel covers, painting the inside of the manhole with epoxy and painting the outside with a waterproofing substance.

Roads Rehabilitation

Road rehabilitation works are going to extend for around 1.8 km. The rehabilitation process consists of the construction and preparation of several layers, as follows:

- Cutting and removing worn-out asphalt layers, curbs and sidewalks. The depth of excavation - and replacement – is expected to be at least 25 cm and thus it will cover base and potentially subbase layers. In some areas where the damage is severe, the excavation depth will reach up to 1 meter. The debris shall be transported to a disposal location which will be identified by the municipality. The debris is expected to include concrete blocks, asphalt blocks and excavated material.
- Preparing and supplying good quality gravel to be spread as a foundation layer for the roads as well as the sidewalks. The gravel will be spread using scrapers and then sprayed with water and compacted.
- Installing side curbs as follows
    - Pouring a 20*85 cm concrete foundation layer
    - Placing the curbs on top of the concrete foundation using mortar as a paste.
- Pouring concrete for the sidewalks.
- The top finishing layers will include the following (bottom up)
    - A prime coat, which is made of a bituminous substance that is stored in a truck and it is usually sprayed directly from the truck on the road.
    - A 10-cm thick asphalt stabilizing layer which will be applied using sensor paver machines.
    - A tack coat layer
    - A 6-cm thick hot-mix asphalt layer

The subproject's rehabilitation activities are going to be carried out in sections. In order to maintain traffic flow, alternative routes will be proposed. In addition, walkways will be established adjacent to the construction site location in order not to interrupt pedestrian access to residential buildings and commercial areas on the sides of the road under rehabilitation.

d. Operation and Maintenance

Some maintenance activities are expected to take place during the operation phase and they can be classified as follows:

Routine

These include:

- Daily cleaning activities
- Safety measures such as:
  - Repairing street signs, light poles and traffic lights
  - Pothole patching
  - Crack sealing
  - Repairing the drainage slopes whenever there is a need to

Periodic

Periodic maintenance operations include removing and replacing the top asphalt layer (overlay), re-graveling the base and subbase layers, sealing holes and cracks and maintaining the traffic marks and signs.

In case of replacing the asphalt layer and the layers below, the activities will be the same as in the rehabilitation phase, except that the duration will be less because not all road sections will require maintenance at the same time and sometimes, only the top asphalt layer is replaced.

Periodic maintenance could also include inspecting the components of the rainwater collection system to clear blockages and remove sediments.

Emergency

Emergency works may include repairing large potholes that hinder vehicles movement and repairing any damage resulting from accidents.

e. Resources

Water Resources

The source of water for domestic use (drinking, food preparation, personal sanitation, washing utensils) is the public water network in the city.

Energy (Fuel/Electricity)

The source of electricity is the national grid in addition to generators that will be provided by the contractor to be used during power cuts. In addition, most heavy construction equipment run on diesel.

4. Environmental and Social baseline

The sub-project will be implemented in the city of Mosul that is the capital of the district of the same name located in the Nineveh governorate.

a. Environmental baseline

Mosul's climate is classified as warm and temperate. The winter months are much rainier than the summer months in Mosul. The temperatures are highest on average in July, reaching around 44 °C. January is the coldest month, with temperatures going as low as 4 °C. Precipitation amounts are the highest during the month of January. The average number of annual precipitation days is around 5 days.

The subproject is located in a semi-urban area, with limited-to-no flora or fauna of particular importance. There are no legally protected areas or highly sensitive terrestrial or aquatic habitats in the vicinity of the subproject or in close proximity.

Groundwater depths in the subproject area ranges between 30 to 40 meters below ground surface. Groundwater salinity increases from the northern and north-eastern recharge areas towards the discharge areas. The main surface water body in Mosul is Tigris river. Tigris river is about 2 kilometers away from the subproject area.

b. Social baseline

With an estimated population of 1,377,000 Mosul city is the third most populous city in Iraq, after Baghdad and Basra.[1]

Mosul city is around 400 kilometers from the Iraqi capital of Baghdad and consists of 8 sub-districts. The city is largely perceived to consist of two parts, a Left side and a left bank, separated by the Tigris River.

Almost the majority of lands in the project area of influence is classified as residential land. Few percentages of lands are used for industrial activities, for instance electricity production power plants. The suburbs lands are agriculture lands that also might be used as grazing areas.

Mosul's economic development as well as the quality of life of its residents were negatively affected by the recent conflict. The interruption of public services and the lack of available jobs made it difficult to restart economic activities. According to consultations conducted at the Mosul Local Council, the Left side in particular has a poverty rate of 30% of the population; meaning that 11000 households are below the poverty line.

Within the area of influence small shops trading in cell phones, stationary, fruit and vegetables and well as super markets were noticed. The majority of shops occupy the ground floor of the residential building.

In Mosul city, due to a lack of funds and resources the educational facilities have deteriorated in recent years, resulting in lower quality education and increased rates of illiteracy and drop-out of students. There are many schools scattered in each village. The minimum number of schools within a village is one.

Healthcare is considered an expensive expenditure for the local community because they need to calculate transportation to the health facility, buying medication, and all necessary medical fees.

[1] "City Profile of Mosul, Iraq" (2016) UN Habitat. Available at: https://reliefweb.int/sites/reliefweb.int/files/resources/UN-Habitat_MosulCityProfile_V5.pdf

Furthermore, health services have been negatively affected by the ISIS occupation, and so a number of issues remain:[2]

All household are reportedly connected to the grid, but the electricity network is in poor condition. Mosul government officials stated that most households receive of around 8 hours of public grid provided electricity per day, but electricity is infrequent due to power cuts that occur throughout the day. Therefore, residents rely on generators to compensate.

5. Assessment of Potential Risks and Impacts

The main impacts of the project during the rehabilitation activities are presented in the table below. The positive impacts are as follows:

A. During rehabilitation phase:

The project is anticipated to result in creation of various direct job opportunities. Based on previous experience in similar projects implemented recently by the sub-project owner (the municipality), the total sum of workers during peak time of the sub-project is 75 workers. The contractor might recruit more people to meet the construction deadlines. At least 95% of these jobs can be occupied by local people.

As part of the construction phase, a number of indirect job opportunities are expected to arise, due to the need for more supporting services to the workers and contractors who will be working in the various locations e.g., waste management, septic tanks evacuation, food supply, etc.

Supplying food might be managed by women residing in the area of influence as they provide food of good quality with reasonable prices to the workers.

B. Positive impacts during operation:

- Reducing stagnant water ponds created during rainy seasons due to the construction of a rainwater drainage network system
- The project will provide employment opportunities in the operation phase for the residents surrounding the project. The employment opportunities will be about 50 jobs on average in order to maintain the storm water drainage network and streets during the operation phase. The State will benefit from these jobs in the form of income taxes collected.
- Enhancement of the storm water drainage network in Al Kafa'at neighborhood.
- As a result of above-mentioned activities, the living conditions of the community people will be significantly improved.
- Improved accessibility of people, goods and services to the sub-project areas.
- Improved safety conditions due to provision of better street conditions.
- Girls and community people will not be affected by accumulated water.
- Diseases result from stagnant water might be reduced.

The main impacts of the project during pre-construction, construction and operation are presented in the table below.

[2] Ibid.

Table 0-1 Summary of Potential Negative Impacts

Receptor/ EHS Aspect	Potential Impacts	Impact Significance
Rehabilitation Phase		
Air Quality	• Gaseous emissions (SOx, NOx, CO, VOCs, etc.) from engines of construction machinery and equipment. • Dust emissions (PM10, PM2.5) due to earthwork and movement of construction trucks and machinery.	**Moderate**
Noise	Noise and vibration generated from construction machinery.	**Moderate**
Soil	• Possibility of Soil/subsoil contamination due to accidental spills and leaks from construction equipment • Improper discharge of domestic wastewater from construction offices	**Moderate**
Water Resources	**Contamination** The water streams in the vicinity of the subproject may be polluted by improper waste dumping. However, no impacts are anticipated on groundwater. **Consumption** The impact on the increase in the consumption of water for domestic use and construction purposes, is expected to be minor, as the project duration is low; less than one year (240 days) and the number of workers is limited.	**Minor**
Energy Consumption	The subproject will consume fossil fuels (mainly diesel) for the construction vehicles and machinery. Fossil energy is non-renewable, and its excessive use may have serious environmental implications on its availability, price and sustainability	**Minor**
Resources Consumption	Improper handling and processing of raw materials generates unnecessary waste and can become a safety concern. In addition, improper storage and containment of raw materials can result in detrimental health and environmental impacts.	**Minor**

Receptor/ EHS Aspect	Potential Impacts	Impact Significance
Waste Generation	The rehabilitation activities will produce: • Excavated soil. • Demolished concrete blocks and demolished asphalt. • Sand and gravel, • Trimmings of plastic pipes • Domestic solid waste from daily consumption by workers. • Hazardous waste including paint, epoxy and waterproofing chemical containers, spilled oils from the operation and maintenance of the construction machinery. • Domestic wastewater from the site offices	**Moderate**
Occupational Health and Safety	According to World Bank OHS standards[3], each worker must have accurate information regarding potential hazards or injuries in the workplace. Key hazards applicable to this subproject include excavation and trenching, contact with heavy construction equipment, extreme weather conditions, toxic air emissions and high noise levels.	**Major**
Community Health and Safety	According to field observations during the site visits, the current condition of the streets allows for construction work, considering the contractor's commitment to many measures to maintain community health and safety and not to limit or restrict accessibility to houses, facilities and services in the local community. The majority of community health and safety impacts focus around transmission of diseases and impacts on health resulting from environmental aspects due to construction/rehabilitation activities	**Moderate**
Traffic flow	Traffic flow will be affected due to the rehabilitation of streets and mobility of equipment and construction materials	**Moderate**

[3] https://siteresources.worldbank.org/INTRANETENVIRONMENT/Resources/244351-1279901011064/OccupationalHealth.pdf

Receptor/ EHS Aspect	Potential Impacts	Impact Significance
Child labor	**C**hild labor tends to be high given the Law 37/2015 (the Iraqi Labor Law).states that the minimum age for employment is 15 years old. Accordingly, there is a high probability of recruiting children.	**Major**
Visual and landscape	For construction and excavation works, the visual impacts are temporary, mainly from the storage of raw materials and construction waste.	**Minor**
Cultural heritage	Based on numerous previous studies conducted for the area of Mosul, there is a significant probability to encounter impacts related to cultural heritage. However, due to working at areas which previously were excavated the impact tends to be minor.	**Minor**
Infrastructure and underground utility	As a result of the construction work, existing underground utilities might be accidentally damaged.	**Minor**
Temporary labor influx	The temporary labor influx and presence of additional workers may have impacts on the subproject areas in terms of: • Risk of disputes with the community • Increase risk of illicit behavior and crime • Risk of transmission of communicable diseases • Risk of gender-based violence Given the limited number of workers, labor influx impacts tend to be minor	**Minor**
Gender based violence	There is a probability of having impacts related to GBV issues i.e. sexual harassment, discrimination and deprivation of opportunities and economic alienation	**Moderate**
Land Related Impacts	The construction activities will require working at public roads that are not encroached by community people. Based on the site visits carried out, there were no encroachers. The Contractor will get state owned lands from the municipality to install the day use caravans in and might lease a plot of land/shop from the community (based on willing buyer willing seller approach) to be used as laydown and storage. Accordingly, no involuntary land acquisition or economic displacement will take place.	**Insignificant**

Receptor/ EHS Aspect	Potential Impacts	Impact Significance
Contractor's Campsite	There is a potential to set up contractor's campsites for workforce at the municipality owned land (public land). Accordingly, a strict list of recommendations, instructions, and restrictions will have to be prepared to minimize the negative ecological and social impact of the camp and the restoration of the site after the construction phase.	**Moderate**
Operation Phase		
Air emissions	Maintenance activities, which are very likely to include excavation, is going to lead to an increase in the fugitive dust emissions (PM10, PM2.5) and gaseous emissions (SO_x, NO_x, CO, VOCs, etc.) produced by the construction machinery and vehicles.	**Minor**
Noise	Rehabilitation of the roads will lead to an increase in traffic; consequently, elevating the noise and vibration level produced by traffic. Additionally, noise is expected during the maintenance of failed pipes that may require excavation works, however, these events will be intermittent and for short periods.	**Minor**
Waste generation	The same types of waste which will be produced during rehabilitation will also be produced during the periodic maintenance activities, but in less quantities.	**Moderate**
Occupational health and safety	Maintenance activities expose workers to accidents and hazards that may lead to injuries. The main causes of such accidents include the injury of workers when using heavy equipment.	**Moderate**
Community health and safety	During the operational phase the potential impacts on the safety of the community and disturbance will be reduced due to the low traffic density and the absence of any kind of expatriate labor.	**Minor**
Risk of damaging pipes by the community people	Community people would continue digging the street after being rehabilitated causing damage to the pipelined	**Moderate**
Traffic flow	Traffic impacts during the operation phase will be of no significance.	**Insignificant**

Receptor/ EHS Aspect	Potential Impacts	Impact Significance
Child labor	There will be no child labor during operation phase due to the project reliance on the permanent workers who must have valid recruitment documents i.e., ID, educational certificates…etc.	**Insignificant**
Visual and landscape	As the subproject will enhance streets in the area of influence, visual landscape impacts tend to be positive.	**Insignificant**
Cultural heritage	There are no expected impacts on cultural heritage sites and monuments during the operation phase.	**Insignificant**
Infrastructure and underground utility	There will be no impacts on any infrastructure within the subproject sites. However, there will be significant enhancement in street conditions and the rainwater management network.	**Insignificant**
Temporary labor influx and GBV	Given the limited number of workers during operation and that the majority will be from the subproject sites, labor influx impacts tend to be of no significance	**Insignificant**
Land Related Impacts	There will be no impacts related to the acquisition of land in the operational phase.	**Insignificant**

6. Environmental and Social Management and Monitoring Plan

The objective of the Environmental and Social Management and Monitoring Plan (ESMMP), is to outline actions for minimizing or eliminating potential negative impacts and for monitoring the application and performance of mitigation measures. Section 6 of this report discusses the ESMMP for different receptors, identifies roles and responsibilities for implementation and monitoring of mitigations during the different phases of the project.

7. Stakeholder Consultations

The Consultant carried out stakeholder engagement activities in September 2021, through the following methods: carrying out one to one interview with community members surrounding the project area, as well as conducting Focus Group Discussions (FGDs). The diversity of community representation was considered.

The consultant tried to have representation of various stakeholders e.g., community members, governmental members, school staff who work at the project area of influence Al Kafa'at sub-district neighborhood, traders, community elders and women. It was relatively difficult to engage women; therefore, a female social consultant gets in contact with women residing in the project area of influence. The total consulted people were 23 men and 8 women. Additionally, four Facebook sites were reached out and a project information document was disclosed on the

Facebook sites that have a total number of 720,964 followers. One of the NGOs was targeted and consulted with.
Additionally, given the wide coverage of Facebook in Iraq, information was disclosed on four Facebook pages.

a. Summary of consultation outcomes

The summary of consultation activities are as follows:

- Impacts of military attacks at the project area were severe.
- Current street conditions that affect mobility and economic activities.
- Grievance and redress mechanism is functioning and effective.
- Sub-project benefits during construction and operation phases.
- Traffic flow and access to houses will be enhanced by the project.
- Traffic flow during construction phase will be affected.
- Street safety and poor conditions.
- Necessity to avoid underground utilities.
- Rain water accumulation and difficulty to dispose or dry it.
- Necessity to complete work prior to winter season.
- Children suffering from accumulated water in the streets.
- Random street excavation and pipe laying by community people might affect the sub-project.
- Necessity of coordination and collaboration with other departments (e.g., water department).
- Considering street slope is necessary during the design phase.
- Road safety and probability of accidents
- Street problems faced by female students. The most important problems are the accumulation of water during the rainy season, as it sometimes forms bad odors. Female students arrive at school with their clothes wet from the water in the street

For more details about consultation activities, kindly see section 7 of this report.

b. Disclosure activities

As soon as the site-specific ESMPs gets clearance from the World Bank and approval from the Mosul Municipality, the following disclosure procedures will be adapted:

- A final report, in English and a summary in Arabic, will be published on the WB, EODP and Mosul Municipality websites.
- A copy of the ESMP report in English and a summary in Arabic will be made available in the municipality, in Nineveh and Baghdad Governorate. Additionally, an Arabic executive summary will be made available in the regional branch.
- An A3 poster will be installed in the entrance of the Mosul municipality informing about the results of the study and the website link for the full ESMP report.
- It will be useful also to maintain leaflets of the project impacts, GRM and contact office in the regional branch.

c. Grievance and redress mechanism

The **Emergency Operation for Development Project** (EODP) has developed a comprehensive Grievance and Redress Mechanism that is applicable to all the sub-projects. However, there are other grievance system that are adopted by the municipality. Therefore, it is essential to present the EODP GRM and other grievances mechanism adopted and propose a mechanism for coordination and cooperation among all systems.

The project grievance mechanism is gender-sensitive. It is a standard of good practice that aims to provide a separate female contact point for complaints to be received from women. In cases of increased risk of discrimination, harassment, rape or assault (for example, where a worker camp is near a community), the GRM ensures that women subject to physical or sexual abuse, or rape, can file confidential complaints. The applicable GRM uptake channels are as follows:

REFAATO	PMT
▪ Email: grm.wb@refaato.iq ▪ Online complaint system: refaato.net/form/ ▪ REFAATO hotline: 80011111 ▪ GRM users can call between Sunday-Thursday from 10 AM to 2 PM	▪ Letters to the PCU and/or relevant PMTs ▪ Phone calls to PMTs using telephone or WhatsApp o The resident engineer o **The social officer of the PMT (Mr. Yaser 07714221722)** ▪ In-person feedback to resident engineers on sub project sites and documented in GRM uptake form

Individuals who submit their comments or grievances have the right to request that their name be kept confidential, though this may mean that the PMT 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.

MAIN REPORT

1. INTRODUCTION

This ESMP will focus on the rehabilitation of the road and construction of a rainwater drainage/collection network in Al Kafa'at neighborhood, city of Mosul, Nineveh governorate. This neighborhood does not have a functioning rainwater collection system, which causes a lot of inconvenience to residents during rainy seasons during which the streets become flooded by water to an extent that hinders vehicle and pedestrian movement and affects the health and safety of residents and users.

1.1 Objectives of the ESMP

The key objectives of the ESMP are the following:

- Describe the subproject's components and activities of relevance to the environmental and social assessments.
- Identify relevant national and international legal requirements and guidelines.
- Assess the baseline status of environmental and social conditions.
- Evaluate potential site-specific environmental and social impacts of the project.
- Develop environmental & social management and monitoring plans in compliance with the relevant national and international legislation.
- Establish the roles and responsibilities of all parties (institutional setting) involved in the project's environmental and social management.
- Document key environmental and social concerns raised by stakeholders during public consultation activities; and
- Ensure the existence of a grievance redressal mechanism (GRM) for the lodging and handling of complaints.

1.2 Scope of Work

The ESMP outlines the environmental and social management processes and procedures applicable to the subproject. Accordingly, the structure of this document is as follows:

- Chapter One: Introduction
- Chapter Two: Institutional and Legal Framework
- Chapter Three: Project/Activities Description
- Chapter Four: Environmental and Social Baseline Conditions
- Chapter Five: Assessment of Potential Risk, Impacts
- Chapter Six: Environmental and Social Management Plan
- Chapter Seven: Public Consultation and Participation including Grievance Section

This document is guided by the ESMF for the EODP-AF. The information drawn from the ESMF was supplemented by additional literature research, field data collection, as well as consultations and close collaboration with the institutional stakeholders and members of the local community. Therefore, the potential impacts and associated mitigation measures and management procedures presented in this ESMP are based on the baseline information and E&S assessments.

2. INSTITUTIONAL AND LEGAL FRAMEWORK

2.1 Preface

This Chapter describes a summary of legal and administrative framework for the proposed project. It lists the national laws and the international requirements pertinent to the project. The WB has defined 10 environmental and social safeguard policies that must be considered for its financed projects. The applicability of such policies to this project are overviewed and discussed in the subsequent sections. Annex 1 of this report describes the institutional and legal framework in detail.

In case of any discrepancy between the requirements of Iraqi legislations and the requirements of the WB, the stricter requirements will be applied. In the case that national requirements are non-existent for specific issues or pollutants, the WB requirements will be adopted.

2.2 National Policy, Legal, Regulatory and Administrative Frameworks

2.2.1 Applicable Environmental Legislations

- Law no. 27 for the year 2009: Protection and Improvement of Environment
- Law no. 37 for the year 2008: The Ministry of Environment

2.2.2 Applicable Environmental and Social Legislations to the Project

2.2.2.1 Air Quality

- Regulation no. 4 of the year 2012: Ambient Air Quality

2.2.2.2 Noise

- Law no. 41 of the year 2015: Noise Protection and Control

2.2.2.3 Water Resources

- Law no. 50 of the year 2008, Ministry of Water Resources
- Law no. 89 of the year 1981, amended by Decree No.54 of 2001: Public Health
- Law no. 2 of the year 2001: Water Systems Protection
- Act no. 25 of the year 1967: The Regulation for the Protection of Rivers
- Law No. 12 of 1995 for Maintenance of Irrigation and Drainage Network

2.2.2.4 Waste Management

- Instructions no. 2 of 2014 on Environmental Protection from Municipal Waste
- Directive No. (67) of 1986 Regulating the Debris Collection Areas
- Instructions no. 3 of 2015 on Hazardous Waste Management

2.2.2.5 Occupational Health and Safety

- Law No. 6 of 1988 concerning the National Commission for Occupational Hygiene and Safety
- Instructions No. 12 of 2016 on Occupational Health and Safety Requirements
- Directive No. 4 of 1993 concerning Occupational health, Protection of Workers against Vibration, Pursuant to Sections 3 and 105 of the Public Health Act (No. 89 of 1981)

2.2.2.6 Labor Laws

- Law no. 37 of the year 2015: The Iraqi Labor Law
- Law no. 89 of the year 1981, amended by Decree No.54 of 2001: Public Health

2.2.2.7 Roads

- Public Roads Law No. 35 of 2002

2.3 World Bank Safeguard Policies

The WB has identified 10 environmental and social safeguard policies that should be considered in its financed projects.

Table 2-1 World Bank safeguard operational policies and their applicability to the project

Safeguard Policy	Triggered for EODP-AF	Applicability to subproject	Justifications
Environmental Assessment (OP/BP 4.01)	Yes	Yes	The project is classified as Category B which requires an Environmental and Social Management Plan (ESMP).
Natural Habitats (OP/BP 4.04)	No	No	Location and alignment of project components is mainly along (or close to) previously paved paths. Protected Areas, if encountered, will be avoided.
Forests (OP/BP 4.36)	No	No	Proposed subproject areas contain no forests.
Pest Management (OP 4.09)	Yes	No	The proposed subproject will not involve purchasing or using Pesticides.
Physical Cultural Resources (OP/BP 4.11)	Yes	No	This OP does not apply to the subproject, but if these opportunities occur, cultural property management plans will be prepared for the subproject.
Indigenous Peoples (OP/BP 4.10)	No	No	No indigenous people are identified in Iraq.
Involuntary Resettlement (OP/BP 4.12)	Yes	No	With regards to OP 4.12, it was triggered for the parent EODP-AF project, but it is not applicable to this sub-project as no involuntary land acquisition is predicted to occur. The lands needed for storage, laydown area, installation of day use caravan will be either obtained from the municipality (public land) or

Safeguard Policy	Triggered for EODP-AF	Applicability to subproject	Justifications
			leased from the community based on willing buyer willing seller approach.
Safety of Dams (OP/BP 4.37)	No	No	Not relevant to the proposed subproject.
Projects on International Waterways (OP/BP 7.50)	Yes	No	Not relevant to the proposed subproject.
Projects in Disputed Areas (OP/BP 7.60)	No	No	Not relevant to the proposed subproject.

2.3.1 World Bank Policy - Access to Information

This Policy governs the public accessibility of information in the Bank's possession. The World Bank allows access to any information in its possession that is not on a list of exceptions.

This Policy is based on five principles:

• Maximizing access to information;

• Setting out a clear list of exceptions;

• Safeguarding the deliberative process;

• Providing clear procedures for making information available; and

• Recognizing requesters' right to an appeal process.

2.3.2 Environmental, Health and Safety Guidelines (EHS)[4]

The EHS guidelines entails the 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 includes 4 Elementary sections and respective subsections:

1. Environmental Guidelines
2. Occupational Health and Safety Guidelines
3. Community Health and Safety Guidelines
4. Construction and Decommissioning Guidelines

2.3.3 Labor Influx Guidance Note (2016)[5]

This Guidance Note was established to support the World Bank in identifying risks to and impacts on local communities associated with temporary labor influx, and how to manage those risks. It

[4] Environmental, Health and Safety (EHS) Guidelines
[5] Labor Influx Management Guidance Note - 2016

includes a list of Toolkits and methods for the assessment and management of labor influx. The Guidance Note identifies the impacts related to labor influx e.g., risk of social conflict, illicit behavior and crimes. etc. the impacts related to labor influx are presented in section 5.2.4.4 and the mitigation measures are highlighted in section 6.1).

2.3.4 Good Practice Note – Addressing Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH) in Investment Project Financing (2020)[6]

The sub-project will not entail major impacts related to GBV as the workers' number is limited. However, within this ESMP, GBV discussion is presented in section 5.2.4.7 and the mitigation measures in chapter 6.

[6] Good Practice Note - Addressing Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH) in Investment Project Financing - 2020

3. PROJECT DESCRIPTION

3.1 Overview

The proposed subproject involves the rehabilitation of Al Saydeen road in Al Kafa'at neighborhood, Mosul city, Nineveh governorate. The road extends for a distance of about 1.8 kilometers and is about 30 meters wide. Most of the land is residential, there are some agricultural lands, an industrial zone, as well as a grazing area. The planned rehabilitation will also include installing a rainwater drainage network, which will consist of underground pipelines and manholes. The expected width of excavation for underground pipelines and manholes installation and construction is around 1.5 meters.

This report is the Environmental and Social Management Plan (ESMP) for road and rainwater drainage network rehabilitation works in Al Kafa'at neighborhood, Mosul city, Nineveh governorate. The project description chapter addresses the project through three phases; pre-construction phase, construction phase and the operation phase.

3.2 Project Location

The subproject is located in Al Saydeen street, Al Kafa'at neighborhood, Mosul city, Nineveh governorate, Iraq. Mosul is a major city northern Iraq, located approximately 400 km north of Baghdad, in Nineveh governorate. The project is located in a semi-urban area. Most of the buildings on the sides of the road are residential buildings and shops. The following figure illustrates the proposed road rehabilitation activities that is going to include the construction of a rainwater drainage network and rehabilitation of the existing road.

Figure 3-1 Subproject area surroundings

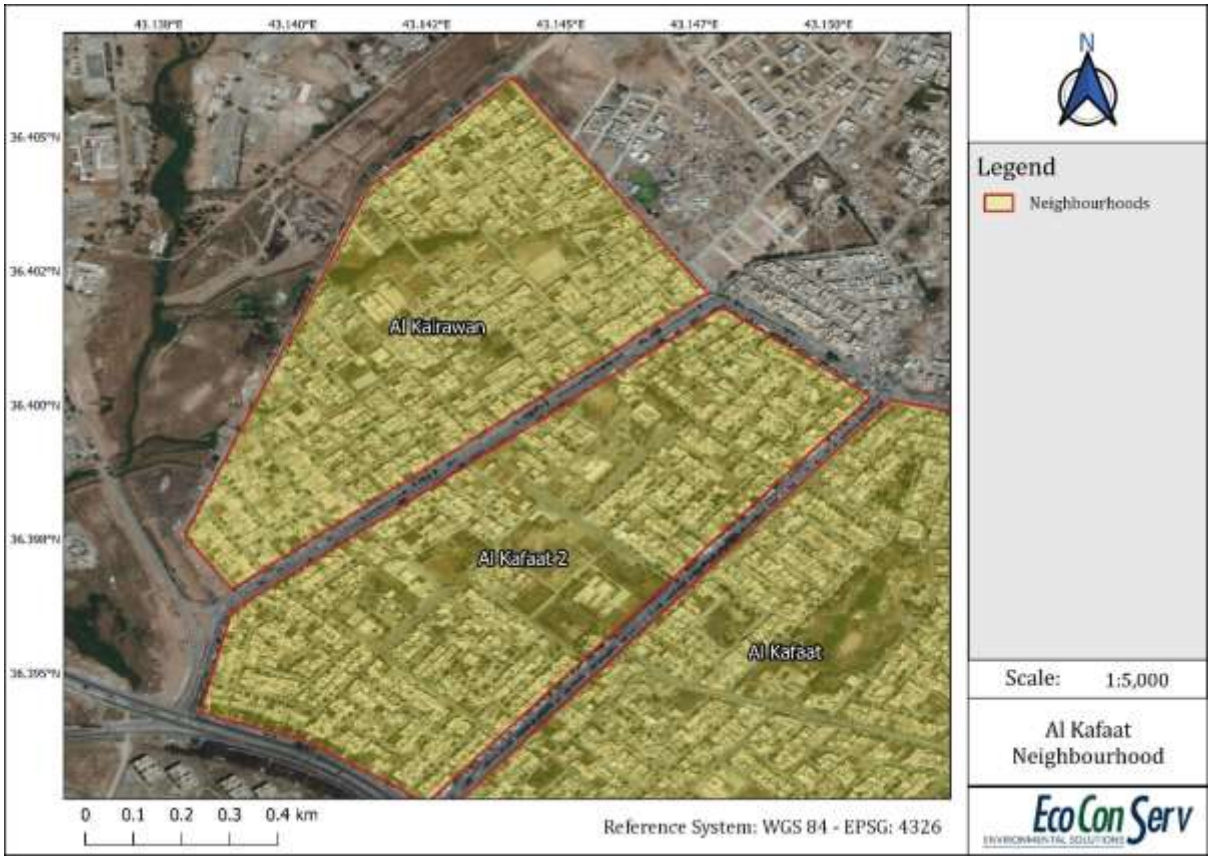

Figure 3-2 Subproject's neighborhoods

3.3 Project Duration

The subproject activities are expected to last for about 240 days.

3.4 Current Status of the subproject area

Currently, the road is in a bad condition as it contains a lot of uneven sections. It also doesn't have an adequate rainwater collection network. As a result, on rainy days, rainwater accumulates in low areas leading to the formation of stagnant water ponds which later become a breeding ground for parasites and bacteria. In addition, rainwater accumulation causes significant disturbance to traffic and pedestrian movement.


N 36°24'0.25185" (LAT)


N 36°24'3.31142" (LAT)
E 43°8'45.1536" (LONG)
9/12/21 12:39 PM

Figure 3-3 The Current Status of the subproject area

3.5 Rehabilitation Activities

3.5.1 Rainwater Drainage Network

The main activities include the following:

- Excavating side trenches by removing the top asphalt/concrete layers as well as any layers below until reaching the depth at which pipes will be placed. The asphalt/concrete layers will be cut using a jack hammer.
- Laying the pipes, installing all related accessories, backfilling using good quality gravel and then restoring the street back to its original condition.
- Constructing manholes. The work includes asphalt cutting, excavating, pouring the concrete body of the manhole, installing the steel covers, painting the inside of the manhole with epoxy and painting the outside with a waterproofing substance.

3.5.2 Roads Rehabilitation

Road rehabilitation consists of the construction and preparation of several layers, as follows:

- Cutting and removing worn-out asphalt layers, curbs and sidewalks. The depth of excavation - and replacement – is expected to be at least 25 cm and thus it will cover base and potentially subbase layers. In some areas where the damage is severe, the excavation depth will reach up to 1 meter. The debris shall be transported to a disposal location which will be identified by the municipality. The debris is expected to include concrete blocks, asphalt blocks and excavated material.
- Preparing and supplying good quality gravel to be spread as a foundation layer for the roads as well as the sidewalks. The gravel will be spread using scrapers and then sprayed with water and compacted.
- Installing side curbs as follows
    - Pouring a 20*85 cm concrete foundation layer
    - Placing the curbs on top of the concrete foundation using mortar as a paste.
- Pouring concrete for the sidewalks.
- The top finishing layers will include the following (bottom up)
    - A prime coat, which is made of a bituminous substance that is stored in a truck and it is usually sprayed directly from the truck on the road.

- A 10-cm thick asphalt stabilizing layer which will be applied using sensor paver machines.
- A tack coat layer
- A 6-cm thick hot-mix asphalt layer

The subproject's rehabilitation activities are going to be carried out in sections. In order to maintain traffic flow, alternative routes will be proposed. The alternative routes are either parallel roads or the same street is horizontally divided into two segments. The Contractor will work in the segment and enable passers to use the other segment, as shown in the figure below.

