REPUBLIC OF IRAQ

KURDISTAN REGIONAL GOVERNMENT

MINISTRY OF CONSTRUCTION AND HOUSING

DIRECTORATE OF ROADS AND BRIDGES IN DUHOK

TRANSPORT CORRIDOR PROJECT – ROAD 2 – SEGMENT 3
GHERSHEEN-SUHAILA INTERCHANGE

ADDENDUM AND UPDATE OF THE

ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT

FOR THE REMAINING WORKS

November 2020

Introduction

An Environmental and Social Impacts Assessment (ESIA) report was prepared for Ghersheen – Suhaila Interchange (Segment 3), issued by the Duhok General Directorate of Roads and Bridges (GDRB) and approved by the World Bank (WB). The implementation works on the road started in 2017. Due to shortage in the budget, some works were cancelled at the time of execution.

GBDR has the intention to relaunch the works that were temporary cancelled. The present report is an update of the ESIA dated back to 2015 and covers the works that are being relaunched only.

Description of the Ghersheen -Suhaila intersection Road and remaining works

Ghersheen – Suhaila Interchange Road is 22 km in length. The carriageway that consists of 2-lane in each direction was completed in 2019.

The Project remaining works are to be relaunched. These works, subject to this addendum consist of the following main activities:

- One stone mastic layer
- Four layers of subase for the shoulders
- Drainage works
- Precast concrete curb stone
- Guardrail
- Electrical works

The materials required for the execution of the remaining works are mainly: Aggregates (fine and coarse), Liquid Asphalt, Concrete Mix, Water, Fuel, Paint, Steel Guardrails, Stones, Soil, Electrical Lighting, Steel and Traffic Signals.

The equipment required for the execution of the remaining works consist mainly of: Steel-Wheeled Rollers, Pneumatic-Tyred Rollers, Concrete Mixing Trucks, Excavators, Loaders, Steel Rollers, Motor Graders, Dumper, Asphalt Plant, Concrete Batching Plant, Asphalt Paver, Fuel Truck, Water Truck, Crane Truck, Dump Truck and Asphalt Dump Truck.

The Project facilities include a main camp, construction yards, satellite camps and temporary camps. It is a common practice in the area for the contractor to rent a land for the necessary period and provide adequate water and sanitation connections. The locations of the Project's facilities are not defined yet.

The number of administrative and technical staff and workers is estimated at 18,000 persons and the anticipated duration of the remaining construction activities is estimated at 240 days.

In total of 55,8.6 ha of land were acquired permanently for the project. They include a 100-m width Right Of Way (ROW). All the remaining activities will take place within this ROW. No further land acquisition is needed.

Legal and Institutional Framework

The Legal and Institutional Framework detailed in the original ESIA still apply.

Environmental and Social Baseline Conditions

Physical Environment

The project is located in an area characterized as sub-humid upland and mountain region with semi-arid Mediterranean climatic conditions. The main annual rainfall ranges between 400 mm and 1100 mm. The mean minimum in July is about 22ºC. In winter the mean monthly minimum in January is 10ºC and the lowest minimum is -11ºC.

The prevailing wind direction at the project area is North-West. Wind speed is generally of light to moderate value with wind speeds between 0.74 m/sec at times in November and 1.20 m/sec at other times April to July.

The groundwater resources are identified as a shallow aquifer belonging to the Zakho Basin. Surface water resources comprise seasonal runoff valleys. Generally, all the seasonal streams drain towards the Tigris River. The drainage area is characterized as undeveloped cultivated land with the catchment slopes ranging from 0.09 to 0.15 %.

The prevalent land use in the project area is agricultural, composed of the rain-fed cultivation of cereals and livestock grazing. There are no residential settlements in the project area.

Biological Environment

The area has been subjected to diverse human induced impacts over the millennia such as rain-fed cultivation. Therefore, natural habitats have suffered the significant level of degradation over the past several hundred years. The terrestrial ecosystem is characterized as Middle East Steppe ecosystem.

The project area does not contain any globally important habitats or ecosystems. There are no Nature Reserves or other legally protected areas in the vicinity of the project or in its close proximity.

Social Settings

The total population of Duhok Governorate is about 1.2 million residents. Recently, due to the political situation in the region, the area witnessed the influx of refugees and Internally Displaced Persons (IDPs) and the current population of Duhok is estimated at over 1.3 million persons. The influx of IDPs and refugees is putting great stress on the local economy.

Around 5% of the population in Duhok lives below the poverty line which is below the national average estimated at 11.5%. The literacy in estimated at 70%. The number of people with access to an improved water source (96,2%) or improved sanitation facilities (97,3%) in Duhok are both above the national average, but the public electricity network fails to deliver a consistent source of power to the governorate's inhabitants. Limited transport options and financial means hamper access to health facilities.

Environmental and Social Management Plan

In order to manage the Environmental & Social impacts, an Environmental and Social Management Plan (ESMP) has been prepared. The ESMP contains management measures avoidance and mitigation that would be implemented during the construction and operation/maintenance phase of the project and a monitoring plan.

The ESMP covers the measures on and near the highway right-of-way and also in the construction-related sites such as camps, asphalt mixing plants, equipment workshops, etc.

Table i: ESMP - Construction Phase

	Impacts	Activities	Mitigation Measures	Monitoring Parameters	Monitoring Frequency	Monitoring Responsibility	Cost of Mitigation	Cost of Monitoring
Water Resources	Potential contamination of surface water (at locations of remaining works)	• Leakage of hazardous fluids from construction machinery; • Accidental spills of oils and petrol; • Wash off of construction materials during rain events; • Inadequate storage of construction materials; • Inadequate disposal of liquid and solid waste at construction camp site.	• Maintaining vehicle used during construction phase to reduce emissions. They should be free of leaking fluids and be covered to reduce/prevent spills; • Removing or minimizing side casts; • Applying upgraded surfacing; • Allowing time restrictions during rain events; • Locating heaps and stockpiles of aggregate, filling and spoiling at sites that do not permit direct runoff into watercourses and are on land sloping at less than 1.5 %. • Avoiding storage of surplus materials on site and providing for timely and adequate disposal of all surplus materials; • Developing and implementing emergency response plan for accidental spills of hazardous materials.	Inspection of: • debris accumulation in water drainage areas; • •Alteration of water courses; • •Signs of spillage of hazardous materials.	•Bi-weekly during the rainy season, and after sporadic rains •Once a month during the dry periods	Contractor Internal monitoring; GDRB - supervision	No extra cost	No extra cost

	Impacts	Activities	Mitigation Measures	Monitoring Parameters	Monitoring Frequency	Monitoring Responsibility	Cost of Mitigation	Cost of Monitoring
Soils	Soil Contamination (mostly in the vicinity and adjacent to construction camp)	• Accidental spills of hazardous materials; • Leakage from construction machinery and stored construction materials; • Inadequate disposal of liquid and solid waste at construction camp.	• Same measures as for prevention of surface water contamination; • In case of accidental spills, disposal of contaminated soil by truck to nearest authorized dumping areas.	Inspection: signs of soil erosion, evidence of spills of fuel and lubricants	•Inspection: bi-weekly; •In case of the accidental spills, soil testing might be required	Contractor Internal monitoring; GDRB	No extra costs	No extra Cost Testing done by accredited laboratories. Additional cost 3000 US $

	Impacts	Activities	Mitigation Measures	Monitoring Parameters	Monitoring Frequency	Monitoring Responsibility	Cost of Mitigation	Cost of Monitoring
Ambient Air Quality	Dust generation	• Movement of vehicles on unpaved surfaces; • Excavation; • Transporting of cut materials and aggregate materials.	• Spraying of sites and unpaved access roads; • Watering entry and exit points to prevent carryover of dust emissions from sites; • Establishing speed restrictions for all vehicles; • Covering all vehicles transporting materials likely to give off excessive dust.	Visual Inspection of compliance with mitigation measures.	Weekly and in case of complaints.	Contractor Internal monitoring; GDRB - supervision	Cost of regular vehicles maintenance Cost of water spraying of unpaved surfaces	No extra cost
	Air pollution from emissions	• Inadequate condition of construction machinery and vehicles; • Burning of combustible materials; • Burning of the vegetation	• Maintaining the vehicles and equipment properly to ensure there are no excessive exhaust emissions; • Prohibiting burning of materials from clearance; • Ensuring the machinery operating intermittently is shut down during idle periods.					
Noise and Vibration	Increased noise levels that are potentially detrimental to human health	• Operating of construction machinery and equipment.	• Ensuring all the equipment is fitted with noise muffing devices; • Ensuring machinery is shut down or throttled down during idle periods; • Applying time restrictions of activities to the day-time working hours; • Providing PPE to the workers; • Performing additional health check-ups for personnel handling the vibrating and noisy equipment.	Visual Inspection of compliance with mitigation measures	Weekly and in case of complaints	Contractor Internal monitoring; GDRB - supervision	• Cost of PPE • Cost of additional check-ups	No extra cost

	Impacts	Activities	• Mitigation Measures	• Monitoring Parameters	Monitoring Frequency	Monitoring Responsibility	Cost of Mitigation	Cost of Monitoring
Waste Management	Potential soil contamination and consequent contamination of shallow aquifer	<u>Liquid waste:</u> • Effluent from construction camp; • Oils, industrial effluents, grease and de-greasing solvents. <u>Solid Waste:</u> • Construction debris. • Discarded and surplus construction activities.	• Ensuring the camp is well connected to the municipal sewer system or wastewater from the camp is collected in a tank and discharged in approved location; • Keeping the site clean and tidy; • Ensuring solid waste is properly collected and disposed of; • Prohibiting burning of waste; • Checking vehicles regularly checked for cleanliness and leakage.	• Storage conditions of hazardous materials; • Disposal at designated sites • Contracts with approved waste disposal contractors • Receipts form disposal sites (if available) • Photo documentation	Bi-Weekly	Contractor Internal monitoring; GDRB supervision	Cost of transporting the waste	Within the cost of environmental auditing visits
Public Health and Safety	Increased risk of accidents	• Movement of construction machinery; • Movement of transporting vehicles	• Ensuring all construction vehicles are appropriately marked and carry adequate visual and audio warning systems; • Limiting the speed on the working stretches; • Providing adequate signage for motorists and pedestrians; • Providing barriers at construction sites • Prohibiting works and transportation outside specified, supervised hours. • Providing safe crossings for pedestrians and livestock	Site surveillance for the presence of fencing/barriers and warning signs, and traffic speed limitations	Bi-weekly	Contractor Internal monitoring; GDRB supervision Traffic	Cost of provision of warning signs and fencing	Within the cost of environmental auditing visits

	Impacts	Activities	Mitigation Measures	Monitoring Parameters	Monitoring Frequency	Monitoring Responsibility	Cost of Mitigation	Cost of Monitoring
Health and Safety of the Workers	• Inhaling of hazardous substances and extended exposure to dust; • Extended exposure to noise and vibration; • Accidents involving construction vehicles and equipment • Physical hazards from maintenance work and waste disposal; • Fire hazards; • Slipping, tripping and falling; • Falling while working at heights;	• Operating the equipment; • Noise and dust generation from construction equipment; • Vehicles movement.	• Providing a First Aid Kits in different places of the work site with the appropriate number of materials given the number of workers on site. The locations of the first aid kits will be provided to all workers and training on First Aid Procedures; • Providing training on potential risks and hazards of construction; • Providing the PPE and enforce its use; • Providing warning signs; • Posting contact info indicating the nearest police station and hospital; • Taking reasonable steps to prevent unauthorized people accessing the site; • Providing training on handling of UXO/ERW; • Providing extinguishers on work site; • Prohibiting smoking in construction sites and close to storage areas; • Providing site boundaries by installing suitable physical boundaries; • Marking excavation holes with physical boundaries • Storing building materials so that they cannot topple or roll over;	• Complaints raised from the workers • Number of accidents/ injuries and occupational diseases, incl. presence of communicable diseases (e.g. COVID 19) and pathogenic agents • OHS Plans • Trainings performed and recorded • PPE used by workers • Fire prevention equipment in place	Daily	Contractor Internal monitoring; GDRB supervision	• Cost of PPE • Cost of dust abatement measures • Regular cost of vehicles and equipment maintenance	Within the cost of environmental auditing visits