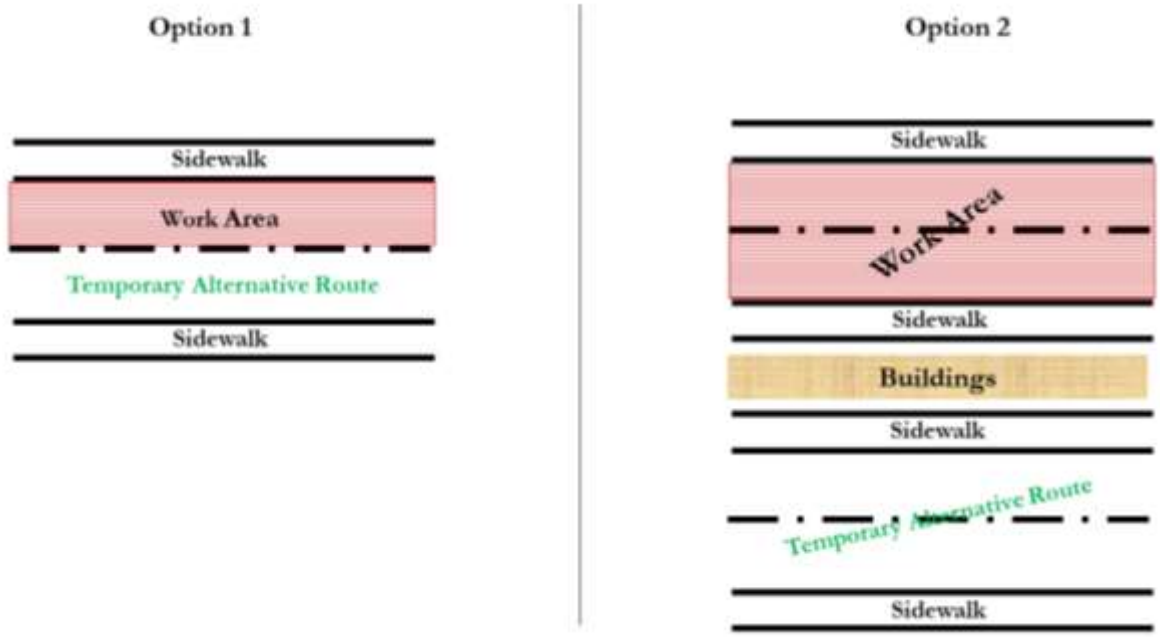

Figure 3-4 Alternative routes options

Sidewalks or walkways will be established adjacent to the construction site location in order not to interrupt pedestrian access to residential buildings and commercial areas on the sides of the road under rehabilitation. The walkways will be dedicated to pedestrians. Signs and yellow ribbons will be installed. Additionally, there will be no activities on the sidewalk of the street (pavement). In case of deep excavations, wooden and metal walkways (footbridge) will be installed, as shown in the photos below:

Figure 3-5 Pedisterians safe footbridge

3.6 Operation and Maintenance

Some maintenance activities are expected to take place during the operation phase and they can be classified as follows:

Routine

These include:

- Daily cleaning activities
- Safety measures such as:
  - Repairing street signs, light poles and traffic lights.
  - Pothole patching
  - Crack sealing
  - Repairing the drainage slopes whenever there is a need to.

Periodic

Periodic maintenance operations include removing and replacing the top asphalt layer (overlay), re-graveling the base and subbase layers, sealing holes and cracks and maintaining the traffic marks and signs.

In case of replacing the asphalt layer and the layers below, the activities will be the same as in the rehabilitation phase, except that the duration will be less because not all road sections will require maintenance at the same time and sometimes, only the top asphalt layer is replaced.

Periodic maintenance could also include inspecting the components of the rainwater collection system to clear blockages and remove sediments.

Emergency

Emergency works may include repairing large potholes that hinder vehicles movement and repairing any damage resulting from accidents.

3.7 Resources

3.7.1 Water Resources

The source of water for domestic use (drinking, food preparation, personal sanitation, washing utensils) is the public water network in the city.

3.7.2 Energy (Fuel/Electricity)

The source of electricity is the national grid in addition to generators that will be provided by the contractor to be used during power cuts. In addition, most heavy construction equipment run on diesel.

3.8 Waste Generation

Waste generated during the rehabilitation phase is both domestic and construction waste, hazardous and non-hazardous. The waste which is expected to be generated by the rehabilitation activities includes:

- Excavated soil.
- Demolished concrete blocks and demolished asphalt.
- Sand and gravel,
- Remains of plastic pipes
- Domestic **solid waste** from daily consumption by workers
- **Hazardous waste** including paint, epoxy and waterproofing chemical containers, spilled oils from the operation and maintenance of the construction machinery.
- Domestic **wastewater** from the site offices

The waste generated during the operation phase will result either from maintenance, repair and/ or replacement activities. All wastes shall be collected by a licensed contractor and disposed in a designated waste facility.

3.9 Waste Disposal

The domestic and construction solid waste will be loaded onto trucks and disposed of in a dumping site that is identified by Mosul municipality.

Hazardous waste will be collected by a licensed and authorized contractor and disposed in specified locations that are identified by Mosul municipality.

Domestic wastewater generated by the site offices will be collected in holding tanks and emptied regularly by municipal trucks to be disposed of at the nearest sewage pumping station or wastewater treatment plant.

3.10 Labor

The expected number of workers to be recruited during construction/rehabilitation phase is about 75 people. About 95% of recruited laborers will be mainly from the local communities residing at Mosul City. Accordingly, they live in their houses in Mosul city.

Regarding the anticipated number of workers in the construction sites, it might be increased based on the number of concurrent construction sites and the time plan allocated for construction activities.

Given the fact that the majority of workers will be recruited from the local community, it is not anticipated to have accommodation activities in Mosul city. Only expatriate workers will be given

accommodation allowance. Workers are totally free to select where to live (rented house- hotel …etc). The total number of expatriate workers will be relatively limited.

3.11 Construction Camps

The contractor will establish caravans and portable toilets on a piece of land close to the targeted neighborhoods and this land will be owned by Mosul municipality.

If needed, additional land owned by the municipality will be allocated to storing raw materials and equipment. Since the subproject will rely on local labor, no labor accommodation camp will be constructed. However, caravan/s will be installed to be used during day.

The following figure illustrates the location of the construction camp relative to the subproject area.

Figure 3-6 Construction Camp location

4. ENVIRONMENTAL AND SOCIAL BASELINE

The subproject is located in Al Saydeen street, Al Kafa'at neighborhood, Mosul city, Nineveh governorate, Iraq. Mosul is a major city northern Iraq, located approximately 400 km north of Baghdad, in Nineveh governorate. The environmental and social baseline cover both sub-project site and the construction camp located at the same sub-project area.

4.1 Sensitive Receptors

The habitat surrounding the project areas and the construction camp is a semi-urban habitat. The sensitive receptors surrounding the project and their distances from the project areas are as follows.

Table 4-1 Sensitive Receptors in the subproject's vicinity

Receptor	Coordinates	Distance (km)
Tigris River	36°23'31.89"N 43°06'58.98"E	2 km
Al Asmaai Primary School for Girls	36°23'59.25"N 43°08'47.76"E	0.13 km
Al Sanadeed Primary School for Boys	36°23'46.10"N 43°08'28.94"E	0.16 km
Ferdos Mosque	36°24'1.16"N 43°08'46.16"E	On the side of the rehabilitated road

4.2 Environmental Baseline

4.2.1 Physical Environment

4.2.1.1 Climate[7]

Mosul's climate is classified as warm and temperate. The winter months are much rainier than the summer months in Mosul. The temperatures are highest on average in July, reaching around 44 °C. January is the coldest month, with temperatures going as low as 4 °C.

[7] https://www.meteoblue.com/en/weather/historyclimate/climatemodelled/mosul_iraq_99072

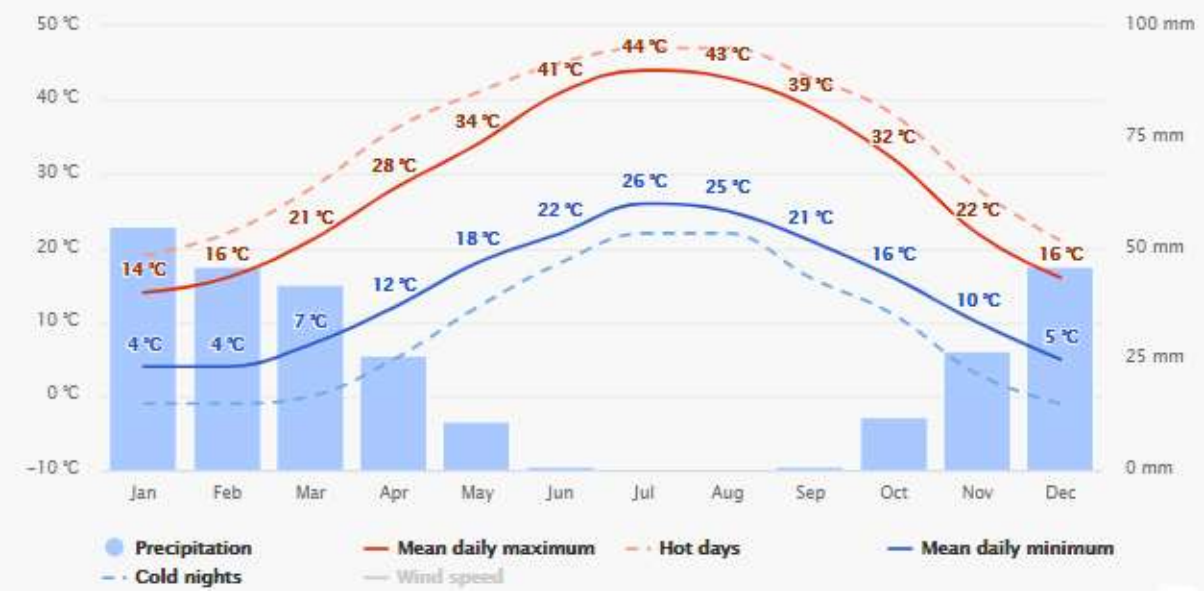

Figure 4-1 Average temperatures and precipitation in the city of Mosul

Precipitation amounts are the highest during the month of January. The average number of annual precipitation days is around 5 days, as illustrated in the figures below.

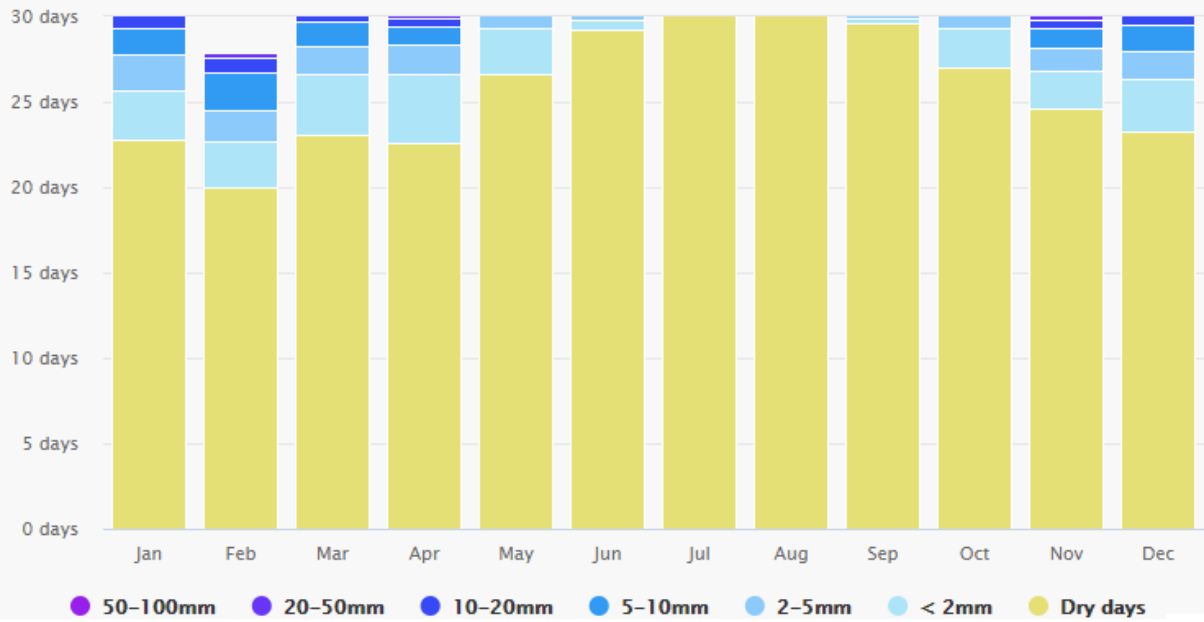

Figure 4-2 Precipitation amounts in the city of Mosul

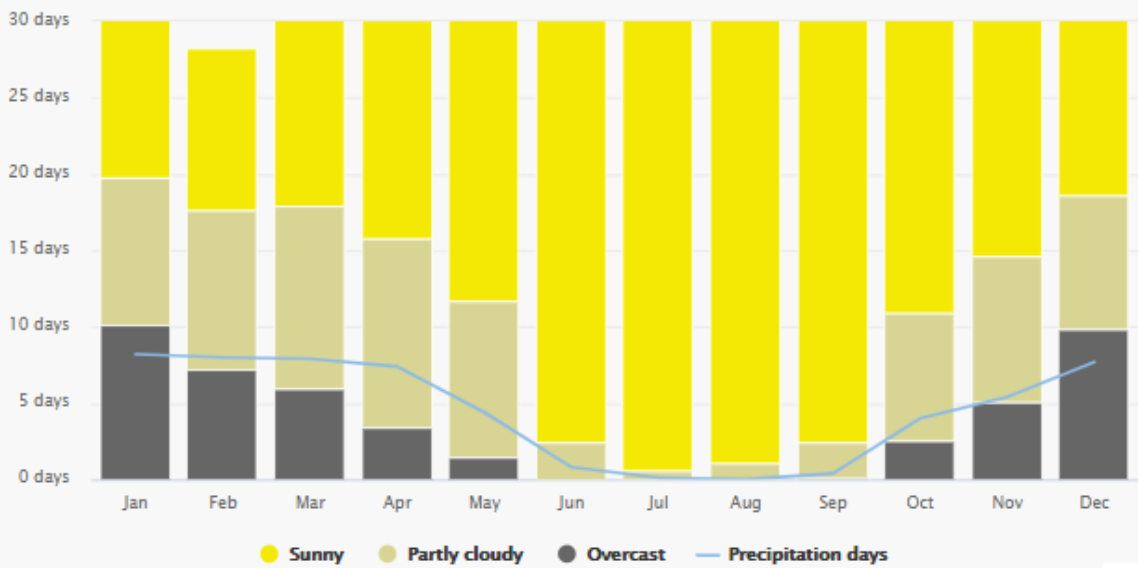

Figure 4-3 Cloudy, sunny and precipitation number of days in the city of Mosul

The dominant wind direction is north-north-east as illustrated in the wind rose below. On average, the wind speed is 5-12 km/h, but the speed of wind gusts can reach up to 28 km/h.

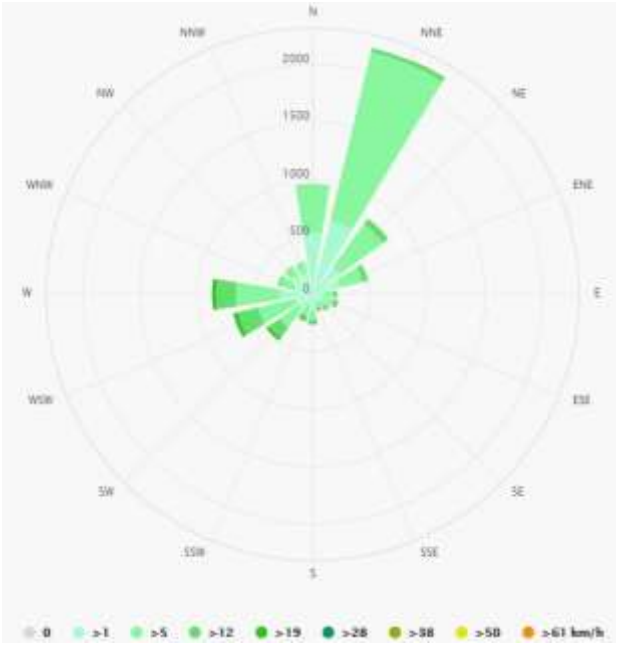

Figure 4-4 Wind rose for the city of Mosul

4.2.1.2 Ambient Air Quality and Noise Level

The annual average air quality index in the region[8] is around 32 which, based on the following table, is a moderate pollution level that can have health impacts in case of long-term exposure.

The following tables provide a description for each numerical range.

Table 4-2 Air Quality Index Categories[9]

[8] https://air.plumelabs.com/air-quality-in-Mosul-pLW
[9] https://plumelabs.zendesk.com/hc/en-us/article_attachments/360039609054/Article_Plume_Index_.pdf

Numerical Range	Description
20 - 50	The air is moderately polluted. Long-term exposure can affect health.
50 - 100	The air pollution level has exceeded the maximum level for 24 hours set by the World Health Organization (WHO)
100 - 150	This range indicates a very high level of pollution that can be immediately felt by individuals at risk.
150 - 200	The air pollutants concentration has reached a critical level. Healthy individuals will be affected even if exposure is for a short period of time.

Concerning noise levels, no numerical data is available to accurately describe the noise emissions in the study area. However, given that the subproject site is mostly surrounded by residential buildings, shops and a mosque, it can be concluded that there is moderate noise generating activities in the subproject area.

4.2.1.3 Seismic Activity

Generally, Iraq is a seismically active region especially in the North East. It is divided into 4 main seismic zones as follows (shown on the map below):

- Zone 1, no damage zone where on a Mercalli Magnitude (MM) scale, the earthquake intensity is III.
- Zone 2, the minor damage zone, covering the intensities IV and V on the MM scale.
- Zone 3, the moderate damage zone, where the intensity is in the range VI-VII.
- Zone 4, the major damage zone, with an intensity of VIII and is located on the Zagros thrust outside the Iraqi borders.

The subproject lies in the minor damage zone, i.e., zone 2.

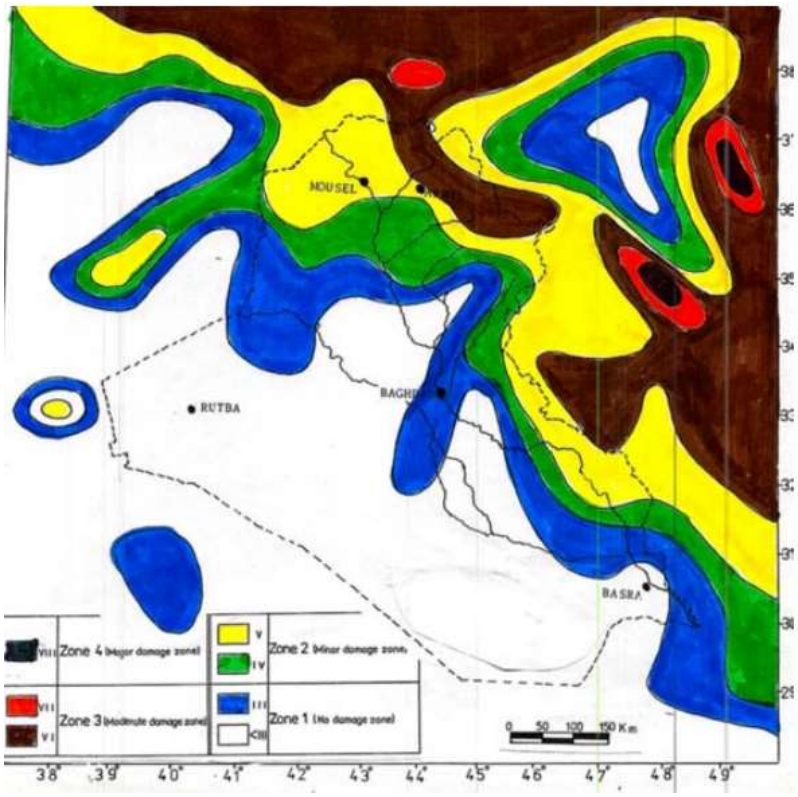

Figure 4-5 Seismic Zones in Iraq

4.2.1.4 Groundwater

Groundwater depth in the subproject area ranges between 30 to 40 meters below ground surface. Groundwater salinity increases from the northern and north-eastern recharge areas towards the discharge areas.

Figure 4-6 Groundwater depth in Iraq[10]

4.2.1.5 Surface water

The main surface water body in Mosul is Tigris river. Tigris river is about 2 kilometers away from the subproject area. The following figure illustrates the distance between the subproject and the Tigris river.

Figure 4-7 Distance between Tigris river and the subproject

4.2.2 Biological Environment (Flora and Fauna)

The subproject is located in a semi-urban area, with limited-to-no flora or fauna of particular importance. There are no legally protected areas or highly sensitive terrestrial or aquatic habitats in the vicinity of the subproject or in close proximity.

The following photos show the limited existing flora and fauna in the subproject area:

[10] Hatem K. al-Jiburi and Naseer H. al-Basrawi, 2013. 'Hydrogeological Map of Iraq, Scale 1: 1000 000', 2nd ed. Iraq Bulletin of Geology and Mining, Papers of the Scientific Geological Conference, vol. 11, no. 1, 2015, p. 24.

Figure 4-8 Subproject's Flora

4.3 Socioeconomic Baseline

This section contains a description of the social environment at the proposed project area. It highlights the following: basic information on the project area, demographic characteristics, economic profile, access to basic services, public safety and security, and cultural heritage.

4.3.1 Basic Information on the Project Area

4.3.1.1 Administrative Division

There are three levels of administration in Iraq: governorates, districts, and sub-districts. Each governorate is subdivided into districts (*qhadas*) and sub-districts (*nahiyas*). The district is usually named after the district's major city. The governorate includes the eight districts of Mosul, Telafar, Hamdaniya, Shikhan, Tilkaif, Hatre, Sinjar, Makhmour and Ba'aj.[11] Each district is divided into several sub-districts. Furthermore, at the most local level of governance, each sub-district has a community leader (*mukhtar*) who is appointed by local councils and serves as a primary intermediary between residents and government service providers within their area of responsibility. The *mukhtar* is responsible for keeping and maintaining records of the households living within his sub-district, assigning households to Public Distribution System (PDS) government officials and addressing community concerns to the relevant authorities.[12]

[11] Akre was a district of Nineveh before 2000. However, ever since the establishment of the Kurdish Region of Iraq, Akre has been considered a district of Duhok governorate.

12 The Iraqi Public Distribution System (PDS) is run by the Ministry of Trade and provides government-subsidized food and fuel rations to all Iraqi citizens. The system is Iraq's biggest social safety net reaching almost 39 million people.

Figure 4-9 Map of Nineveh Governorate[13]

There are disputed boundaries to Nineveh. The governorate is the most ethnically diverse in Iraq. In addition to the sizeable Arab Sunni population, Arab Shias, Kurds, Assyrians, Chaldeans, Turkmen, Yezidis, Shabak and other minorities live in the governorate.[14] Consequently, Nineveh's ethnic diversity resulted in much of its land receiving formal classification as "disputed territory" under Article 140 of the 2005 Iraqi constitution.[15] Therefore, control over the area bordering the Kurdish Region of Iraq in the northern and eastern portions of the governorate remains contested between the Iraqi and KRI government. That being said, officially, Nineveh is administered by the Iraqi central government.[16]

4.3.1.2 Mosul City

The city of Mosul is the capital of the district of the same name located in the Nineveh governorate. With an estimated population of 1,377,000 Mosul city is the third most populous city in Iraq, after Baghdad and Basra.[17] Mosul city is around 400 kilometers from the Iraqi capital of Baghdad and

[13] http://wikimapia.org/9799281/Nineveh-Governorate-ICR
[14] Due to a lack of national census, no precise ethnic or sectarian population estimates exist for Nineveh.
[15] "The Politics of Security in Ninewa" (2018) Harvard Kennedy School. Available at: https://www.hks.harvard.edu/sites/default/files/degree%20programs/MPP/files/Finalized%20PAE_Ahn_Campbell_Knoetgen.pdf
[16] Ibid
[17] "City Profile of Mosul, Iraq" (2016) UN Habitat. Available at: https://reliefweb.int/sites/reliefweb.int/files/resources/UN-Habitat_MosulCityProfile_V5.pdf

consists of 8 sub-districts. The city is largely perceived to consist of two parts, a Left side and a left bank, separated by the Tigris River.

Overall, Mosul city has 121 neighborhoods (*Hai*) spread along both sides of the river with five main connecting bridges. The Left side has 79 neighborhoods, while the Right side has 42 neighborhoods.

The Left side of the Tigris, hosts most of Nineveh's minorities, whether Kurdish, Turkoman or Christian. Most areas of the Left side have Sunni Arabs as constituting the majority. The majority of land in the right and Left side is classified as residential.

As noted, the area of influence of the project is the Left side of Mosul (i.e., West Mosul) as a whole, with the immediate vicinity of project activities is in Al Kafa'at neighborhood.

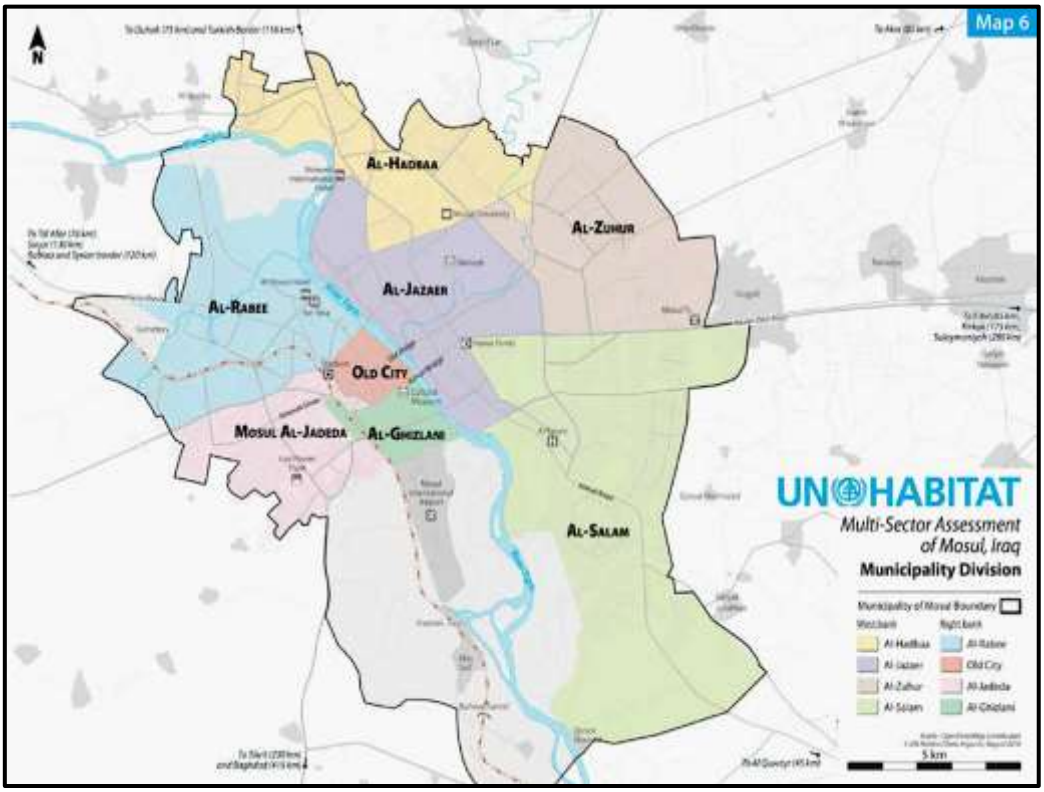

Figure 4-10 Division of Mosul City - Right and Left Sides

4.3.2 Demographic Overview

Nineveh Governorate's total population reported in the Multiple Indicator Cluster Survey 2018 (MICS) developed by the Central Statistical Organization is 3,729,998 persons. Based on the meeting conducted with the Central Statistics Organization (CSO), the total number of inhabitants in the Left side of Mosul is 245,000. Based on the results of the meeting conducted with community people, there is a significant number of children aged 15-18 residing in the project site.

Table 4-3 Population of Mosul left side[18]

[18] Multiple Indicator Cluster Survey 2018 (MICS) developed by the Central Statistical Organization (CSO)

Aspect	Mosul's Left Side
Total population	245,000
Males	124,950
Females	120,050
Households	45,000

4.3.2.1 Household Characteristics

A household consists of all individuals living under one roof who share their income and food, while a family consists of all individuals related by birth, marriage, and adoption under one roof. The majority of residents reside in houses of one to two story's high. Furthermore, consultations with government officials revealed that the average household size in the Left side of Mosul city was about six individuals per household.

It should be noted that Mosul city suffers from scarcity of buildable plots that can be allocated for housing. As a result, affordable housing is uncommon and so there is rise of informal settlements and squatters in the city.[19] The informal and squatters are within the whole city. Accordingly, they might be affected by the sub-project. One of the biggest challenges facing inhabitants of the city is to either repair and maintain their house or find a newer place that is not too costly.

4.3.2.2 Age Distribution

Figures from the CSO Statistical Abstract 2018 reflect that the community where Sub-project is located can be described as predominantly young. Based on the final results of the 2018 population census, up to about 55% of the population of Nineveh governorate is within the age category 15-64 years old. While 45% of the population is less than 15 years old. The total people above 64 years are limited to .003%

[19] "City Profile of Mosul, Iraq" (2016) UN Habitat. Available at: https://reliefweb.int/sites/reliefweb.int/files/resources/UN-Habitat_MosulCityProfile_V5.pdf

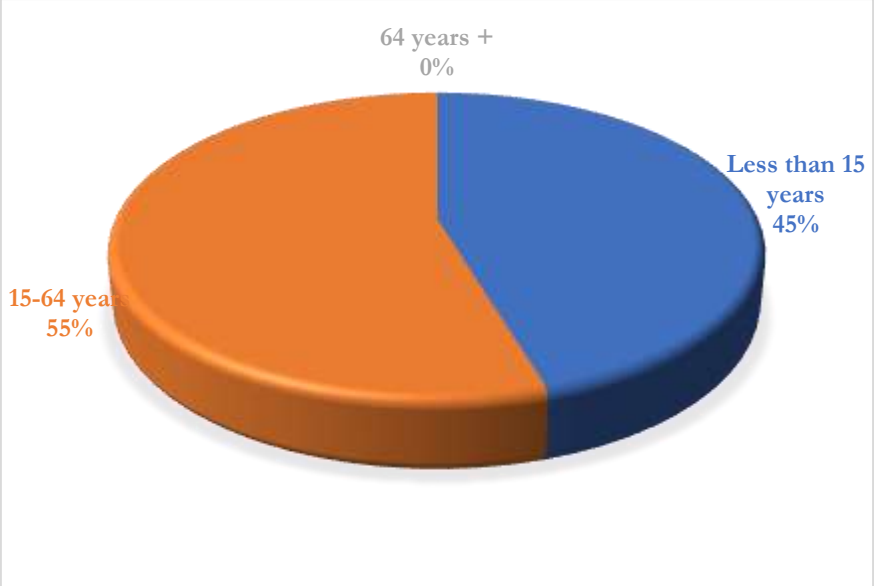

Figure 4-11 Age distribution of Nineveh governorate 2018[20]

4.3.2.3 Rate of Natural Increase

Rate of natural increase is not available on the level of Mosul city. Accordingly, the social team was obliged to rely on the data available on the governorate level. The total population in Nineveh governorate has grown by 2.0% of the total population. The following table shows the Demographic Trends in Nineveh Governorate.

[20] Central Statistical Organization

Table 4-4 Demographic Trends in Nineveh Governorate[21]

Demographic Trends	Value
Average size of households (persons)	
In rural areas	7.6
In urban areas	7.3
Natural growth rate (%)	2.0%
Urban population (% of total Population)	61%
Rural population (% of total Population)	39%
Mortality rate per 1000 live births	23/1000 live birth
Total fertility rate (child per woman of childbearing age 15-49)	3.7
Age Average (Males)	68.1
Age Average (Females)	75.5
Illiteracy rate among women aged 15-49 years (%)	30.3%

4.3.2.4 Gender Relations

Local communities of Mosul are considered conservative societies, even by Iraqi standards. The community residing the area of influence adopts norms and traditions of tribal communities. One of the main traditions is that men are the main breadwinners and their livelihoods are outside the house. While women play a crucial role in their communities- they are responsible for maintaining the family affairs, managing the household income and many other related issues- they tend to be financially dependent on men and due to security and cultural reasons they are limited in their mobility. These limits can be summarized as having the following consequences:

1) Female mobility is restricted as they are not allowed to leave the house to go long distances unless they are accompanied by a male due to norms and traditions. This is for their security and also because officials inquire about their spouses at checkpoints. Based on reports disclosed in 2014[22], women were endangered and attacked by ISIS troops. Consequently, they are always accompanied by males to protect them. Furthermore, women dislike walking on unpaved roads and fear being harassed when out in public.
2) Rates of female school achievement were limited to basic education. The main obstacle for female school enrolment is the lack of transportation since schools are located far away. Therefore, they could not go to school unless accompanied by a male family member.

[21] *Source: The Republic of Iraq, the Ministry of Planning, Central Statistical Organization CSO, Nineveh governorate 2018 Household is defined as family (and non-family) members who share a residence and operate as one social and economic unit.*

[22] https://www.ohchr.org/ar/NewsEvents/Pages/DisplayNews.aspx?NewsID=15598&LangID=A

4.3.3 Land Use

Almost the majority of lands in the project area of influence is classified as residential land. Few percentages of lands are used for industrial activities, for instance electricity production power plants.

The commercial areas are located within residential areas. Generally speaking, the project area of influence is described as residential with no agriculture activities.

With regards to agriculture lands and grazing areas, they are limited and located at the suburbs of the city.

Figure 4-12 Types of residential building

The types of buildings are mainly limited to 2-3 storey buildings.

Figure 4-13 Land use within the project area of influence

4.3.4 Economic Overview

Mosul's economic development as well as the quality of life of its residents were negatively affected by the recent conflict. The interruption of public services and the lack of available jobs made it difficult to restart economic activities. According to consultations conducted at the Mosul Local Council, the Left side in particular has a poverty rate of 30% of the population; meaning that 11000 households are below the poverty line.

4.3.4.1 Labor force and Unemployment

According to meetings with Mosul government officials, there is a considerable gap between men and women, with around 35% of males are employed, whereas only 20% of females are employed. Furthermore, out of the 35% of males who are willing and able to work within labor force, only 70% are employed and about 30% among males are unemployed. However, out of the 20% who

are able and willing to work, only 10% are unemployed.[23] It is worth mentioning that the majority of females are not willing to work due to norms and traditions. Therefore, they are not identified as unemployed.

Additionally, in terms of livelihood opportunities for women, female members of the community require jobs in line with prescribed gender roles in Iraq: as teachers, doctors, nurses, and positions with the government or at home. Shops were considered inappropriate unless these were located in women's homes, which is in line with social norms prevailing in Iraq.[24]

4.3.4.2 Economic Activities

The following table presents the main economic activities pursued by Mosul residents.[25] The main reported employment sectors were: agriculture, industry, military, civil society (NGOs), small business ownership, public sector, and daily work. Each of these employment sectors are elaborated upon below. Additionally, it is worth mentioning that many residents of the Left side of Mosul migrate for work, either abroad to Turkey, and within Iraq to both Erbil and Baghdad.

Table 4-5 Description of Economic Activities in Mosul

Employment Sector	Description of Economic Activity
Agriculture	Local authorities indicated that the agricultural sector was of great importance to the city, but that this employment sector was damaged heavily during the recent conflict. In addition, they reported agricultural work had not resumed, as the security situation did not allow farmers to return to the fields. Barriers to resuming work in the agricultural sector included reported damage to equipment and irrigation systems. However, the agricultural sector did not entirely collapse in Mosul. Reliant on rain rather than irrigation, grains continue to be produced in the area.
Industries	Destruction of the industrial area has had a major negative effect on job availability in Mosul. The financial means necessary to repair the area and restart factories is not available. Food production has historically been one of the main contributors to the economy of Mosul. There are several grain silos in Mosul city as well as a number of flour factories that are both private and government-owned.
Civil Society	A common source of current employment among Mosul residents was non-governmental and humanitarian response organizations, like the UN agencies. However, while desirable, working for NGOs was considered as short term and not seen as a sustainable source of income.
Military	A high rate of youth unemployment causes youth to look at military career opportunities more than they might otherwise if other opportunities were available. The military serves as an avenue for stable income for young adults.
Small Businesses	Businesses related to construction, metalworking, and retail are possible avenues for private investors and entrepreneurs. However, investors and

[23] The Ministry of Labor provided these figures.

[24] "Challenges Upon Return in West Mosul" UNHCR (2018) Available at: https://reliefweb.int/sites/reliefweb.int/files/resources/2.%20Return%20Challenges%20in%20West%20Mosul%20Research%20Report%20-%20Human%20Appeal%20and%20UNHCR.pdf

[25] "Labor Market Opportunities and Challenges, Mosul, Nineveh Governorate" (2019) IOM Iraq. Available at: https://iraq.iom.int/files/Al-Shifaa%2C%20Ninewa.pdf

Employment Sector	Description of Economic Activity
	business owners are having difficulty in finding qualified workers and skilled laborers.
Public Sector	Public sector employment (i.e. teachers, lawyers, engineers, and doctors) is sought by residents because public sector workers are paid on time. However, the Government of Iraq is not hiring new employees as much and so there is a decrease in the number of government jobs.
Daily Work	Daily work is also a common income source. However, it was reported that fewer daily jobs were available and wages had decreased. Daily work wages tend to be unstable and unreliable and residents tend to seek and ask the government to introduce more stable job opportunities.

Within the area of influence small shops trading in cell phones, stationary, fruit and vegetables and well as super markets were noticed. The majority of shops occupy the ground floor of the residential building.

Figure 4-14 Types of Shops Located within the Area of Influence

4.3.4.3 Education

In Mosul city, due to a lack of funds and resources the educational facilities have deteriorated in recent years, resulting in lower quality education and increased rates of illiteracy and drop-out of students. There are many schools scattered in each village. The minimum number of schools within a village is one.

Educational facilities in the city of Mosul city are functional, but their performance is affected by multiple reasons. Interviewed government representatives and community members identified the most critical issues relating to education to be the following:

1) Lack of teachers and supplies at the facilities;
2) Increased cost for education services;
3) Overcrowded classrooms with around 60 students per class in West Mosul;
4) While there are facilities available for all age groups (pre-school, primary, secondary, and graduate schools) the number of educational facilities is not sufficient for the young growing population, including girls, of the Right Bank;

5) School children have missed on average one year of formal education as a result of the reasons stated above as well as political events and/or weather conditions.

Furthermore, prior to ISIS, Mosul had three universities and two technical institutions. After ISIS invasion of the city, all higher education institutions were shut down. However, the University of Mosul (which is considered as one of Iraq's top universities) reopened its doors in mid-2014. However, students from other governorates are enrolling in the University in Mosul at significantly lower numbers. It is believed that the primary reason for this is Mosul's severe security deterioration since 2005.[26]

Figure 4-15 Schools on the Left side of Mosul (Asma'y Intermediate School)

4.3.4.4 Health Facilities

Healthcare is considered an expensive expenditure for the local community because they need to calculate transportation to the health facility, buying medication, and all necessary medical fees. Furthermore, health services have been negatively affected by the ISIS occupation, and so a number of issues remain:[27]

1) Lack of medical staff because many have fled during the occupation
2) Medical fees for services and operations have increased significantly
3) Poor sanitation in hospitals due to lack of maintenance and need for repair
4) The low availability of maternal and natal care in the city of Mosul

[26] "City Profile of Mosul, Iraq" (2016) UN Habitat. Available at: https://reliefweb.int/sites/reliefweb.int/files/resources/UN-Habitat_MosulCityProfile_V5.pdf
[27] Ibid.

Table 4-6 Health Facilities in Mosul City[28]

Type of Health Facility	Mosul City
No. of hospitals (public and private)	6
Primary Healthcare Units	20

Although many pharmacies are still open, their stock is limited. Medicine, when available, is largely unaffordable due to the limited supply. As a result, community members reported difficulties in accessing medication.

Most health facilities suffered from damage in recent years, which prevents their proper functioning despite the return of a significant proportion of human resources working in this area. Moreover, community members reported difficulties in accessing medication. Medicine, when available, is largely unaffordable due to the limited supply. The Mosul Public Hospital serves the local communities surrounding the project sites. Moreover, there are also elementary healthcare units.

Figure 4-16 Mosul public hospital

4.3.5 Access to Basic Services

4.3.5.1 Electricity

All household are reportedly connected to the grid, but the electricity network is in poor condition. Mosul government officials stated that most households receive of around 8 hours of public grid provided electricity per day, but electricity is infrequent due to power cuts that occur throughout the day. Therefore, residents rely on generators in case of power cuts. Generators are connected directly to each house or group of houses' main electricity box and are turned on, when the electricity goes out. Furthermore, community members reported that the weak supply of electricity limits the number of home electrical appliances that they can use and increases the need for transformers to convert the electrical output of the power source to match the voltage of their appliances (i.e., convert the available 180 Volt to 220 Volt).

[28] Multiple Indicator Cluster Survey developed by the Central Statistical Organization of Iraq (2018) – Nineveh Governorate as well as consultation with Mosul Local Council

Electricity network is relatively deteriorated as the electricity poles are not properly installed (see photo below).

Figure 4-17 Electricity network on the left Bank

4.3.5.2 Potable Water

The water provision was reported by community members to be similar to pre-ISIS levels, both in terms of quality and quantity. All households had access to piped water and use it as their primary water source. However, due to the need of general maintenance of the network, consultations revealed that many people believe that piped water quality is not clean enough to drink. Accordingly, they depend on bottled water for drinking.

4.3.5.3 Sanitation

There is no sewage system in the Mosul Left side and hence residents use septic tanks to store wastewater. Wastewater removal services are contacted once the tank is full and the residents pay a fee for its removal. The cost per evacuation is 40 USD and evacuations occur either once or twice per year. Collected wastewater is discharged in authorized areas specified by Mosul municipality.

Table 4-7 Sanitation Figures of Nineveh Governorate[29]

Sanitation Figures 2017/2018	
Total pumping stations	**7**
Proportion of population served by public and shared sewerage networks	**2.3%**
Proportion of the population served by septic tanks	**97.7%**

4.3.5.4 Waste Management

In Iraq, solid waste collection is generally provided by the local municipality, however, neighborhoods located beyond the municipality do not have access to waste collection services due to a lack of financial resources.

[29] Multiple Indicator Cluster Survey developed by the Central Statistical Organization of Iraq (2018) – Nineveh Governorate

Prior to ISIS invasion, waste was collected daily by the municipality from outside residents' houses and taken to a landfill 9 km outside of the city where it was buried.

Currently, waste is only collected in some areas by the municipality, which are located towards the center of the city. The municipality does not have the ability to cover the whole areas and is operating at significantly reduced capacity. There are reportedly large quantities of solid waste on the streets that has not been removed by the authorities.

In the areas where waste collection does take place, the municipality used to collect wastes with support provided by an initiative of a volunteer team that was established in the name of "Persevering for Good مثابرون للخير " in 2017, east of Mosul, when the war of liberation was continuing in its western side, and the idea began with the desire of a group of young people to receive and rescue residents fleeing from the battles. The (Persevering for Good) team has implemented a large campaign under the slogan (Our Environment is Our Life) dedicated to removing waste from the vicinity of vital centers, which are schools, health centers and public squares, in six residential neighborhoods, in addition to providing containers designated for waste. The campaign also included afforestation of the city.

Now the municipality is the sole responsible for waste management. For the residents who have this service, the municipality is said to collect waste from outside of their houses, or from unused land nearby, every one-to-three days and take it to a new disposal site 9 km away from the city.

For the residents living on the outskirts of the city or in surrounding villages, they reportedly dispose of the waste themselves, either burning or burying it in unused land in the vicinity.

4.3.6 Public Safety and Security

The security situation in Mosul is reported as good by community members given that several security measures are taken by the government. In general, the main roads leading to Baghdad, Kirkuk, Erbil, Dohuk and Syria are secure.

4.3.6.1 Mobility and Transportation

Mobility and transportation are considered especially difficult in Mosul city because of the number of checkpoints and other security measures set-up and controlled by the Iraqi police and security forces. These checkpoints are a point of concern for the local community because passing through these checkpoints takes hours that might affect business and access to work.

4.3.6.2 Roads

Poor road conditions can lead to more than just a bumpy ride. Roads might become very dangerous. If a driver hits a large pothole, it could burst the tire causing the vehicle to veer into another lane, colliding with another vehicle. Bumpy road surfaces might cause a driver to lose control of their vehicle, leading to a crash or rollover accident injuring the driver, passengers, and pedestrians.

4.3.7 Sub-project specific socio-economic characteristics

No census is available on the level of Al Kafa'at neighborhood. However, based on rough estimations carried out by the social team during the site visits in September 2021, there are about 150 buildings within the area of influence (not only the sub-project location). Each building consists of 2-3 stories. Assuming that each storey hosts one household with average 7.3 people/household, the population estimations might be about (150 building * 2.5 average storey * 7.3 household size in urban area 2018) The total estimated population is about 2740 person.

Additionally, there are the following entities and landmarks:

1- The syndicate of physicians
2- City government office
3- Educational institutes
4- Mosques

Figure 4-18: Types of buildings

Al Kafa'at Neighborhood is basically a residential neighborhood, on both sides of which there are some shops (about 9 supermarkets- one car maintenance and oil workshop- pharmacy- ready garment shop- hair salon- two internet services…etc).

The main trading activities are selling household items, vegetables, fruits and other businesses that provide the necessary services to the residents.

The project includes the implementation of the rainwater drainage network and the re-paving of the street only. That is, the works do not include sidewalks. There are no schools or health facilities on the street. There is one mosque (Al-Firdaws Mosque) whose door overlooks the street and has two other doors on the side and from the back of the street.

Figure 4-19 Map describing the area of influence buildings, commercial activities and service

With regards to El Saydeen street, the street extends over an undulating area as well as the branches connected to it, and this makes the rain water accumulates on the lower areas of the street or the branches connected to it.

The street suffers due to critical damage and accumulation of water that turns into sewage puddles during the rainy season. With regards to safety of street users, people might have accidents (no records available) as streets are bumpy. The community people reported that residents can be affected by water pits, when cars pass by causing water spray that may cover passers with dirt and water.

Figure 4-20 Street conditions

Figure 4-21 Accumulated water

Figure 4-22 Pharmacy

With regards to vulnerability status within the area of influence, the following categories are considered as the vulnerable groups:

1- People who live in poverty: They are mainly the group of people who were affected by the War and were obliged to leave the area during the invasion of ISIS. They lost, not only their assets or income, but also some of them lost their family members through homicide activities. As soon as they returned to their area, they started gradually to restore their economic conditions.
2- Women and young women: They have limited mobility and contribution to work. Additionally, some of them might have limited access to schooling. Male family members are obliged to support women financially, indicating that, women will be always dependent on men. Female headed families might be also noticed. Women might not secure income to their households. However, they will be responsible for all household needs (feeding – cleaning …etc.
3- People with disability: They are those who suffer from any disability or being disabled due to explosive material and being injured during War. Their ability to generate income is limited. Additionally, they suffer from lack of health services.
4- Young men: They are relatively excluded and their ability to participate in decision making is limited. They also suffer due to the lack of job opportunity.

5- Children headed family: As it was said earlier, male household members are the only breadwinner, aside from their age. Children (between 13-17 years) might be responsible for support their families. Based on discussions carried out with community people, a child who supports his family is socially admired. However, he has to shoulder the responsibility and burden of his household.

There was no information available about vulnerable groups. Additionally, the consulted groups were unable to put estimations of the numbers of vulnerable groups.

4.3.8 Displacement and Returns

Bases on a study carried out by Human Appeal and UNHCR, namely, [30]"Challenges Upon Return in West Mosul", it reported the following:

In 2014, ISIS captured a third of Iraq's territory, mainly Nineveh, Anbar, Salah al-Din,

Diyala, and Kirkuk. During the summer months of 2014, ISIS instigated the displacement of over half a million people from and within Nineveh. The group implemented a systematic campaign to empty the region of religious and ethnic diversity. Christians, Turkmens, Yezidis, Shabak and others faced targeted killings, abductions and persecution.

By June 2016, Iraqi Security Forces backed by U.S. and Coalition airpower had retaken most of the territories held by ISIS. Operations began to retake parts of Nineveh in October 2016 and by January 2017 Iraqi forces and the Coalition had retaken East Mosul.

According to the International Organization for Migration (IOM), during that wave of fighting, 182,000 people were displaced from East Mosul and its surroundings, receiving shelter in pre-prepared camps. Of these, 70,000 returned to their homes by March 2017. An estimated 300,000 people remained in liberated East Mosul.

After the military operations concluded in East Mosul and despite the damage, city life began to resume quickly, with markets and schools opening. Operations to retake West Mosul began in February 2017. Up to 750,000 people remained in ISIS-occupied West Mosul at the beginning of the fighting, living among 12,000–15,000 ISIS fighters and struggling with acute food and water insecurity. According to IOM, the fighting for West Mosul had displaced an additional 153,000 people by late March 2017.

The total displacement from both East and West Mosul, after accounting for returns, was 270,000 by March 2017. By July 2017, a total of over a million people had been displaced by the fighting in Mosul, and some 200,000 had returned, leaving net displacement at 822,000. In terms of return numbers, IOM estimated that 15,969 families returned to Mosul as of October 2017.

After East Mosul was retaken, a report found that there were widespread security issues, including

significant reports of criminality and some looting, claims of revenge attacks and retaliations from

unknown armed groups, attacks from ISIS fighters in West Mosul (including drone-delivered grenades), and threats from extremist sleeper cells throughout East Mosul.

The project site was cleared of any UXO, (please see Annex 10). Accordingly, the risks related to unexploded ordnance is of no significance.

4.3.9 Cultural Heritage

In Mosul city, in particular, consultations with the local population determined that much of the city's archaeological and cultural heritage sites have been destroyed by the recent conflict. However, they stated that the closest heritage site to the project is Al-Firdaws Mosque. It is the

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https://reliefweb.int/sites/reliefweb.int/files/resources/2.%20Return%20Challenges%20in%20West%20Mosul%20Research%20Report%20-%20Human%20Appeal%20and%20UNHCR.pdf

only mosque overlooking Al-Kafa'at neighborhood street. The mosque will not be affected by construction work due to its high location above street level and the presence of a wide sidewalk for pedestrians. The mosque has 3 front and side doors and a back door that can be accessed from the surrounding streets.

Figure 4-23 Al Fridays Mosque

5. ASSESSMENT OF POTENTIAL RISKS AND IMPACTS AND ALTERNATIVES

The assessment focuses on identifying the environmental and social issues. The ESMP includes collecting data from previous reports and studies for obtaining background data about environmental and socio-economic characteristics of the project area.

At an early stage, baseline surveys have been carried out to obtain information as well as site visits to fill in gaps in data and information on the characteristics of the existing environment of the proposed project area. The identified potential environmental impacts on the physical environment are then evaluated against baseline conditions at the proposed location, and the relevant performance standards which are set during the construction and operational phases of the project. Positive and negative potential impacts on the environment during the project phases are presented in this section.

The environmental and social impacts assessment is based on both quantitative and qualitative data available, as well as the consultant's experience.

The assessment is based on the methodology presented in the ESMF document.

5.1 Positive Impacts During Construction/Rehabilitation Phase

The project is anticipated to result in creation of various direct job opportunities. Based on previous experience in similar projects implemented recently by the municipality, the anticipated number of workers to be recruited on peak of construction period per each sub-project will be at minimum as follows:

Table 5-1 Anticipated Number of Workforces During Construction Phase

Type of job	Total number per site	Required skills
Site engineer	2	Highly skilled
Measurements engineer	1	Highly skilled
Technicians	10	Skilled
Casual workers	60	Low/semi-skilled
Administrative	2	Semi-skilled/skilled

The total sum of workers during peak time of the sub-project is 75 workers. The contractor might recruit more people to meet the construction deadlines. At least 95% of these jobs can be occupied by local people.

In order to maximize employment opportunities in the local communities it is anticipated that on the job capacity building activities will be required for currently unskilled workers. On-the-job training will also supplement opportunities for the local workforce for both temporary construction roles and for long-term employment during the operation phase, where these are available.

5.1.1 Indirect job opportunities

As part of the construction phase, a number of indirect job opportunities are expected to arise, due to the need for more supporting services to the workers and contractors who will be

working in the various locations e.g., waste management, septic tanks evacuation, food supply…etc.

Supplying food might be managed by women residing in the area of influence as they provide food of good quality with reasonable prices to the workers.

5.2 Negative Impacts During Construction/Rehabilitation Phase

5.2.1 Negative Environmental Impacts

5.2.1.1 Air Quality

Dust emissions

Dust emissions ($PM_{2.5}$ and PM_{10}) will be generated as a result of excavation, backfilling and asphalt cutting. The emissions will primarily affect the construction workers but will also have an impact on the residents of the houses near which the activities will take place. The emissions will continue to be generated for a period of 240 days, but at different sections of the road network.

The vehicles and trucks used to transport construction materials, such as sand and gravel, can also be a major source of dust emissions if not adequately covered and if not restricted by a speed limit.

Exhaust emissions

Exhaust emissions containing SOx, NOx, and CO will be produced from excavation equipment and other heavy construction machinery. These emissions will have a direct impact on the workers and will affect the surrounding community by a lesser degree.

Nevertheless, these impacts are temporary as the total duration of the subproject will be 240 days. In addition, these emissions will be produced at different parts of the targeted neighborhoods and thus when assessing the impact on residents in terms of duration, the period to be taken into consideration is less than 240 days.

The impact of dust and exhaust emissions is expected to be of **moderate** significance.

5.2.1.2 Noise and Vibration

Asphalt cutting, demolishing concrete, removing debris, excavation and backfilling are all activities that will lead to an increase in ambient noise levels mainly because they involve the use of heavy construction equipment such as jack hammers, excavators, loaders and dump trucks.

The expected levels of noise produced by different operating machinery are shown in the following table.

Table 5-2 Noise Emission Levels dB (A) of Typical Construction Equipment[31]

Equipment	Expected Noise Emission Levels
Front End Loader	72-84
Jack Hammer	81-98
Backhoe	72-93

[31] USA, Environmental Protection Agency, 1995

Dump truck	83-94
Crane	75-77

Given that this subproject is inside residential neighborhoods, the following noise limits will apply and they will most probably be exceeded.

Table 5-3 Ambient Noise Level Limits

IFC Noise Level Guidelines		
Receptor	Daytime (7 am to 10 pm)	Nighttime (10 pm to 7 am)
Residential; institutional; educational	55	45

The impact of noise and vibration is expected to be **moderate** significance

5.2.1.3 Soil

Soil may be contaminated by leakages from equipment or generators and it may be polluted by improper disposal of solid or hazardous waste or improper discharge of domestic wastewater from the contractor's offices.

The impact on soil is expected to be of **moderate** significance

5.2.1.4 Water Resources

Water resources could get affected by the construction phase of the project either by contamination or increased consumption, as follows:

Contamination

- Improper disposal of debris or construction wastes into water bodies and rainwater drainage network
- Improper discharge of domestic wastewater from construction offices into water bodies and rainwater drainage network
- Improper handling and storage of construction materials
- Underground water contamination by uncontrolled dumping of waste

The impact of the proposed project on underground water contamination is insignificant due to large depths at which groundwater exists in the subproject area. In addition, the nearest surface water body (Tigris river) is about 2 kilometers from the subproject site. Accordingly, the impact is expected to be of minor significance.

The impact related to Water Resources Contamination is expected to be of **minor** significance

Consumption

- An increase in the water consumption for construction purposes, such as concrete mixes, dust suppression and washing concrete mixers.

- An increase in the water consumption for domestic use by workers.

The impact on the increase in the consumption of water for domestic use and construction purposes, is expected to be minor, as the project duration is low; less than one year (240 days) and the number of workers is limited.

The impact related to Water Resources Consumption is expected to be of **minor** significance

5.2.1.5 Energy Consumption

The subproject will consume fossil fuels (mainly diesel) for the construction vehicles, machinery and generators. Fossil energy is non-renewable, and its excessive use may have serious environmental implications on its availability, price and sustainability.

The impact related to energy consumption is expected to be of **minor** significance

5.2.1.6 Resources Consumption

Raw materials are expected to be outsourced by the PMT from the local market and stores as per the BOQ. No additional quarry operations are expected.

Improper handling and processing of raw materials generates unnecessary waste and can become a safety concern, if users did not follow the materials' safety data sheet instructions properly. In addition, improper storage and containment of raw materials can result in detrimental health and environmental impacts.

The impact related to resources consumption is expected to be of **minor** significance

5.2.1.7 Waste generation

The rehabilitation activities will produce:

- Excavated soil.
- Demolished concrete blocks and demolished asphalt.
- Sand and gravel,
- Trimmings of plastic pipes
- Domestic solid waste from daily consumption by workers. Domestic waste decomposes if not frequently collected leading to unpleasant odors and bacteria accumulation which is a hazard to workers' health
- Hazardous waste including paint, epoxy and waterproofing chemical containers, spilled oils from the operation and maintenance of the construction machinery.
- Domestic wastewater from the site offices

The waste generation impact is expected to be of **moderate** significance

5.2.1.8 Flora and Fauna

The subproject is located in a semi-urban area, with limited-to-no flora or fauna of particular importance. There are no legally protected areas or highly sensitive terrestrial or aquatic habitats in the vicinity of the subproject or in a close proximity. Additionally, the project is a rehabilitation of an already existing road and the construction of a rainwater drainage network, so the project activities are not expected to destroy or alter any terrestrial habitats.

The impact of flora and fauna is expected to be **insignificant**

5.2.2 Occupational Health and Safety

Pre-Construction and construction activities are relatively dangerous, as workers could be exposed to accidents in any work environment. Exposure to construction site hazards can lead to injuries. To avoid such situations, all risks that can be encountered during normal work must be identified and recognized.

According to World Bank OHS standards[32], each worker must have accurate information regarding potential hazards or injuries in the workplace. The Occupational health and safety Administration (OSHA)[33] define the key risks, which arise from construction projects, and the following are the ones applicable to this subproject.

The key OHS risks which are applicable to this sub-project are as follows:

1. **Lifting and removing the debris from the project site: The workers might be affected by:**

- The loading and uploading of the debris from the construction site especially if manual handling is adopted;
- Muscular strain if the workers lift more weight of rubbles.
- Injuries if the debris contain sharp objects e.g., iron bars, glass, etc.

2. **Excavation and Trenching** – drilling and trenching are considered one of the most dangerous works in any construction site.
3. **Heavy Construction Equipment and Vehicles/Trucks**. The injury of the workers could happen if the equipment is malfunctioned (brakes are not working properly, unexpected starting of the equipment, unobvious movement during operation, etc.).
4. **Weather conditions**: heavy rains, wind, high temperatures and fog. Additionally, heat stress and sun stroke during the summer months.
5. **Unstable surfaces** It can be difficult to assess the level of loading a surface can withstand; this is particularly significant because of the high load that will be exerted by the heavy construction machinery.
6. **Fall** – The usual cause of this accident is slipping or foot stumbling, or using a loose ladder. There are many reasons to be at risk of falling. To avoid these risks, the employer must have a fall protection program as part of the occupational health and safety program in the workplace.

[32] https://siteresources.worldbank.org/INTRANETENVIRONMENT/Resources/244351-1279901011064/OccupationalHealth.pdf
[33] https://www.osha.gov/

7. **Falling objects,** the risk presented by falling objects; equipment, debris, and dislodged unstable materials affected by certain environmental and weather conditions all pose significant risks.
8. **Manual handling** many injuries occur due to the improper handling of equipment, or fatalities.
9. **Musculoskeletal injuries**: body positioning, force of movement, etc. can negatively affect the workers.
10. **Airborne fibers and toxins**: There are multiple sources of potential lung damage within the construction environment. These include:
    - Dust caused by stone masonry, removing rubble and general site clean-up
    - Wood dusts emitted from wood works
    - Toxic fibers that become airborne when laying carpet, inhaling isocyanates, which are used in paints, varnishes, glues, flooring and building insulation materials
    - Conditions created by breathing in these particles run the gambit from occupational asthma to silicosis, COPD (chronic obstructive pulmonary disease) and lung cancer.
    - Being infected by COVID-19 and other respiratory diseases
11. **Hand and vibration syndrome:** Hand and vibration syndrome (HAVS) occurs when a worker continually uses handheld power tools particularly in the process of dismantling the concrete structures. While it is easily preventable, once someone has developed HAVS, the damage is permanent.
12. **Noise:** Construction sites in particular can be problematic when it comes to hazardous noise levels.
13. **Moving objects**: Constructions sites are typically a buzz of activity and, as with slips and trips, without proper work area management, being hit by a moving object can become a hazard. There are several reasons that a worker might be hit by a moving object. These include:
    - Untidy and cluttered work areas that hinder safe maneuvering
    - Lack of warning lights and/or beepers on moving vehicles
    - Poorly lit work areas
    - Working close to moving objects
    - Colliding with mobile elements such as machinery, pallets or boxes
    - The lack of warning signs at movement intersections
14. **Exhaustion**: Construction work can be extremely laborious and often requires long hours of hard manual labor in sometimes harsh weather conditions. When a worker is physically or mentally exhausted, their level of attentiveness goes down, opening the door to poorly-thought-out decisions and costly mistakes.
15. **Transmission of Diseases** – increased risk of infection associated with exposure to infected patients and workers e.g., COVID-19, Hepatitis B, Hepatitis C and HIV-AIDS.

Occupational health and safety impacts are considered of **high** significance

5.2.3 Community Health and Safety

The subproject is located in a strictly residential area of Al Kafa'at subdistrict. During rehabilitation of the streets, community members will still have access to the streets under its current capacity.

However, there is a possibility that the local community members; including pedestrians and children, and residents near the Saydeen street, may be affected through the following:

- Temporary nuisance and inconvenience as a result of the construction activities including noise and vibration emissions.
- Emissions of gaseous pollutants and dust from machinery used;
- Increased background noise levels from operations of heavy equipment operating as well as other construction activities;
- Road accidents due to heavy trucks and machinery movement.
- Limitation of mobility in the area of influence especially for the residents of small alley due to excavation activities. The most affected groups are the elderly and the people with disability.
- Potential accidents such as falls, slips and injury can potentially take place.
- The possibility of being infected by diseases or viruses from workers, staff, and patients such as COVID-19, Hepatitis B, Hepatitis C and HIV-AIDS.
- Probability of transmitting diseases to community people.
- Potential child labor employment by local subcontractors.

The impacts on Community Health and Safety are considered of **moderate** significance

5.2.4 Negative Social Impacts

5.2.4.1 Traffic Flow (disruption of traffic)

Mobilization of heavy machinery, asphalt breaking, and excavation, placement of piping and backfill activities are bound to limit traffic and accessibility to the areas. Mobilization, preparation and construction phases will entail narrowing roads by longitudinal and/or lateral excavation, totally blocking narrow or side roads, as well as limiting or prohibiting parking along the length of the works. Access to buildings and shop entrances may be limited or constricted in cases where excavations form obstacles for pedestrians and cargo.

The project will result in traffic congestion, inconvenience and disturbance to local communities and businesses, and in delay in the various daily activities due to the following:

1- Various vehicles may find difficulty in maneuvering the streets that will be dug during the project construction. This will increase their fuel consumption and reduce their ability to move quickly. Consequently, this will lead to transport of less clients as each errand will take more time.
2- There might be a disturbance to community people due to the traffic congestion

Traffic impacts on urban roads will result from digging in the streets and construction of storm water drainage as they will carry out construction activities in the local roads.

The impacts on Traffic and access limitation impacts are of **moderate** significance

5.2.4.2 Child labor and School Dropout

As mentioned in the baseline chapter, child labor is a common practice in the project communities in Iraq. Children work in construction projects as they accept lower salaries and are less

demanding. Additionally, Iraq recently enacted Law 37/2015 (the Iraqi Labor Law). Chapter 3 of this Law states that the minimum age for employment is 15 years old. However, Iraq is also signatory to the 1989 International Convention on the Rights of the Child, which defines everyone under the age of 18 as a child who must have special protection and care.

Child labor might be detected in the project sites during the construction phase. The contractual agreement of the contractor must shed light on child labor risk and rigid obligations should be inserted in the construction contract.

The impact of child labor and school dropout is considered of **major** significance.

5.2.4.3 Visual and landscape impacts

For construction and excavation works, the visual impacts are temporary, mainly from storage of drilling products and raw materials (cement bags, concrete mixers, construction waste, etc.). However, because of the short duration of exposure, they are regarded as of minor significance.

Impacts pertaining to landscape are expected to be of **minor significance**

5.2.4.4 Cultural heritage and Monuments

Based on numerous previous studies conducted for the area of Mosul, there is a significant probability to encounter impacts related to cultural heritage, particularly, during the process of storm drainage network construction. Yet, the probability is not high as the roads have been excavated before. Accordingly, a chance find procedures will be sufficient to manage this impact.

Additionally, there is a mosque within the Area of Influence that might be affected by various activities.

Impacts on cultural heritage are expected to be of **minor** significance

5.2.4.5 Infrastructure and Underground Utilities

As a result of the construction work, existing underground utilities might be accidentally damaged. Damaging sanitary pipes and water pipelines result in severe disturbance to community people. Breaking a water supply pipe may result in cutting the supply to a number of residential units, which may lead residents to use other sources of water which may be either expensive or unsafe.

However, the time needed to resolve problems with damaged utilities is relatively short (no more than 4-8 hours). Additionally, the contractor will be responsible of compensating for damaged pipes as mentioned in the ESMP.

Impacts related to underground utilities are expected to be of **minor** significance.

5.2.4.6 Temporary Labor Influx

The contractor/s rely on recruiting workers and technicians during the pre-construction and construction works. The total number of workers is estimated to be about 75 workers in the sub-project. Additionally, the contractor/s will have different working sites. Construction workers will be divided into teams. They might work in parallel or in sequence. Therefore, the number of workers varies according to the size of the work in each area. Consequently, the impact differs and

varies according to each area. The temporary labor influx and presence of additional workers may have impacts on the project areas in terms of:

- **Risk of social conflict:** There are no potential effects of temporary labor influx on the culture of the society in the project areas; this is due to the focus of the implementing companies on the labor, whom are often from areas (cities- villages) adjacent to the project sites. The temporary workers also have the same culture and values as those in the project areas;
- **Increased risk of illicit behavior and crime:** The construction workers might have criminal history; therefore, the contractor should ask for their criminal records and IDs;
- **Increased risk of communicable diseases and burden on local health services:** there is a probability to transmit diseases to community areas, particularly, hepatitis B and C and blood transmitted infections**;**
- **Gender based violence:** There is a probability to result in impacts related to GBV as illustrated in subsection below.

Given the limited number of workers and being from the same project areas, the probability of labor influx impacts tends to be minor.

The impacts of temporary labor influx are temporary, local, and of **minor** significance.

5.2.4.7 Gender Based Violence (GBV)

Given the presence of about 75 workers in the same construction site during the peak period of construction, it is anticipated that GBV related impacts might occur. The GBV issues that might be detected in the project site are as follows:[34]

- Sexual exploitation and sexual abuse: Inappropriate behavior such as harassment of women and young girls by workers which might lead to honor crimes
- Potential restriction of women and young girls' movement across the subproject's location.
- The probability of causing illegitimate sexual relations with young girls from the surrounding communities.
- Discrimination against women in regards with economic and employment opportunities especially with the gender gap between women and men in terms of education and work opportunities in Nineveh governorate as previously mentioned.

The above-mentioned issues might result in the following sufferings:

- Psychosocial impacts: increased anxiety, depression, and abuse among women and girls
- Household impacts: lost wages & productivity, housing instability, out of pocket expenses, inability to work

The GBV-related impacts will be, local, and of **moderate** significance.

[34] World Bank Group Good Practice Note: Addressing Gender Based Violence in Investment Project Financing involving Major Civil Works (2018); Available at: http://documents.worldbank.org/curated/en/399881538336159607/Environment-and-Social-Framework-ESF-Good-Practice-Note-on-Gender-based-Violence-English.pdf

5.2.4.8 Impacts related to land acquisition

With regard to the involuntary land acquisition for subproject activities, no involuntary land acquisition is anticipated to date. As all construction and rehabilitation activities will take place inside state owned streets.

With regards to the probability of having a caravan to be used by workers, the contractor may install caravan, however it will be ensured that it is installed inside lands owned by the municipality as mentioned in subsection 3.11.

Concerning laydown and storage of construction materials, the contractor may rent a plot of land or a shop from the community (based on willing buyer willing seller approach). Alternatively, the contractor might use lands owned by the municipality. The contractor search for the available sites and get in direct contact with the owner to rent his land/shop. Upon approval, the contractor signs a lease contract to be presented to the PMT.

With regards to the expatriate workers accommodation (about 3 workers maximum), they will receive accommodation allowance that enables them to stay at a hotel or lease an apartment upon their convenience.

Consequently, the project will entail no involuntary resettlement or economic displacement.

Land related impacts are expected to be **insignificant**.

5.2.4.9 Contractor's Onsite Campsite

There is a potential to set up contractor's campsites for workforce, to be used during day time and not for accommodation, on municipal land. Accordingly, a list of recommendations, instructions, and restrictions will have to be prepared to minimize the negative environmental and social impacts the onsite contractor campsite might have during the reconstruction phase.

The total area of construction camp will not exceed 72 meter square (two units' size 3*12). Below is a sample of construction camp caravans. In case of recruiting women, the caravans will include designated toilet facility and rest areas for women.