	• Manual handling and lifting; • Electrocution while working on handrails and lighting; • Contact with live power lines; • Heat exhaustion; • Increased risk of spread of communicable diseases in general and in specific COVID-19; • Undiscovered UXO/ERW may present additional risks to public and to employees.		• Keeping walkways and stairways free of tripping hazards such as trailing cables, building materials, and debris; • Providing workers with enough access to toilet and washing facilities, a place for preparing and consuming refreshments, and an area for storing and drying clothing and personal protective equipment (PPE); • Ensuring scaffolding for work in elevated areas such as lighting poles comply with the OSHA; • Implementing an Emergency Response Plan to manage major incidents if they should occur in the vicinity of the construction site; • Ensuring proper insurance coverage for all the types of workers; • Maintaining daily attendance sheets in order to verify the attendance of workers in case of accidents; • Adopting and implementing a health management system for the workers, to ensure through medical check-ups, they are fit for work and that they will not introduce disease into local communities; • Adopting an Occupational Health and Safety Plan and job hazard analysis during the					

			construction phase. The plan will include measures to protect workers from COVID-19 infection, and all national health regulations will be followed. According to WBG EHS Guidelines and OHSA standards; • Developing COVID-19 risk-based procedures tailored to site conditions and workers' characteristics, and based on guidance issued by relevant authorities, both national and international (e.g. WHO); • Prohibiting Child labor. All of the contractor workers should be registered and age verified by the Social officers and the PMTs. Children below 18 will not be recruited.					
Construction Camp	Potential soil contamination and consequent contamination of shallow aquifer	• Storage of construction materials; • Inadequate disposal of discarded materials; • Inadequate disposal of construction debris; • Spillage of machinery oils; • Leakage of domestic effluent from septic tank.	• Locating the camp outside known aquifer recharge zones; • Providing adequate infrastructure for effluent collection; • Disposing effluent timely and properly; • Disposing solid waste timely and properly; • Providing collection pits for collection of used machinery oils; • Maintaining vehicle adequately; • Transporting wastes to the designated disposal sites.	• Inspection of the camp	Bi-weekly auditing	Contractor Internal monitoring; GDRB - supervision	No extra costs	Within the cost of environmental auditing visits

	Impacts	Activities	Mitigation Measures	Monitoring Parameters	Monitoring Frequency	Monitoring Responsibility	Cost of Mitigation	Cost of Monitoring
Disruption of Local Social Setting	Social Life and community-workforce integration	• All activities	• Recruiting local workers and contractors when possible; • Ensuring the GRM is operational; • Implementing COVID-19 prevention methods; • Engaging with community and neighbors; • Developing work procedures, defining a Code of Conduct (CoC) for all workers, including acceptable behavior with respect to community interactions and train workers on its content; • Ensuring the provision of information regarding Worker CoC in local language; • Training all workers on GBV and SEA/SH risks and related sanctions.	• Site inspection • GRM reports • Training reports	Monthly	Contractor Internal monitoring; GDRB supervision	No extra cost	No extra cost

Table ii: ESMP – Operational Phase

Parameter	Impacts	Activities	Mitigation Measures	Monitoring Parameters	Monitoring Frequency	Monitoring Responsibility	Cost of Mitigation	Cost of Monitoring
Handling Complaints		All activities	• Compliance with GRM for one year following completion of works will ensure that local community members have an accessible, fair and transparent means of reporting any emerging adverse impacts, and a means of obtaining mitigation	• Record keeping on received complaints, • No. of complaints received	Quarterly	GDRB - supervision	No extra cost	No extra cost

Workers and Public Health and safety	Risk of accidents related to road maintenance	• Traffic movement	• Providing the PPE and enforce its use; • Providing warning signs. • Taking reasonable steps to prevent unauthorized people accessing the site; • Providing site boundaries and marking excavation holes by installing physical boundaries; • Ensuring work in elevated areas such as lighting poles complies with the OSHA; • Ensuring proper insurance coverage for all the types of workers; • Adopting and implementing a health management system for the workers • Developing COVID-19 risk-based procedures tailored to site conditions and workers' characteristics.	• Regular site inspection and checking of mitigation measures	During maintenance works	GDRB Traffic Police	Cost of maintenance	No extra costs

Public Consultations relevant to remaining works

Public participation in the ESIA process has an important role in integrating economic, social and environmental objectives. Public participation makes a positive contribution to the project in terms of minimizing and avoiding potential public controversy and in identification of priorities of assessment.

Previous Consultations

Public participation took place for the integral works under Ghersheen-Suhaila intersection Road through 2 scoping sessions, more than 10 structured consultations with stakeholders and many interviews with the individual PAPs along the road alignment.

Consultations for the remaining works

In accordance with WB policies, stakeholder's consultation was conducted for Ghersheen-Suhaila intersection remaining works in line with the WB's directives regarding COVID-19 pandemic.

Consultation with 5 PAPs were conducted on November 19, 2020. A brief explanation of the remaining works, their impacts and the mitigation and monitoring plans were presented to the attendees. A brief of the GRM in place under the Project was also explained to the attendees. Then, the attendees were asked to fill in a questionnaire and express their comments (See Annex B).

Unanimity of the participants approved the remaining works under the Ghersheen-Suhaila intersection Road but insisted on employing local workers and small contractors for the Project.

Grievance Redress Mechanism

The GRM established for the Project will be used during the construction works and made operational one year after completion of all the works.

Conclusion

The ESMP concludes that the proposed construction of the Ghersheen – Suhaila interchange remaining works will have an overall significant beneficial impact on the affected population. The implementation of the recommended mitigation measures especially during the construction phase will ensure that potential negative environmental impacts are addressed.

TABLE OF CONTENTS

1. INTRODUCTION 20

2. PROJECT DESCRIPTION 20

2.1 DESCRIPTION OF THE GHERSHEEN -SUHAILA INTERSECTION ROAD 20
2.2 DESCRIPTION OF THE REMAINING WORKS ON GHERSHEEN -SUHAILA INTERSECTION 22
2.3 MATERIALS AND EQUIPMENT 22
2.4 PROJECT FACILITIES 23
2.5 ESTIMATE OF THE STAFFING REQUIREMENTS 23
2.6 DURATION OF CONSTRUCTION ACTIVITIES 23
2.7 LAND ACQUISITION 23

3. LEGAL AND INSTITUTIONAL FRAMEWORK 24

4. ENVIRONMENTAL AND SOCIAL BASELINE CONDITIONS 25

4.1 PHYSICAL ENVIRONMENT 25
4.2 BIOLOGICAL ENVIRONMENT 25
4.3 SOCIAL SETTINGS 26

5. ANTICIPATED IMPACTS ASSESSMENT 27

5.1 ANTICIPATED ADVERSE IMPACTS DURING CONSTRUCTION PHASE 27
Impacts of Land Acquisition 27
Anticipated Impacts on Water Resources 27
Anticipated Impacts on Soil 27
Anticipated Impacts on Air Quality 27
Noise Impacts 28
Waste Generation 28
Construction Camp Impacts 28
Resources Use 29
Public Safety 29
Occupational Health and Safety 29
Construction Camp Impacts 30
Disturbance to Local Social Settings 30
5.2 ANTICIPATED ADVERSE IMPACTS DURING OPERATIONAL PHASE 31
Workers and Public Safety during maintenance 31
Utilities and Infrastructure: 31

6. MITIGATION MEASURES 32

6.1 MITIGATION OF IMPACTS DURING CONSTRUCTION 32
Mitigation of Impacts on Water resources 32
Mitigation of Impacts on Soil 32
Mitigation of impacts on Air Quality 32
Abatement of Noise 33
Waste Management 33
Public Safety 33
OHS of Workers 33

Construction Camp Impacts *35*
Disturbance to Local Social Settings *35*
6.2 MITIGATION OF IMPACTS DURING OPERATION AND MAINTENANCE 36
Handling Complaints *36*
Workers and Public Safety during maintenance *36*
7. ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN 37
8. PUBLIC CONSULTATIONS RELEVANT TO REMAINING WORKS 47
8.1 PREVIOUS CONSULTATIONS 47
8.2 CONSULTATIONS FOR THE REMAINING WORKS 47
9. GRIEVANCE REDRESS MECHANISM 49
10. CONCLUSION 50
11. ANNEXES 51
ANNEX A: TECHNICAL NOTE: PUBLIC CONSULTATIONS AND STAKEHOLDER ENGAGEMENT IN WB-SUPPORTED OPERATIONS WHEN THERE ARE CONSTRAINTS ON CONDUCTING PUBLIC MEETINGS 52
ANNEX B: CONSULTATIONS 56

TABLE OF TABLES

TABLE 1: MAIN FEATURES OF GHERSHEEN-SUHAILA INTERSECTION ROAD 21
TABLE 2: REMAINING WORKS ON GHERSHEEN-SUHAILA INTERSECTION ROAD 22
TABLE 3: ESMP - CONSTRUCTION PHASE 38
TABLE 4: ESMP – OPERATIONAL PHASE 45

TABLE OF FIGURES

FIGURE 1: GENERAL LOCATION OF GHERSHEEN-SUHAILA INTERSECTION ROAD 20
FIGURE 2: GENERAL VIEW OF THE NEWLY CONSTRUCTED GHERSHEEN-SUHAILA INTERSECTION ROAD 21
FIGURE 3: ATTENDANCE DURING THE CONSULTATION ON NOVEMBER 19, 2020 48

ABBREVIATIONS

CoC	Code of Conduct
COVID-19	Corona Virus Disease
ERW	Explosive Remnants of War
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
GBV	Gender Based Violence
GDRB	General Directorate of Roads and Bridges
GRM	Grievance Redress Mechanism
Ha	Hectare
IDP	Internally Displaced Person
IOM	International Organization for Migration
IS	Islamic State
KRG	Kurdistan Regional Government
NGO	Non-Governmental Organization
OHS	Occupational Health and Safety
OSHA	Occupational Health and Safety Organization
PAP	Project Affected Person
PCP	Polychlorinated Biphenyls
PMT	Project Management Team
PPE	Personal Protective Equipment
ROW	Right Of Way
SEA	Sexual Exploitation and Abuse
UXO	Un-Exploded Ordnance
WHO	World Health Organization
WB	World Bank

1. Introduction

An Environmental and Social Impacts Assessment (ESIA) report was prepared for two segments of Road No. 2 in Kurdistan, Iraq: Batil – Ghersheen (Segment 2) and Ghersheen – Suhaila (Segment 3), issued by the Duhok General Directorate of Roads and Bridges (GDRB) and approved by the World Bank (WB). A Resettlement plan was prepared and expropriation completed. The implementation works on the road started in 2017. Due to shortage in the budget, some works were cancelled at the time of execution.

GBDR has the intention to relaunch the works that were temporary cancelled. The present report is an update of the ESIA dated back to 2015 and covers the works that are being relaunched only.