Figure 5-1 Caravans

The potential negative impacts the worker camp may have on the community and the environment includes, but is not limited to:

- Possible leakage from the generated wastewater from the construction caravans as it will be collected in holding tanks prior to disposal.
- Improper handling of waste materials that will be generated from workers caravans (garbage mainly);
- If the construction camp was poorly managed, there might be a probability to transmit diseases e.g., COVID 19, Hepatitis B …etc.

The work instructions and mitigation measures proposed to manage the construction camp is presented in chapter six of this report (ESMP).

Impacts of the contractor's campsite are expected to be of **moderate** significance.

5.3 Summary of Positive Potential Impacts during the Operation Phase

The project is expected to have potential positive environmental and social impacts, as follows:

5.3.1 Positive Environmental Impacts

- Reducing dust (PM10, PM2.5) because of roads paving
- Reducing the stagnant water ponds created during the rainy season.

5.3.2 Positive Social Impacts during operation

The project has significant positive economic impacts during the operational phase. These impacts can be divided into local and national impacts:

- During operation phase, all maintenance work can be implemented by the permanent workers. Alternatively, limited number of jobs will be made available to the community based on the needed maintenance activities.
- Enhancement of the storm water drainage network in Al Kafa'at neighborhood and accordingly the infrastructure will be enhanced.
- As a result of above-mentioned activities, the living conditions of the community people will be significantly improved.
- Improved accessibility of people, goods and services to the sub-project areas.
- Improved safety conditions due to provision of better street conditions.
- Girls and community people will not be affected by accumulated water.
- As the project will enhance streets in the area of influence, visual landscape impacts tend to be positive.
- The storm drainage will put limitation to water stagnation in the roads, accordingly, there is a probability that diseases might be reduced. Particularly, diseases such as vector borne diseases.

5.4 Summary of Negative Potential Impacts during the Operation Phase

5.4.1 Negative Environmental Impacts

5.4.1.1 Air Emissions

Operation of the rainwater drainage system will not produce any emissions. However, maintenance of pipelines will result in dust emissions if excavation works are necessary.

Road pavement will increase traffic which in turn would produce small amounts of dust and exhaust emissions (SO_x, NO_x, CO, VOCs, etc.) during operation.

Maintenance activities is going lead to an increase in the fugitive dust emissions (PM10, PM2.5) and gaseous emissions (SO_x, NO_x, CO, VOCs, etc.) produced by the construction machinery and vehicles.

The air emissions impact is expected to be of **minor** significance

5.4.1.2 Noise

Rehabilitation of the roads will lead to an increase in the traffic; consequently, elevating the noise and vibration level produced by traffic.

Additionally, noise is expected during the maintenance of failed pipes that may require excavation works, however, these events will be intermittent and for short periods.

Noise impacts are expected to be of **minor** significance

5.4.1.3 Waste generation

The same types of waste which will be produced during rehabilitation will also be produced during the periodic maintenance activities, but in less quantities.

The waste generation impact during the operation phase is expected to be of **moderate** significance

5.4.2 Occupational Health & Safety

Occupational health and safety related impacts are of moderate significance, because of the limited number of workers and strict occupational health and safety procedures.

The impact on occupational health and safety during the operation phase is of **moderate** significance

5.4.3 Community health and safety

During the operational phase the potential impacts on the safety of the community will be reduced due to the low traffic density and the absence of any kind of expatriate labor.

There will be limited number of maintenance laborers who will be recruited from the Project area of influence. Therefore, the probability of transmission of diseases to community people is limited.

Impacts related to community health and safety are considered to be of **minor** significance

5.4.4 Negative Social Impacts

5.4.4.1 Risk of damaging pipes by community people

Consulted groups expressed their concern that people would continue digging the street after being rehabilitated, and emphasized on the need to put in place mechanisms to deter people from

randomly laying water pipes from one side to the other, which would cause lags and damage to the road.

Impacts related to community health and safety are considered to be of **moderate** significance

5.4.4.2 Traffic Flow (disruption of local and regional traffic)

The maintenance work of the street and the drainage pipelines will be limited to their site. It will not intersect with the main streets. Additionally, for road maintenance, activities are limited to specific parts and not anticipated to be carried out on bigger scale. Therefore, the traffic impacts will be of no significance.

Traffic impacts are considered **insignificant** during operation.

5.4.4.3 Child labor

There will be no child labor during operation phase due to the project reliance on the permanent workers who must have valid recruitment documents i.e., ID, educational certificates…etc.

The municipality staff are fully aware that recruiting people below 18 years old is prohibited in all rehabilitation projects. ReFAATO will focus on applying rigid monitoring of recruitment process.

Impacts related to child labor are considered to be **insignificant**.

5.4.4.4 Visual and landscape impacts

As the subproject will enhance streets in the area of influence, visual landscape impacts tend to be positive. Recently, all subproject sites suffer due to bad street conditions and unfavorable water accumulation in the pits.

Impacts pertaining to visual intrusion are considered to be **insignificant**.

5.4.4.5 Cultural heritage and monuments

There are no expected impacts on cultural heritage sites and monuments during the subproject's operation phase.

Impacts on cultural heritage are considered to be **insignificant**

5.4.4.6 Infrastructure and underground utility

There will be no impacts on any infrastructure within the subproject sites. However, there will be significant enhancement in street conditions and the rainwater management network.

Impacts pertaining to enhancement of infrastructure tend to be **insignificant**

5.4.4.7 Temporary labor influx and GBV

Given the limited number of workers during operation and that the majority will be from the subproject sites, labor influx impacts tend to be of no significance.

Impacts of temporary labor influx and GBV are considered to be **insignificant**

5.4.4.8 Land related impact

During the operation phase, equipment and raw material will not require any storage areas. Therefore, there will be no impacts related to the acquisition of land in the operational phase.

Impacts of land acquisition are considered to be **insignificant**

5.5 Assessment of impacts during Rehabilitation and Operation phases

Table 5-4 Summary of impacts during Rehabilitation and Operation phases

Receptor/ EHS Aspect	Duration	Spatial	Magnitude	Basic Impact Index	Receptor Categorization	Impact Significance
Rehabilitation Phase						
Air Quality	Very Low	Low	Moderate	Moderate	Medium	Moderate
Noise	Very Low	Low	Moderate	Moderate	Medium	Moderate
Soil	Very Low	Low	Moderate	Moderate	Medium	Moderate
Water Resources	Very Low	Moderate	Low	Low	Medium	Minor
Energy Consumption	Very Low	Low	Low	Low	Medium	Minor
Resources Consumption	Very Low	Low	Low	Low	Medium	Minor
Waste Generation	Very Low	Low	Moderate	Moderate	Medium	Moderate
Flora and Fauna	--	--	--	--	--	Insignificant
Occupational Health and Safety	Very low	Moderate	Very high	High	Medium	Major
Community Health and Safety	Very low	Moderate	Moderate	Moderate	Medium	Moderate

Receptor/ EHS Aspect	Duration	Spatial	Magnitude	Basic Impact Index	Receptor Categorization	Impact Significance
Traffic flow	Very low	Low	Moderate	Moderate	Medium	Moderate
Child labor	Very low	Moderate	Very high	High	Medium	Major
Visual and landscape	Very low	Low	Low	Low	Low	Minor
Cultural heritage	Very Low	Low	Low	Low	Low	Minor
Infrastructure and underground utility	Very low	Low	Moderate	Moderate	Low	Minor
Temporary labor influx	Very low	Low	Moderate	Moderate	Low	Minor
Gender based violence	Very low	Moderate	Moderate	Moderate	Medium	Moderate
Land Related Impacts	--	--	--	--	--	Insignificant
Community – Contractor's Campsite	Very Low	Low	Low	Low	High	Moderate
Operation Phase						
Air emissions	Very low	Very low	Moderate	Low	Low	Minor

Receptor/ EHS Aspect	Duration	Spatial	Magnitude	Basic Impact Index	Receptor Categorization	Impact Significance
Noise	Low	Low	Low	Low	Medium	Minor
Waste generation	Very low	Moderate	Moderate	Moderate	Medium	Moderate
Occupational health and safety	Very low	Low	High	Moderate	Medium	Moderate
Community health and safety	Very low	Very low	Low	Low	Medium	Minor
Risk of damaging pipes by community people	Moderate	Moderate	Moderate	Moderate	Medium	Moderate

6. ENVIRONMENTAL AND SOCIAL MANAGEMENT AND MONITORING PLAN

6.1 Overview

The objective of the Environmental and Social Management Plan (ESMP) is to outline a mechanism for mitigating potential negative impacts which the project imposes on the environment and the residents of the subproject area. Additionally, the ESMP is a vital tool that is utilized for monitoring the application and performance of the proposed mitigation measures. The ESMP identifies roles and responsibilities of different stakeholders for the proper implementation and efficient monitoring of the mitigation actions. Based on the ESMP below a contractor commitment list is developed in Annex 2 of this report.

6.2 Environmental and Social Management Plan during Rehabilitation

Table 6-1 Environmental and Social Management Plan during Rehabilitation

Receptor/ EHS Aspect	Impact	Proposed mitigation measures	Responsibility for		Supervision method(s)	Estimated Cost
			Implementation	Supervision		
Noise	Noise disturbance to local community and workers	• Provide ear muffs to construction workers located near noisy machines • Coordinate and inform residents at the nearby sensitive receptors about the peak time and hours for construction activities. • Limit construction activities to daytime (not between 8 p.m. and 7 a.m., or as agreed with public and authorities) • Adopt a policy of switching off machinery and equipment when not in use	Site engineer /contractor	Resident Engineer- PMT	Site supervision	Contractor costs
Air Quality	Dust caused by excavation	• Spraying soil before excavation in loose sandy soil	Site engineer /contractor	Resident Engineer- PMT	Site supervision	Contractor costs
	Dust generated from the movement of the trucks and construction machinery on unpaved roads	• Minimize unnecessary journeys or equipment used. • Impose speed limits	Site engineer /contractor	Resident Engineer- PMT	Site supervision	No cost
	Windblown dust from storage areas of raw materials such as sand,	• Temporary storage areas on site shall be allocated in a place protected from the wind	Site engineer /contractor	Resident Engineer- PMT	Site supervision	Contractor costs

Receptor/ EHS Aspect	Impact	Proposed mitigation measures	Responsibility for		Supervision method(s)	Estimated Cost
			Implementation	Supervision		
	gravel and cement					
	Dust caused by transportation of raw materials	• Wet or cover truck load	Site engineer /contractor	Resident Engineer- PMT	Site supervision	Contractor costs
	Gaseous emissions from engines of construction machinery	• Use machines with high efficiency engines, effective combustion rates and low emissions. • Adopt a policy of switching off machinery and equipment when not in use (idle mode). • Apply regular maintenance to the machinery	Site engineer /contractor	Resident Engineer- PMT	Site supervision	Contractor costs
Waste Generation and Hazardous Materials	Improper handling and storage of construction waste and domestic waste, generated from the construction offices	• Allocate a Waste Accumulation Area (WAA) within the construction site for temporary storage of construction waste. • The WAA has to be protected from rain, and from washing out. • Keep tidiness and cleanliness of the WAA • Wastes shall be ultimately disposed in the nearest designated disposal site (landfill) by a licensed contractor	Site engineer /contractor	Resident Engineer- PMT	• Review local authority approvals • Site supervision • Occasional inspection and auditing of the WAA	Contractor costs
	• Hazardous wastes, such as fuel, solvents, paints,	• Proper handling of lubricants, fuel and solvents and provide secured storage				

Receptor/ EHS Aspect	Impact	Proposed mitigation measures	Responsibility for		Supervision method(s)	Estimated Cost
			Implementation	Supervision		
	concrete washout water, spilled oils from the operation and maintenance of machinery, etc.	• Ensure proper loading of fuel and maintenance of equipment • Keep hazardous waste in marked leak proof containers and temporarily dispose in a secured area for hazardous waste in the WAA • Finally, dispose hazardous waste in a permitted waste recovery facility by a licensed contractor • Collect and retain all the concrete washout water and solids in leak proof containers, so that this caustic material does not reach the soil surface and then migrate to surface waters, rainwater drains or into the ground water • Separate solids (gravel and sand) and liquid of concrete wash water using filters • Re-use concrete wash water in washing the concrete mixing equipment or in the concrete mix				
Soil Contamination and Erosion	• Possibility of accidental spills and leaks from construction equipment and generators	• Setting and applying a Waste Management Plan to prevent pollution of the soil • Hazardous waste, such as spent engine oil, and nonhazardous waste must be temporarily disposed in the designated WAA on-site and	Site engineer /contractor	Resident Engineer- PMT	Site supervision	Contractors Costs

Receptor/ EHS Aspect	Impact	Proposed mitigation measures	Responsibility for		Supervision method(s)	Estimated Cost
			Implementation	Supervision		
	• Improper handling of solid waste • Improper discharge of domestic sewage from construction offices • Improper handling and storage of construction materials • Increased soil erosion at the project site due to excavation work, especially during rainy seasons	then finally disposed in a licensed disposal facility by a licensed contractor • Organize and cover material storage areas • Collect and retain all the concrete washout water and solids in leak proof containers. • The construction contractor shall provide portable toilet cabinets on site, to be equipped with an external tank for sewage storage in order to avoid improper disposal of sanitary waste. • Balancing of cut and fill. • Design to prevent soil erosion and maintain slope stability. • Construction in the dry season. • Protection of soil surfaces during construction.				
Water Resources Consumption	• Increase in the water consumption	• The contractor shall ensure that water is used efficiently at the site by raising the awareness of construction staff to avoid irresponsible water usage, hence minimize pressure on the local water resource	Site engineer /contractor	Resident Engineer- PMT	Site supervision	Contractors Costs

Receptor/ EHS Aspect	Impact	Proposed mitigation measures	Responsibility for		Supervision method(s)	Estimated Cost
			Implementation	Supervision		
Energy Consumption	• Consumption of fossil fuels for the construction vehicles and machinery and generators • Fossil fuel consumption has serious environmental implications	• Proper planning of transportation of materials to ensure optimum consumption of fossil fuels (diesel, petrol) • Use machines with high efficiency engines • Adopt a policy of switching off machinery and equipment when not in use (idle mode). • Apply regular maintenance to the machinery • Monitor energy use during construction and set targets for reduction of energy use	Site engineer /contractor	Resident Engineer- PMT	• Site supervision	Contractors costs
Resources Consumption	• Waste generation • Waste of resources • Environmental and Health negative impacts	• Follow raw materials' Materials Safety Data Sheet (MSDS) regarding handling and storing activities. • Raw materials should be segregated, labeled and stored safely.	Site engineer /contractor	Resident Engineer- PMT	• Site supervision	Contractors costs

Receptor/ EHS Aspect	Impact	Proposed mitigation measures	Responsibility for		Supervision method(s)	Estimated Cost
			Implementation	Supervision		
Work force	• Occupational health and safety	• The Contractor shall prepare and adopt an Occupational Health and Safety Plan (OHSP) during the construction phase. • The developed OHSP should be prepared in full compliance with World Bank Group Environmental, Health & Safety Guidelines [35] • The contractual agreement with the contractor/s should include rigid commitments to apply the OHSP that should be prepared in full compliance with the WB EHS requirements. • The minimum elements to be included in the EHS plan are as follows: o General Facility Design and Operation o Communication and Training o Physical Hazards o Chemical Hazards o Biological Hazards o Personal Protective Equipment (PPE)	Contractor	Resident Engineer- PMT	• Periodic reports • Periodic meetings with the community people	Contractor's cost

[35] https://www.ifc.org/wps/wcm/connect/29f5137d-6e17-4660-b1f9-02bf561935e5/Final%2B-%2BGeneral%2BEHS%2BGuidelines.pdf?MOD=AJPERES&CVID=jOWim3p

Receptor/ EHS Aspect	Impact	Proposed mitigation measures	Responsibility for		Supervision method(s)	Estimated Cost
			Implementation	Supervision		
		○ Special Hazard Environments • Monitoring of workers wellbeing, on-site facilities and contractor day use caravans on weekly basis by the OHS staff. (see Annex 9 site inspection checklist) • Availing workers GRM by the contractor or use the Parent' project GRM				
Community	• **Community health and safety**	• Community health and safety guidelines should be followed on the access roads to be used by the sub-project's vehicles. • A traffic management procedure should be developed along project sites to provide the maximum safety to the population and project personnel. • 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 in order to avoid falls of pedestrians during night. Safe access roads also should consider avoiding passing	Contractor	Resident Engineer- PMT	Develop a traffic plan Monitoring report on vehicles	Within contractor cost

Receptor/ EHS Aspect	Impact	Proposed mitigation measures	Responsibility for		Supervision method(s)	Estimated Cost
			Implementation	Supervision		
		under the electricity distribution network. • The contractor should design proper access roads that enable old people, people with disability and children to cross roads safely. • Signage at least (8) should be installed at the subproject site. • Yellow ribbon should be installed to keep children away of the construction site • Presence of code of conduct and train newly recruited workers on the COC during the induction training. Additionally, refreshing training to be carried on bi-weekly to all workers • Carry out information sharing and consultation activities with community about the project potential impacts on monthly basis • Community Grievance Mechanism sensitive to gender is available (during working hours)				
Community	• **Traffic flow**	• Provide information about the roads and traffic that will be closed during construction and the schedule on weekly basis through carrying out meetings with the	Contractor Social development officer	Resident Engineer- PMT	Accidents log and Community grievance mechanism	Contractor's cost

Receptor/ EHS Aspect	Impact	Proposed mitigation measures	Responsibility for		Supervision method(s)	Estimated Cost
			Implementation	Supervision		
		surrounding residents and commercial activities on monthly basis (three meetings to be carried out with residents- females- shops) • Sharing information with the municipality about the alternative routes to be disclosed on the municipality Facebook and to be updated bi-weekly. • Determine the maximum speed within the project site (which should not exceed 15 km per hour) • The contractor should put restrictions to the movement of large vehicles (trucks) to avoid rush hours • Ensure vehicle safety and regular maintenance by the contractor • Availability of GRM to community people and workers by the sub-project social officer and site engineer			Minutes of meetings Facebook disclosed information	
Community	• **Child labor**	• In the contractual agreement, clear definition of child should be inserted. The child should be defined as all persons less than 18 years old.	Contractor	Resident Engineer- PMT	Site investigations Workers log and IDs	Within contractor cost

Receptor/ EHS Aspect	Impact	Proposed mitigation measures	Responsibility for		Supervision method(s)	Estimated Cost
			Implementation	Supervision		
		• Rigid terms should be written in the contractor agreement to prohibit recruitment of children below 18				
Community	• **Cultural heritage**	• All chance find procedures will be applied • All mitigation measures mentioned above will minimize impacts on the mosque (noise-vibration) (Annex 3 of this report includes the chance find procedures)	Site engineer	Resident Engineer- PMT	Reports about antiquities found	Contractors' cost
Community	• **Infrastructure and underground utility**	• Coordination with departments of potable water, electricity, and telecom authorities to obtain maps/ data on underground utilities, whenever available • Collection of most accurate maps for underground utilities and infrastructure routes from Nineveh Governorate and asking for site markings, if available, prior to commencing the works. • Boreholes to locate underground utilities before using mechanical excavation. • In case an underground utility and infrastructure pipe has been damaged, standard procedures should be	Site engineer	Resident Engineer- PMT	Keep records of any infrastructure accidents Review periodic reports about infrastructure accidents	Contractors' cost

Receptor/ EHS Aspect	Impact	Proposed mitigation measures	Responsibility for		Supervision method(s)	Estimated Cost
			Implementation	Supervision		
		followed, in addition to preparing a documentation report for the accident • Availability of GRM.				
Community	• **Temporary labor influx and Gender based violence**	In order to minimize impacts pertaining to labor influx the following should be thoroughly implemented: • Preparation of appropriate code of conduct that stipulates the commitment of labor towards community groups and behaviors that should be avoided • All workers should be trained on the code of conduct upon recruiting them and bi-weekly refreshing training should be applied • Code of conduct to be signed by sub-contractor • Apply the full requirements related to operating the grievance mechanism including anonymous channels • Raising awareness of the local populations about the project commitment towards communities' and the measures taken for that through public consultation and focus group discussions. The activities can be carried out on bi-weekly basis	Site engineer	Resident Engineer- PMT	Site visit Monthly reporting GRM Minutes of meetings with surrounding communities	Contractors' cost

Receptor/ EHS Aspect	Impact	Proposed mitigation measures	Responsibility for		Supervision method(s)	Estimated Cost
			Implementation	Supervision		
		• Apply penalties to workers violating the code of conduct				
Workforce	• Contractor's Camp Site	• Mobilize maximum capacity of skilled and unskilled Labor force from the surrounding project area by: o Sharing information about employment opportunities with the community people, and the municipality on monthly basis o Sharing information about supplies opportunities with the local suppliers on monthly basis • Providing training to local laborers to be fit for their potential jobs (induction training once and specific training on weekly basis) • Establish the camp inside municipality land • Ensure installation of adequate construction camp and sanitation facilities for construction; i.e., construct a holding tank to be used to collect domestic wastewater generated by the camp.	Contractor	Resident Engineer- PMT	Site visit Monthly reporting GRM Meetings with surrounding communities	Contractors' cost

Receptor/ EHS Aspect	Impact	Proposed mitigation measures	Responsibility for		Supervision method(s)	Estimated Cost
			Implementation	Supervision		
		• Follow the waste management best practices and mitigation measures outlined in this ESMP. • Monitor closely the working conditions. • Maintain an efficient grievance mechanism (discussed in the stakeholder engagement chapter). This GRM should be sensitive to gender and assure confidentiality • Specific engagement with women and girls that includes awareness on GBV and access to anonymous channels. The meetings should be carried out monthly basis with at least 5 women and girls • Train workers on the Code of Conduct (induction training – bi weekly refreshing training) and keep close eye on any violation of the COC				

6.3 Environmental and Social Monitoring Plan during Rehabilitation

Table 6-2 Environmental and Social Monitoring Plan during Rehabilitation

Receptor/ EHS Aspect	Impact	Monitoring indicators	Responsibility of monitoring	Frequency of monitoring	Location of monitoring	Methods of monitoring	Estimated Cost of monitoring
Noise	Increased noise and vibration levels	Noise intensity and vibration levels	PMT resident engineer and Mosul municipality	• Twice during the project • Upon receiving a complaint	• Construction site, • Nearest houses • Temporary offices	• Measuring and monitoring noise and vibration levels by a certified laboratory • Safety supervisor shall ensure all workers use the protective equipment • Equipment and trucks maintenance report	Expenses included in the contractor cost
Air Quality	Increased air emissions	• Dust particulates • Gaseous Emissions	PMT resident engineer and Mosul municipality	• Twice during the project (measurement) • During materials delivery, loading and unloading (visual inspection)	• Construction site and surrounding area • Transport route	• Measuring dust and gaseous emissions by certified lab • Visual inspection • Reviewing equipment and trucks maintenance report	Expenses included in the contract cost
Waste Generation and Hazardous Materials	Improper handling and storage of construction waste and domestic waste generated from the construction offices	• Disposal of waste in the designated waste area (WAA) • Cleanliness of the construction site	PMT resident engineer and Mosul municipality	Quarterly Reporting	• WAA • Construction Site	• Inspection and recording of items disposed in the WAA • Inspection of cleanliness of the construction site and the handling process of waste	Expenses included in the contract cost

Receptor/ EHS Aspect	Impact	Monitoring indicators	Responsibility of monitoring	Frequency of monitoring	Location of monitoring	Methods of monitoring	Estimated Cost of monitoring
Soil Contamination and Erosion	• Possibility of accidental spills and leaks from construction equipment and generators • Improper handling of construction and domestic waste • Improper handling and storage of construction material • Increased soil erosion at the project site due to excavation work, especially during rainy seasons	• Soil quality (suspended solids, oil and grease) • Soil surface • Stability of slope • Balanced cut & fill	PMT resident engineer and Mosul municipality	• Twice during the construction and excavation phase • During material delivery • In the event of rainfall	• WAA • Materials storage areas, • Runoff from site wash down areas of equipment • Construction site	• Visual observation • Recording and documenting spillage	Expenses included in the contract cost
Water Resources Consumption	• Increase in water consumption	• Quantity consumed	PMT resident engineer and Mosul municipality	Twice during the construction phase	Construction site	Record and monitor quantities	Expenses included in the contract cost

Receptor/ EHS Aspect	Impact	Monitoring indicators	Responsibility of monitoring	Frequency of monitoring	Location of monitoring	Methods of monitoring	Estimated Cost of monitoring
Resources Consumption	• Waste generation • Waste of resources • Environmental and Health negative impacts	• Availability of MSDS on-site	PMT resident engineer and Mosul municipality	Twice during the construction phase	Construction site	Site inspection and document availability	Expenses included in the contract cost
Energy Consumption	• Consumption of fossil fuels for the construction vehicles, machinery and generators	• Quantity of fossil fuels consumed	PMT resident engineer and Mosul municipality	Twice during the construction phase	Construction site	Record and monitor quantities	Expenses included in the contract cost

Receptor/ EHS Aspect	Impact	Monitoring indicators	Responsibility of monitoring	Frequency of monitoring	Location of monitoring	Methods of monitoring	Estimated Cost of monitoring
Work force	• Occupational health and safety	• An occupational health and safety should be available and fully functioning • The contract signed with the contractor includes rigid commitment with WB EHS requirements. • Availability of accident and incident logs • Monitoring visits of workers, on site facilities and construction day use camp • Regular inspection of workers against pathogenic agents and provision of immunization when needed	PMT resident engineer and Mosul municipality	Once a month	Site visit and office work	Monthly reports and grievance log	Sub-project owner's management costs
Community	• Community health and safety	• Availability of community health and safety guidelines • Availability of traffic procedures • Safe access is available to children, old people and people with disability	PMT resident engineer and Mosul municipality	Once a month	Site visit and office work	Monthly reports and grievance log	Sub-project owner's management costs

Receptor/ EHS Aspect	Impact	Monitoring indicators	Responsibility of monitoring	Frequency of monitoring	Location of monitoring	Methods of monitoring	Estimated Cost of monitoring
Community	• Traffic flow	• Minutes of consultation activities • Project information documents shared with the community people on monthly basis (about 100 leaflet) • Signs reflecting speed limit within project site • Sheets reflecting the time of moving vehicles to avoid rush hours • Regular maintenance and inspections sheets • Comments and notifications from Traffic Department • Complaints raised by community people	PMT resident engineer and Mosul municipality	Once a month	Site visit and office work	Monthly reports and grievance log	• Sub-project owner's management costs
Community	• Child labor	• The monitoring of child labor will be intensively presented in the OHS manual to be implemented during construction phase • Check the IDs of workers	PMT resident engineer and Mosul municipality	Once a month	Site visit and office work	Monthly reports and grievance log	Sub-project owner's management costs

Receptor/ EHS Aspect	Impact	Monitoring indicators	Responsibility of monitoring	Frequency of monitoring	Location of monitoring	Methods of monitoring	Estimated Cost of monitoring
Community	• Cultural heritage	• Review documentation of chance find procedures	PMT resident engineer and Mosul municipality	Upon finding any cultural heritage	Site visit and office work	Monthly reports	Sub-project owner's management costs
Community	• Infrastructure and underground utility	• Documentation of affected infrastructure and corrective procedures taken • Coordination activities minutes of meetings • Boreholes investigation reports • Incidents reports related to damaging infrastructure and rehabilitation • Complaints raised related to infrastructure damage	PMT resident engineer and Mosul municipality	On quarterly basis	Site visit and office work	Periodic reports and grievance log	Sub-project owner's management costs

Receptor/ EHS Aspect	Impact	Monitoring indicators	Responsibility of monitoring	Frequency of monitoring	Location of monitoring	Methods of monitoring	Estimated Cost of monitoring
Community	• Temporary labor influx	• Comprehensive code of conduct is available. • Training minutes of meeting of CoC trainings including names of participants • Availability of signed CoC by the sub-contractor • Frequency of CoC each two weeks • Complaints raised due to labor influx • Corrective measures adopted • Disciplinary actions taken against workers who violate the code of conduct	PMT resident engineer and Mosul municipality	On quarterly basis	Site visit and office work	Periodic reports and grievance log	Sub-project owner's management costs

Receptor/ EHS Aspect	Impact	Monitoring indicators	Responsibility of monitoring	Frequency of monitoring	Location of monitoring	Methods of monitoring	Estimated Cost of monitoring
Contractor's Camp Site	• Management of contractor's camp site	- Locally recruited workers number - Quality of construction camp and available services e.g., toilet, water source, light …etc. are listed in the site inspection checklist (**Annex 2**) - Adherence to waste management - Worker/community incidents of traffic and GBV incidents - Number of complaints raised about GBV and traffic - Proper onsite facility are available • Trainings provided about the Code of Conduct	PMT resident engineer from the municipality	On quarterly basis	Reconstruction Site in areas of medium to high activity.	- Lists of recruited workers by their residency - Site visits to the contractor's camp and onsite facilities - A site inspection checklist - Periodic reports - Grievance log - Lists of trained workers	PMT management costs

6.4 Environmental and Social Management Plan during Operation Phase

Table 6-3 Environmental and Social Management Plan during Operation Phase

Receptor/ EHS Aspect	Impact	Proposed mitigation measures	Responsibility for		Supervision method(s)	Estimated Cost
			Implementation	Supervision		
Noise	Noise & vibrations to local community and workers during maintenance and repair	• Provide ear muffs to construction workers located near noisy machines • Coordinate and inform residents at the nearby sensitive receptors about the peak time and hours for construction activities. • Limit maintenance activities to daytime (not between 8 p.m. and 7 a.m., or as agreed with public and authorities) • Adopt a policy of switching off machinery and equipment when not in use	Mosul municipality	Mosul municipality	Site supervision	Operation costs
	Increased traffic after rehabilitation, elevates noise and vibration level	• Setting time restriction for trucks • Generally, smooth, well-maintained surfaces such as freshly laid asphalt without grooves and	Mosul municipality	Mosul municipality	Site supervision	Operation costs

Receptor/ EHS Aspect	Impact	Proposed mitigation measures	Responsibility for		Supervision method(s)	Estimated Cost
			Implementation	Supervision		
		cracks will keep noise to a minimum. • Applying a bituminous surface layer over concrete roadways when they get worn over time, is effective in reducing frictional noise[36]. • Setting speed limits				
Waste Generation and Hazardous Materials	Wastes (hazardous & non-hazardous) are generated during the operation phase resulting from maintenance, repair and replacement activities	• Temporary disposal of waste in the designated waste area on-site • After the work is done, dispose all the waste in the nearest landfill by a licensed contractor • Proper handling of lubricants, fuel and solvents and provide secured storage • Keep hazardous waste in marked leak proof containers and temporarily dispose in a secured area for	• Mosul municipality	• Mosul municipality	• Review local authority approvals • Site supervision	• Operation costs

[36] http://siteresources.worldbank.org/INTTRANSPORT/Resources/336291-1107880869673/chap_16.pdf

Receptor/ EHS Aspect	Impact	Proposed mitigation measures	Responsibility for		Supervision method(s)	Estimated Cost
			Implementation	Supervision		
		hazardous waste on site • Collect all Hazardous waste and dispose in a licensed waste recovery facility by a licensed contractor				
Work force	Occupational health and safety	The sub-project owner will adhere to above mentioned occupational health and safety requirements as follows: • Maintain site security and safety. • Organization of work shifts and movement of trucks. • Develop occupational health and safety plan. • Develop emergency plans.	Mosul municipality	Mosul municipality	• Incidents and accidents reports • Site visit reports	Operation cost
Community	• Community health and safety	• Follow the mitigation measures mentioned earlier	• Mosul municipality	• Mosul municipality	• Incidents and accidents reports • Site visit reports	Operation cost

Receptor/ EHS Aspect	Impact	Proposed mitigation measures	Responsibility for		Supervision method(s)	Estimated Cost
			Implementation	Supervision		
		• Provide a complaint mechanism for the community. • Conduct periodic community meetings to observe any concerns they may have. Community meetings to be carried on monthly basis (at least three meetings monthly) • Conduct periodic meetings with the Environmental Authority to monitor the quality of reducing the impacts of dust at least once a month.				
Community	• **Risk of damaging pipes by the community people**	• Share information about the pipelines installed on quarterly basis with residents, shops and religious entities • Put penalties on community people	• Mosul municipality	• Mosul municipality	• Incidents report • Site visit reports	Operation cost

Receptor/ EHS Aspect	Impact	Proposed mitigation measures	Responsibility for		Supervision method(s)	Estimated Cost
			Implementation	Supervision		
		who damage pipelines • Enable GRM for community people (during working hours)				

6.5 Environmental and Social Monitoring Plan during Operation Phase

Table 6-4 Environmental and Social Monitoring Plan during Operation Phase

Receptor	Impact	Monitoring indicators	Responsibility of monitoring	Frequency of monitoring	Location of monitoring	Methods of monitoring	Estimated Cost of monitoring
Noise	• Noise & vibrations to local community and workers during maintenance and repair • Elevated noise and vibration levels due to increased traffic during rehabilitation	Noise intensity	Mosul Municipality	• During maintenance • Annual	Sensitive receptors and nearby houses in the project areas	Measuring and monitoring noise and vibration levels by a certified laboratory	Operation cost
Waste Generation & Hazardous Materials	• Wastes (hazardous & non-hazardous) are generated during the operation phase resulting from maintenance, repair and replacement activities	• Disposal of waste in the designated temporary waste area on-site and final disposal in the nearest landfill by a licensed contractor • Cleanliness of the project area	• Mosul Municipality	• During maintenance	Project Areas	Site supervision	Operation cost

Receptor	Impact	Monitoring indicators	Responsibility of monitoring	Frequency of monitoring	Location of monitoring	Methods of monitoring	Estimated Cost of monitoring
Work force	• Occupational health and safety	• Regular reporting of any accidents, as well as records and reports on health, safety and welfare of workers • Continuous monitoring of all hazardous events. • Regular inspection of workers against pathogenic agents and provision of immunization when needed	• Mosul • Municipality	• Bi-annual report	Site visit and office work	Biannual report and GRM	• Operation cost

Receptor	Impact	Monitoring indicators	Responsibility of monitoring	Frequency of monitoring	Location of monitoring	Methods of monitoring	Estimated Cost of monitoring
Community	• Community Health and Safety	• This monitoring should be undertaken by a specialized expert on quarterly basis. • Documentation and log of a complaint mechanism for the community. • Documentation of periodic community meetings to observe any concerns they may have.	• Selected locations where developed areas are closest to transmission lines	• Quarterly, or as required	• Project site	• Site inspection and desk review	• No cost

Receptor	Impact	Monitoring indicators	Responsibility of monitoring	Frequency of monitoring	Location of monitoring	Methods of monitoring	Estimated Cost of monitoring
Community	• **Risk of damaging pipes by the community people**	• Incident of damaging pipelines • Penalties occurred (segregated by location) • Information shared with the community • Grievances raised by other community and related to damaging the pipes	• Selected locations where pipes were broken	• Quarterly, or as required	• Project site	• Site inspection and desk review • GRM log • Minutes of meetings • Penalties receipts	• Operation cost

6.6 Institutional Framework

6.6.1 Environmental Management Structures

Roles and responsibilities of the ESMP are divided between the two entities below:

- The first entity is HSE unit at the Municipality of El Mosul City which is the central level of the supervisory body for the Rehabilitation Works.
- The second entity is the Contractor who is responsible for full implementation of mitigation measures in full cooperation with the regional Ministry of Environment (MoE) and Municipality staff.

Structure organization mandates define who will be the responsible body for monitoring and management of various impacts.

6.6.2 Roles and responsibilities of ReFAATO

ReFAATO is responsible for designing and operationalizing the Environmental and Social safeguards frameworks (ESMF) during the Parent project preparation phase. Thereafter, ReFAATO will be responsible for monitoring the implementation of E&S safeguards policies requirements. The ESMF shed light on ReFAATO detailed responsibilities. Below is a summary of ReFAATO responsibilities:

Table 6-5 ReFAATO Roles and Responsibilities

Responsibility	Description
Monitoring	• Monitor safeguard polices and technical aspects of the E&S as required by the WB • Periodic monitoring visits and oversight of the PMT and contractors' performance related to E&S aspects
Report preparation	• Prepare adequate and fit for purposes templates and mechanisms that verify level of commitment with the safeguard polices implementation • Prepare the quarterly reports to be shared with the WB
Capacity building	• Make sure that the PMTs personnel are well equipped and qualified to perform their roles and responsibilities • Provide technical assistance to the PMTs on E&S safeguards (if needed) • Develop, organize and deliver environmental training programs and workshops for the staff of PMTs, and contractors; • Develop programs to build the capacity in the PMTs to enhance their environmental and social management and monitoring understanding and practices.

Coordination/ consultation and information sharing	• Coordinate closely with the PMTs and develop a contact list that can be shared with various entities (if needed) • Hold regular review meetings with the environmental focal points of the PMTs; • Secure sufficient information to community people and enable them to actively participate in the process of planning and monitoring of project activities • Maintain active communication channels that enable community people to report their complaints and give their feedback • Provide guidelines on community participation in environmental and social monitoring to the PMTs.
Documentation	• Maintain full documentation of all reports submitted to the WB

6.6.3 Roles and responsibilities of Project Coordination Unit (PCU) under ReFAATO

- Coordinate with all ministries and stakeholders.
- Consolidate and disseminate all reports from the PMTs and reflect the work progress to higher officials.
- Coordinate all monitoring and assume responsibility for internal and external independent evaluations.
- Coordinate the citizen's engagement program.
- Coordinate the communications and sensitization program.
- Coordinate training activities and capacity building programs.
- Ensure compliance with all legal obligations and instruments.
- Participate in Bank support missions.

6.6.4 Roles and responsibilities of Project Management Teams (PMTs) and contractor

The PMTs will be directly responsible for planning, coordinating, monitoring, and evaluation of all activities including consultant selection, reporting, procurement and auditing, and payment authorization.

The PMTs in this subproject will be responsible for adopting the following procedures:

6.6.4.1 Compliance with World Bank safeguards

1. Preparing internal guidelines for the preparation, implementation, monitoring and reporting of environmental and social documents required by various safeguard instruments;
2. Reviewing, as applicable, ESMP and other safeguard documents prepared by consultants to ensure compliance with relevant safeguard policies of the National and the World Bank;
3. Providing recommendations to MoE management and other contractors accordingly and make necessary changes prior to submission of relevant

documents to the World Bank – ensure consistency in the level of proficiency and presentation of the documentation;
4. Carrying out documentation review pertaining to environmental and social compliance (including bidding documents, reviews on-site, reports from contractors etc.) throughout project implementation;
5. Coordinating and facilitating the work of consultants engaged to carry out environmental and social impact assessments and resettlement planning and external monitoring of safeguard instruments implementation;
6. Accidents resulting in fatalities should be immediately reported to ReFAATO and the WB within 48 hours.

6.6.4.2 Monitoring and reporting

1. Conducting internal monitoring of the implementation of the environmental and social component of the ESMP in matters pertaining to timely payments and the provision of temporary measures to affected persons;
2. Contributing to project progress reports pertaining to overall implementation of environmental and social requirements of the project.

6.6.4.3 Communication with and responsiveness to targeted communities

1. Adhere to the designed community friendly grievance redress mechanism with clear and timely bound tiers and responsibilities and ensure dissemination on the local level. Develop quarterly grievance and redress report to be shared with MoE and the Municipality of Al Mosul City.
2. Conducting field visits to ensure that the established grievance redress mechanisms are functioning properly and that the individual projects are implemented in a socially sustainable manner;
3. Participate in the process of disbursing compensations and keep track record of the compensation process documentation if exists.
4. Reach out to local communities, including PAPs if exists, to raise awareness about the project and the implementation schedule.
5. Build the capacity and provide support to the field staff as needed.

6.6.5 Roles and responsibilities of the Contractor's Environmental Health and Safety (EHS) Officers

The Contractor who is responsible for full implementation of mitigation measures in full cooperation with the regional MoE and Municipality staff. The Contractor's mandates are as follows:

1. Ensure that workers comply to EHS manuals and procedures
2. Management of wastes generated
3. Management of liquid waste
4. Checking that handling of hazardous waste is done according to the requirements of the Environmental Law
5. Other tasks as outlined in ESMMP
6. Daily reports are to be compiled and sent to the governorate EHS officers for preparation of monthly summary reports.

Monthly reports are sent to EHS officer at MoE and the municipality of Al Mosul for compilation into quarterly reports.

6.6.6 Reporting

Reporting process will be implemented as follows:

1. **Reporting by ReFAATO to the WB:** Quarterly reports will be submitted to the WB. The main elements of these reports are:
    - Project implementation updates
    - Environmental & social risks and safeguards
    - Grievance and how they were managed
2. **Reporting by PMTs to ReFAATO:** PMTs are the implementing agencies. They have direct contacts with the site engineers and contractors. They will provide on a quarterly basis the same above-mentioned elements.
3. **Reporting by Contractors/ site engineers to PMTs:** The contractors and site engineers maintain close eye on all project activities. Therefore, they will report to the PMTs on monthly basis. The contractors and site engineers' monthly performance report will include, environmental, social, occupational health and safety issues and the grievances received segregated by topic/ issue and how they were solved. Any support documents will be included as Annexes.

6.6.7 Required Actions

- Involvement of environmental and social officers during the design, costing, tendering, and construction phases would be advantageous (accomplished and the ToR is in place;
- Specifically, contractor should take steps to develop capacity of site engineers and HSE officers with specific courses focused on implementation of the ESMP detailed in this ESMP report.

6.6.8 Required Resources

The Mosul City municipality have relatively limited capacity to implement the environmental and social commitments and ESMP developed in full compliance with the WB requirements. However, the PMT received an intensive training and capacity building by EcoConServ Environmental Solutions by the end of 2020. All training materials were recorded as Video and shared with the PMT. Accordingly, the PMT can share the training materials and work for raising the capacity of Mosul municipality staff in terms of the topics below.

Table 6-6 Recommended training courses for designated staff and resident engineer

Training course	Type of training	Participating parties	Proposed Scheduling	Budget in US$
Environmental Management and monitoring for the project	Class room + on the job training	▪ Selected members from the designated staff ▪ Resident engineer	Prior to project implementation	500 US$

Training course	Type of training	Participating parties	Proposed Scheduling	Budget in US$
Occupational health and safety	Classroom + on the job training	▪ Selected members from the designated staff ▪ Resident engineer	Prior to project implementation	750 US$
Gender based Violence	One day workshop	▪ Contractor's Social Development Officers and ▪ Selected members from the designated EHS staff	- One workshop in the beginning of the project implementation	300 US$
Defensive driving and machinery operation safety	Classroom + on the job training	Drivers and operators	Periodical	Part of the OHS training
Monitoring & evaluation (activities and tools)	Classroom + on the job training	▪ Selected members from the designated staff ▪ Resident engineer	Prior to project implementation	800 US$
Community health and safety	Classroom + on the job training	▪ Selected members from the designated staff ▪ Resident engineer	- One workshop in the beginning of the project implementation	The cost is included below

Table 6-7 Recommended training courses for social staff

Training course	Type of training	Participating Parties	Proposed Scheduling	Budget US$
Stakeholder Engagement	Two-day Workshop + on the job training	Contractor's Social Development Officers and selected members from the designated staff	- One workshop in the beginning of the project implementation	300 US$
Community health and safety	One-day Workshop + on the job training	Contractor's Social Development Officers and selected members from the designated staff	- One workshop in the beginning of the project implementation	300 US$
WB operational policies with emphasis on handling grievances	One-day Workshop + on the job training	Contractor's Social Development Officers and selected members from the designated staff	- One workshop in the beginning of the project implementation	300 US$

Training course	Type of training	Participating Parties	Proposed Scheduling	Budget US$
Communication Skills with emphasis on being sensitive cultural practices and including the participation of women	Two-day Workshop + on the job training	Contractor's Social Development Officers and selected members from the designated staff	- One workshop in the beginning of the project implementation	300 US$
Promotion of Awareness Raising Activities	Workshop + on the job training	Contractor's Social Development Officers and selected members from the designated staff	- Once prior to project implementation - Refreshment course during the implementation of the project	300 US$
Community Participation Tools	One-day Workshop + on the job training	Contractor's Social Development Officers and selected members from the designated staff	- One workshop in the beginning of the project implementation	300 US$
Monitoring and Evaluation mechanisms (M&E)	Two-day Workshop + on the job training	Contractor's Social Development Officers and selected members from the designated staff	- One workshop in the beginning of the project implementation	300 US$
Gender based Violence	One day workshop	Contractor's Social Development Officers and selected members from the designated staff	- One workshop in the beginning of the project implementation	300 US$
Cultural heritage	Half day workshop	Contractor's Social Development Officers and selected members from the designated staff	- One workshop in the beginning of the project implementation	150 US$
Labor and working conditions **Community and workers grievance mechanism**	One day workshop	Contractor's Social Development Officers and selected members from the designated staff	- One workshop in the beginning of the project implementation	300 US$
Labor influx and child labor	One day workshop	Contractor's Social Development Officers and selected members from the designated staff	- One workshop in the beginning of the project implementation	300 US$

6.6.9 Summary of the Tentative Budget Required to Implement the ESMP

The table below reflects all additional cost required to implement the ESMP and not included in the contractor cost or in the management cost.

Table 6-8 Tentative Budget Required to Implement the ESMP

Management/ monitoring	Item	Unit cost in US$	Total cost in US$
Sub-item for the pre-construction and reconstruction phase			
Management of GRM	Printed posters and complaint form: Posters 10 Complaint forms 1000	Poster 10 US$ Complaint form 0.5 US$	600 US$
Sub-item for operation phase			
Management of GRM	Printed posters and complaint form: Posters 10 Complaint forms 1000	Poster 10 US$ Complaint form 0.5 US$	600 US$
Management of Solid & Hazardous waste	Dump truck (2ton) trip to dispose collected waste	$500 per dump truck (2 ton) trip	$500 per dump truck (2 ton) trip
Groundwater	Testing the drinking water quality (One Sample)	300-500$/water sample (Rough Estimate)	300-500$/water sample (Rough Estimate)
Sub-item (3) Capacity building (Training of Trainers)			
Environmental trainings	Different items and costs see table 6.3		2,350
Social training	Different items and costs see table 6.4		2,800

The above-mentioned budget does not include transportation and per-diem of the monitoring staff.

7. PUBLIC CONSULTATION AND PARTICIPATION

7.1 Introduction

The Stakeholder Engagement chapter aims at highlighting the key consultation and community engagement activities and their outcomes. Additionally, outlining the validity and reliability of the data collected. The stakeholder engagement activities were conducted with reference to WB ESS10: Stakeholder Engagement and Information Disclosure.[37]

In summary, the following objectives of stakeholder engagement is applicable to the project:

- Identification of project stakeholder groups, including members of the public who could be affected (directly or indirectly) by the project's construction and operation activities.
- Stakeholder engagement process; timely and ongoing provision of information to stakeholders on the E&S issues that could potentially affect them.
- Meaningful consultation and disclosure to be based on the disclosure of information of relevant project activities and undertaken in a manner that is inclusive and culturally appropriate for all stakeholders.
- Grievance Redress Mechanism by which the general public and other stakeholders can raise concerns, which the Company will handle in a prompt and consistent manner.

Accordingly, consultation activities with stakeholders were undertaken in order to fulfil the requirements of WB regulations. The subsequent subsection elaborates on how these stakeholders were identified.

7.2 Stakeholder Identification

This may include individuals, businesses, communities, local government authorities, local nongovernmental, other institutions, and other interested of affected parties". The identification of relevant stakeholders to the project considered two factors, namely the geographical proximity of the potential stakeholders to the project area, and the level of influence on/by the project, to include specific groups of stakeholders depending on several levels, to achieve the objectives of the ESMP. A list of identified stakeholders is included in Annex 4 of this report.

Therefore, the first step in the process of stakeholder engagement is stakeholder identification; that is determining who the project stakeholders are, and how they should be grouped. Most importantly, identifying stakeholder representatives is key to carrying out consultations seamlessly. These representatives do not only provide the sub-project with their valuable information, but they also serve as a communication channel to disseminate information to large numbers of stakeholders and receive information from them.

7.3 Consultation Methodology and Activities

The Consultant carried out stakeholder engagement activities in September 2021, through the following methods: carrying out one to one interview with community members surrounding the project area, as well as conducting Focus Group Discussions (FGDs). The diversity of community representation was considered.

The consultant tried to have representation of various stakeholders e.g., community members, governmental members, school staff who work at the project area of influence Al Kafa'at sub-district neighborhood, traders, community elders and women. It was relatively difficult to engage

[37] http://pubdocs.worldbank.org/en/837721522762050108/Environmental-and-Social-Framework.pdf

women; therefore, a female social consultant gets in contact with women residing in the project area of influence.

Additionally, given the wide coverage of Facebook in Iraq, information was disclosed on four Facebook pages.

Table 7-1 Summary of the consultation activities that were conducted in the project area

Stakeholders	Number		Method	Place of consultation	Date
	M	F			
Assistant Governor of Nineveh for Reconstruction Affairs and PMT staff	3		Meeting	Nineveh Governorate Office- Mosul City	13th of September 21
Supermarket owner and community members	5		Meeting	Al Kafa'at neighborhood	12th of September 21
Women (Teacher – housewife)		2	Meeting	Al Kafa'at neighborhood	12th of September 21
Male residents (employee + students)	4		Meeting	Al Kafa'at neighborhood	12th of September 21
School staff (school principal + workers+ genitor)		5	Meeting	A meeting with the administration of Al-Asma'i Intermediate School for Girls Al Kafa'at neighborhood	12th of September 21
Community residents (Supermarket owner- fruit shop- employee- pension- internet office services owner)	8		FGD	Al Kafa'at neighborhood	12th of September 21
NGO staff	3	1		Justice Center to Support Marginalized Groups in Iraq (NGO office)	12th of September 21

<table>
<tr><th rowspan="2">Stakeholders</th><th colspan="2">Number</th><th rowspan="2">Method</th><th rowspan="2">Place of consultation</th><th rowspan="2">Date</th></tr>
<tr><th>M</th><th>F</th></tr>
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Mosul Municipality News Center - Mosul Municipality Directorate</td><td>121,000</td></tr>
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<tr><td>Total followers</td><td></td><td>720,964</td></tr>
</table></td></tr>
<tr><td>Total excluding Facebook</td><td>23</td><td>8</td><td colspan="3"></td></tr>
</table>

7.3.1 First Round of Consultation Summary (Governmental Unit):

The first level of consultation started with the Nineveh Governorate Office- Mosul City (Assistant Governor of Nineveh for Reconstruction Affairs and the PMT staff). A meeting was carried out with them in order to collect information about the current status of the streets that will be rehabilitated by the sub-project and the potential benefits of it.

Additionally, a Project Information Document was shared with **Four Facebook sites that are followed by 720,964 followers in order to put limitation to face-to-face meetings** as recommended by the Practical Tools for Virtual Engagement during COVID-19 – **Annex 7 of this report.**

Figure 7-1 Meeting with Assistant Governor of Nineveh for Reconstruction Affairs

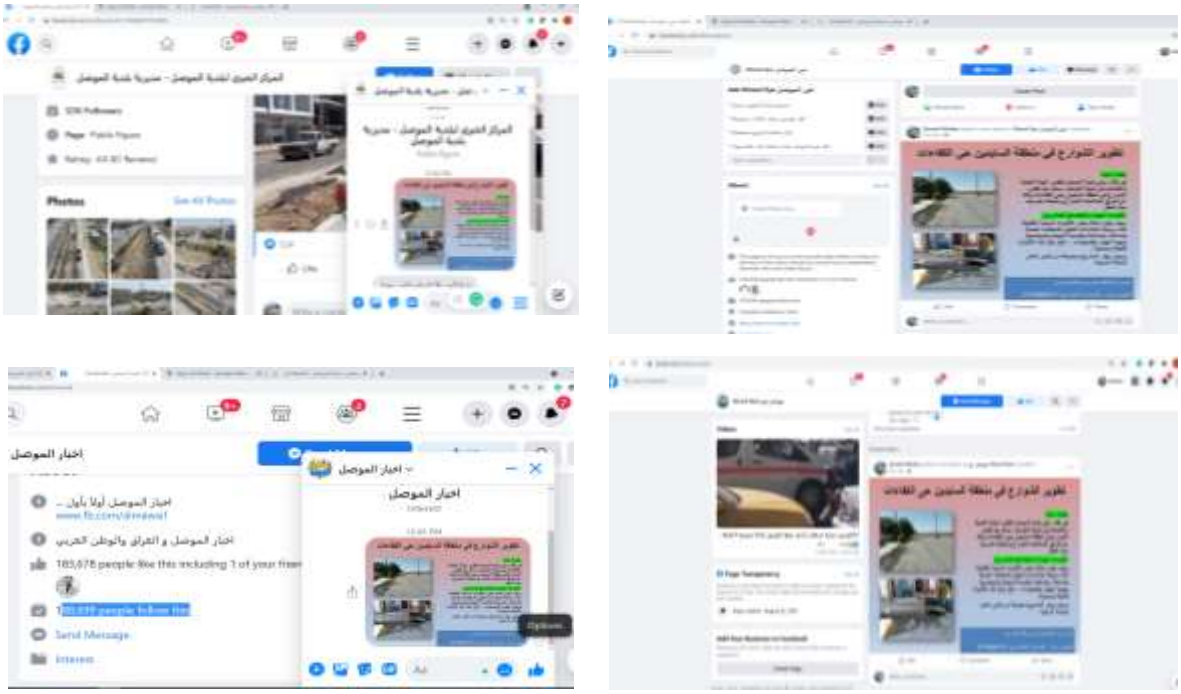


Figure 7-2 Disclosed information on Facebook

The information below was shared by the sub-project owner:

- Project benefits to community people.
- Potential drawbacks during construction.
- Grievance mechanism adopted by the PMT and the sub-project.
- The responsible person for managing complaints.
- Access roads during construction phase

7.3.2 Second round of consultations

The second consultation activities were conducted at project sites with residents of the area of influence, teachers and students of schools located at the streets to be rehabilitated, supermarkets owners and customers, and women. The main information shared about the project was:

- Project description
- GRM contact person
- Benefits of the project
- Potential impacts during construction including labor influx and gender-based violence

Figure 7-3 Supermarket owner and community members

Figure 7-4 Meeting with a woman

Figure 7-5 Meeting with community residents

Figure 7-6 Meeting with male and female residents (teacher- pension)

Figure 7-7 Meeting with community people at a market

Figure 7-8 Meeting with a customer at a shop

Figure 7-9 Meeting with NGO male and female staff

Figure 7-10 School principal

The following table presents all stakeholder engagement activities conducted by the Consultant and the key outcomes obtained.

Table 7-2 Key comments and concerns raised during the consultations per each stakeholder

Issue raised	Raised by	Key questions, concerns and feedback raised	Response	Reflection of Comment in Report
Impacts of military attacks at the project area	Assistant Governor of Nineveh for Reconstruction Affairs	The damage from the military operations that occurred on the right side of the city of Mosul is severer than the left side. There is great progress in reconstruction efforts and work is ongoing to restore all services to the city as a whole.	The sub-project objective is to restore the conditions of the areas.	Added in the social baseline section
Current street conditions that affect mobility and economic activities	Assistant Governor of Nineveh for Reconstruction Affairs	The neighborhoods that suffer from the accumulation of water and its impact on the buildings and the mobility of residents, especially in the winter season. The terrain plays a role in creating swamps and pools of water that turn into sewage water that harms the environment and the health of citizens as well as economic activity.	The sub-project will work for the enhancement of street conditions.	Added in the social baseline section
Grievance and redress mechanism	Assistant Governor of Nineveh for Reconstruction Affairs	The governorate follows a complaints mechanism that is flexible and has multiple communication channels. The PMT has prepared a special form for all projects funded by the World Bank. They receive complaints either through a complaints box located in front of the resident engineer department, or the complainant attends in person and submits his/ her complaint directly to the concerned employee. Phone calls are acceptable channel of complaints. The contact e numbers are installed on the project identification board (the resident engineer's phone and the social official's phone).	The grievance mechanism is important to community members. Accordingly, section 7.3.4 presents various GRM applicable to the sub-project. The GRM includes an important element which is the confidentiality of aggrieved person.	Added in section 7.3.4

Issue raised	Raised by	Key questions, concerns and feedback raised	Response	Reflection of Comment in Report
		This mechanism has proven its effectiveness in the projects that were previously implemented, as the PMT received many complaints through different channels, and they were responded to according to the type of complaint.		
Sub-project benefits during construction and operation phases	Assistant Governor of Nineveh for Reconstruction Affairs	The sub-project will provide job opportunities during construction phase for some of the people of the area in which the project is being implemented at, as well as reviving of the local market, consequently, it will be reflected in the income of some families. Additionally, the sub-project will remove debris from the streets. During operation period, the sub-project will ensure a clean environment for living and ease of movement within the neighborhood streets, which will attract more families to settle in these neighborhoods, especially the right-side neighborhoods. As a result, the value of property and the number of buildings will increase, and in return, the demand for manpower in the region will increase, and this will lead to an increase in labor wages to levels that guarantee an improvement in the standard of living for families. Based on previous experience with implemented previous projects, the value of land and real estate increased by 25%.	All sub-project benefits are presented in the impact section.	Added in sections 5.1 and 5.2
Traffic flow and access to houses	Assistant Governor of Nineveh for	The construction activities will be carried out in segments to ensure a smooth flow of traffic.	The construction activities were presented in the project description section.	Added in section 3

Issue raised	Raised by	Key questions, concerns and feedback raised	Response	Reflection of Comment in Report
	Reconstruction Affairs			
Street safety and poor conditions	Supermarket owner and community members	The street is not safe during the rainy period due to the accumulation of water in it and the effect of the topography of the land. The street has many deficits and damages. Accumulated water on the sidewalk causes a lot of problems to pedestrians and the surrounding area, which is not a healthy issue. The central garden of the street needs to be organized to increase the aesthetics and cleanliness of the area. The street also needs to re-design it, particularly, in the U-turns. A roundabout should be added at the end of the street to ensure safe and orderly traffic.	This feedback is important and added to the social baseline.	Added in section 4.2
Necessity to avoid underground utilities	Supermarket owner and community members	There are water pipes under the street level. The participants expressed their willingness not to affect such pipelines when digging.	Such recommendation is important and will be considered	Added in section 6
Traffic flow during construction phase	Supermarket owner and community members	The participants hope that the work will not lead to blocking the road, and they also hope that the concrete barriers that the security authorities set up at the beginning of the street and closed half of the road will be removed.	This recommendation is important and will be taken into consideration	Added in section 6

Issue raised	Raised by	Key questions, concerns and feedback raised	Response	Reflection of Comment in Report
Rain water accumulation and difficulty to dispose or dry it.	Female teacher and a pensioner	The rainwater drainage network is very important because of people suffering from rainwater gathering in the winter, as water flows from the higher lands and accumulated in the lower lands. There is no drainage for it, so the water remains until it evaporates and dries up.	This feedback is important and added to the social baseline.	Added in section 4.2
Necessity to complete work prior to winter season	Female teacher and a pensioner	The participants hope to complete the work as quickly as possible, especially as they are approaching the winter season.	This feedback will be raised to the municipality and included in the consultation summary.	Added in section 7
Children suffering from accumulated water in the streets	Female teacher and a pensioner	Children suffer from water pooling when they go to school, as they often get wet, as they have to walk in the water to cross to the other side, or they are exposed to water splashes due to passing cars.	This feedback is important and added to the social baseline.	Added in section 4.2
Random street excavation and pipe laying by community people	Community residents	Consulted groups expressed their concern that people would continue digging the street after it is rehabilitated, and emphasized on the need to put in place mechanisms to deter people from randomly laying water pipes from one side to the other, which would cause lags and damage to the road.	This concern is valid and important. Accordingly, this report should shed light on this aspect in both impacts	Added in section 5.4.4.1 and section 6 (impacts and mitigation measures during the operation phase)

Issue raised	Raised by	Key questions, concerns and feedback raised	Response	Reflection of Comment in Report
Necessity of coordination and collaboration with other departments (e.g., water department)	Community residents	The participants stressed on the need to coordinate with other departments, especially the Water Department, to ensure that the drinking water network is not damaged during excavations.	Coordination with various governmental units is essential.	Added in section 6
Considering street slope	Community residents and Justice Center to Support Marginalized Groups in Iraq	Street slopes and water drainage pipes should be considered during design phase in order to ensure that no water ponding occur in the middle of the road in the future.	This recommendation is of high importance and will be considered during design phase	Added in section 5
Road safety and probability of accidents	Justice Center to Support Marginalized Groups in Iraq	Streets in the vicinity areas are not properly designed. Accordingly, many accidents took place. Community people might face accidents on the road.	Road safety should be considered during the design phase	Added in section 5
Street problems faced by female students	School principal	The most important problems are the accumulation of water during the rainy season, as it sometimes forms bad odors. Also, due to the lack of a network to drain rain water and the nature of the undulating area, the water flow is fast and strong in the time of rain. Female students arrive at school with their clothes wet from the water in the street	This comment is important and added to social baseline	Added in section 4.2

7.3.3 Grievance Redressal Mechanism (GRM)

The **Emergency Operation for Development Project** (EODP) has developed a comprehensive Grievance and Redress Mechanism that is applicable to all the sub-projects. However, there are other grievance system that are adopted by the municipality. Therefore, it is essential to present the EODP GRM and other grievances mechanism adopted and propose a mechanism for coordination and cooperation among all systems.

7.3.3.1 GRM objectives

The objective of a grievance procedure is to ensure that all comments and complaints from any project stakeholder are considered and addressed in an appropriate and timely manner. The effective grievance management can help in:

- Identification, channeling and impartial, timely and effective resolution of issues related to the implementation of **Emergency Operation for Development Project** (EODP) and its additional fund;
- Strengthening accountability and responsiveness towards beneficiaries, affected persons and the public regarding EODP and EODP AF implementation; and
- Serving as an important feedback and management mechanism for the PCU and PMTs to deduce challenges and risks for EODP implementation.

7.3.3.2 Current GRM adopted by the Mosul municipality

The Sub-project adopts a grievance mechanism. It can be summarized as follows:

Table 7-3 Current GRM adopted by the Mosul municipality

Aspect	During construction		During operation	
	EODP	Municipality	EODP	Municipality
Communication channels	The complaint mechanism is adopted and implemented by: • The resident engineer • **The social officer of the PMT (Mr. Yaser 07714221722)**	- Facebook of Mosul municipality - Face to face meeting	The complaint mechanism is adopted and implemented by: • The resident engineer • **The social officer of the PMT (Mr. Yaser 07714221722)**	- Facebook of Mosul municipality - Face to face meeting
Registration	All complaints are registered and sent to the social officer for documentation	A designated officer is assigned to manage the complaints	All complaints are registered and sent to the social officer for documentation	A designated officer is assigned to manage the complaints

Aspect	During construction		During operation	
Feedback to the complaints	The aggrieved person is met and the complaint is discussed with him/her. Clear time interval is in place.	Face to face meeting	The aggrieved person is met and the complaint is discussed with him/her. Clear time interval is in place.	Face to face meeting
Procedure for appeal	If the aggrieved person is not satisfied with the solution provided, s/he has the option to go to court.	It is allowed to raise the complaint to court	If the aggrieved person is not satisfied with the solution provided, s/he has the option to go to court.	It is allowed to raise the complaint to court
Confidentiality	Anonymous complaints are accepted.	No evidence of assuring confidentiality SEA/SH related complaints are sent to the interested entity by a female employee (if needed) Complaints submitted by women are taken with seriousness	Anonymous complaints are accepted. Complaints submitted by women are taken with the same seriousness as complaints submitted by men	No evidence of assuring confidentiality
Monitoring	Clear procedures of monitoring are applied by the PMT.	No evidence of monitoring	No records are maintained for complaints. Complaints submitted in written are recorded as received, like any other documents.	No evidence of monitoring
Reporting	Reporting is implemented in full compliance with the WB requirements	No evidence of reporting	Reporting is implemented in full compliance with the WB requirements	No evidence of reporting

7.3.3.3 Interface between EODP GRM and the Mosul municipality Grievance System

There is significant need to fine tune the above-mentioned grievance mechanism. Therefore, the PMT should coordinate with various entities in order to oversee or at least gain better understanding about the complaints raised.

It is recommended to open a communication channel between the social officer within the PMT from one side, and the municipality from the other side, in order to obtain all grievances.

The social officer should follow up the received grievances by municipality and register them in a grievance log. The social officer should get in contact with municipality on weekly bases to gain better understanding about the status of complaints received and the adopted corrective measures.

During operation phase, the social officer should cooperate with the municipality in order to follow up the grievance received related to E&S aspects.

In case of receiving any SEA/SH complaints, they should be carefully handled following the key principles of confidentiality and survivor's consent. A female social officer should be assigned to manage SEA/SH complaints and should be trained on dealing with SEA/SH issues. The female social officer should communicate with the aggrieved person (survivor) in the same day of receiving the complaints to verify and acknowledge the complaint and get the survivor's consent on the next steps including potentially referring the case to a specialized support entity in case the survivor prefers so. The time interval should not exceed two working days for referral of complaint. The contacts of the qualified female social officer should be shared with the local communities as well as other GRM channels. It should be made clear that anonymity and confidentiality and consent of the complainants/survivors will be ensured for any complains that will be channeled through the female social officer.

Any steps for escalating the complaints related to SEA/SH or referring them to any third party (e.g., police department and the court) should be made only under the consent of the survivor.

7.3.3.4 EODP GRM

Communication

Each PMT GRM coordinator (governates and ministries) are committed to:

- Confirm to the Project Coordination Unit (PCU) GRM coordinator the uptake channels that each of them has in place for the PMT GRM. This activity was completed.
- Conduct outreach regarding the PMT GRM (including at least updating the PMT/ governorate webpage and installing a sign that has information on the EODP PMT on the sub project site. This activity was not completed to date.
- Install complaint boxes at sub project sites. This activity was not completed to date.
- Ensuring that the resident engineers have hard copies of the GRM uptake form. This activity was not completed to date.
- Emphasis on outreach regarding the EODP GRM during TA and capacity building for resident engineers. This activity was not completed to date.

Below is a filled form of grievance that reflected the commitment of PMU to implement the grievance mechanism agreed upon with the WB. Annex 5 includes the uptake form and ReFAATO website, the received complaint by the PMT and Annex 8 includes the grievance form, log.

Due to the diversity of the context in different Governorates and the socioeconomic characteristics of the beneficiaries, the communication channels to receive grievances were locally tailored to address all petitioners concerns and complaints.

Upon starting rehabilitation activities, a range of channels will be made available for submission of feedback including complaint boxes that will be installed in locations that are easily accessible to the public, a free of charge phone line, regular mail, an email account, and even on the social media application WhatsApp. In addition, hard copies of GRM uptake forms will be available at the PMT offices and project site. The main GRM uptake channels are summarized in the table below.

Table 7-4 GRM uptake channels for submission of feedback

REFAATO	PMT
▪ Email: grm.wb@refaato.iq ▪ Online complaint system: refaato.net/form/ ▪ REFAATO hotline: 80011111 ▪ GRM users can call between Sunday-Thursday from 10 AM to 2 PM	▪ Letters to the PCU and/or relevant PMTs ▪ Phone calls to PMTs using telephone or WhatsApp o The resident engineer o **The social officer of the PMT (Mr. Yaser 07714221722)** ▪ In-person feedback to resident engineers on sub project sites and documented in GRM uptake form

As stated above, REFAATO has an online complaint system, available at: refaato.net/form/.[38] Furthermore, on a more local level, community people should be informed about the GRM using the snowball method, which enables the verbal exchange of information. Accordingly, the most effective outreach channels to do this verbal exchange is by:

- *Mukhtars* (community leaders);
- Religious leaders;
- Social media;
- NGOs in the project area; and
- Some government officials in the local units.

[38] A sample of the online form (in Arabic and English) is included in the Annexes

EODP Grievance Management Process

The Project undertakes to respond to all grievances within 30 calendar days of submission – and more quickly in cases where there is high risk of escalation. The GRM was presented for EODP sub-projects.

The GRM process is described in the sections below. The figure below provides a visual overview of the steps and associated timelines.