2. Project Description

2.1 Description of the Ghersheen -Suhaila intersection Road

Ghersheen – Suhaila Interchange Road is 22 km in length (see Figures below). The carriageway that consists of 2-lane in each direction was completed in 2019. Part of the works were partially completed and some other were cancelled at that time due to shortage in the budget at the time of execution.

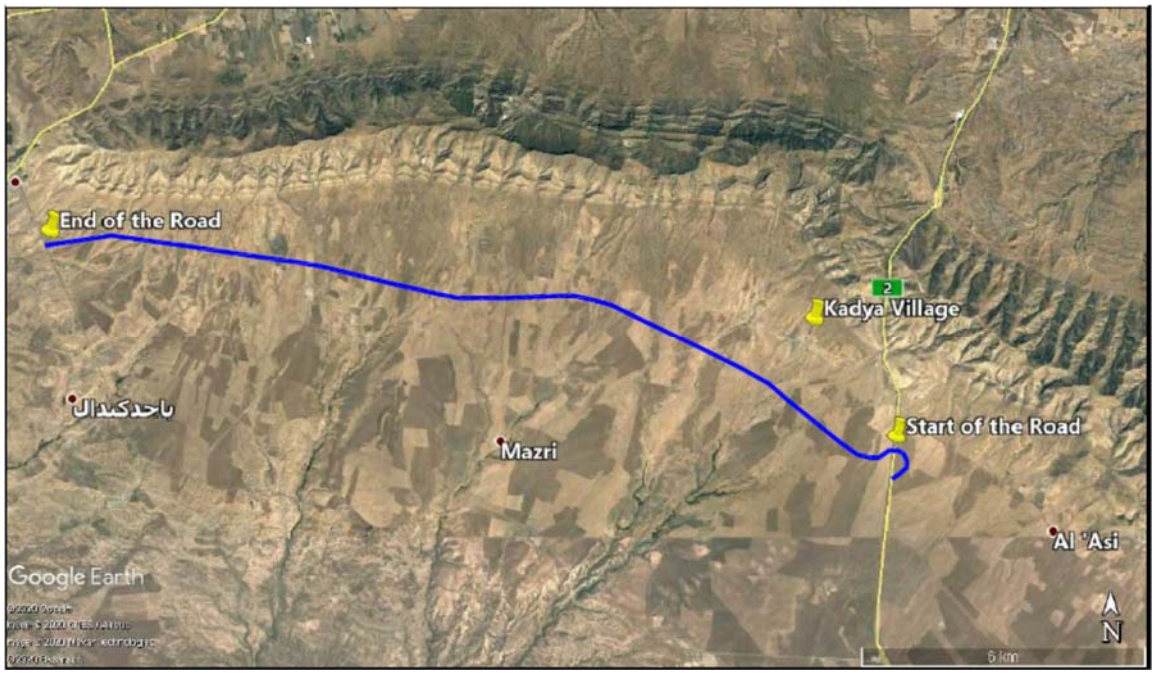


Figure 1: General location of Ghersheen-Suhaila intersection Road

Figure 2: General view of the newly constructed Ghersheen-Suhaila intersection Road

The main features of the Ghersheen-Suhaila intersection Road are summarized in the following table.

Table 1: Main Features of Ghersheen-Suhaila intersection Road

Feature	Value	Unit
Width of median	3	m
Width of the median inner marginal strip	1.20	m
Width of traffic lane	3,75	m
Shoulder width	3	m
Design Speed	100	Km/h
Max Longitudinal slop	6% for mountainous areas 4% for rolling area	
Min. horizontal curb radius	440	m
Road pavement layers	61	cm
A.C wearing course using polymer (Modified Bitumen)	5	cm
A.C Binder course & tack coat	7	cm
A.C Binder course & prime coat	9	cm

2.2 Description of the remaining works on Ghersheen -Suhaila intersection

The Project remaining works are to be relaunched. These works, subject to this addendum, consist of the following main activities

Table 2: Remaining Works on Ghersheen-Suhaila intersection Road

No.	Description	Original Design	Executed Works	Quantities under the present Project
1	**Carriageway and lanes**			None
2	**Asphalt Layers**	4 layers including stone mastic asphalt	3 layers without stone mastic asphalt	Stone mastic (394,000 m^2)
3	**Shoulders**	Asphalt	Sub-Base	4 Layers :(2-binder, 1-wearing course & 1- stone mastic) (132,000 m^2 each)
4	**Drainage works**			
4.1	Side Ditch	17,050 m^3	10,417 m^3	6,633 m^3
4.2	Stepped Channels	2,560 ml	560 ml	2,000 ml
4.3	Cut Slope Protection			30,000 ml
4.4	Loose stone riprap for side slope			546 m^3
4.5	Loose stone riprap for culverts protection			8,245 m^3
4.6	Under Drain ditch			31,500 ml
4.7	Drop inlet			10 No.
5	**Precast Concrete Curb Stone**			11,226 ml
6	**Guardrail**			23,770 ml
7	**Electrical Works**			
7.1	Power Substation			6 No.
7.2	Street lighting 12 m high			170 No.
7.3	Tunnel lighting luminaire			63 No.
7.4	Mast with sodium flood lights 30 m high			12 No.

2.3 Materials and Equipment

The materials required for the execution of the remaining works are mainly: Aggregates (fine and coarse), Liquid Asphalt, Concrete Mix, Water, Fuel, Paint, Steel Guardrails, Stones, Soil, Electrical Lighting, Steel and Traffic Signals.

The equipment required for the execution of the remaining works consist mainly of: Steel-Wheeled Rollers, Pneumatic-Tyred Rollers, Concrete Mixing Trucks, Excavators, Loaders,

Steel Rollers, Motor Graders, Dumper, Asphalt Plant, Concrete Batching Plant, Asphalt Paver, Fuel Truck, Water Truck, Crane Truck, Dump Truck and Asphalt Dump Truck.

2.4 Project Facilities

The Project facilities include a main camp, construction yards, satellite camps and temporary camps. It is a common practice in the area for the contractor to rent a land for the necessary period and provide all necessary water and sanitation connections. The locations of the Project's facilities are not defined yet.

2.5 Estimate of the Staffing Requirements

The number of administrative and technical staff and workers is estimated at 18,000 persons.

2.6 Duration of Construction Activities

The anticipated duration of the remaining construction activities is estimated at 240 days.

2.7 Land Acquisition

In total of 55,8.6 ha of land were acquired permanently for the project. They include a 100-m width Right of Way (ROW). All the remaining activities will take place within this ROW. No further land acquisition is needed.

Figure 2: General view of the newly constructed Ghersheen-Suhaila intersection Road

3. Legal and Institutional Framework

The Legal and Institutional Framework detailed in the original ESIA still apply.

4. Environmental and Social Baseline Conditions

4.1 Physical Environment

The project is located in an area characterized as sub-humid upland and mountain region with semi-arid Mediterranean climatic conditions. The main annual rainfall ranges between 400 mm and 1100 mm. The mean minimum in July is about 22ºC. In winter the mean monthly minimum in January is 10ºC and the lowest minimum is -11ºC.

The prevailing wind direction at the project area is North-West. Wind speed is generally of light to moderate value with wind speeds between 0.74 m/sec at times in November and 1.20 m/sec at other times April to July.

A regional stratigraphic column shows the presence of a thick Jurassic and Cretaceous succession composed of carbonates, shale and anhydrates. At its type locality within Iraqi Kurdistan, the formation is composed of thin-bedded, black bituminous limestone, dolomitic limestone and black papery shale with streaks of thin black chert in the upper part.

The groundwater resources are identified as a shallow aquifer belonging to the Zakho Basin. The Zakho Basin stretches across the border between Iraq and Turkey. In Iraq, the Zakho Basin has a catchment area of about 1,107 km^2. In the early 1980s an estimated total of 24.3 MCM of good-quality (<700 mg/L TDS) water had been abstracted (9.5 MCM from deep wells and 12.3 MCM as spring discharge).

Surface water resources comprise seasonal runoff valleys. Generally, all the seasonal streams drain towards the Tigris River. The drainage area is characterized as undeveloped cultivated land with the catchment slopes ranging from 0.09 to 0.15 %. The catchment area is estimated as ranging from 1, 7 to 2.1 km^2. The peak runoff for 25-year period is evaluated as approximately 1.8 - 4.3 m^3/sec.

The prevalent land use in the project area is agricultural, composed of the rain-fed cultivation of cereals and livestock grazing. There are no residential settlements in the project area.

4.2 Biological Environment

The area has been subjected to diverse human induced impacts over the millennia such as rain-fed cultivation. Therefore, natural habitats have suffered the significant level of degradation over the past several hundred years. The terrestrial ecosystem is characterized as Middle East Steppe ecosystem.

Vegetation reflects the Mesopotamian province of the Irano-Turanian eco-region and is characterized by the dominance of the drought-tolerant low shrubs with a variety of grasses and legumes.

The area of the project is located in a general area identified as a fly-way route for migratory birds from Eastern Europe and West Siberia to Mesopotamia and Africa.

The project area does not contain any globally important habitats or ecosystems. There are no Nature Reserves or other legally protected areas in the vicinity of the project or in a close proximity.

4.3 Social Settings

The total population of Duhok Governorate is about 1.2 million residents. However, due to the political situation in the region the area witnessed the influx of refugees and Internally Displaced Persons (IDPs). The current population of Duhok is estimated at over 1.3 million persons. The influx of IDPs and refugees is putting great stress on the local economy.

The governorate of Duhok is part of the Kurdistan Region of Iraq and includes the districts of Duhok, Amedi, Sumel and Zakho. Kurds are the dominant ethnic group, with small minorities of Turkmen and Arabs living across the governorate.

Around 5% of the population in Duhok lives below the poverty line which is below the national average estimated at 111.5%. The literacy in estimated at 70%.

The number of people with access to an improved water source (96,2%) or improved sanitation facilities (97,3%) in Duhok are both above the national average, but the public electricity network fails to deliver a consistent source of power to the governorate's inhabitants. Limited transport options and financial means hamper access to health facilities.

5. Anticipated Impacts Assessment

The environmental and social impacts of a road are not limited to the pavement and subgrade but also includes its several components and accessories. Although the impacts of the Ghersheen-Suhaila intersection Road Project including all the road components were assessed in the previous ESIA that was approved by the WB, the WB requested an update of the impacts for the remaining works (the shoulders, the drainage component, the guardrails and the electrical and lighting works).

This chapter of the addendum to the previous ESIA discusses the potential impacts related to the remaining components only.

5.1 Anticipated Adverse Impacts during Construction Phase

During construction phase the anticipated impacts are essentially of two types: On-Site impacts arising from the physical construction activities within the ROW and Off-Site impacts arising from the related activities undertaken elsewhere, such as construction camps.

Impacts of Land Acquisition

Permanent land acquisition for the expansion of the ROW, construction of interchanges, lay-bys, culverts and underpasses has been tackled in the original ESIA and land owners were compensated for their crops and lands losses before the start of the road construction works. No further land acquisition is needed as the expropriation process was completed before the start of the road works. All the remaining works will take place within the road ROW.

Anticipated Impacts on Water Resources

Water contamination is relatively minor and generally limited to areas around bitumen coating plants, fuel storage tanks and similar facilities. The potential for spillages of chemicals and hydrocarbon products can pollute watercourses and eventually infiltrate into the underlying aquifers, thus causing pollution of the groundwater resources.