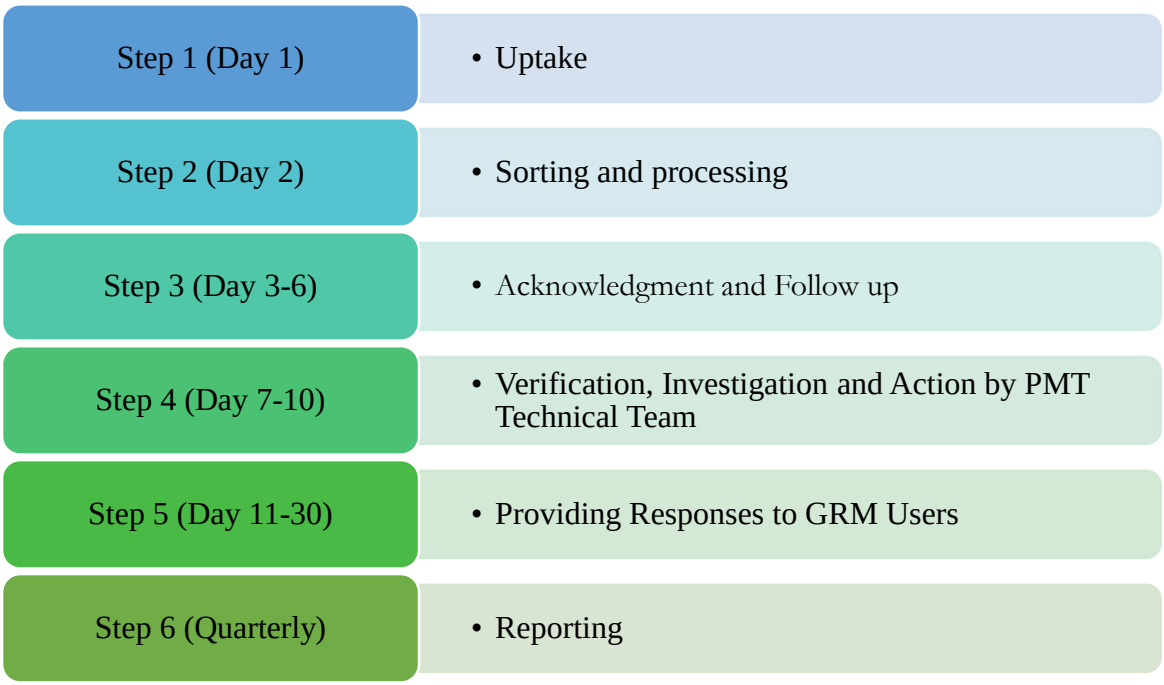


Figure 7-11 Grievance Management Process

Step 1: Uptake

A range of channels will be made available for submission of feedback, including a free of charge phone line, regular mail, an email account, and a Facebook page. In addition, hard copies of GRM uptake forms will be available at the PMT offices of the ministries and governorates, and with the resident engineers.

To submit feedback through the phone line, GRM users can call between Sunday-Thursday from 10 AM to 2 PM.

Queries, suggestions and complaints must be specific and concise to the extent possible, and contain basic information including: the name of the subproject, the location (address where possible) and/or closest landmark), the timeline of the issue/incident, persons involved (PMT staff, contractors, community members or any others), and contact details for non-anonymous GRM users

For complaints, the feedback submitted should also include: details of the incident/issue, what was said/committed or what action was taken/not taken, the action sought by the GRM user, contact details of the non-anonymous GRM user

Step 2: Sorting and Processing

Grievance Log will be maintained by the GRM Coordinator if s/he is the first point of contact with the GRM user. The same applies if contact is made between the GRM user and the resident engineer or GRM coordinators for PMTs and will include: a summary of the feedback received, date that it was received, location (where relevant), channel through which it was received (in-person, letter, telephone etc.), whether an acknowledgement has been provided to the non-anonymous GRM user that the issue is under consideration and/or has been escalated, whether the feedback is anonymous (this would include cases in which the person providing the feedback has expressed a preference for anonymity), whether the GRM user was channeled to another PMT, whether the issue was resolved and if so, whether a final response has been provided to the non-anonymous user of the GRM , whether the issue is pending and if so, whether it has been escalated to the PMT head.

Step 3: Acknowledgment and Follow up

If the identity of the GRM user is known, then receipt of the feedback will be acknowledged **within 3 business days.** At the **20 business-day mark,** if a complaint/question is still pending, the GRM focal point for the PMTs will provide an update to the non-anonymous GRM user, inform them if there will be delays in resolving their case, and provide the date for which they will be able to provide a response.

The social officer should classify the received grievances as follows:

Table 7-5 Classification of grievance level

High-Level Feedback	Standard-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, including issues of gender-based violence; ▪ Incidents which entail failure to implement E&S 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 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/PMT and any other relevant stakeholders within **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.	If the identity of the aggrieved person is known and the grievance is classified as 'standard', the acknowledgement of grievance will be **within 3 business days.** At the **20 business-day mark,** if a complaint/question is still pending, the GRM focal point for the PMTs and the PCU will provide an update to the non-anonymous GRM user, inform them if there will be delays in resolving their case, and provide the date for which they will be able to provide a response

Step 4: Verification, Investigation and Action by PMT Technical Team

Verification and investigation involve gathering information about the complaint to determine its validity and to generate a clear picture of the circumstances surrounding the issue under consideration. This process normally includes site visits, document reviews, a meeting with the GRM user (if known and willing to engage), liaising with the PMT safeguards specialist(s) and resident engineers, and

meetings with other individuals and/or entities who can assist with resolving the issue. For complaints related to the misuse of funds, it may also require meetings with suppliers and contractors.

Potential actions include responding to a query or comment, providing GRM users with a status update by the 20-working day mark, escalating the matter to the PMT head, imposing sanctions, or referring the grievance to another PMT that may be relevant for investigating and addressing the issue. Feedback that cannot be resolved at the PMT level should be referred to the PCU level for further investigation per the timelines and standards established for the GRM.

Step 5: Providing Responses to GRM Users

This step entails informing GRM users and the public at large about the results of the investigation and the actions taken. It is integral to enhance the GRM's visibility among beneficiaries and increases users' trust in the system (making it more likely that they will provide feedback). The GRM focal points of the PMTs can provide feedback by contacting the GRM user directly (if his or her identity is known) within a 30-day period of receipt.

Information included in the written response should include: setting out/summary of the feedback, detailing how the investigation was conducted, summarizing the facts, outlining the findings appropriate resolution along with the rationale for such resolution. resolutions may include an explanation, apology, reconsideration, reimbursement, restitution– all are possible remedies.

Step 6: Reporting

GRM focal points for all PMTs will report to the PCU GRM focal point on the second Monday of each month. The PCU GRM focal point will make consolidated reports available to the REFAATO President on a monthly basis, and to the World Bank on a quarterly basis and on request.

The reports should provide an overview of feedback received that is related to EODP implementation. Additional information should include:

- Nature of the feedback
- Aggregate information on the GRM users (including demographic – student, parent, gender, etc.)
- Information on where the feedback was received and in what format.
- Information on the status of complaints and queries (resolved, under review, etc.).
- Information on how complaints and queries were resolved.
- Information on unresolved complaints/queries and why they are not yet resolved.

Such reports may also include recommendations for improving the GRM or the EODP design. These recommendations should be based on the monitoring of the GRM, specifically the extent of the GRM's functionality and the types of feedback that have emerged.

Monitoring and Evaluation

Monitoring refers to the process of tracking grievances and assessing the extent to which progress is being made to resolve them.

All information related to contact, cases, tracking and monitoring of feedback cases shall be tracked through a database created for this purpose. The database shall be managed by the PCU GRM focal point and updated and shared by GRM focal points of the PMTs on a monthly basis. All files shall be protected to ensure no loss of data and information.

Ultimately, the SDO will be responsible for consolidating, monitoring and reporting on the total number of complaints, enquiries and other feedback that have been received, resolved or are pending at the subproject, PMT and PCU levels. As part of this system, the higher levels of the EODP GRM are responsible for monitoring complaints handling performance at the lower levels at any given point during the implementation of this project.

Information compiled by the PCU GRM focal point will be essential for reporting on progress on the EODP's grievance indicators, "number and percentage of grievances registered that are addressed", that are included in the Project Results Framework on a quarterly basis.

Institutional Arrangements

The table below provides a summary of the roles and functions involved in the management of the EODP GRM.

Table 7-6 Summary of Roles and Functions for EODP GRM

Role	Functions
Sub project residents engineer and Contractors	• Ensure that information on the GRM is posted on EODP subproject sites, including contact information for the Social Development Officer • Maintain logs of the feedback received and share them with the relevant GRM focal points for the PMTs and the PCU on the second Monday of each month and share them with the SDO. Close cooperation with the SDO is essential. • Support in submitting feedback, including facilitating contact/communication between GRM users and relevant GRM focal points • Provide support to the PMT and PCU to verify and investigate issues or complaints, when possible • Refer the complaint to the person in charge for solving it
Social Development Officer	• Liaise and collaborate with other ministries and entities to which complaints/feedback are channeled and following up on the investigation and resolution of issues • Ensure that all EODP project sites have contact information for the EODP GRM • Ensure that resident engineers have hard copies of the GRM uptake forms that GRM users can send to the PCU by mail • Disseminate information regarding uptake channels for submitting feedback, the structure and standards of the GRM, and their role • Monitor GRM uptake channels for their PMT and communication from the PCU regarding feedback that is relevant to their PMT • Acknowledge receipt of complaint/feedback from GRM users and respond to them with the outcome of the investigation within a predetermined timeline that is publicly communicated • Maintain the privacy of GRM users who wish to remain anonymous • Maintain the GRM log to track and report on the status of each case • Undertake verification and investigation of issues/complaints with relevant entities, groups or individuals • Follow up on additional information that may be required from non-anonymous GRM users to resolve a complaint • Liaise with the legal department and other technical staff in the ministry as required • Respond to GRM users on the resolution and the status of the feedback and ensure that the "feedback loop" is closed

Role	Functions
	• Share all information about received and processed complaints with the PCU GRM Focal Point
PMT Head or Coordinator	• Supervise outputs and reports of GRM focal points • Highlighting issues on compliance of environmental and social safeguards policies to PCU and World Bank team • Intercede and liaise with senior staff from the PMT ministry and governorate; other ministries and senior REFAATO staff as required to escalate and resolve specific issues
PCU GRM Focal Point	• Work with REFAATO staff an PMTs to ensure that the GRM is publicized, and communicate with all relevant stakeholders, especially beneficiaries, on any issues concerning the GRM; • Liaise and collaborate with GRM focal points in the PMTs and governates to ensure that there is an integrated and functional EODP GRM system in place • Flag challenges in resolving issues that need to be escalated to the REFAATO President • Update and maintain a monitoring system for complaints/feedback received directly by the PCU, as well as feedback reported by the PMTs for ministries & governates • Prepare and provide consolidated reports on grievance/feedback data on an ongoing basis in collaboration with the PMTs and governates • Analyze the data and generate reports on feedback trends for REFAATO senior management and the World Bank team
President of REFAATO	• Endorse responses to feedback that are received by the PCU and escalated to the GRM Committee • Review the data and reports developed on the feedback and by the PCU's GRM Coordinator

Source: Grievance redress mechanism guidelines and procedures

Procedure for Appeal

Aggrieved persons who are dissatisfied with the outcome of their complaint can appeal the decision by resubmitting their complaint to the GRM focal point within 30 working-days of receiving a response to the original submitted grievance. Subsequently, the GRM focal point and other relevant personnel have 30 working-days to investigate and address the issue. Additionally, the GRM focal point 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.

Gender sensitive GRM

The project grievance mechanism is gender-sensitive. It is a standard of good practice that aims to provide a separate female contact point for complaints to be received from women. In cases of increased risk of discrimination, harassment, rape or assault (for example, where a worker camp is near a community), the GRM ensures that women subject to physical or sexual abuse, or rape, can file confidential complaints

Confidentiality

Individuals who submit their comments or grievances have the right to request that their name be kept confidential, though this may mean that the PMT 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.

Reporting

GRM focal points for all PMTs will report to the PCU GRM focal point on the second Monday of each month. The PCU GRM focal point will make consolidated reports available to the REFAATO President on a monthly basis, and to the World Bank on a quarterly basis and on request.

The reports should provide an overview of feedback received that is related to EODP implementation. Additional information should include:

- Nature of the feedback
- Aggregate information on the GRM users (including demographic – student, parent, gender, etc.)
- Information on where the feedback was received and in what format.
- Information on the status of complaints and queries (resolved, under review, etc.).
- Information on how complaints and queries were resolved.
- Information on unresolved complaints/queries and why they are not yet resolved.

Such reports may also include recommendations for improving the GRM or the EODP design. These recommendations should be based on the monitoring of the GRM, specifically the extent of the GRM's functionality and the types of feedback that have emerged.

7.4 Disclosure activities

As soon as the site-specific ESMPs gets clearance from the World Bank and approval from the Mosul Municipality, the following disclosure procedures will be adapted:

- A final report, in English and a summary in Arabic, will be published on the WB, EODP and Mosul Municipality websites.
- A copy of the ESMP report in English and a summary in Arabic will be made available in the municipality, in Nineveh and Baghdad Governorate. Additionally, an Arabic executive summary will be made available in the regional branch.
- An A3 poster will be installed in the entrance of the regional branch office informing about the results of the study and the website link for the full ESMP report.
- It will be useful also to maintain leaflets of the project impacts, GRM and contact office in the regional branch.

ANNEX 1 INSTITUTIONAL AND LEGAL FRAMEWORK

National Iraqi Legislations

General Environmental Regulations

Law no. 27 for the year 2009: Protection and Improvement of Environment

The law aims at protecting and improving the environment through mitigating existing damages or damages likely to be caused. The Law necessitates the provision of the Environmental Impact Assessment (Article 18) for any new developmental project in the country. The Law addresses the issues of regulation of air pollution and noise reduction, discharge of wastewater effluents, protection of soils, biodiversity conservation, management of hazardous waste, etc. Moreover, the law specifies the punitive measures for violation of the specified regulations.

Law no. 37 for the year 2008: The Ministry of Environment

This Law was legislated to define the institutional arrangements of the Ministry of Environment. It outlines policies, and roles and responsibilities towards protecting the environment.

Ambient Air Quality

Regulation no. 4 of the year 2012: Ambient Air Quality

This regulation aims to protect ambient air quality and to control sources of pollution. The regulation necessitates that sources emitting air pollutants abide by national limits and use monitoring equipment to ensure compliance with standards. It also prohibits the burning of all types of wastes indoors or in open air, or next to a residential region or near water bodies.

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 $\mu g/m^3$
	0.04 ppm	24 hours	20 $\mu g/m^3$
	0.018 ppm	1 year	N/A
NO_2	0.05 ppm	24 hours	200 $\mu g/m^3$
	0.04 ppm	1 year	40 $\mu g/m^3$
Ozone (O_3)	0.06 ppm	1 hour	100 $\mu g/m^3$
PM_{10}	150 $\mu g/m^3$	24 hours	50 $\mu g/m^3$
$PM_{2.5}$	65 $\mu g/m^3$	24 hours	50 $\mu g/m^3$
	15 $\mu g/m^3$	1 year	15 $\mu g/m^3$
Total Suspended Particles	350 $\mu g/m^3$	24 hours	N/A
	150 $\mu g/m^3$	1 year	N/A

Pollutant	Iraqi Standards		WHO Standards
	Concentration	Average Time	Concentration
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

This Law identifies maximum permissible noise limits during day and nighttime for industrial, commercial and industrial zones as follows

Noise Limits for Different Working Zones

Type	Allowable (dB)
Industrial	70
Commercial	70
Residential	55

Water Resources

Law no. 50 of the year 2008: Ministry of Water Resources

The Law provisions for establishing the Ministry of Water Resources and creating the legal and technical framework for institutionalization of water resources management in the country.

Law no. 2 of the year 2001: Water Systems Protection

Chapter 4 provides instructions on disposal or recycling of wastewater. It also prohibits the discharge of effluent into public water, unless it meets the criteria and specifications set out by the Environment Protection and Improvement Directorate (EPID). EPID is also allowed to issue environmental restrictions pertaining to the quality of public water as well as the quality of water discharged into public water, sewage systems, or rainwater.

Act no. 25 of the year 1967: The Regulation for the Protection of Rivers

The act regulates wastewater discharges and provides physical, biological, and chemical guidelines for water quality. Also, the regulation sets forth provisions for protection of public water bodies from pollution.

Fourth Amendment of Law no. 12 of the year 1995: Maintenance of Networks of Irrigation and Drainage

The main objective of the fourth amendment of law 12 for 1995 which consists of 5 articles is giving the control of the distribution of inland waters to beneficiaries' associations. These associations have to be established by users of common source of water. Other tasks of the beneficiaries' associations are: raising the efficiency of water use, prohibit of using the drainage water for agriculture purpose and reduce waste; achieve a fair distribution of water among the beneficiaries; contribute to the resolution of the conflicts between the beneficiaries; maintaining the facilities of irrigation and drainage projects. Farmers are required to respect strictly rules of the agricultural projects, avoiding wastes or illegal initiatives such as establishing fish ponds or quarries in the reclaimed land.

Waste Management

Instructions no. 3 of 2015 on Hazardous Waste Management:

The instruction aims at providing instructions on the management of hazardous waste by providing clear definitions of what is considered hazardous waste, how to store, collect, transport, and dispose of such waste while maintaining permits, approvals, records, and all necessary official paperwork. Instructions are specifically provided to waste site operators, and persons responsible for transport of waste.

Instructions no. 2 of 2014 on Environmental Protection from Municipal Waste:

The instruction aims at protecting the urban environment with a proper management of wastes, such as solid materials, recyclable and non-recyclable derived from domestic, commercial and professional activities, from the cleaning of streets, gardens, farms and public places, and construction waste.

Directive No. 67 of 1986 regulating Debris Collection Areas:

Debris disposal shall be done in areas with stable geology and stockpiling near particularly vulnerable or sensitive ecosystems as well as groundwater and surface water resources shall be avoided.

Occupational Health & Safety

Instructions No. 12 of the year 2016: Occupational Health and Safety

These instructions provide guidance on Occupational Health and Safety (OHS) Procedures to be adopted.

Law No. 6 of 1988 concerning the National Commission for Occupational Hygiene and Safety, governing the enforcement of OHS regulations

The Law provides for inspections of places of employment and inspections reports. It establishes the duties and responsibilities of employers regarding OHS, the functions duties of workers with respect to OHS.

Labor Laws

Iraq recently enacted **Law 37/2015 (the Iraqi Labor Law)**, which governs employment relationships in most of Iraq. To date, no known reforms are being considered for Iraq. In addition to this law, the respective government ministries may issue instructions or regulations that affect employment law. The law covers all aspects of employment, including:

- the definition of 'workers';
- hiring and termination;
- health and safety;
- leave;
- wages;
- collective bargaining; and
- avenues for complaints and redress.

The law distinguishes foreign workers from Iraqi workers, but all workers must be fully documented in order to legally work in Iraq. The Iraqi Labor Law does not distinguish between employees and contractors. The law applies to all 'workers', which is anyone working under the supervision of an employer in return for a wage. The law does distinguish between permanent work and work for a defined period, but there are certain requirements that must be met under the law in order to ensure that a contract for a determined period does not convert to a permanent contract.

Furthermore, in regard to child Labor, Article 6, Chapter 3 of Iraqi Labor Law, states that the minimum age for employment is 15 years old. However, Iraq is also signatory to the 1989 International Convention on the Rights of the Child, which defines everyone under the age of 18 as a child who must have special protection and care.

Law no.89 of the year 1981: Public Health Law

Chapter One governs general objectives and administrative organs. Establishes the powers and duties of the Ministry Council and the Governorate Health Council. Chapter Two governs preventative medicine. Part One governs primary health care. This concerns maternity, childhood, and family health care, school health care, protection of vision and hearing, dental prevention, nutrition, health education, mental health, and public health Laboratories. Part Two provides for health inspections. Part Three governs the control of communicable diseases. Part Four provides for the conveyance of corpses and death burials. Part Five provides for the safety of drinking water. Part Six governs the breeding of animals. Chapter Three regulates curative health centers. Regulates public and private health institutions. Chapter Four makes administrative and penal provisions. Chapter Five makes concluding provisions.

World Bank Safeguard Policies

OP 4.01 – Environmental Assessment

According to the World Bank Operational Policy OP 4.01, the Rehabilitation of a streets, storm water network and sanitary network is classified among the projects that are likely to have potential, limited adverse environmental and social impacts for which the development of a full-scale ESIA is not required. The proposed project will not have significant adverse environmental impacts that are sensitive[39], diverse, or unprecedented. Environmental impacts of the project shall be analyzed, and mitigation measures proposed for expected negative impacts, along with an Environmental Management and Monitoring Plan.

OP 4.09 – Pest Management

OP 4.09 Pest Management is triggered for the EODP – additional finance but is not applicable to this subproject.

OP 4.11 – Physical Cultural Resources

The proposed construction activities are not expected to pose risks of damaging cultural property. However, Iraq is a country extremely rich in PCR, and the destruction experienced during combat activities between ISIS and coalition forces are highly likely to have affected historical buildings, religious sites such as mosques and shrines, and monuments. Dealing with PCR has been included into the ESMF. This includes preservation of historic sites and/or re-building of damaged historical buildings. If these opportunities occur, cultural property management plans will be prepared for this project.

OP 7.50 – Projects on International Waterways

OP 7.50 International Waterways is not triggered as the project is not on an international waterway

OP 4.12 Involuntary Resettlement

There might be a probability of storage of construction materials in main rural roads. Until the date of report development, no land acquisition is anticipated.

World Bank Policy on Access to Information

This Policy governs the public accessibility of information in the Bank's possession. The World Bank allows access to any information in its possession that is not on a list of exceptions.

This Policy is based on five principles:

- Maximizing access to information;
- Setting out a clear list of exceptions;
- Safeguarding the deliberative process;

[39] A potential impact is considered "sensitive" if it may be irreversible (e.g., lead to loss of a major natural habitat) or raise issues covered by OP 4.10, *Indigenous People*; OP 4.04, *Natural Habitats*; OP 4.11*, Physical Cultural Resources;* or OP 4.12*, Involuntary Resettlement.*

- Providing clear procedures for making information available; and
- Recognizing requesters' right to an appeals process.

Roads

Public Roads Law No. 35 of 2002: the law defines the responsibilities of the General Authority for Roads and Bridges under the supervision of the implementation of public roads outside the borders of the Municipality of Baghdad and Municipalities.

Gap Analysis between Iraqi Law and WB Requirements

The Subproject is required to apply the relevant national and international requirements and standards which contain the performance levels and measures that are normally acceptable and applicable. When host country regulations differ from the levels and measures presented in the WB EHS Guidelines, Subprojects are expected to achieve whichever is more stringent. The following table presents a comparison between Iraqi and WB standards.

National Policy, Legal, Regulatory and Administrative Frameworks in Iraq			
Relevance	**National Law/Regulation/Policy No./Title**	**WB Requirements**	**Identified Gap**
General Environmental Legislation	**Law No. 37 of 2008 - The Ministry of Environment** This Law was legislated to define the institutional arrangements of the Ministry of Environment. It outlines policies, and roles and responsibilities towards protecting the environment. **Law No. 27 of 2009 Protection and Improvement of the Environment** (Link) The law aims at protecting and improving the environment through mitigation of existing damages or damages that are likely to be caused. The Law necessitates the provision of the Environmental Impact Assessment (Article 18) for any new developmental project in the country. The Law addresses the issues of regulation of air pollution and noise	**OP. 4.01** **Environmental Assessment** This Operational Policy requires projects which are funded or fall under the world bank to conduct an Environmental Assessment. For the EODP projects, they have been classified as Category B.[40] The requirements of OP 4.01 clearly specify the need to develop an Environmental Management Plan and Environmental Monitoring Plan that must be adhered to for any project.	No Gaps Identified

[40] Environmental and Social Management Framework – ESMF – 2017 – EODP

<table>
<tr><th colspan="4">National Policy, Legal, Regulatory and Administrative Frameworks in Iraq</th></tr>
<tr><th>Relevance</th><th>National Law/Regulation/Policy No./Title</th><th>WB Requirements</th><th>Identified Gap</th></tr>
<tr><td></td><td>reduction, discharge of wastewater effluents, protection of soils, biodiversity conservation, management of hazardous waste, etc. Moreover, the law specifies the punitive measures for violation of the specified regulations</td><td></td><td></td></tr>
<tr><td>Noise control</td><td>Law No. 41 of 2015 - Noise Protection and Control (Link)

This Law identifies maximum permissible noise limits during day and nighttime for industrial, commercial and industrial zones as follows:

Receptor Daytime Nighttime
7:00 – 22:00 22:00-7:00
Residential; 55 45
Institutional; 55 45
Educational
Industrial; 70 65
Commercial 70 70</td><td>Environmental, Health and Safety (EHS) Guidelines

The EHS guidelines provide instructions on preventive and control measures for noise pollution, especially for industrial activities. It requires that noise impacts “should not exceed levels below or result in maximum increase of in background levels of 3 dBA at the nearest receptor”.

One Hour LAeq (dBA)

Receptor Daytime Nighttime
7:00 – 22:00 22:00-7:00
Residential;
Institutional; 55 45
Educational
Industrial;</td><td>The Iraqi Legislation does not cover Vibration exposure limits</td></tr>
</table>

National Policy, Legal, Regulatory and Administrative Frameworks in Iraq			
Relevance	**National Law/Regulation/Policy No./Title**	**WB Requirements**	**Identified Gap**
		Commercial 70 70 The EHS guidelines refer to the importance of ensuring vibration exposure is within permissible limits, and that exposure should be checked on a daily basis.	
Ambient Air Quality	**Regulation No. 4 of 2012 - Ambient Air Quality** This regulation aims to protect ambient air quality and to control sources of pollution. The regulation necessitates that sources emitting air pollutants abide by national limits and use monitoring equipment to ensure compliance with standards. It also prohibits the burning of all types of wastes indoors or in open air, or next to a residential region or near water bodies. Ambient Air Quality Guidelines Pollutant Concentration Average Time CO 10 ppm 8 hours CO 35 ppm 1 hour SO_2 0.1 ppm 1 hour	**EHS Guidelines** The EHS guidelines follow the WHO standards for the concentration of different air pollutants.	In some cases, the WHO standards match with the Iraqi laws and in others, the WHO standards are more stringent. This is the case for: (Differences with Iraqi Laws vs WHO standards Ambient Air Quality Guidelines) Pollutant Concentration CO N/A CO N/A SO_2 500 µg/m³ SO_2 20 µg/m³ SO_2 N/A NO_2 20 µg/m³ NO_2 40 µg/m³

National Policy, Legal, Regulatory and Administrative Frameworks in Iraq					
Relevance	**National Law/Regulation/Policy No./Title**			**WB Requirements**	**Identified Gap**
	SO_2 hours	0.04 ppm	24		Ozone (O_3) 100 µg/m³
	SO_2 year	0.018 ppm	1		PM_{10} 50 µg/m³
	NO_2 hours	0.05 ppm	24		$PM_{2.5}$ 50 µg/m³
	NO_2 year	0.05 ppm	1		$PM_{2.5}$ 15 µg/m³
	Ozone (O_3) hour	0.06 ppm	1		TSP N/A
	PM_{10} hours	150 µg/m³	24		TSP N/A
	$PM_{2.5}$ hours	65 µg/m³	24		
	$PM_{2.5}$ year	15 µg/m³	1		
	TSP hours	350 µg/m³	24		
	TSP year	150 µg/m³	1		

National Policy, Legal, Regulatory and Administrative Frameworks in Iraq			
Relevance	**National Law/Regulation/Policy No./Title**	**WB Requirements**	**Identified Gap**
Water Resources Legislation	**Law No. 50 of 2008 - Ministry of Water Resources** The Law provisions for establishing the Ministry of Water Resources and creating the legal and technical framework for institutionalization of water resources management in the country.	**EHS Guidelines** The EHS guidelines indicate what each project or facility must be aware of the surrounding water resources and the potential wastewater that would be generated. It encourages efficient water usage to reduce the discharge of potential wastewater. It includes the indicators for the wastewater discharge pre- and post-treatment. It includes the guidelines for discharging into surface water and into sanitary sewer systems. The guidelines provide for the protection of water systems and water resources. This is covered from different aspects including protection of drinking water sources of the nearby community, and protection of water resources and systems from project activities.	No Gaps Identified
	Law No. 2 of 2001 - Water Systems Protection Chapter 4 provides instructions on disposal or recycling of wastewater. It also prohibits the discharge of effluent into public water, unless it meets the criteria and specifications set out by the Environment Protection and Improvement Directorate (EPID). EPID is also allowed to issue environmental restrictions pertaining to the quality of public water as well as the quality of water discharged into public water, sewage systems, or rainwater. **Act No. 25 of 1967 - Regulation for the Protection of Rivers** The Act No. 25 of 1967 regulates wastewater discharges and provides physical, biological, and chemical guidelines for water quality.		While Iraq water resource legislation provide sufficient guidance regarding water resource protection, it lacks sufficient information regarding wastewater management and discharge.

National Policy, Legal, Regulatory and Administrative Frameworks in Iraq			
Relevance	**National Law/Regulation/Policy No./Title**	**WB Requirements**	**Identified Gap**
	Also, the regulation sets forth provisions for protection of public water bodies from pollution. **Fourth Amendment of Law No. 12 of 1995 - Maintenance of Irrigation and Drainage Network** The main objective of the fourth amendment of law 12 for 1995 which consists of 5 articles is giving the control of the distribution of inland waters to beneficiaries' associations. These associations have to be established by users of common source of water. Other tasks of the beneficiaries' associations are: raising the efficiency of water use, prohibit of using the drainage water for agriculture purpose and reduce waste; achieve a fair distribution of water among the beneficiaries; contribute to the resolution of the conflicts between the beneficiaries; maintaining the facilities of irrigation and drainage projects. Farmers are required to respect strictly rules of the agricultural projects, avoiding wastes or illegal initiatives such as establishing fish ponds or quarries in the reclaimed land.		
Waste Management Regulation	**Instructions No. 2 of 2014 - Environmental Protection from Municipal Waste** (Link)	**EHS Guidelines 1.6 on Waste Management**	The WBG EHS guidelines section 1.6 are much more articulate and define what

National Policy, Legal, Regulatory and Administrative Frameworks in Iraq			
Relevance	**National Law/Regulation/Policy No./Title**	**WB Requirements**	**Identified Gap**
	The instruction No. 2 of 2014 aims at protecting the urban environment with a proper management of wastes, such as solid materials, recyclable and non-recyclable derived from domestic, commercial and professional activities, from the cleaning of streets, gardens, farms and public places, and construction waste. **Directive No. 67 of 1986 - Regulation of Debris Collection Areas** The older Directive No. 67 of 1986 shall be done in areas with stable geology and avoid damaging the groundwater/water resources and sensitive ecosystems.	EHS Guidelines 1.6 define how to differentiate between hazardous and non-hazardous waste, establishing waste management priorities, how to avoid or minimize waste generation, and recover and reuse waste and finally dispose of waste.	qualifies as solid waste and promotes the usage of the waste management hierarchy to minimize or avoid waste generation. The Guidelines specify the basics of waste management planning, waste prevention, recycling/reuse and final disposal. It also clearly highlights the need for safe disposal of hazardous waste. The guidelines cover the appropriate methods for waste containment and storage, and safe transportation of solid waste.
Health and Safety Regulation	**Law No. 6 of 1988 - Enforcement of OHS Regulations** Law No. 6 of 1998 provides for inspections of places of employment and inspection reports. It establishes duties and responsibilities of employers regarding OHS. **Instructions No. 12 of 2016 - OHS** (Link) Instructions No. 12 supplement the law by providing procedures to be adopted such as	**Environmental, Health and Safety (EHS) Guidelines** The WBG EHS guidelines section 2.0 covers in specific details the different aspects of OHS including safety of design, different types of hazards and how to deal with each, the usage of PPE and method of monitoring.	Since the WBG EHS guidelines section 2.0 are much more detailed and inclusive when compared to the Instructions No. 12 of 2016, they must be adopted by contractor deployed for EODP Subproject.

National Policy, Legal, Regulatory and Administrative Frameworks in Iraq			
Relevance	**National Law/Regulation/Policy No./Title**	**WB Requirements**	**Identified Gap**
	the need to train workers on PPE, and the need to establish health and safety committees for monitoring.		
	Labour Law: No 37 of year 2015 the law defines the basic principles of recruitment, placement and vocational, the **age of start working** is 15 years, training, foreign workers employment, individual employment contract, wages, working hours, leave, protection of the female workers and minors (vulnerable groups), protection of workers in quarries, mines and minerals extraction, occupational safety and health and labour inspection, disciplinary measures, collective agreements and bargaining, individual or collective labor disputes, labour jurisdiction, and general and final provisions	With regards to employment relations and working conditions, the WB developed two regulations and standards: 1. **Environmental and Social Standard 2 related to Labor and working Conditions that covers the items below[41]:** • Working Conditions and Management of Worker Relationships • Terms and Conditions of Employment • Nondiscrimination and Equal Opportunity • Workers' Organizations • Protecting the Work Force • Child Labor and Minimum Age • Forced Labor • Grievance Mechanism	• The law does not stipulate the Grievance procedures The major issue is that the employment age starts from 15 years.