Another potential source of pollution is disposal of the raw sewage (Fecal column and ammonia) from the construction camp directly into the water courses. Disposal of generated solid waste from the construction camp and construction debris on ad hoc basis may potentially be the source of groundwater contamination due to leaching of contaminants into the soil and eventually infiltrating into the aquifer.

Anticipated Impacts on Soil

The most relevant impact of the remaining works can be caused by accidental spillages of chemicals and hydrocarbon products and around the auxiliary facilities.

Anticipated Impacts on Air Quality

Dust has a minor impact as the remaining works will not entitle large volumes of excavation and earth moving. The dust generating construction activities are limited to handling and storage of

sand and aggregates, some concrete mixing and due to the movement of aggregates. The impacts of dust are mostly concentrated on the construction sites.

Another factor that has an impact on the air quality is the **exhaust emissions** of the construction machinery and auxiliary vehicles movement. During the construction stage, negative impacts on air quality are considered temporary and might affect the health of construction workers

Noise Impacts

During the construction phase there is unavoidable noise and vibration generation due to the operation of various types of equipment**.** However, since the remaining works are limited and temporary, this impact is considered minor.

Waste Generation

During construction phase the main sources of liquid waste generation are:

- Sewage from offices, accommodation blocks and canteens;
- Wastewater containing high suspended solids;
- Oil residues and industrial fluids from washing of plant and vehicles;
- Waste oil, grease and de-greasing solvents from vehicle and plant servicing.

The main sources of solid waste are:

- Paper, discarded packaging and crates, redundant plant, used tires and broken or failed concrete products;
- Construction debris such as unused excavated aggregate materials;
- Residential containing organic waste from construction camps (approximately 1.5 kg/person/day).

The main impact of the inadequate waste disposal is potential contamination of soil and surface water resources, eventually infiltrating to groundwater resources.

Construction Camp Impacts

The construction camp has a number of facilities that if not adequately managed might potentially be detrimental to the environment. The impacts of the construction camp are considered as moderate and limited in magnitude and duration. The construction camp activities which can cause an impact are:

- Housing of construction crew and canteen;
- Storage of construction materials;
- Parking lot and maintenance area for the construction machinery and equipment;
- Septic tank for the housing and canteen and disposal of effluent;
- Accidental spillage of hazardous materials;
- Accumulation of discarded and excessive materials;

- Accumulation of construction debris and residential solid waste.

The most significant impact of the construction camp is potential soil contamination and consequent contamination of shallow aquifer.

Resources Use

The remaining works do not involve significant use of resources. They are limited to minor quantities of granular material and water for the provision of the water supply to the construction camp and yards as well as for the concrete and to reduce the generation of dust.

Public Safety

During construction, the Contractor is expected to establish detours and diversions, in coordination with concerned authorities. However, risk of traffic accidents is expected on road users, as well as pedestrians of the nearby localities. In addition to traffic accidents, public safety would be at risk if transportation from and to the construction site, as well as unauthorized access to construction site are not controlled. The risk to public safety is considered moderate. Areas of most danger to public include:

- Detours and diversion points;
- Where heavy equipment is moving in and out of construction area;
- The sites of loading of the debris;
- At storage areas for construction materials, fuel and surplus spoil.

Occupational Health and Safety

All construction sites are inherently unsafe. The substantial risks to public safety as discussed above are limited by occasional and casual acquaintance the public with the proposed construction activity. For those employed on the project the risks are more varied and omnipresent. These are:

- Inhaling of hazardous substances and extended exposure to dust;
- Health risk due to the extended exposure to noise and vibration;
- Accidents involving construction vehicles and equipment;
- Physical hazards from maintenance work and waste disposal;
- Fire hazards;
- Slipping, tripping and falling;
- Falling while working at heights;
- Manual handling and lifting;
- Electrocution while working on handrails and lighting;
- Contact with live power lines;
- Heat exhaustion;
- Increased risk of spread of communicable diseases in general and in specific COVID-19;
- Undiscovered Un-Exploded Ordnance/ Explosive Remnants of War (UXO/ERW) may present additional risks to public and to employees therefore the extreme caution should

be exercised while moving the debris despite the fact that the area have received clearance from the armed forces.

However, the risks to workers on construction sites are well understood and documented and providing normal, internationally accepted Health and Safety procedures are followed, they can be minimized.

Construction Camp Impacts

The construction camp has a number of facilities that if not adequately managed might potentially be detrimental to the environment. The impacts of the construction camp are considered as moderate and limited in magnitude and duration. The construction camp activities which can cause an impact are:

- Housing of construction crew and canteen (minimal in this project);
- Storage of construction materials;
- Parking lots and maintenance areas for the construction machinery and equipment;
- Septic tanks for the housing and canteen and disposal of effluents;
- Accidental spillage of hazardous materials;
- Accumulation of discarded and excessive materials;
- Accumulation of construction debris and residential solid waste.

Disturbance to Local Social Settings

During the construction phase it is anticipated that there would be some disturbance to local settings, such as difficulties and extended time to travel to access urban centers and medical centers. However, this impact is considered minor.

Recruitment of local workers, which is mostly planned from local labor market, is unlikely to cause social tensions, or disturbance to residential areas in the vicinity of the project. Further, no foreign labor influx is expected in the project. However, some impacts may arise as a result of establishing working camps in the area, such as disturbances to movement and daily lives of nearby communities, or issues related to Sexual Exploitation and Abuse (SEA) or Sexual Harassment (SH).

At the time of relaunching of the remaining works, the COVID-19 outbreak is still affecting community health across the country, as the case with the rest of the world. Workers gathering at the construction site if not abiding to social distancing instructions or lacking proper protective gear may lead to increased infection rates. Impacts in this context is expected moderate.

5.2 Anticipated Adverse Impacts during Operational Phase

This section of the report discusses the potential impacts that may occur during the operation and maintenance of the road.

Workers and Public Safety during maintenance

Two primary sources of accidents involving maintenance workers and/or traffic flow modifications during road maintenance.

The risk of accidents can be greatly reduced by effective planning of activities, including adequate use of warning signs and site supervision.

Utilities and Infrastructure:

Energy will be consumed during the operation phase for lighting purposes thus slightly contributing in the depletion of natural resources if the new lighting infrastructure was not based on renewable energy.

6. Mitigation Measures

6.1 Mitigation of Impacts during Construction

The majority of construction-related impacts are temporary. They can be mitigated through adequate construction practices and effective site supervision.

Mitigation of Impacts on Water resources

Several mitigation measures can prevent the contamination of water from chemical pollutant, sewage and solid waste. These can be summarized as follows:

- Maintaining vehicle used during construction phase to reduce emissions. They should be free of leaking fluids and be covered to reduce/prevent spills;
- Removing or minimizing side casts;
- Applying upgraded surfacing;
- Allowing time restrictions during rain events;
- Locating heaps and stockpiles of aggregate, filling and spoiling at sites that do not permit direct runoff into watercourses and are on land sloping at less than 1.5 %;
- Avoiding storage of surplus materials on site and providing for timely and adequate disposal of all surplus materials;
- Developing and implementing emergency response plan for accidental spills of hazardous materials.

Mitigation of Impacts on Soil

Same measures as for prevention of surface water contamination can also be applied to mitigate the impacts on soil. In addition, if accident occidental spill occurs, the contaminated soil shall be disposed by truck to the nearest authorized dumping site.

Mitigation of impacts on Air Quality

The dust generating activities can be mitigated by adopting the following measures:

- Spraying of sites and unpaved access roads;
- Watering entry and exit points to prevent carryover of dust emissions from sites;
- Establishing speed restrictions for all vehicles;
- Covering all vehicles transporting materials likely to give off excessive dust.

The impacts of emissions can be mitigated by:

- Maintaining the vehicles and equipment properly to ensure there are no excessive exhaust emissions;
- Prohibiting burning of materials from clearance of trees, bushes and other combustible matter;
- Ensuring the machinery operating intermittently is shut down during idle periods.

Abatement of Noise

During the construction phase, the noises can be reduced and mitigated by:

- Ensuring all the equipment is fitted with noise muffing devices;
- Ensuring machinery is shut down or throttled down during idle periods;
- Applying time restrictions of activities to the day-time working hours;
- Providing PPE to the workers;
- Performing additional health check-ups for personnel handling the vibrating and noisy equipment.

Waste Management

During construction phase the liquid and solid waste shall be well managed to prevent potential contamination of soil and water resources. This can be achieved by the implementation of the following mitigation measures:

- Ensuring the camp is well connected to the municipal sewer system or wastewater from the camp is collected in a tank and discharged in approved location;
- Keeping the site clean and tidy;
- Ensuring solid waste is properly collected and disposed of;
- Prohibiting burning of waste;
- Checking vehicles regularly checked for cleanliness and leakage.

Public Safety

The risk to public safety can be reduced if the following mitigation measures are implemented:

- Ensuring all construction vehicles are appropriately marked and carry adequate visual and audio warning systems;
- Limiting the speed on the working stretches;
- Providing adequate signage for motorists and pedestrians;
- Providing barriers at construction sites
- Prohibiting works and transportation outside specified, supervised hours.
- Providing safe crossings for pedestrians and livestock

OHS of Workers

in order to provide a safe construction sites and reduce the risks on the health and safety of the workers, the following mitigation measures shall be applied:

- Providing a First Aid Kits in different places of the work site with the appropriate number of materials given the number of workers on site. The locations of the first aid kits will be provided to all workers and training on First Aid Procedures;

- Providing training on potential risks and hazards of construction;
- Providing the PPE and enforce its use;
- Providing warning signs;
- Posting contact info indicating the nearest police station and hospital (with accident and emergency facilities);
- Taking reasonable steps to prevent unauthorized people accessing the site;
- Providing training on handling of UXO/ERW;
- Providing extinguishers on work site;
- Prohibiting smoking in construction sites and close to storage areas;
- Providing site boundaries by installing suitable physical boundaries (barriers, tape or fence);
- Marking excavation holes with physical boundaries (barriers, tape or fence);
- Storing building materials (such as pipes, manhole rings, and cement bags) so that they cannot topple or roll over;
- Keeping walkways and stairways free of tripping hazards such as trailing cables, building materials, and debris;
- Providing workers with enough access to toilet and washing facilities, a place for preparing and consuming refreshments, and an area for storing and drying clothing and personal protective equipment (PPE);
- Ensuring work in elevated areas such as lighting poles comply with the OSHA;
- Implementing an Emergency Response Plan to manage major incidents if they should occur in the vicinity of the construction site;
- Ensuring proper insurance coverage for all the types of workers. (work related accidents, injuries and fatalities, as well as insurance for third party);
- Maintaining daily attendance sheets in order to verify the attendance of workers in case of accidents.
- Adopting and implementing a health management system for the workers, to ensure through medical check-ups, they are fit for work and that they will not introduce disease into local communities;
- Adopting an Occupational Health and Safety Plan and job hazard analysis during the construction phase. The plan will include measures to protect workers from COVID-19 infection, and all national health regulations will be followed. According to WBG EHS Guidelines and OSHA standards;
- Developing COVID-19 risk-based procedures tailored to site conditions and worker's characteristics, and based on guidance issued by relevant authorities, both national and international (e.g. WHO);
- Prohibiting Child labor. All of the contractor workers should be registered and age verified by the Social officers and the Project Management Team (PMT). Children below 18 will not be recruited.

Construction Camp Impacts

The construction camp shall be managed properly to minimize its impacts. The following measures shall be adopted:

- Locating the camp outside known aquifer recharge zones;
- Providing adequate infrastructure for effluent collection;
- Disposing effluent timely and properly;
- Disposing solid waste timely and properly;
- Providing collection pits for collection of used machinery oils;
- Maintaining vehicle adequately;
- Transporting wastes to the designated disposal sites.

Disturbance to Local Social Settings

The following mitigation measures shall be implemented in order to minimize disturbance to local social settings

- Recruiting local workers and contractors when possible;
- Ensuring the GRM is operational;
- Implementing COVID-19 prevention methods;
- Engaging with community and neighbors;
- Developing work procedures, defining a Code of Appropriate Conduct for all workers, including acceptable behavior with respect to community interactions and train workers on its content;
- Ensuring the provision of information regarding Worker Code of Conduct in local language;
- Training all workers on GBV and SEA/SH risks and related sanctions.

6.2 Mitigation of impacts during operation and maintenance

Handling Complaints

The GRM established for the Project can ensure that local community members have an accessible, fair and transparent means of reporting any emerging adverse impacts, and a means of obtaining mitigation. It shall be relaunched and be operational for one year following completion of all the works within the present Project.

Workers and Public Safety during maintenance

Two primary sources of accidents involving maintenance workers and/or traffic flow modifications during road maintenance.

The risk of accidents can be greatly reduced by the implementation of the following mitigation measures:

- Implementing the Health and Safety regulations;
- Providing directional and warning road signage;
- Enforcement of proper driver's behavior;
- Providing the PPE and enforce its use;
- Providing warning signs;
- Taking reasonable steps to prevent unauthorized people accessing the site;
- Providing site boundaries by installing suitable physical boundaries;
- Marking excavation holes with physical boundaries;
- Ensuring scaffolding for work in elevated areas such as lighting poles comply with the OSHA;
- Ensuring proper insurance coverage for all the types of workers;
- Adopting and implementing a health management system for the workers, to ensure through medical check-ups, they are fit for work and that they will not introduce disease into local communities;
- Developing COVID-19 risk-based procedures tailored to site conditions and workers' characteristics, and based on guidance issued by relevant authorities, both national and international (e.g. WHO).

7. Environmental and Social Management Plan

In order to manage the Environmental & Social impacts, an Environmental and Social Management Plan (ESMP) has been prepared. The ESMP contains management measures avoidance, mitigation, as well as enhancements that would be implemented during the construction and operation/maintenance phase of the project.

It covers the measures on and near the highway right-of-way and also in the construction-related sites such as camps, asphalt mixing plants, equipment workshops, etc.

Table 3: ESMP - Construction Phase

	Impacts	Activities	Mitigation Measures	Monitoring Parameters	Monitoring Frequency	Monitoring Responsibility	Cost of Mitigation	Cost of Monitoring
Water Resources	Potential contamination of surface water (at locations of remaining works)	• Leakage of hazardous fluids from construction machinery; • Accidental spills of oils and petrol; • Wash off of construction materials during rain events; • Inadequate storage of construction materials; • Inadequate disposal of liquid and solid waste at construction camp site.	• Maintaining vehicle used during construction phase to reduce emissions. They should be free of leaking fluids and be covered to reduce/prevent spills; • Removing or minimizing side casts; • Applying upgraded surfacing; • Allowing time restrictions during rain events; • Locating heaps and stockpiles of aggregate, filling and spoiling at sites that do not permit direct runoff into watercourses and are on land sloping at less than 1.5 %. • Avoiding storage of surplus materials on site and providing for timely and adequate disposal of all surplus materials; • Developing and implementing emergency response plan for accidental spills of hazardous materials.	Inspection of: • debris accumulation in water drainage areas; • •Alteration of water courses; • •Signs of spillage of hazardous materials.	•Bi-weekly during the rainy season, and after sporadic rains •Once a month during the dry periods	Contractor Internal monitoring; GDRB - supervision	No extra cost	No extra cost

	Impacts	Activities	Mitigation Measures	Monitoring Parameters	Monitoring Frequency	Monitoring Responsibility	Cost of Mitigation	Cost of Monitoring
Ambient Air Quality Soils	Dust generation (mostly in the vicinity and adjacent to construction camp)	• Movement of vehicles on unpaved surfaces; • Excavation; • Transporting of cut materials and aggregate materials	• Spraying of sites and unpaved access roads; • Watering entry and exit points to prevent carryover of dust emissions from sites; • Establishing speed restrictions for all vehicles; • Covering all vehicles transporting materials likely to give off excessive dust.	Visual Inspection of compliance with mitigation measures.	Weekly and in case of complaints.	Contractor monitoring; GDRB - supervision	Cost of regular vehicles maintenance Cost of water spraying of unpaved surfaces	No extra cost
	Air pollution from emissions	• Inadequate condition of construction machinery and vehicles; • Burning of combustible materials; • Burning of the vegetation	• Maintaining the vehicles and equipment properly to ensure there are no excessive exhaust emissions; • Prohibiting burning of materials from clearance; • Ensuring the machinery operating intermittently is shut down during idle periods.					
Noise and Vibration	Increased noise levels that are potentially detrimental to human health	• Operating of construction machinery and equipment.	• Ensuring all the equipment is fitted with noise muffing devices; • Ensuring machinery is shut down or throttled down during idle periods; • Applying time restrictions of activities to the day-time working hours; • Providing PPE to the workers; • Performing additional health check-ups for personnel handling the vibrating and noisy equipment.	Visual Inspection of compliance with mitigation measures	Weekly and in case of complaints	Contractor Internal monitoring; GDRB - supervision	• Cost of PPE • Cost of additional check-ups	No extra cost

	Impacts	Activities	• Mitigation Measures	• Monitoring Parameters	Monitoring Frequency	Monitoring Responsibility	Cost of Mitigation	Cost of Monitoring
Waste Management	Potential soil contamination and consequent contamination of shallow aquifer	<u>Liquid waste:</u> • Effluent from construction camp; • Oils, industrial effluents, grease and de-greasing solvents. <u>Solid Waste:</u> • Construction debris. • Discarded and surplus construction activities.	• Ensuring the camp is well connected to the municipal sewer system or wastewater from the camp is collected in a tank and discharged in approved location; • Keeping the site clean and tidy; • Ensuring solid waste is properly collected and disposed of; • Prohibiting burning of waste; • Checking vehicles regularly checked for cleanliness and leakage.	• Storage conditions of hazardous materials; • Disposal at designated sites • Contracts with approved waste disposal contractors • Receipts form disposal sites (if available) • Photo documentation	Bi-Weekly	Contractor Internal monitoring; GDRB supervision	Cost of transporting the waste	Within the cost of environmental auditing visits
Public Health and Safety	Increased risk of accidents	• Movement of construction machinery; • Movement of transporting vehicles	• Ensuring all construction vehicles are appropriately marked and carry adequate visual and audio warning systems; • Limiting the speed on the working stretches; • Providing adequate signage for motorists and pedestrians; • Providing barriers at construction sites • Prohibiting works and transportation outside specified, supervised hours. • Providing safe crossings for pedestrians and livestock	Site surveillance for the presence of fencing/barriers and warning signs, and traffic speed limitations	Bi-weekly	Contractor Internal monitoring; GDRB supervision Traffic	Cost of provision of warning signs and fencing	Within the cost of environmental auditing visits

	Impacts	Activities	Mitigation Measures	Monitoring Parameters	Monitoring Frequency	Monitoring Responsibility	Cost of Mitigation	Cost of Monitoring
Health and Safety of the Workers	• Inhaling of hazardous substances and extended exposure to dust; • Extended exposure to noise and vibration; • Accidents involving construction vehicles and equipment • Physical hazards from maintenance work and waste disposal; • Fire hazards; • Slipping, tripping and falling; • Falling while working at heights;	• Operating the equipment; • Noise and dust generation from construction equipment; • Vehicles movement.	• Providing a First Aid Kits in different places of the work site with the appropriate number of materials given the number of workers on site. The locations of the first aid kits will be provided to all workers and training on First Aid Procedures; • Providing training on potential risks and hazards of construction; • Providing the PPE and enforce its use; • Providing warning signs; • Posting contact info indicating the nearest police station and hospital; • Taking reasonable steps to prevent unauthorized people accessing the site; • Providing training on handling of UXO/ERW; • Providing extinguishers on work site; • Prohibiting smoking in construction sites and close to storage areas; • Providing site boundaries by installing suitable physical boundaries; • Marking excavation holes with physical boundaries • Storing building materials so that they cannot topple or roll over;	• Complaints raised from the workers • Number of accidents/ injuries and occupational diseases, incl. presence of communicable diseases (e.g. COVID 19) and pathogenic agents • OHS Plans • Trainings performed and recorded • PPE used by workers • Fire prevention equipment in place	Daily	Contractor Internal monitoring; GDRB supervision	• Cost of PPE • Cost of dust abatement measures • Regular cost of vehicles and equipment maintenance	Within the cost of environmental auditing visits

	• Manual handling and lifting; • Electrocution while working on handrails and lighting; • Contact with live power lines; • Heat exhaustion; • Increased risk of spread of communicable diseases in general and in specific COVID-19; • Undiscovered UXO/ERW may present additional risks to public and to employees.		• Keeping walkways and stairways free of tripping hazards such as trailing cables, building materials, and debris; • Providing workers with enough access to toilet and washing facilities, a place for preparing and consuming refreshments, and an area for storing and drying clothing and personal protective equipment (PPE); • Ensuring scaffolding for work in elevated areas such as lighting poles comply with the OSHA; • Implementing an Emergency Response Plan to manage major incidents if they should occur in the vicinity of the construction site; • Ensuring proper insurance coverage for all the types of workers; • Maintaining daily attendance sheets in order to verify the attendance of workers in case of accidents; • Adopting and implementing a health management system for the workers, to ensure through medical check-ups, they are fit for work and that they will not introduce disease into local communities; • Adopting an Occupational Health and Safety Plan and job hazard analysis during the					

			construction phase. The plan will include measures to protect workers from COVID-19 infection, and all national health regulations will be followed. According to WBG EHS Guidelines and OHSA standards; • Developing COVID-19 risk-based procedures tailored to site conditions and workers' characteristics, and based on guidance issued by relevant authorities, both national and international (e.g. WHO); • Prohibiting Child labor. All of the contractor workers should be registered and age verified by the Social officers and the PMTs. Children below 18 will not be recruited.					
Construction Camp	Potential soil contamination and consequent contamination of shallow aquifer	• Storage of construction materials; • Inadequate disposal of discarded materials; • Inadequate disposal of construction debris; • Spillage of machinery oils; • Leakage of domestic effluent from septic tank.	• Locating the camp outside known aquifer recharge zones; • Providing adequate infrastructure for effluent collection; • Disposing effluent timely and properly; • Disposing solid waste timely and properly; • Providing collection pits for collection of used machinery oils; • Maintaining vehicle adequately; • Transporting wastes to the designated disposal sites.	• Inspection of the camp	Bi-weekly auditing	Contractor Internal monitoring; GDRB - supervision	No extra costs	Within the cost of environmental auditing visits

	Impacts	Activities	Mitigation Measures	Monitoring Parameters	Monitoring Frequency	Monitoring Responsibility	Cost of Mitigation	Cost of Monitoring
Disruption of Local Social Setting	Social Life and community-workforce integration	• All activities	• Recruiting local workers and contractors when possible; • Ensuring the GRM is operational; • Implementing COVID-19 prevention methods; • Engaging with community and neighbors; • Developing work procedures, defining a Code of Conduct (CoC) for all workers, including acceptable behavior with respect to community interactions and train workers on its content; • Ensuring the provision of information regarding Worker CoC in local language; • Training all workers on GBV and SEA/SH risks and related sanctions.	• Site inspection • GRM reports • Training reports	Monthly	Contractor Internal monitoring; GDRB supervision	No extra cost	No extra cost

Table 4: ESMP – Operational Phase

Parameter	Impacts	Activities	Mitigation Measures	Monitoring Parameters	Monitoring Frequency	Monitoring Responsibility	Cost of Mitigation	Cost of Monitoring
Handling Complaints		All activities	• Compliance with GRM for one year following completion of works will ensure that local community members have an accessible, fair and transparent means of reporting any emerging adverse impacts, and a means of obtaining mitigation	• Record keeping on received complaints, • No. of complaints received	Quarterly	GDRB - supervision	No extra cost	No extra cost

Workers and Public Health and safety	Risk of accidents related to road maintenance	• Traffic movement	• Providing the PPE and enforce its use; • Providing warning signs. • Taking reasonable steps to prevent unauthorized people accessing the site; • Providing site boundaries and marking excavation holes by installing physical boundaries; • Ensuring work in elevated areas such as lighting poles complies with the OSHA; • Ensuring proper insurance coverage for all the types of workers; • Adopting and implementing a health management system for the workers • Developing COVID-19 risk-based procedures tailored to site conditions and workers' characteristics.	• Regular site inspection and checking of mitigation measures	During maintenance works	GDRB Traffic Police	Cost of maintenance	No extra costs

8. Public Consultations relevant to remaining works

Public participation in the ESIA process has an important role in integrating economic, social and environmental objectives. Public participation makes a positive contribution to the project in terms of minimizing and avoiding potential public controversy and in identification of priorities of assessment.