[41] https://documents1.worldbank.org/curated/en/149761530216793411/ESF-Guidance-Note-2-Labor-and-Working-Conditions-English.pdf

National Policy, Legal, Regulatory and Administrative Frameworks in Iraq			
Relevance	**National Law/Regulation/Policy No./Title**	**WB Requirements**	**Identified Gap**
		• Occupational Health and Safety (OHS) • Contracted Workers • Community Workers • Primary Supply Workers **2. Managing the Risks of Adverse Impacts on Communities from Temporary Project Induced Labor Influx guidance note that discusses the aspects below:** • Child labor and school dropout. Increased opportunities for the host community to sell goods and services to the incoming workers can lead to child labor to produce and deliver these goods and services, which in turn can lead to enhanced school dropout. Construction camp requirement aspects and on-site facilities Preparing the ESMF/ESMP, ESIA (if required), Labor Influx Management Plan and/or Workers' Camp	

National Policy, Legal, Regulatory and Administrative Frameworks in Iraq			
Relevance	**National Law/Regulation/Policy No./Title**	**WB Requirements**	**Identified Gap**
		Management Plan, commensurate with the risks of the project, including consultations with local communities and other relevant stakeholders. Depending on the significance of the labor influx, the management plans could form part of the ESMP, or be standalone.	
	Law No.89 of 1981 amended by Decree No. 54 of 2001 - Public Health Chapter One governs general objectives and administrative organs. Establishes the powers and duties of the Ministry Council and the Governorate Health Council. Chapter Two governs preventative medicine. Part One governs primary health care. This concerns maternity, childhood, and family health care, school health care, protection of vision and hearing, dental prevention, nutrition, health education, mental health, and public health Laboratories. Part Two provides for health inspections. Part Three governs the control of communicable diseases. Part Four provides for the conveyance of corpses and death burials. Part Five provides for the safety of drinking water. Part Six governs the breeding of animals. Chapter Three regulates	The **WBG EHS guidelines section 3.0** covers how the project affects its surrounding area and the different environmental and social aspects that must be considered to mitigate any impacts on the surrounding community. This includes protecting water resources, ensuring the project has sound fire management and an emergency response plan, appropriate design for the infrastructure, traffic safety and the provision of a traffic management plan for any subproject or construction site, disease prevention methods and management of hazardous material. Subprojects must abide by the EHS guidelines for the protection of the nearby community	

National Policy, Legal, Regulatory and Administrative Frameworks in Iraq			
Relevance	**National Law/Regulation/Policy No./Title**	**WB Requirements**	**Identified Gap**
	curative health centers. Regulates public and private health institutions. Chapter Four makes administrative and penal provisions. Chapter Five makes concluding provisions.		
Infrastructure Legislation	**Law No. 35 of 2002 - Public Roads** The law defines the responsibilities of the General Authority for Roads and Bridges under the supervision of the implementation of public roads outside the borders of the Municipality of Baghdad and other Municipalities.		No Gaps Identified

ANNEX 2 CONTRACTORS COMMITMENTS

I. General:

- The Contractor and his employees shall adhere to the mitigation measures set forth in this document and take all other measures required by the Engineer to prevent harm, and to minimize the impact of his operations on the environment.
- The Contractor shall prepare a detailed OHS plan for the subproject sites and ensure its implementation.
- The Contractor shall not be permitted to unnecessarily strip clear the right of way. The Contractor shall only clear the minimum width for construction and diversion roads should not be constructed alongside the existing road.
- To prevent dust pollution during dry periods, the Contractor shall carry out regular watering of earth and gravel haul roads and shall cover material haulage trucks with tarpaulins to prevent spillage.

II. Air Quality

- Spraying soil before excavation in loose sandy soil
- Minimize unnecessary journeys or equipment used.
- Impose speed limits
- Temporary storage areas on site shall be allocated in a place protected from the wind .
- Wet or cover truck load
- Use machines with high efficiency engines, effective combustion rates and low emissions.
- Adopt a policy of switching off machinery and equipment when not in use (idle mode).
- Apply regular maintenance to the machinery

III. Noise & Vibration

- Provide ear muffs to construction workers located near noisy machines
- Coordinate and inform residents at the nearby sensitive receptors about the peak time and hours for construction activities.
- Limit construction activities to daytime (not between 8 p.m. and 7 a.m., or as agreed with public and authorities)
- Adopt a policy of switching off machinery and equipment when not in use.

IV. Handling and Disposal of Construction and Vehicle Waste

- Allocate a Waste Accumulation Area (WAA) within the construction site for temporary storage of construction waste.
- The WAA has to be protected from rain, and from washing out.
- Keep tidiness and cleanliness of the WAA
- Wastes shall be ultimately disposed in the nearest designated disposal site (landfill) by a licensed contractor

- Proper handling of lubricants, fuel and solvents and provide secured storage
- Ensure proper loading of fuel and maintenance of equipment
- Keep hazardous waste in marked leak proof containers and temporarily dispose in a secured area for hazardous waste in the WAA
- Finally, dispose hazardous waste in a permitted waste recovery facility by a licensed contractor
- Collect and retain all the concrete washout water and solids in leak proof containers, so that this caustic material does not reach the soil surface and then migrate to surface waters, rainwater drains or into the ground water
- Separate solids (gravel and sand) and liquid of concrete wash water using filters
- Re-use concrete wash water in washing the concrete mixing equipment or in the concrete mix

.

V. Soil

- Setting and applying a Waste Management Plan to prevent pollution of the soil
- Hazardous waste, such as spent engine oil, and nonhazardous waste must be temporarily disposed in the designated WAA on-site and then finally disposed in a licensed disposal facility by a licensed contractor
- Organize and cover material storage areas
- Collect and retain all the concrete washout water and solids in leak proof containers.
- The construction contractor shall provide portable toilet cabinets on site, to be equipped with an external tank for sewage storage in order to avoid improper disposal of sanitary waste.
- Balancing of cut and fill.
- Design to prevent soil erosion and maintain slope stability.
- Construction in the dry season.
- Protection of soil surfaces during construction.

VI. Water Quality

- The contractor shall ensure that water is used efficiently at the site by raising the awareness of construction staff to avoid irresponsible water usage, hence minimize pressure on the local water resource

VII. **Energy Consumption**

- Proper planning of transportation of materials to ensure optimum consumption of fossil fuels (diesel, petrol)
- Use machines with high efficiency engines
- Adopt a policy of switching off machinery and equipment when not in use (idle mode).
- Apply regular maintenance to the machinery

- Monitor energy use during construction and set targets for reduction of energy use

VIII. Occupational Health and Safety

- The Contractor shall prepare and adopt an Occupational Health and Safety Plan (OHSP) during the construction phase.
- The developed OHSP should be prepared in full compliance with World Bank Group Environmental, Health & Safety Guidelines [42]
- The contractual agreement with the contractor/s should include rigid commitments to apply the OHSP that should be prepared in full compliance with the WB EHS requirements.
- The minimum elements to be included in the EHS plan are as follows:
  a. General Facility Design and Operation
  b. Communication and Training
  c. Physical Hazards
  d. Chemical Hazards
  e. Biological Hazards
  f. Personal Protective Equipment (PPE)
  g. Special Hazard Environments
  h. Monitoring.
- Monitoring of workers wellbeing, on-site facilities and contractor day use caravans on weekly basis by the OHS staff. (see Annex 9 site inspection checklist)
- Availing workers GRM by the contractor or use the Parent' project GRM

IX. Community Health and Safety

- Community health and safety guidelines should be followed on the access roads to be used by the sub-project's vehicles.
- A traffic procedure should be developed along project sites to provide the maximum safety to the population and project personnel.
- 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 in order to avoid falls of pedestrians during night. Safe access roads also should consider avoiding passing under the electricity distribution network.
- The contractor should design proper access roads that enable old people, people with disability and children to cross roads safely.
- Signage at least (8) should be installed at the subproject site.
- Yellow ribbon should be installed to keep children away of the construction site
- Presence of code of conduct and train newly recruited workers on the COC during the induction training. Additionally, refreshing training to be carried on bi-weekly to all workers

[42] https://www.ifc.org/wps/wcm/connect/29f5137d-6e17-4660-b1f9-02bf561935e5/Final%2B-%2BGeneral%2BEHS%2BGuidelines.pdf?MOD=AJPERES&CVID=jOWim3p

- Carry out information sharing and consultation activities with community about the project potential impacts on monthly basis
- Community Grievance Mechanism sensitive to gender is available (during working hours)

X. Traffic Flow

- Provide information about the roads and traffic that will be closed during construction and the schedule on weekly basis through carrying out meetings with the surrounding residents and commercial activities on monthly basis (three meetings to be carried out with residents- females- shops)
- Sharing information with the municipality about the alternative routes to be disclosed on the municipality Facebook and to be updated bi-weekly.
- Determine the maximum speed within the project site (which should not exceed 15 km per hour)
- The contractor should put restrictions to the movement of large vehicles (trucks) to avoid rush hours
- Ensure vehicle safety and regular maintenance by the contractor
- Availability of GRM to community people and workers by the sub-project social officer and site engineer

XI. Child Labor

- In the contractual agreement, clear definition of child should be inserted. The child should be defined as all persons less than 18 years old.
- Rigid terms should be written in the contractor agreement to prohibit recruitment of children below 18

XII. Cultural heritage

- All chance find procedures will be applied
- All mitigation measures mentioned above will minimize impacts on the mosque (noise- vibration)

XIII. **Infrastructure and underground utility**

- Coordination with departments of potable water, electricity, and telecom authorities to obtain maps/ data on underground utilities, whenever available
- Collection of most accurate maps for underground utilities and infrastructure routes from Nineveh Governorate and asking for site markings, if available, prior to commencing the works.
- Boreholes to locate underground utilities before using mechanical excavation.
- In case an underground utility and infrastructure pipe has been damaged, standard procedures should be followed, in addition to preparing a documentation report for the accident.
- Availability of GRM.

XIV. Temporary labor influx and Gender based violence

In order to minimize impacts pertaining to labor influx the following should be thoroughly implemented:

- Preparation of appropriate code of conduct that stipulates the commitment of labor towards community groups and behaviors that should be avoided
- All workers should be trained on the code of conduct upon recruiting them and bi-weekly refreshing training should be applied
- Code of conduct to be signed by sub-contractor
- Apply the full requirements related to operating the grievance mechanism including anonymous channels
- Raising awareness of the local populations about the project commitment towards communities' and the measures taken for that through public consultation and focus group discussions. The activities can be carried out on bi-weekly basis
- Apply penalties to workers violating the code of conduct

XV. Contractor's Camp Site

- Mobilize maximum capacity of skilled and unskilled Labor force from the surrounding project area by:
  - Sharing information about employment opportunities with the community people, and the municipality on monthly basis
  - Sharing information about supplies opportunities with the local suppliers on monthly basis
- Providing training to local laborers to be fit for their potential jobs (induction training once and specific training on weekly basis)
- Establish the camp inside municipality land
- Ensure installation of adequate construction camp and sanitation facilities for construction; i.e., construct a holding tank to be used to collect domestic wastewater generated by the camp.
- Follow the waste management best practices and mitigation measures outlined in this ESMP.
- Monitor closely the working conditions.
- Maintain an efficient grievance mechanism (discussed in the stakeholder engagement chapter). This GRM should be sensitive to gender and assure confidentiality
- Specific engagement with women and girls that includes awareness on GBV and access to anonymous channels. The meetings should be carried out monthly basis with at least 5 women and girls
- Train workers on the Code of Conduct (induction training – bi weekly refreshing training) and keep close eye on any violation of the COC

XVI. Penalties and termination

In the event that the Contractor fails to fulfill any of the above-mentioned obligations under the contract, the penalties below will be applicable

Steps	Action	Details
Step one	Warning	The contractor should receive a warning statement including proposed corrective measure. All corrective measures should be started no more than two weeks. The contractor should bring to action the immediate corrective measure.
Step two	Payment	If the Contractor does not adhere to the Environmental and Social Management Plan, the Contractor shall not be entitled to continue to receive payments under the terms of this Contract. Payments will not be disbursed until a clear action plan is developed and the Contractor started the implementation of the agreed actions.
Step three	Termination of contract	The Contract will not be terminated due to the failure to fulfill ESMP obligations. However, the sub-project owner will deduct the cost of ESMP implementation from the contract upon. Clear evidence of failure of contractor to implement the ESMP is required

ملحق رقم 4: مسئوليات المقاول

أولا– متطلبات عامة:

1. يجب على المقاول وموظفيه الالتزام بإجراءات التخفيف المنصوص عليها في هذه الوثيقة واتخاذ جميع الإجراءات الأخرى التي يطلبها المهندس لمنع الضرر وتقليل تأثير عملياته على البيئة.
2. يجب على المقاول إعداد خطة مفصلة للصحة والسلامة المهنية لمواقع المشاريع الفرعية والتأكد من تنفيذها.
3. لا يجوز للمقاول أن يمنع الناس من المرور في الطرق. يجب على المقاول أن يعمل على الحد الأدنى من عرض الشارع فقط ولا ينبغي إنشاء طرق التحويل بجانب الطريق الحالي.
4. لمنع التلوث بالغبار خلال فترات الجفاف ، يجب على المقاول أن يقوم بعمليات رش المياه المنتظمة للطرق الترابية والحصوية وأن يقوم بتغطية شاحنات نقل المواد بالقماش المشمع لمنع الانسكاب.

ثانيا– جودة الهواء

5. رش التربة قبل الحفر في التربة الرملية الرخوة
6. الحد من الرحلات غير الضرورية أو المعدات المستخدمة.
7. فرض حدود السرعة
8. يجب تخصيص مناطق التخزين المؤقت في الموقع في مكان محمي من الرياح.
9. يجب رش حمولة الشاحنات بالمياه أو تغطيتها
10. استخدام آلات ذات محركات عالية الكفاءة ومعدلات احتراق فعالة وانبعاثات منخفضة.
11. اعتماد سياسة إيقاف تشغيل الآلات والمعدات عندما لا تكون قيد الاستخدام (وضع الخمول).
12. تطبيق الصيانة الدورية للآلات

ثالثا. الضوضاء والاهتزازات

13. توفير غطاء للأذن لعمال البناء الموجودين بالقرب من الآلات المزعجة
14. التنسيق وإبلاغ السكان في المناطق المجاورة بوقت الذروة والساعات المخصصة لأنشطة إعادة تأهيل الشوارع.
15. حصر أنشطة البناء في النهار (ليس بين الساعة الثامنة مساءً والسابعة صباحاً ، أو على النحو المتفق عليه مع الجمهور والسلطات)
16. اعتماد سياسة إيقاف تشغيل الآلات والمعدات عند عدم استخدامها.

رابعا. تداول والتخلص من مخلفات البناء والمركبات

17. تخصيص منطقة تراكم المخلفات **(WAA)** داخل موقع البناء للتخزين المؤقت لمخلفات البناء.
18. يجب حماية منطقة تراكم المخلفات من المطر وأى مياه.
19. المحافظة على نظافة منطقة تراكم المخلفات
20. يجب التخلص من المخلفات في نهاية المطاف في أقرب موقع التخلص المخصص (مكب المخلفات) من قبل مقاول مرخص
21. التعامل السليم مع زيوت التشحيم والوقود والمذيبات وتوفير التخزين الآمن
22. ضمان التحميل الصحيح للوقود وصيانة المعدات
23. الاحتفاظ بالمخلفات الخطرة في حاويات محددة مانعة للتسرب والتخلص منها مؤقتًا في منطقة آمنة من أجل المخلفات الخطرة في منطقة المياه الجارية
24. أخيرًا ، التخلص من المخلفات الخطرة في منشأة مسموح بها لاستعادة المخلفات من قبل مقاول مرخص
25. جمع والاحتفاظ بجميع مياه الصرف الخرسانية والمواد الصلبة في حاويات مانعة للتسرب ، بحيث لا تصل هذه المادة الكاوية إلى سطح التربة ثم تهاجر إلى المياه السطحية أو مصارف مياه الأمطار أو المياه الجوفية
26. فصل الجوامد (الحصى والرمل) والسائل عن ماء غسيل الخرسانة باستخدام المرشحات
27. إعادة استخدام مياه غسيل الخرسانة في غسيل معدات خلط الخرسانة أو في الخلطة الخرسانية

. خامسا التربة

28. وضع وتطبيق خطة إدارة المخلفات لمنع تلوث التربة
29. المخلفات الخطرة ، مثل زيت المحرك المستهلك ، والمخلفات غير الخطرة يجب التخلص منها مؤقتًا في منطقة تراكم المخلفات المعينة في الموقع ثم التخلص منها نهائيًا في مرفق التخلص المرخص بواسطة مقاول مرخص
30. تنظيم وتغطية مناطق تخزين المواد
31. جمع والإحتفاظ بجميع مياه الصرف الخرسانية والمواد الصلبة في حاويات مانعة للتسرب.
32. يجب على مقاول البناء توفير خزانات مراحيض محمولة في الموقع ، لتزويدها بخزان خارجي لتخزين مياه الصرف الصحي من أجل تجنب التخلص غير المناسب من المخلفات الصحية.
33. الموازنة بين عملية الحفر وإعادة التربة كما كانت
34. العمل على منع تآكل التربة والحفاظ على استقرار المنحدرات.
35. البناء في موسم الجفاف.

36. حماية أسطح التربة أثناء البناء.

سادسا. جودة المياه

37. يجب على المقاول ضمان استخدام المياه بكفاءة في الموقع من خلال توعية موظفي البناء لتجنب الاستخدام غير المسؤول للمياه ، وبالتالي تقليل الضغط على موارد المياه المحلية

سابعا. استهلاك الطاقة

38. التخطيط السليم لنقل المواد لضمان الاستهلاك الأمثل للوقود الأحفوري (الديزل والبنزين)
39. استخدام ماكينات ذات كفاءة عالية
40. اعتماد سياسة إيقاف تشغيل الآلات والمعدات عندما لا تكون قيد الاستخدام (وضع الخمول).
41. تطبيق الصيانة الدورية على الآلات
42. مراقبة استخدام الطاقة أثناء البناء ووضع أهداف للحد من استخدام الطاقة

ثامنا. الصحة والسلامة المهنية

43. يجب على المقاول إعداد واعتماد خطة الصحة والسلامة المهنية **(OHSP)** خلال مرحلة البناء.
44. يجب إعداد برنامج الصحة والسلامة المهنية المطوَّر في الامتثال الكامل لإرشادات مجموعة البنك الدولي بشأن البيئة والصحة والسلامة
45. يجب أن تتضمن الاتفاقية التعاقدية مع المقاول / المقاولين التزامات صارمة لتطبيق برنامج **OHSP** الذي يجب إعداده في الامتثال الكامل لمتطلبات البيئة والصحة والسلامة في البنك الدولي.
46. بالنسبة لأقل العناصر التي يتعين إدراجها في خطة البيئة والصحة والسلامة هي كما يلي:
    أ. التصميم العام للمنشأة وتشغيلها
    ب. الاتصال والتدريب
    ج. الأخطار المادية
    د. المخاطر الكيميائية
    ه. المخاطر البيولوجية
    و. معدات الحماية الشخصية(PPE)
    ز. بيئات الخطر الخاصة
    ح. المتابعة.
47. رصد أحوال العمال كل أسبوع ، والمرافق المتوفرة في الموقع و كرفانات العمال التي تستخدم طوال اليوم بواسطة موظفي الصحة والسلامة المهنية. (انظر الملحق 9 قائمة فحص الموقع)

48. توفير آلية للشكاوى للعاملين بواسطة المقاول أو استخدام آلية الشكاوى الخاصة بالمشروع الرئيسى

تاسعا. صحة المجتمع وسلامته

49. ينبغي اتباع إرشادات صحة المجتمع المحلي وسلامته على طرق الوصول التي ستستخدمها مركبات المشروع الفرعي.
50. ينبغي إعداد إجراءات المرور على طول مواقع المشروع لتوفير أقصى درجات السلامة للسكان وموظفي المشروع.
51. ينبغي تزويد الأشخاص ذوي الإعاقة وأطفال المدارس بطرق وصول آمنة إلى مدارسهم ومناطقهم التجارية ، خاصة وأن المشروع سيحفر الشوارع. يمكن تزويد طرق الوصول الآمن بأضواء لتجنب سقوط المشاة أثناء الليل. كما يجب أن تراعي طرق الوصول الآمن تجنب المرور تحت شبكة توزيع الكهرباء.
52. ينبغي للمقاول أن يصمم طرق وصول مناسبة تمكن كبار السن والمعوقين والأطفال من عبور الطرق بأمان.
53. يجب تركيب اللافتات (8) على الأقل في موقع المشروع الفرعي.
54. يجب تثبيت شريط أصفر لإبعاد الأطفال عن موقع البناء
55. وجود مدونة لقواعد السلوك وتدريب العمال المعينين حديثًا على المدونة أثناء التدريب التعريفي. بالإضافة إلى ذلك ، سيتم إجراء تدريب تنشيطي كل أسبوعين لجميع العمال
56. القيام بمشاركة المعلومات وأنشطة التشاور مع المجتمع حول الآثار المحتملة للمشروع على أساس شهري
57. تتوفر آلية للشكاوى المجتمعية التي تراعي النوع الاجتماعي (خلال ساعات العمل)

عاشرا سيولة حركة المرور

58. توفير معلومات حول الطرق والمحاور المرورية التي سيتم إغلاقها أثناء الإنشاء والجدول الزمني على أساس أسبوعي من خلال عقد اجتماعات مع السكان المحيطين والأنشطة التجارية على أساس شهري (ثلاثة اجتماعات سيتم عقدها مع المقيمين – الإناث – المحلات التجارية)
59. مشاركة المعلومات مع البلدية حول الطرق البديلة التي سيتم الكشف عنها على **Facebook** الخاص بمجلس المدينة وتحديثها كل أسبوعين.
60. تحديد السرعة القصوى داخل موقع المشروع (والتي يجب ألا تتجاوز 15 كم في الساعة)
61. يجب على المقاول وضع قيود على حركة المركبات الكبيرة (الشاحنات) لتجنب ساعات الذروة
62. التأكد من سلامة المركبة والصيانة الدورية من قبل المقاول
63. توفر آلية للشكاوى لأفراد المجتمع والعاملين من قبل المسؤول الاجتماعي في المشروع الفرعي ومهندس الموقع

الحادي عشر. عمالة الأطفال

64. في الاتفاق التعاقدي ، ينبغي إدراج تعريف واضح للطفل. يجب تعريف الطفل بأنه جميع الأشخاص الذين تقل أعمارهم عن 18 عامًا.
65. يجب كتابة شروط صارمة في اتفاقية المقاول لحظر تجنيد الأطفال دون سن 18 عامًا

الثاني عشر. التراث الثقافي

66. .سيتم تطبيق جميع إجراءات العثور على الأثر
67. جميع تدابير التخفيف المذكورة أعلاه سوف تقلل من الآثار على المسجد (الضوضاء والاهتزاز).

الثالث عشر: البنية التحتية والمرافق تحت الأرض

68. التنسيق مع إدارات المياه الصالحة للشرب والكهرباء وسلطات الاتصالات للحصول على خرائط / بيانات عن المرافق الموجودة تحت الأرض ، متى توفرت.
69. جمع الخرائط الأكثر دقة للمرافق التي تقع تحت سطح التربة وطرق البنية التحتية من محافظة نينوى وطلب علامات الموقع ، إن وجدت ، قبل البدء في الأعمال.
70. حفر نقاط إستكشافية لتحديد مواقع المرافق تحت الأرض قبل استخدام الحفر الميكانيكي.
71. في حالة تلف أحد المرافق تحت الأرض وأنابيب البنية التحتية ، يجب اتباع الإجراءات المعيارية ، بالإضافة إلى إعداد تقرير وثائقي عن الحادث.

الثالث عشر. تدفق العمالة المؤقتة والعنف القائم على النوع الاجتماعي

72. من أجل التقليل إلى أدنى حد من الآثار المتعلقة بتدفق العمالة ، ينبغي تنفيذ ما يلي تنفيذاً شاملاً:

- إعداد مدونة سلوك مناسبة تنص على التزام العمل تجاه فئات المجتمع والسلوكيات التي يجب تجنبها
- يجب تدريب جميع العاملين على قواعد السلوك.
- يجب توقيع قواعد السلوك بواسطة المقاول من الباطن
- التعريف بمدونة قواعد السلوك والذى يجب أن يتم إجراؤه كل أسبوعين للعاملين الدائمين والوافدين الجدد قبل بدء العمل.
- تطبيق المتطلبات الكاملة المتعلقة بتشغيل آلية الشكاوى بما في ذلك السماح بتقديم شكاوى مجهولة
- زيادة وعي السكان المحليين حول التزام المشروع تجاه المجتمعات والتدابير المتخذة لذلك من خلال المشاورات العامة ومناقشات المجموعات البؤرية
- تطبيق العقوبات على العاملين المخالفين لقواعد السلوك

الخامس عشر. موقع معسكر المقاول

- تعيين القوى العاملة الماهرة وغير الماهرة من منطقة المشروع المحيطة من خلال:
  - مشاركة المعلومات حول فرص العمل مع أفراد المجتمع والبلدية على أساس شهري
  - تبادل المعلومات حول فرص التوريدات مع الموردين المحليين على أساس شهري
- توفير التدريب للعمال المحليين ليكونوا لائقين لوظائفهم المحتملة (تدريب تمهيدي مرة واحدة وتدريب محدد على أساس أسبوعي)
- إقامة المخيم داخل أراضي البلدية
- ضمان إقامة معسكرات البناء الملائمة ومرافق الصرف الصحي للبناء. أي إنشاء خزان لتخزين المياه العادمة المنزلية الناتجة عن المخيم.
- اتباع أفضل ممارسات إدارة المخلفات وتدابير التخفيف الموضحة في خطة الإدارة البيئية والاجتماعية هذه.
- مراقبة ظروف العمل عن كثب.
- الحفاظ على آلية فعالة للشكاوى (تمت مناقشتها في فصل مشاركة الفئات المعنية). يجب أن تكون آلية الشكاوى هذه مراعية للنوع الاجتماعي وتضمن السرية
- إجراء مقابلات مع النساء والفتيات للتوعية بالعنف القائم على النوع الاجتماعي وإتاحة طرق تواصل تراعي السرية للإبلاغ عن الحالات على أساس شهري مع ما لا يقل عن 5 نساء وفتيات
- تدريب العاملين على قواعد السلوك (التدريب التعريفي – تدريب تنشيطي كل أسبوعين) ومراقبة أي انتهاك لقواعد السلوك المهني

السادس عشر: 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 3 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. This includes cemeteries, graveyards, and graves. 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 reconstruction operations pose limited risks in damaging cultural property since sub-projects will largely consist of small investments in community infrastructure and income generating activities, reconstruction 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.

ANNEX 4 MAIN STAKEHOLDERS IDENTIFIED FOR THE PROJECT

Categories	Stakeholder Groups	Role/Concern
Potential Affected Communities in Al Kafa'at District	Residents of the site	• They are the main stakeholders. • They will be responsible of communicating with the Project and other community people.
	Vulnerable groups, i.e., women, young people, and elders	• They are the potential Project Affected Persons (PAPs), i.e., households and communities that will receive impacts (positive/negative) as a result of the project. • Given their vulnerable status they might be severely affected by positive or negative impacts.
Governmental sector	El Mosul Municipality	• The main role of the municipality authority is the provision of support to the project through mobilizing people to gain information about the project. • Permits for the state-owned lands needed for storage purposes should be prepared by the municipality. • Paving roads.
Environmental sector	The Ministry of Health and Environment (MoHE)	• Responsible for developing public policies related to the protection of environment and improving its quality. Also, it is responsible for issuing regulations for environmental determinants and for monitoring their implementation.
Funding Agencies	The World Bank (WB)	• Financiers and regulators because their safeguards will influence the implementation of the project. • Responsible for reviewing and approving safeguard documents
Project Owner	REFAATO - EODP PMT	• Project client, responsible for allocation of funding and prioritization of projects
Sub-project owner	The Mosul municipality	• Implementing agency overseeing activities of the Environmental and Social Management Plan
Other Governmental Entities	Nineveh Governorate	• Provision of data required about project sites • Taking necessary security measures. • Educating population on and implementing the GRM.

	Environmental Office within the Governorates	• Responsible for monitoring compliance to environmental requirements.
	Health Directorate	• Health directorates provide health services to local units and project laborers through the health services' providers
	Directorate for Antiquities	• It has a role in providing the maps that illustrate the archaeological sites near the Project areas, as well as the procedures to be followed in case of finding any antiquities.
Ministries	Ministry of Interior Affairs and Traffic	• They have a role in mitigating impacts related to traffic • They expressed their willingness to provide security to the project (if needed).
	Ministry of Labor	• They oversee working conditions and worker's occupational health and safety.
Contractors	Contractors	• They will be responsible for the implementation of the sub-projects as well as the ESMP
Traders and Suppliers	Traders (small scale stores)	• They provide workers with food and amenities.
	Small contractors	• They may be affected because they are situated in the project's adjacent areas.
Civil Society	NGOs (regional, local) Justice Center to Support Marginalized Groups in Iraq	• They support the local community by providing capacity building activities. • They play an active role in any awareness-raising activities related to the project. • They are responsible of sharing information with the community.
Media	Television Representatives Newspaper Websites Editors Social Media	• They disclose information about the project.

ANNEX 5 FEEDBACK UPTAKE FORM ON REFAATO'S WEBSITE (ARABIC AND ENGLISH)


صندوق إعادة إعمار المناطق المتضررة من العمليات الإرهابية
الصفحة الرئيسية
ARABIC
ENGLISH
تفاصيل الحالة
تفاصيل عن حالة الشكوى
نوع المشروع
المحافظة
المنطقة
اسم المشروع (اذا كان معروفا)
وصف مفصل للحالة
يرجى تقديم وصف لملاحظات بالنسبة للشكوى والاستفسارات والمقترحات. مثل: تفاصيل الشكوى - المقترح - الاستفسار الذي لديك.
صندوق إعادة إعمار المناطق المتضررة من العمليات الإرهابية
الصفحة الرئيسية
ARABIC
ENGLISH
تفاصيل الاتصال
إذا تم تقديم الملاحظات نيابة عن شخص آخر
ما هي علاقتك بالشخص الذي يتم تقديم الملاحظات نيابة عنه؟
- اختر أحدى الخيارات -
تفاصيل الشخص الذي يتم تقديم الملاحظات نيابة عنه
الاسم الأول
أسم الأب
أسم العائلة
العنوان
رقم المنزل
رقم الشارع
القضاء او الناحيه أو المدينة
ما هي وسيلة الاتصال المفضلة لديك؟ (اختياري)
- اختر أحدى الخيارات -
هل يواجه هذا الشخص أيًا من التحديات التالية التي يجب مراعاتها أثناء الاتصال به أو الرد عليه؟
- اختر أحدى الخيارات -


الأدلة التي يمكنك مشاركتها مع الصندوق لتوثيق الحالة

- اختر أحدى الخيارات -

+ أرفع الملف الملفي هنا...

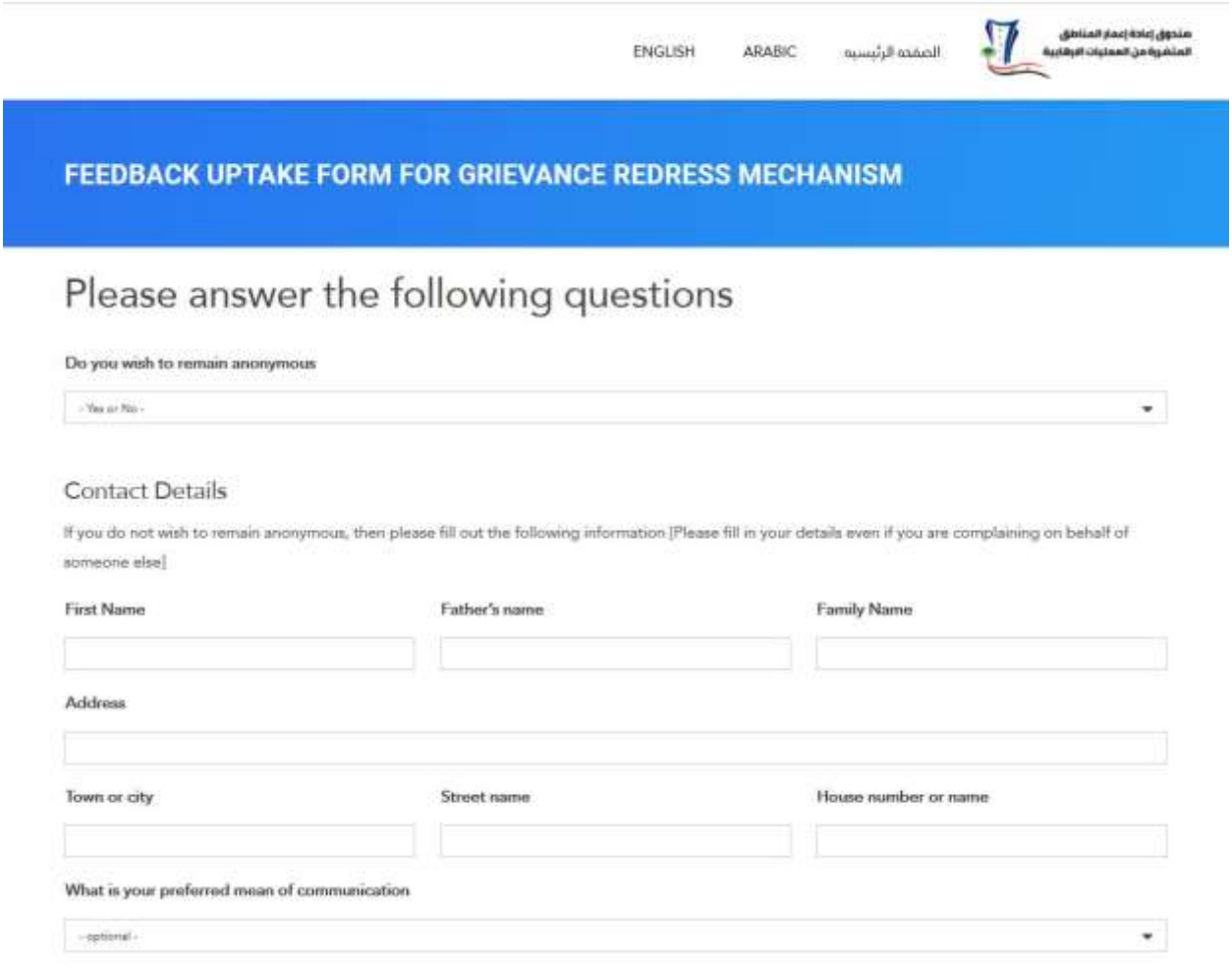
إذا كانت شكوى، هل اتخذت أي إجراء لمعالجة مشكلة الشكوى؟ إذا كانت الإجابة نعم ، يرجى التفاصيل وتقديم التفاصيل التي اتخذتها بهذا الصدد

هل لديك أية اعتراضات على ما يلي

- تلقي اتصال من فريق إدارة المشروع لمزيد من التوضيح والمناقشة حول القضية
- إجراء مكالمة مع المختص في وحدة تلقي الشكاوى من صندوق إعادة إعمار المناطق المتضررة من العمليات الإرهابية بعد حصولك على الرد للحالة المقدمة من قبلك (شكوى – مقترح – استفسار). الرجاء تحدي رغبتك عن التالي؟

يرجى ملاحظة/ أنه يحق لجميع المواطنين الطعن في قرار نتيجة الشكوى التي قدمت الى EOPD GRM . يحق لمستخدمي آلية تلقي الشكاوى الغير راضين عن نتيجة شكواهم إعادة تقديم شكواهم الى المختص في وحدة تلقي الشكاوى (REFATTO GRM Coordinator) في غضون30 يوم من تلقي الرد على الحالة السابقة. الخيار الاخر هو التوجه للقضاء عبر المحاكم المختصة .

أرسل الملف


صندوق إعادة إعمار المناطق المتضررة من العمليات الإرهابية

الصفحه الرئيسيه ARABIC ENGLISH

FEEDBACK UPTAKE FORM FOR GRIEVANCE REDRESS MECHANISM

Please answer the following questions

Do you wish to remain anonymous

- Yes or No -

Contact Details

If you do not wish to remain anonymous, then please fill out the following information [Please fill in your details even if you are complaining on behalf of someone else]

First Name | Father's name | Family Name

Address

Town or city | Street name | House number or name

What is your preferred mean of communication

- optional -

ENGLISH ARABIC الصفحة الرئيسية

EODP

FEEDBACK UPTAKE FORM FOR GRIEVANCE REDRESS MECHANISM

Complaints phone number

80011111

About this form

This Feedback Uptake Form (U001) is intended for stakeholders, including beneficiaries and other persons effected by the Emergency Operation for Development Project (EODP) to submit their feedback (including complaints, questions, suggestions and compliments)

This form is designed to document information that is required by the EODP GRM (grievance redress mechanism) to investigate, address and respond to the feedback that has been submitted by beneficiaries, affected persons and citizens. The EODP GRM is composed of REFAATO's GRM unit for EODP and the GRM units of EODP PMTs for the ministries and governorates. PMTs

REFAATO's GRM unit for EODP, the GRM units of the Ministry and Governorate EODP PMTs and Field Engineers should have this form available to fill out when and if stakeholders contact them or when they are in the field and interact with stakeholders. This form is available online on the REFAATO Website, Facebook and other social media managed by REFAATO and the websites of the Ministry and Governorate EODP PMTs

Next >

Filled form of complaint

Details of the person on whose behalf feedback is being submitted

First Name | Father's name | Family Name

Address

Town or city | Street name | House number or name

WhatsApp / Viber / Facebook / Messenger | Email | Phone

Do you have any physical disabilities

- Yes Or No -

Details of Feedback

Type of Project

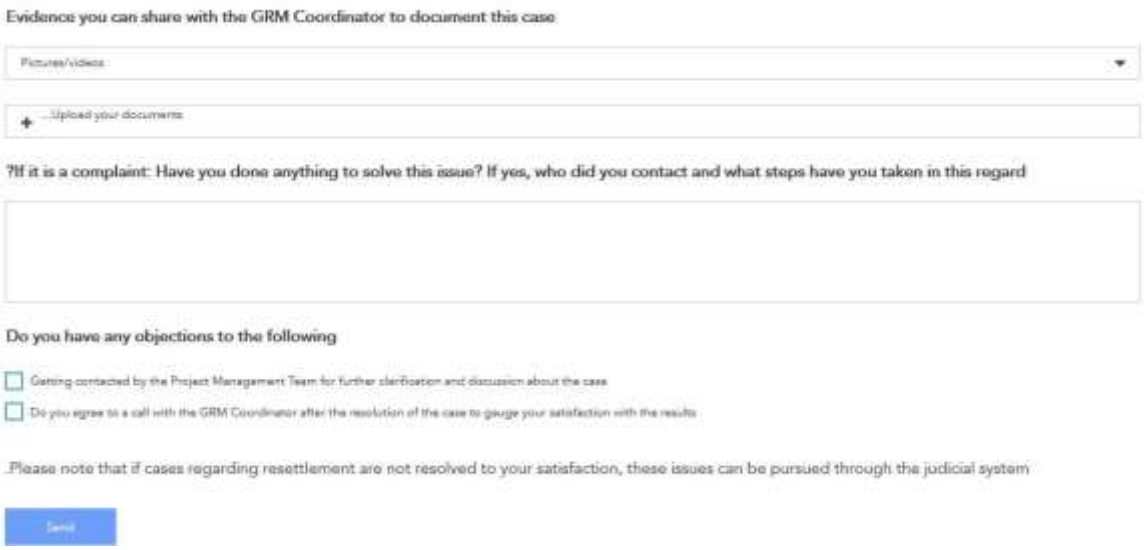
Governorate

City

Project Name (if it is known)

Detailed description of feedback

Please provide a description of your feedback. For complaints and queries, please describe in detail the grievance/complaint/recommendations you have


Evidence you can share with the GRM Coordinator to document this case
Pictures/videos
Upload your documents
?If it is a complaint: Have you done anything to solve this issue? If yes, who did you contact and what steps have you taken in this regard
Do you have any objections to the following
Getting contacted by the Project Management Team for further clarification and discussion about the case
Do you agree to a call with the GRM Coordinator after the resolution of the case to gauge your satisfaction with the results
Please note that if cases regarding resettlement are not resolved to your satisfaction, these issues can be pursued through the judicial system
Send

ANNEX 6 COVID-19 MEASURES - WBG RESPONSE TO COVID-19 - HEALTH AND SAFETY ISSUES IN ENGLISH

Civil Works (conversion and construction of medical facilities including isolation facilities)

Older people and people with pre-existing medical conditions (including asthma, diabetes, and heart disease) appear to be more vulnerable to becoming severely ill from COVID-19[43].

The following table lists the health and safety risks and impacts associated with civil works financed by the WB in response to the COVID-19 outbreak. Potential mitigation measures and references to sources of additional advice and information are provided.

Activity	Risks and Impacts	Mitigation Measures
Design activity – hospitals, clinics	The focus on treatment and care is progressed disproportionately with the need for adequate medical waste infrastructure.	Ensure that the designs for medical facilities also consider the collection, segregation and treatment of medical waste. There is no evidence that direct, unprotected human contact during the handling of healthcare waste has resulted in the transmission of COVID-19. The treatment of healthcare wastes produced during the care of COVID-19 patients should be collected safely in designated containers and bags, treated and then safely disposed. Open burning and incineration of medical wastes can result in emission of dioxins, furans and particulate matter, and result in unacceptable cancer risks under medium (two hours per week) or higher usage. If small-scale incinerators are the only option available, the best practices possible should be used, to minimize operational impacts on the environment. Best practices in this context are: • effective waste reduction and segregation, ensuring only the smallest quantities of combustible waste types are incinerated; • an engineered design with sufficient residence time and temperatures to minimize products of incomplete combustion; • siting incinerators away from health-care buildings and residential areas or where food is grown; • construction using detailed engineering plans and materials to minimize flaws that may lead to incomplete destruction of waste and premature failures of the incinerator;

[43] The SARS-CoV-2 virus has been identified as the cause of COVID-19.

Activity	Risks and Impacts	Mitigation Measures
		• a clearly described method of operation to achieve the desired combustion conditions and emissions; for example, appropriate start-up and cool-down procedures, achievement and maintenance of a minimum temperature before waste is burned, use of appropriate loading/charging rates (both fuel and waste) to maintain appropriate temperatures, proper disposal of ash and equipment to safeguard workers; • periodic maintenance to replace or repair defective components (including inspection, spare parts inventory and daily record keeping); and • improved training and management, possibly promoted by certification and inspection programs for operators, the availability of an operating and maintenance manual, visible management oversight, and regular maintenance schedules. Single-chamber, drum and brick incinerators do not meet the BAT requirements under Stockholm Convention. Small-scale incineration should be viewed as a transitional means of disposal for health-care waste. Alternative treatments should be designed into longer term projects; such as steam treatment methods. Steam treatment should preferably be on site, although once treated, sterile/non-infectious waste may be shredded and disposed of in suitable waste facilities. See WHO Safe management of wastes from health-care activities[44].
Construction activity – hospitals, clinics, mortuary	Land taking for the construction of new and expansion of existing hospitals. Injury during the construction of new buildings or refurbishment of existing buildings.	Follow ESS5 and IPF Policy para 12 on E&S requirements in situations of urgent need of assistance. Apply ESHGs to implementation of projects.

[44] https://apps.who.int/iris/bitstream/handle/10665/85349/9789241548564_eng.pdf?sequence=1

Activity	Risks and Impacts	Mitigation Measures
Design and operation of facilities, including triage, isolation (or quarantine) facilities	The design of the facility and the operating procedures will help prevent spread of infection	For patients with possible or confirmed COVID-19, isolation rooms should be provided and used at medical facilities. Isolation rooms should: • be single rooms with attached bathrooms (or with a dedicated commode); • ideally be under negative pressure (neutral pressure may be used, but positive pressure rooms should be avoided); • be sited away from busy areas (areas used by many people) or close to vulnerable or high-risk patients, to minimize chances of infection spread; • have dedicated equipment (for example blood pressure machine, peak flow meter and stethoscope), but should avoid excess equipment or soft furnishings; • have signs on doors to control entry to the room, with the door kept closed; • have an ante-room for staff to put on and take off PPE and to wash/decontaminate before and after providing treatment. An operation manual should be prepared prior to the opening of isolation rooms to describe the working procedures to be taken by healthcare workers to protect themselves and prevent infection escape while providing treatment. The operational procedures should be of a standard to meet guidance from WHO and/or CDC on infection control: • WHO interim guidance on Infection prevention and control during health care when novel coronavirus (nCoV) infection is suspected45; • WHO technical brief water, sanitation, hygiene and waste management for COVID-1946; • WHO guidance on infection prevention and control at health care facilities (with a focus on settings with limited resources)47; • WHO interim practical manual for improving infection prevention and control at the health facility48;

[45] https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-(ncov)-infection-is-suspected-20200125
[46] https://www.who.int/publications-detail/water-sanitation-hygiene-and-waste-management-for-covid-19
[47] https://www.who.int/infection-prevention/tools/core-components/facility-manual.pdf
[48] https://www.who.int/infection-prevention/tools/core-components/facility-manual.pdf

Activity	Risks and Impacts	Mitigation Measures
		• CDC Guidelines for isolation precautions: preventing transmissions of infectious agents in healthcare settings49; and • CDC guidelines for environmental infection control in healthcare facilities.[50]
Improve access to support and treatment for the disadvantaged vulnerable groups	Some vulnerable groups (especially the elderly or those with pre-existing medical conditions) may be severely affected by COVID-19 and may need additional support to access treatment.	Projects should develop and commit to specific actions to ensure disadvantaged and vulnerable groups have effective treatment, whether in medical facilities or in the community. Similarly, where IP communities are involved, need to follow ESS7 and IPF policy Para 12 on emergency provision.
Employment of workers	Workers do not receive the care needed if infected with COVID-19.	Contractors should ensure that contracted workers have medical insurance, covering treatment of COVID-19.
Transient and expat workforce	Workers that are mobilized from abroad or returning from abroad become vectors for transmission of disease to construction projects. Workers that travel from other regions may also provide a vector for passing infection onto work sites.	Expats or transient workers should adhere to national requirements and guidelines with respect to COVID-19. Expats or transient workers coming from countries/regions with cases of the virus: • Should not return if displaying symptoms • Should self-isolate for 14 days following their return For self-isolation, workers should be provided with a single room that is well-ventilated (i.e., with open windows and an open door). If a single room is not available for each worker, adequate space should be provided to maintain a distance of at least 1 m between workers sharing a room. Workers in isolation should limit their movements in shared space, for example through timed use of shared spaces (such as kitchens and bathrooms) with cleaning prior to and after use of the facilities. Visitors should not be allowed until the worker has shown no signs and symptoms for 14 days, and the number of staff involved in caring for those in isolation should be kept to a minimum. Healthcare professionals and cleaners should visit each day (wearing the appropriate PPE and observing hygiene requirements and make appropriate arrangements for

[49] https://www.cdc.gov/infectioncontrol/pdf/guidelines/isolation-guidelines-H.pdf
[50] cdc.gov/infectioncontrol/pdf/guidelines/environmental-guidelines-P.pdf

Activity	Risks and Impacts	Mitigation Measures
		supplying food and water to the kitchens for the workers in isolation. Further information is provided by WHO in Home care for patients with suspected novel coronavirus (COVID-19)[51].
Labor camps	Close working and living conditions of workforce may create conditions for the easy transmission of COVID-19 and the infection of large numbers of people.	Develop contingency plans with arrangements for accommodation, care and treatment for: • Workers self-isolating • Workers displaying symptoms • Getting adequate supplies of water, food and supplies Contingency plans also should consider arrangements for the storage and disposal arrangements for medical waste, which may increase in volume and which can remain infectious for several days (depending upon the material). Ensure medical facilities are stocked with adequate supplies of medical PPE, as a minimum: • Gowns, aprons • Medical masks and some respirators (N95 or FFP2) • Gloves (medical, and heavy duty for cleaners) • Eye protection (goggles or face screens) Medical staff at the facilities should be trained and be kept up to date on WHO advice and recommendations on the specifics of COVID19 The medical staff/management should run awareness campaigns and posters on site advising workers: • how to avoid disease spread (cough/sneeze in crook of elbow; keep 1m or more away, sneeze/cough in tissue and immediately through tissue away, avoid spitting, observe good hygiene) • the need to regularly wash hands with soap and water – many times per day • to self-isolate if they think they may have come in contact with the virus • to self-isolate if they start to display any symptoms, but alert and seek medical advice Wash stations should be provided regularly throughout site, with a supply of clean water, liquid soap and paper towels (for

[51] https://www.who.int/publications-detail/home-care-for-patients-with-suspected-novel-coronavirus-(ncov)-infection-presenting-with-mild-symptoms-and-management-of-contacts

Activity	Risks and Impacts	Mitigation Measures
		hand drying), with a waste bin (for used paper towels) that is regularly emptied. Wash stations should be provided wherever there is a toilet, canteen/food and drinking water, or sleeping accommodation, at waste stations, at stores and at communal facilities. Where wash stations cannot be provided (for example at remote locations), alcohol-based hand rub should be provided. Enhanced cleaning arrangements should be put in place, to include regular and deep cleaning using disinfectant of catering facilities/canteens/food/drink facilities, latrines/toilets/showers, communal areas, including door handles, floors and all surfaces that are touched regularly (ensure cleaning staff have adequate PPE when cleaning consultation rooms and facilities used to treat infected patients) Worker accommodation that meets or exceeds IFC/EBRD worker accommodation requirements[52] (e.g., in terms of floor type, proximity/no of workers, no 'hot bedding', drinking water, washing, bathroom facilities etc.) will be in good state for keeping clean and hygienic, and for cleaning to minimize spread of infection. To minimize pressure on PPE resources: WHO advice on the effectiveness and use of PPE by general public should be followed to ensure that the supplies are not exhausted through ineffective use – this is equally important on construction sites. Other measures (such as working water sprinkling systems at crushers and stock piles, covered wagons, water suppression or surfacing of haul roads etc.) should be used for dust suppression on site before relying upon the use of dust masks (which could unnecessarily reduce the availability of N95/FFP2 masks for use by medical staff performing some duties)

References and sources of further information

- https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance
- https://www.cdc.gov/coronavirus/2019-ncov/lab/lab-biosafety-guidelines.html

[52] https://www.ifc.org/wps/wcm/connect/60593977-91c6-4140-84d3-737d0e203475/workers_accomodation.pdf?MOD=AJPERES&CACHEID=ROOTWORKSPACE-60593977-91c6-4140-84d3-737d0e203475-jqetNIh

- https://www.cdc.gov/coronavirus/2019-nCoV/hcp/index.html
- https://www.gov.uk/government/collections/coronavirus-covid-19-list-of-guidance#guidance-for-health-professionals
- https://worldbankgroup.sharepoint.com/sites/wbsites/coronavirus/Pages/index.aspx

ANNEX 7 PRACTICAL TOOLS FOR VIRTUAL ENGAGEMENT DURING COVID-19

It is recommended to avoid any group meetings, face to face meetings and public consultation events.

Virtual engagement may include communication by phone, text, e-mail, phone or video conference calls and webinars. Any technology that resonates with your stakeholders and allows for researcher/stakeholder interactions can be harnessed to assist with engagement. Examples of engagement modes and ways they might be utilized include:

- Phone (One-on-one calls between consultant and stakeholders),
- Group conference calls,
- Having discussions via a closed Facebook group,
- Videoconference platforms,
- Hosting online meetings with stakeholders.

It is strongly recommended to:

- Ensure that new modes of engagement are feasible and acceptable to stakeholders,
- Let stakeholders be the guide! Ask for their preferred way to engage remotely,
- Be sensitive to barriers stakeholders may face in engagement using a particular method (e.g., lack Internet access),
- Whenever possible, offer multiple ways to engage. For example, you might provide an option to call in to an online meeting via phone, and send materials out in advance via WhatsApp,
- Ask for stakeholder feedback throughout the project and work to address any issues hindering their engagement,
- If using videoconferencing or other online platforms:
    - Provide participants with necessary technological tutorials or technical support in advance, including written instructions for utilizing the technology.
    - Understand that stakeholders' technological literacy will vary, and be willing and available to answer questions.
    - Have a facilitator from the targeted community work with you to adjust stakeholders to the technology used.
    - When possible, have a lower-tech option for engaging, such as the option to call in to a videoconference via phone

ANNEX 8 GRIEVANCE AND REDRESS MECHANISM FORMS AND LOG

1- GRM LOG

A. Monthly Complaint Database

Monthly Complaint Database							
Month	Child Protection	Education	Health	Livelihoods	Nutrition	Pending	Total
March							
April							
May							
June							
July							
August							
September							
October							
November							
December							
Total							

قاعدة بيانات شكاوى المساءلة (الخط الساخن وتقييمات الوقت الفعلي)							
الشهر	حماية الطفل	التعليم	الصحة	سبل العيش	التغذية	قيد الانتظار	المجموع
مارس							
ابريل							
مايو							
يونيو							
يوليو							
اغسطس							
سبتمبر							
اكتوبر							
نوفمبر							
ديسمبر							
الإجمالي							

B. Feedback Monitoring Tool

تاريخ الاستلام Date Feedback Received	الموظفين المسؤولين عن توثيق ومعالجة الملاحظات Staff Responsible for documenting & processing feedback	وصف موجز للردود الواردة Brief Description of Feedback Received	فئة التعليقات [السؤال، الاقتراح، المديح، الشكوى] Category of Feedback [question , suggestion , compliment, complaint[	أولوية التعليقات المستلمة [عالية، متوسطة، منخفضة] Priority of Feedback Received [High, Medium, Low[	كيف تم تلقي التعليقات (الهاتف، شخصيًا، موقع FB ، الويب، إلخ) How was the feedback received (Phone, in-person, FB, Website, etc)	اسم الشخص الذي يقدم الملاحظات: (المعلومات اختيارية وتعامل دائمًا على أنها سرية) Name of Person Providing Feedback: (information is optional and always treated as confidential(	جنس مزود ردود الفعل [ذكر / أنثى] Gender of GRM User [Male/Female]	العنوان أو معلومات الاتصال الخاصة بالشخص الذي يقدم الملاحظات: (المعلومات اختيارية وسرية) Address or contact information for GRM User: (information is optional & confidential(	موقع ملاحظات محافظة / مدينة / قرية Location of feedback **Governate /City/Village**	موقع الملاحظات - اسم المشروع / المرجع Location of feedback **-Project Name/ Reference**	موقع الملاحظات - إحداثيات GPS Location of feedback **- GPS coordinates**

موضوع التعليقات [على سبيل المثال التأخير في البناء وسوء استخدام الأموال] Topic of feedback e.g. delay in construction, misuse of funds	من الذي يجب عليه التعامل مع الملاحظات ومتابعتها؟ [يرجى الإشارة إلى ما إذا كانت هذه مشكلة يمكن معالجتها بواسطة PMT على مستوى الوزارة أو المحافظة أو البلدية أو وحدة تنسيق المشروع أو أي كيان آخر] Who should handle and follow up on the feedback? [please indicate if this is an issue that can be addressed by the PMT at the ministry or governorate level, the municipality, the PCU or other entity.	اسم ومعلومات الاتصال للشخص المسؤول عن معالجة التعليقات Name &Contact information of person in charge of addressing the feedback	حالة معالجة التعليقات ** [إقرار بالاستلام ، معلق ، حل ، استجابة مرسلة إلى موفر الملاحظات] **Status of addressing feedback [Acknowledged Receipt, Pending, Resolved, Response sent to Feedback Provider]	في انتظار العمل لمعالجة التعليقات إذا لم يتم حلها Pending Action to Address Feedback if unresolved	[إذا تم حلها] ما هو تاريخ القرار؟ [If Resolved] What was the date of resolution?	إذا تم حلها ومعلومات] ** الاتصال الخاصة بموفر الملاحظات متاحة] ما هو تاريخ إرسال الاستجابة إلى مزود التعليقات؟ **[If resolved and the contact information of GRM user is available] What was the date that the response was sent to the feedback provider?	كيف تم حل المشكلة، بما في ذلك العملية التفصيلية للتعامل مع التاريخ ومن شارك؟ How was the issue resolved, including detailed process of handling by date and who participated?

2 GRM UPTAKE FORM

IRAQ EMERGENCY OPERATION FOR DEVELOPMENT PROJECT

UPTAKE FORM FOR EODP GRM

About this form:

This Uptake Form **(U001**) is for the Iraq Emergency Operation for Development (EODP) grievance redress mechanism (GRM), which is composed of is composed of REFAATO's GRM unit for EODP and the GRM units of EODP project management teams (PMTs) for ministries and governorates[53].

This form is intended for stakeholders, including beneficiaries and other persons effected by EODP to submit their feedback (including complaints, questions, suggestions and compliments). It is designed to document information that is required by the EODP GRM to investigate, address and respond to the feedback that has been submitted by beneficiaries, affected persons and citizens.

REFAATO's GRM unit for EODP, the GRM units of the Ministry and Governorate EODP PMTs and Field Engineers should have this form available to fill out when and if stakeholders contact them or when they are in the field and interact with stakeholders. This form is available online on the REFAATO Website and the websites of the EODP PMTs.

To GRM User:

Thank you for contacting EODP REFAATO/ [PMT name] GRM Department. We strive to address your feedback in a timely matter. Please note that that if you wish to share your contact information, you will receive a call within 72 hours from our GRM Coordinator informing you of how we will proceed with addressing your complaint or query. If you wish you remain anonymous, please note that we respect your privacy and confidentiality and then you will be assigned a case number that you can use to follow up on the status of your complaint or question.

[53] Please include names of ministries and governorates

Please answer the following questions:

No	Question	Answer
1.	**Do you wish to remain anonymous?**	☐ Yes ☐ No
2.	If Yes, please note that the case number for this application is (XXXX)	
	I. Contact Details	
3.	If you do not wish to remain anonymous, then please fill out the following information [Please complete in your details even if you are submitting feedback on behalf of another person] **First Name:** ---------- **Father's name:** ---------- **Family Name:** ----------	
4.	**Address:** House number or name: ---------- Street name: ---------- Town or city: ----------	
5.	**Contact Information:** Phone: ---------- Email: ---------- WhatsApp/Viber/Facebook Messenger: ----------	
6.	**What is your preferred means of contact? (optional)**	☐ Phone number: ☐ Email: ☐ WhatsApp/Viber/Facebook Messenger
	II. Contact Details [if feedback is being submitted on behalf of another person]	
7.	**What is your relationship to the person on whose behalf you are submitting feedback?**	☐ I am their spouse or partner ☐ I am their parent or guardian ☐ I am their child

No	Question	Answer
		☐ We are an NGO ☐ Other
8.	**Details of the person on whose behalf feedback is being submitted** **First Name:** **Father's name:** **Family Name:** **----------** **----------** **----------**	
9.	**Address:** House number or name: ---------- Street name: ---------- Town or city: ----------	
10.	**Preferred means of contact:**	☐ Phone number: ☐ Email: ☐ WhatsApp/Viber/Facebook Messenger
11.	**Does this person have any of the following challenges that should be taken into account while communicating or responding to them?**	☐ Sight ☐ Hearing ☐ Speech
III. Details of Feedback		
12.	Project of Concern:	☐ Type of Project: ☐ Governorate: ☐ City: ☐ District: ☐ Project Name (if it is known):
13.	Type of feedback:	☐ Question or Request for Information: ☐ Complaint ☐ Recommendation: ☐ Compliment: ☐ Other:
14.	Detailed description of feedback: Please provide a description of your feedback. For complaints and queries, please describe in detail the grievance/complaint/recommendations you have:	

No	Question	Answer

15.	Evidence you can share with the GRM Coordinator to document this case	☐ Pictures/videos ☐ Documents describing the situation ☐ Official reports ☐ Testaments from local community members ☐ Any letters and communication with authorities
16.	If you are submitting a complaint, have you done anything to solve this issue? If yes, who did you contact and what steps have you taken in this regard? ----------	
17.	Do you have any objections to? ☐ Getting contacted by the Project Management Team for further clarification and discussion about the case? ☐ A call with the REFAATO GRM Coordinator after you have received a response about your case to gauge your satisfaction with the results?	

PLEASE NOTE: All citizens have the right to appeal the decision/outcome of a complaint that they have submitted to the EODP GRM. GRM users who are dissatisfied with the outcome of their complaint can resubmit their complaint to the REFAATO GRM Coordinator within 30 working days of receiving a response to the earlier case they had submitted. The other option is to go to court.

Stamped:

Dated:

Signed by Case Officer

3 OPTIONAL USER SURVEY FOR REFAATO GRM FOCAL POINT

If the GRM user agrees to a follow up call, the following information should be collected:

No	Question	Answer
1.	Were you satisfied by the process that REFAATO/PMT used for addressing and responding to your question or complaint? Please explain: --- ---	☐ Yes ☐ No
2.	Were you informed by REFAATO/PMT GRM Coordinator on the stages of the process? Please explain: --- ---	☐ Yes ☐ No
3.	Did you receive communication within the first 72 hours of your contacting the REFAATO/PMT GRM Department? Please explain: --- ---	☐ Yes ☐ No
4.	Whether you were given a timeline for the resolution of your case and did REFAATO/PMT comply with these dates? Please explain: --- ---	☐ Yes ☐ No
5.	Whether you were contacted by the Project Management Team (PMT) to investigate your complaint or question? Please explain:	☐ Yes ☐ No

No	Question	Answer
	---------- ----------	
6.	How would you describe your overall experience with REFAATO/PMT?	☐ Very Good ☐ Satisfactory ☐ Unsatisfactory
7.	Were you satisfied by the results of the investigation? Please explain: ---------- ----------	☐ Very Good ☐ Satisfactory ☐ Unsatisfactory

ANNEX 9 SITE INSPECTION CHECKLIST

Workers Condition Checklist

Site name:---------- **Date:----------**

Time: From ---------- to ---------- **Conducted by:----------**

Observations

On-site facilities for workers are established and maintained to ensure the health, safety and welfare of workers, and in accordance with international[2] and includes:

Item	Observation
• **Potable drinking water supply, provided to workers free of charge.**	
Potable water quality is tested monthly and meets the standards for drinking-water quality established by the World Health Organization.	----------
Water is provided with sanitary means of collecting water for the purposes of drinking (e.g., a drinking fountain with an upward jet).	----------
Appropriate lighting for all areas of on-site activities (including work and rest areas).	
work areas receive natural light, supplemented by artificial illumination.	----------
Work areas received sufficient lighting to allow safe work activities	----------
Emergency lighting is installed and automatically activated upon failure of the principle light source, to ensure safe emergency response and evacuation measures.	----------

Item	Observation
Hygienic facilities for eating.	
Clean eating areas are provided where workers are not exposed to hazardous or noxious substances.	----------
Designated areas for breaks/ rest periods, including protection from the elements (i.e. shelter and heating/cooling).	----------
Accessible and hygienic toilets and washing facilities	----------
Toilet facilities include indicators for whether a facility is "vacant" or "in use".	----------
Separate facilities are provided for men and women.	----------
Washing areas include hot and cold running water, soap, and hand-drying devices.	----------
Storage facilities **(e.g., lockers**) for workers to secure personal belongings while on the job	----------
A waste management program is in place.	
The waste management program includes hygienic disposal of solid waste, sewage, wastewater, and hazardous waste with the aim of minimizing workers' risks of injury, illness, or disease.	----------

Item	Observation
Wastewater Management	---------- ---------- ---------- ---------- ---------- ----------
Hazardous Material Management	---------- ---------- ----------
All workers receive appropriate training related to the effective use of the relevant Personal Protective Equipment (PPE).	---------- ---------- ---------- ----------
Health and safety training is delivered by experienced trainers and in the relevant language of the attendee.	---------- ---------- ---------- ---------- ---------- ----------
A grievance mechanism is in place and accessible to all workers (and their organizations, where applicable) to raise and resolve workplace concerns.	---------- ---------- ---------- ---------- ---------- ----------
Security	
Measures to protect workers against theft and attack;	---------- ---------- ----------
Use of force (force can only be used for preventive and defensive purposes in proportion to the nature and the extent of the threat);	---------- ---------- ---------- ---------- ---------- ----------

Item	Observation
Background checks on security staff prior to recruitment to ensure they have not been implicated in any previous crimes or abuses. If possible, security staff of both sexes are recruited;	----------
Training and code of conduct for security staff in particular in relation to their duties to respect human rights, to not harass, intimidate, discipline or discriminate against residents and workers and the wider community;	----------
Security staff adopt an appropriate conduct towards workers and communities; and	----------
Residents, workers and members of the surrounding community have specific means to raise concerns about security arrangement and staff.	----------

Complaints raised during site visit			
Name of workers	Cell phone	Title and company	Complaint
		----------	----------
		----------	----------
		----------	----------

		---------- ----------	---------- ---------- ---------- ----------
		---------- ----------	---------- ---------- ---------- ----------
		---------- ----------	---------- ---------- ---------- ----------
		---------- ----------	---------- ---------- ---------- ----------

No	**Consulted workers**			
1.	Name of workers	Company	Ever heard about the Complaint system (GM)	Ever heard about the Code of Conduct
2.	----------	----------	Yes….1 No… 2	Yes….1 No… 2
3.	----------	----------	Yes….1 No… 2	Yes….1 No… 2
4.	----------	----------	Yes….1 No… 2	Yes….1 No… 2
5.	----------	----------	Yes….1 No… 2	Yes….1 No… 2
6.	----------	----------	Yes….1 No… 2	Yes….1 No… 2
7.	----------	----------	Yes….1 No… 2	Yes….1 No… 2
8.	----------	----------	Yes….1 No… 2	Yes….1 No… 2
9.	----------	----------	Yes….1 No… 2	Yes….1 No… 2
10.	----------	----------	Yes….1 No… 2	Yes….1 No… 2
11.	----------	----------	Yes….1 No… 2	Yes….1 No… 2
12.	----------	----------	Yes….1 No… 2	Yes….1 No… 2
13.	----------	----------	Yes….1 No… 2	Yes….1 No… 2
14.	----------	----------	Yes….1 No… 2	Yes….1 No… 2
15.	----------	----------	Yes….1 No… 2	Yes….1 No… 2
16.	----------	----------	Yes….1 No… 2	Yes….1 No… 2
17.	----------	----------	Yes….1 No… 2	Yes….1 No… 2
18.	----------	----------	Yes….1 No… 2	Yes….1 No… 2
19.	----------	----------	Yes….1 No… 2	Yes….1 No… 2
20.	----------	----------	Yes….1 No… 2	Yes….1 No… 2

ANNEX 10 UXO CLEARANCE LETTER

Ninawa Governorate
Reconstruction
Governor Assistant Office
NO.:
Date: / /2021

محافظة نينوى
مكتب معاون المحافظ
لشؤون الاعمار
العدد: ١١٠٦
التاريخ: ١٥ / ١١ /٢٠٢١

الى / صندوق إعادة اعمار المناطق المتضررة من الإرهاب

م / متطلبات الدراسة البيئية و الاجتماعية لمشاريع محافظة نينوى الممولة من القرض الإضافي للبنك الدولي

تحية طيبة..

استكمالاً لمتطلبات الدراسة البيئية والاجتماعية الخاصة بالمشاريع المدرجة في الجدول ادناه و الممولة من القرض الإضافي للبنك الدولي نؤكد لكم بأن مناطق المشاريع مدار البحث تخلو من المواد غير المنفلقة و المخلفات الحربية و ذلك لأن هذه المناطق مأهولة بالسكان.

ت	اسم المشروع	الرمز	موقع المشروع
١	تاهيل شوارع و شبكات تصريف مياه الامطار في حي الشهداء من الجانب الأيمن لمدينة الموصل	EODP-AF-NIN -W06	الموصل / الجانب الايمن
٢	تاهيل شوارع و شبكات تصريف مياه الامطار في مناطق البرموك و رجم حديد من الجانب الأيمن لمدينة الموصل	EODP-AF-NIN-W07	الموصل / الجانب الايمن
٣	تاهيل شوارع و شبكات تصريف مياه الامطار سايدين الكفاءات الثانية من الجانب الايسر لمدينة الموصل	EODP-AF-NIN-W08	الموصل / الجانب الايسر
٤	تاهيل شوارع و انشاء شبكة مجاري لتصريف مياه الامطار في منطقة مشيرفة الثانية في الجانب الايمن لمدينة الموصل	EODP-AF-NIN-W09	الموصل / الجانب الايمن

للتفضل بالاطلاع .. مع التقدير

نجم عبد الله عبد
محافظ نينوى
رئيس اللجنة الأمنية العليا لمحافظة نينوى
/ ١١ /٢٠٢١

نسخة عنه الى:
- البنك الدولي / للتفضل بالاطلاع .. مع التقدير
- مكتب السيد المحافظ /للتفضل بالاطلاع ... مع التقدير
- فريق نينوى للمشاريع الممولة من البنك الدولي / للتفضل بالاطلاع .. مع التقدير
- المكتب / اضبارة الصادر

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EA2030K11*2021/11/11F