8.1 Previous Consultations

Public participation took place for the integral works under Ghersheen-Suhaila intersection Road through the following:

- A scoping session was conducted on July 17th, 2013 at Jiyan Hotel in Duhok. Approximately 40 people attended the Scoping Session including representatives of governmental institutions, NGOs and CBOs and PAP;
- The second scoping session was conducted at the Jiyan Hotel, Duhok on 29th of April, 2014. The main purpose of this Scoping Session is to inform the concerned stakeholders about the findings;
- More than 10 structured consultations with different levels of stakeholders took place between November 4, 2013 and January 25, 2014;
- Many interviews with the individual PAPs along the road alignment. The interviews were conducted during the period of 12 - 25 of March, 2014. They were held in the village of Kolli. The Kurdish translator was employed. Due to the fact, that the most of population is mostly illiterate; the interviews were conducted orally, and the recommendations recorded by the consultants.

8.2 Consultations for the remaining works

In accordance with WB policies, stakeholder's consultation should be conducted for Ghersheen-Suhaila intersection remaining works.

In line with the recently-available resources for carrying out stakeholder engagement in the context of COVID-19 and the WB's "Technical Note: Public Consultations and Stakeholder Engagement in WB-supported operations when there are constraints on conducting public meetings" (March 20, 2020), the project avoided public gatherings and minimized physical interaction between people.

Consultation with 5 PAPs were conducted on November 19, 2020 (see Photo below). A brief explanation of the remaining works, their impacts and the mitigation and monitoring plans were presented to the attendees. The GRM in place under the Project was also explained to the attendees. Then, the attendees were asked to fill in a questionnaire and express their comments. (see Annex B).

Unanimity of the participants approved the remaining works under the Ghersheen-Suhaila intersection Road but insisted on employing local workers and small contractors for the Project

Figure 3: Attendance during the consultation on November 19, 2020

9. Grievance Redress Mechanism

The GRM established for the Project will be used during the construction works and made operational one year after completion of all the works.

10. Conclusion

The ESMP concludes that the proposed construction of the Ghersheen – Suhaila interchange remaining works will have an overall significant beneficial impact on the affected population. The implementation of the recommended mitigation measures especially during the construction phase will ensure that potential negative environmental impacts are addressed.

11. Annexes

Annex A: Technical Note: Public Consultations and Stakeholder Engagement in WB-supported operations when there are constraints on conducting public meetings

Annex B: Consultations

Annex A: Technical Note: Public Consultations and Stakeholder Engagement in WB-supported operations when there are constraints on conducting public meetings

With the outbreak and spread of COVID-19, people have been advised, or may be mandated by national or local law, to exercise social distancing, and specifically to avoid public gatherings to prevent and reduce the risk of the virus transmission. Countries have taken various restrictive measures, some imposing strict restrictions on public gatherings, meetings and people's movement, and others advising against public group events. At the same time, the general public has become increasingly aware and concerned about the risks of transmission, particularly through social interactions at large gatherings.

These restrictions have implications for World Bank-supported operations. In particular, they will affect Bank requirements for public consultation and stakeholder engagement in projects, both under implementation and preparation. WHO has issued technical guidance in dealing with COVID-19, including: (i) **Risk Communication and Community Engagement (RCCE) Action Plan Guidance Preparedness and Response; (ii)** Risk Communication and Community engagement (RCCE) readiness and response; (iii) COVID-19 risk communication package for healthcare facilities; (iv) Getting your workplace ready for COVID-19; and (v) a guide to preventing and addressing social stigma associated with COVID-19. All these documents are available on the WHO website through the following link: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance.

This Note offers suggestions to World Bank task teams for advising counterpart agencies on managing public consultation and stakeholder engagement in their projects, with the recognition that the situation is developing rapidly and careful regard needs to be given to national requirements and any updated guidance issued by WHO. It is important that the alternative ways of managing consultation and stakeholder engagement discussed with clients are in accordance with the local applicable laws and policies, especially those related to media and communication. The suggestions set out below are subject to confirmation that they are in accordance with existing laws and regulations applying to the project.

Investment projects under implementation. All projects under implementation are likely to have public consultation and stakeholder engagement activities planned and committed as part of project design. These activities may be described in different project documents, and will involve a variety of stakeholders. Commonly planned avenues of such engagement are public hearings, community meetings, focus group discussions, field surveys and individual interviews. With growing concern about the risk of virus spread, there is an urgent need to adjust the approach and methodology for continuing stakeholder consultation and engagement. Taking into account the importance of confirming compliance with national law requirements, below are some suggestions for task teams' consideration while advising their clients:

Task teams will need to review their project, jointly with the PMUs, and should:

- Identify and review planned activities under the project requiring stakeholder engagement and public consultations.

- Assess the level of proposed direct engagement with stakeholders, including location and size of proposed gatherings, frequency of engagement, categories of stakeholders (international, national, local) etc.

- Assess the level of risks of the virus transmission for these engagements, and how restrictions that are in effect in the country / project area would affect these engagements.

- Identify project activities for which consultation/engagement is critical and cannot be postponed without having significant impact on project timelines. For example, selection of resettlement options by affected people during project implementation. Reflecting the specific activity, consider viable means of achieving the necessary input from stakeholders (see further below).

- Assess the level of ICT penetration among key stakeholder groups, to identify the type of communication channels that can be effectively used in the project context.

Based on the above, task teams should discuss and agree with PMUs the specific channels of communication that should be used while conducting stakeholder consultation and engagement activities. The following are some considerations while selecting channels of communication, in light of the current COVID-19 situation:

- Avoid public gatherings (taking into account national restrictions), including public hearings, workshops and community meetings;
- If smaller meetings are permitted, conduct consultations in small-group sessions, such as focus group meetings If not permitted, make all reasonable efforts to conduct meetings through online channels, including WebEx, zoom and skype;
- Diversify means of communication and rely more on social media and online channels. Where possible and appropriate, create dedicated online platforms and chat groups appropriate for the purpose, based on the type and category of stakeholders;
- Employ traditional channels of communications (TV, newspaper, radio, dedicated phone-lines, and mail) when stakeholders to do not have access to online channels or do not use them frequently. Traditional channels can also be highly effective in conveying relevant information to stakeholders, and allow them to provide their feedback and suggestions;
- Where direct engagement with project affected people or beneficiaries is necessary, such as would be the case for Resettlement Action Plans or Indigenous Peoples Plans preparation and implementation, identify channels for direct communication with each affected household via a context specific combination of email messages, mail, online platforms, dedicated phone lines with knowledgeable operators;
- Each of the proposed channels of engagement should clearly specify how feedback and suggestions can be provided by stakeholders;

- An appropriate approach to conducting stakeholder engagement can be developed in most contexts and situations. However, in situations where none of the above means of communication are considered adequate for required consultations with stakeholders, the team should discuss with the PMU whether the project activity can be rescheduled to a later time, when meaningful stakeholder engagement is possible. Where it is not possible to postpone the activity (such as in the case of ongoing resettlement) or where the postponement is likely to be for more than a few weeks, the task team should consult with the OESRC to obtain advice and guidance.

Investment projects under preparation. Where projects are under preparation and stakeholder engagement is about to commence or is ongoing, such as in the project E&S planning process, stakeholder consultation and engagement activities should not be deferred, but rather designed to be fit for purpose to ensure effective and meaningful consultations to meet project and stakeholder needs. Some suggestions for advising clients on stakeholder engagement in such situations are given below. These suggestions are subject to the coronavirus situation in country, and restrictions put in place by governments. The task team and the PMU should:

- Review the country COVID-19 spread situation in the project area, and the restrictions put in place by the government to contain virus spread;

- Review the draft Stakeholder Engagement Plan (SEP, if it exists) or other agreed stakeholder engagement arrangements, particularly the approach, methods and forms of engagement proposed, and assess the associated potential risks of virus transmission in conducting various engagement activities;
- Be sure that all task team and PIU members articulate and express their understandings on social behavior and good hygiene practices, and that any stakeholder engagement events be preceded with the procedure of articulating such hygienic practices.
- Avoid public gatherings (taking into account national restrictions), including public hearings, workshops and community meetings, and minimize direct interaction between project agencies and beneficiaries / affected people;
- If smaller meetings are permitted, conduct consultations in small-group sessions, such as focus group meetings. If not permitted, make all reasonable efforts to conduct meetings through online channels, including WebEx, zoom and skype meetings;
- Diversify means of communication and rely more on social media and online channels. Where possible and appropriate, create dedicated online platforms and chat groups appropriate for the purpose, based on the type and category of stakeholders;
- Employ traditional channels of communications (TV, newspaper, radio, dedicated phone-lines, public announcements and mail) when stakeholders do not have access to online channels or do not use them frequently. Such channels can also be highly effective in conveying relevant information to stakeholders, and allow them to provide their feedback and suggestions;
- Employ online communication tools to design virtual workshops in situations where large meetings and workshops are essential, given the preparatory stage of the project. WebEx, Skype, and in low ICT capacity situations, audio meetings, can be effective tools to design virtual workshops. The format of such workshops could include the following steps:

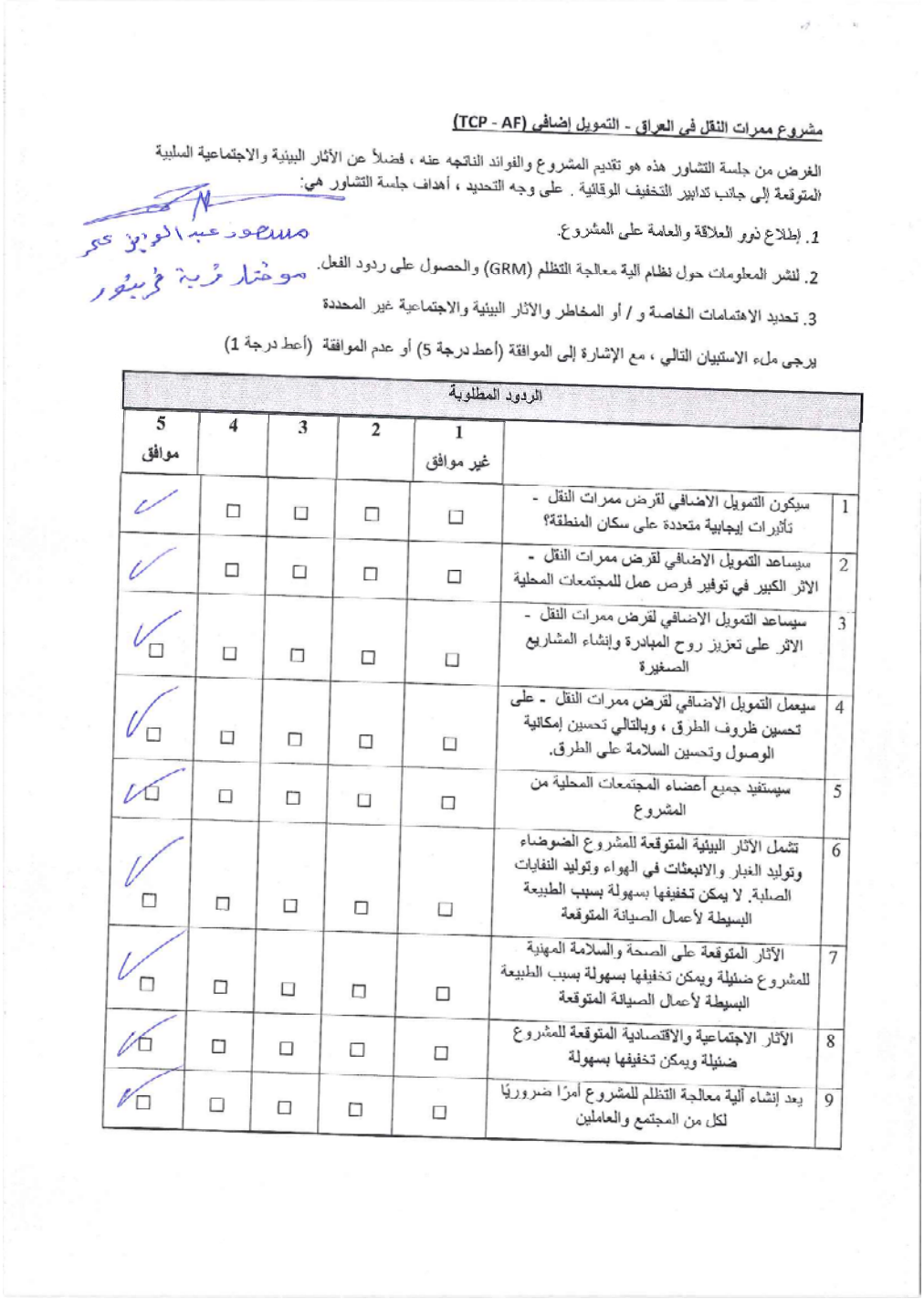
- *Virtual registration of participants*: Participants can register online through a dedicated platform.
- *Distribution of workshop materials to participants, including agenda, project documents, presentations, questionnaires and discussion topics*: These can be distributed online to participants.
- *Review of distributed information materials*: Participants are given a scheduled duration for this, prior to scheduling a discussion on the information provided.
- *Discussion, feedback collection and sharing*:
  - ✓ Participants can be organized and assigned to different topic groups, teams or virtual "tables" provided they agree to this.
  - ✓ Group, team and table discussions can be organized through social media means, such as WebEx, skype or zoom, or through written feedback in the form of an electronic questionnaire or feedback forms that can be emailed back.
- *Conclusion and summary:* The chair of the workshop will summarize the virtual workshop discussion, formulate conclusions and share electronically with all participants.

- In situations where online interaction is challenging, information can be disseminated through digital platform (where available) like Facebook, Twitter, WhatsApp groups, Project web links/ websites, and traditional means of communications (TV, newspaper, radio, phone calls and mails with clear description of mechanisms for providing feedback via mail and / or dedicated telephone lines. All channels of communication need to clearly specify how stakeholders can provide their feedback and suggestions.

- *Engagement with direct stakeholders for household surveys*: There may be planning activities that require direct stakeholder engagement, particularly in the field. One example is resettlement planning where surveys need to be conducted to ascertain socioeconomic status of affected people, take inventory of their affected assets, and facilitate discussions related to relocation and livelihood planning. Such survey activities require active participation of local stakeholders, particularly the potentially adversely affected communities. However, there may be situations involving indigenous communities, or other communities that may not have access to the digital platforms or means of communication, teams should develop specially tailored stakeholder engagement approaches that will be appropriate in the specific setting. The teams should reach out to the regional PMs for ENB and Social Development or to the ESSA for the respective region, in case they need additional support to develop such tailored approaches.
- In situations where it is determined that meaningful consultations that are critical to the conduct of a specific project activity cannot be conducted in spite of all reasonable efforts on the part of the client supported by the Bank, the task team should discuss with the client whether the proposed project activities can be postponed by a few weeks in view of the virus spread risks. This would depend on the COVID-19 situation in the country, and the government policy requirements to contain the virus spread. Where it is not possible to postpone the activity (such as in the case of ongoing resettlement) or where the postponement is likely to be for more than a few weeks, the task team should consult with the OESRC to obtain advice and guidance.

Annex B: Consultations

Date: November 19, 2020
Name: Masoud Abdelwafek Ajar (Mokhtar)



مشروع ممرات النقل في العراق - التمويل إضافي (TCP - AF)

الغرض من جلسة التشاور هذه هو تقديم المشروع والفوائد الناتجه عنه ، فضلاً عن الآثار البيئية والاجتماعية السلبية المتوقعة إلى جانب تدابير التخفيف الوقائية . على وجه التحديد ، أهداف جلسة التشاور هي:

1. إطلاع ذوو العلاقة والعامة على المشروع.
2. لنشر المعلومات حول نظام الية معالجة التظلم (GRM) والحصول على ردود الفعل.
3. تحديد الاهتمامات الخاصة و / أو المخاطر والآثار البيئية والاجتماعية غير المحددة

يرجى ملء الاستبيان التالي ، مع الإشارة إلى الموافقة (أعط درجة 5) أو عدم الموافقة (أعط درجة 1)

	الردود المطلوبة					
	1 غير موافق	2	3	4	5 موافق	
1	☐	☐	☐	☐	✓	سيكون التمويل الاضافي لقرض ممرات النقل - تأثيرات إيجابية متعددة على سكان المنطقة؟
2	☐	☐	☐	☐	✓	سيساعد التمويل الاضافي لقرض ممرات النقل - الاثر الكبير في توفير فرص عمل للمجتمعات المحلية
3	☐	☐	☐	☐	✓ ☐	سيساعد التمويل الاضافي لقرض ممرات النقل - الاثر على تعزيز روح المبادرة وإنشاء المشاريع الصغيرة
4	☐	☐	☐	☐	✓ ☐	سيعمل التمويل الاضافي لقرض ممرات النقل - على تحسين ظروف الطرق ، وبالتالي تحسين إمكانية الوصول وتحسين السلامة على الطرق.
5	☐	☐	☐	☐	✓ ☐	سيستفيد جميع أعضاء المجتمعات المحلية من المشروع
6	☐	☐	☐	☐	✓ ☐	تشمل الآثار البيئية المتوقعة للمشروع الضوضاء وتوليد الغبار والانبعاثات في الهواء وتوليد النفايات الصلبة. لا يمكن تخفيفها بسهولة بسبب الطبيعة البسيطة لأعمال الصيانة المتوقعة
7	☐	☐	☐	☐	✓ ☐	الآثار المتوقعة على الصحة والسلامة المهنية للمشروع ضئيلة ويمكن تخفيفها بسهولة بسبب الطبيعة البسيطة لأعمال الصيانة المتوقعة
8	☐	☐	☐	☐	✓ ☐	الآثار الاجتماعية والاقتصادية المتوقعة للمشروع ضئيلة ويمكن تخفيفها بسهولة
9	☐	☐	☐	☐	✓ ☐	يعد إنشاء آلية معالجة التظلم للمشروع أمرًا ضروريًا لكل من المجتمع والعاملين

		1 غير موافق	2	3	4	5 موافق
	د المطلوبة					
10	لن تكون هناك اضرار سواء كانت دائمة او مؤقتة من شأنها ان تؤثر على معيشة السكان او تتسبب في خسارة الدخل بسبب نشاطات اعادة التأهيل؟	☐	☐	☐	☐	✓
11	من فهمك لطبيعة العمل ، إلى أي مدى توافق على أن المشروع لن يتضمن أي استملاكات للأرض؟	☐	☐	☐	☐	✓
12	من خلال فهمك لطبيعة العمل ، إلى أي مدى توافق على أن المشروع لن ينطوي على أي نزوح للسكان؟	☐	☐	☐	☐	✓
13	هل هناك أي استخدام من قبل السكان المحليين للمنشآت أو الارضي ؟	✓	☐	☐	☐	☒
14	لن يتسبب المشروع في أي صراعات اجتماعية " أو تغييرات في التركيبة السكانية أو البنية الاجتماعية في منطقة المشروع." إلى أي مدى توافق؟	☐	☐	☐	☐	✓
15	لن يتسبب المشروع في أي أضرار بالمنشآت أو المنازل	☐	☐	☐	☐	✓
16	هل هناك حاجة للعلامات التحذيرية والتوجيهية أثناء أنشطة إعادة التأهيل؟		☐	☐	☐	✓ ☐

يرجى تدوين اى ملاحظات او مقترحات ان وجدت:

(١) اذا كان من الممكن عند العمل في المشروع ان يقوم المقاول بتشغيل العمال والعمالة من القرى المجاورة للمشروع .

للتواصل واعادة الاستبيان:

البريد الاكتروني pmtmanager2016@gmail.com

الهاتف: + 9647704445357

Date: November 19, 2020
Name: Mehsen Drouch Akdi

محسن دروش عقدي

مشروع ممرات النقل في العراق - التمويل إضافي (TCP - AF)

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3. تحديد الاهتمامات الخاصة و / أو المخاطر والآثار البيئية والاجتماعية غير المحددة

يرجى ملء الاستبيان التالي ، مع الإشارة إلى الموافقة (أعط درجة 5) أو عدم الموافقة (أعط درجة 1)

الردود المطلوبة						
		1 غير موافق	2	3	4	5 موافق
1	سيكون التمويل الاضافي لقرض ممرات النقل - تأثيرات إيجابية متعددة على سكان المنطقة؟	☐	☐	☐	☐	✓
2	سيساعد التمويل الاضافي لقرض ممرات النقل - الاثر الكبير في توفير فرص عمل للمجتمعات المحلية	☐	☐	☐	☐	✓
3	سيساعد التمويل الاضافي لقرض ممرات النقل - الاثر على تعزيز روح المبادرة وإنشاء المشاريع الصغيرة	☐	☐	☐	☐	✓ ☐
4	سيعمل التمويل الاضافي لقرض ممرات النقل - على تحسين ظروف الطرق ، وبالتالي تحسين إمكانية الوصول وتحسين السلامة على الطرق.	☐	☐	☐	☐	✓ ☐
5	سيستفيد جميع أعضاء المجتمعات المحلية من المشروع	☐	☐	☐	☐	☐
6	تشمل الآثار البيئية المتوقعة للمشروع الضوضاء وتوليد الغبار والانبعثات في الهواء وتوليد النفايات الصلبة. لا يمكن تخفيفها بسهولة بسبب الطبيعة البسيطة لأعمال الصيانة المتوقعة	☐	☐	☐	☐	✓ ☐
7	الآثار المتوقعة على الصحة والسلامة المهنية للمشروع ضئيلة ويمكن تخفيفها بسهولة بسبب الطبيعة البسيطة لأعمال الصيانة المتوقعة	☐	☐	☐	☐	✓ ☐
8	الآثار الاجتماعية والاقتصادية المتوقعة للمشروع ضئيلة ويمكن تخفيفها بسهولة	☐	☐	☐	☐	✓ ☐
9	يعد إنشاء آلية معالجة التظلم للمشروع أمرًا ضروريًا لكل من المجتمع والعاملين	☐	☐	☐	☐	✓ ☐

	د المطلوبة					
	1 غير موافق	2	3	4	5 موافق
10	لن تكون هناك اضرار سواء كانت دائمة او مؤقتة من شأنها ان تؤثر على معيشة السكان او تتسبب في خسارة الدخل بسبب نشاطات اعادة التأهيل؟	☐	☐	☐	☐	✓
11	من فهمك لطبيعة العمل ، إلى أي مدى توافق على أن المشروع لن يتضمن أي استملاكات للأرض؟	☐	☐	☐	☐	✓
12	من خلال فهمك لطبيعة العمل ، إلى أي مدى توافق على أن المشروع لن ينطوي على أي نزوح للسكان؟	☐	☐	☐	☐	✓
13	هل هناك أي استخدام من قبل السكان المحليين للمنشآت أو الارضي ؟	✓	☐	☐	☐	☒
14	لن يتسبب المشروع في أي صراعات اجتماعية " أو تغييرات في التركيبة السكانية أو البنية الاجتماعية في منطقة المشروع." إلى أي مدى توافق؟	☐	☐	☐	☐	✓
15	لن يتسبب المشروع في أي أضرار بالمنشآت أو المنازل	☐	☐	☐	☐	✓
16	هل هناك حاجة للعلامات التحذيرية والتوجيهية أثناء أنشطة إعادة التأهيل؟	☐	☐	☐	☐	☒

يرجى تدوين اي ملاحظات او مقترحات ان وجدت:

للتواصل واعادة الاستبيان:

البريد الاكتروني pmtmanager2016@gmail.com

الهاتف: + 9647704445357

Date: November 19, 2020
Name: Walid Arab Sleiman

مشروع ممرات النقل في العراق - التمويل إضافي (TCP - AF)

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	1 غير موافق	2	3	4	5 موافق	
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2	سيساعد التمويل الاضافي لقرض ممرات النقل - الاثر الكبير في توفير فرص عمل للمجتمعات المحلية	☐	☐	☐	☐	✓
3	سيساعد التمويل الاضافي لقرض ممرات النقل - الاثر على تعزيز روح المبادرة وإنشاء المشاريع الصغيرة	☐	☐	☐	☐	✓
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5	سيستفيد جميع أعضاء المجتمعات المحلية من المشروع	☐	☐	☐	☐	✓
6	تشمل الآثار البيئية المتوقعة للمشروع الضوضاء وتوليد الغبار والانبعثات في الهواء وتوليد النفايات الصلبة. لا يمكن تخفيفها بسهولة بسبب الطبيعة البسيطة لأعمال الصيانة المتوقعة	☐	☐	☐	☐	✓
7	الآثار المتوقعة على الصحة والسلامة المهنية للمشروع ضئيلة ويمكن تخفيفها بسهولة بسبب الطبيعة البسيطة لأعمال الصيانة المتوقعة	☐	☐	☐	☐	✓
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9	يعد إنشاء آلية معالجة التظلم للمشروع أمرًا ضروريًا لكل من المجتمع والعاملين	☐	☐	☐	☐	✓

		د المطلوبة				
		1 غير موافق	2	3	4	5 موافق
10	لن تكون هناك اضرار سواء كانت دائمة او مؤقتة من شأنها ان تؤثر على معيشة السكان او تتسبب في خسارة الدخل بسبب نشاطات اعادة التأهيل؟	☐	☐	☐	☐	✓
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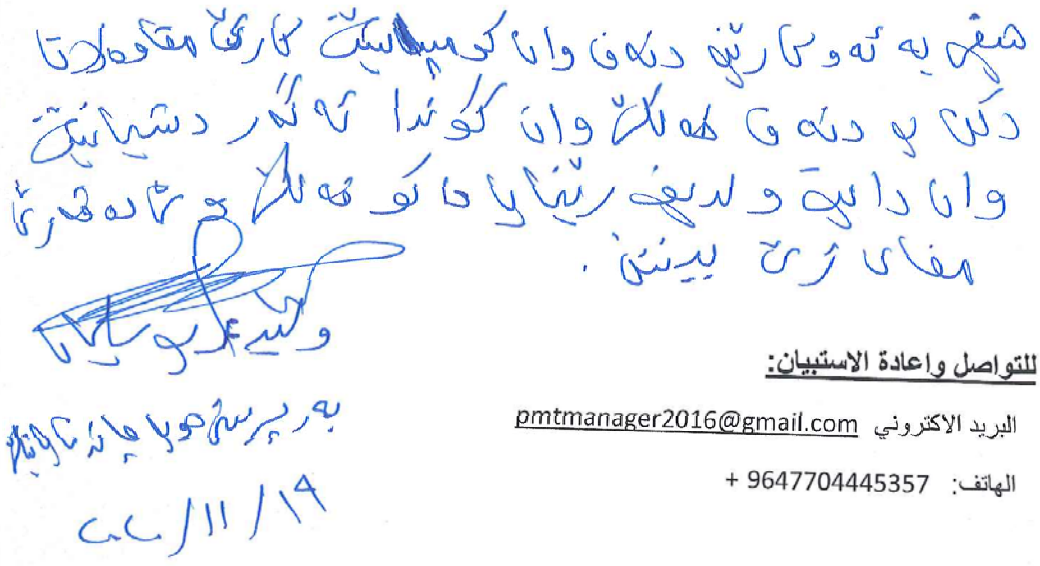
13	هل هناك أي استخدام من قبل السكان المحليين للمنشآت أو الارضي ؟	✓	☐	☐	☐	☐
14	لن يتسبب المشروع في أي صراعات اجتماعية " أو تغييرات في التركيبة السكانية أو البنية الاجتماعية في منطقة المشروع." إلى أي مدى توافق؟	☐	☐	☐	☐	✓
15	لن يتسبب المشروع في أي أضرار بالمنشآت أو المنازل	☐	☐	☐	☐	✓
16	هل هناك حاجة للعلامات التحذيرية والتوجيهية أثناء أنشطة إعادة التأهيل؟		☐	☐	☐	☐

يرجى تدوين اي ملاحظات او مقترحات ان وجدت:



للتواصل واعادة الاستبيان:

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Date: November 19, 2020
Name: Abdallah Ismail Salou (Represent the association of farmers in Bateel-Kurdistan)

مشروع ممرات النقل في العراق - التمويل إضافي (TCP - AF)

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الردود المطلوبة						
5 موافق	4	3	2	1 غير موافق		
✓	☐	☐	☐	☐	سيكون التمويل الاضافي لقرض ممرات النقل - تأثيرات إيجابية متعددة على سكان المنطقة؟	1
✓	☐	☐	☐	☐	سيساعد التمويل الاضافي لقرض ممرات النقل - الاثر الكبير في توفير فرص عمل للمجتمعات المحلية	2
☑	☐	☐	☐	☐	سيساعد التمويل الاضافي لقرض ممرات النقل - الاثر على تعزيز روح المبادرة وإنشاء المشاريع الصغيرة	3
☑	☐	☐	☐	☐	سيعمل التمويل الاضافي لقرض ممرات النقل - على تحسين ظروف الطرق ، وبالتالي تحسين إمكانية الوصول وتحسين السلامة على الطرق.	4
☑	☐	☐	☐	☐	سيستفيد جميع أعضاء المجتمعات المحلية من المشروع	5
☐	☑	☐	☐	☐	تشمل الآثار البيئية المتوقعة للمشروع الضوضاء وتوليد الغبار والانبعاثات في الهواء وتوليد النفايات الصلبة. لا يمكن تخفيفها بسهولة بسبب الطبيعة البسيطة لأعمال الصيانة المتوقعة	6
☑	☐	☐	☐	☐	الآثار المتوقعة على الصحة والسلامة المهنية للمشروع ضئيلة ويمكن تخفيفها بسهولة بسبب الطبيعة البسيطة لأعمال الصيانة المتوقعة	7
☑	☐	☐	☐	☐	الآثار الاجتماعية والاقتصادية المتوقعة للمشروع ضئيلة ويمكن تخفيفها بسهولة	8
☑	☐	☐	☐	☐	يعد إنشاء آلية معالجة التظلم للمشروع أمرًا ضروريًا لكل من المجتمع والعاملين	9

		د المطلوبة				
		1 غير موافق	2	3	4	5 موافق
10	لن تكون هناك اضرار سواء كانت دائمة او مؤقتة من شأنها ان تؤثر على معيشة السكان او تتسبب في خسارة الدخل بسبب نشاطات اعادة التأهيل؟	☐	☐	☐	☐	✓
11	من فهمك لطبيعة العمل ، إلى أي مدى توافق على أن المشروع لن يتضمن أي استملاكات للأرض؟	☐	☐	☐	☐	✓
12	من خلال فهمك لطبيعة العمل ، إلى أي مدى توافق على أن المشروع لن ينطوي على أي نزوح للسكان؟	☐	☐	☐	☐	✓
13	هل هناك أي استخدام من قبل السكان المحليين للمنشآت أو الارضي ؟	✓	☐	☐	☐	☐
14	لن يتسبب المشروع في أي صراعات اجتماعية " أو تغييرات في التركيبة السكانية أو البنية الاجتماعية في منطقة المشروع." إلى أي مدى توافق؟	☐	☐	☐	☐	✓
15	لن يتسبب المشروع في أي أضرار بالمنشآت أو المنازل	☐	☐	☐	☐	✓
16	هل هناك حاجة للعلامات التحذيرية والتوجيهية أثناء أنشطة إعادة التأهيل؟		☐	☐	☐	✓

يرجى تدوين اي ملاحظات او مقترحات ان وجدت:

نقترح أن يأخذ عمال وآليات أصل القرى الكفاءة للعمل في المشروع .

عبدالله إسماعيل سلو
ممثل اتحاد ملاحي كردستان
في ناحية باتيل
٠٧٥٠٤٧٦١٦٠٣

للتواصل واعادة الاستبيان:

البريد الاكتروني pmtmanager2016@gmail.com

الهاتف: + 9647704445357

Date: November 19, 2020
Name: Aysar Jerges Hmeid (Director of Bateel)

مشروع ممرات النقل في العراق - التمويل إضافي (TCP - AF)

الغرض من جلسة التشاور هذه هو تقديم المشروع والفوائد الناتجه عنه ، فضلاً عن الآثار البيئية والاجتماعية السلبية المتوقعة إلى جانب تدابير التخفيف الوقائية . على وجه التحديد ، أهداف جلسة التشاور هي:

1. إطلاع ذوو العلاقة والعامة على المشروع.
2. لنشر المعلومات حول نظام آلية معالجة التظلم (GRM) والحصول على ردود الفعل.
3. تحديد الاهتمامات الخاصة و / أو المخاطر والآثار البيئية والاجتماعية غير المحددة

يرجى ملء الاستبيان التالي ، مع الإشارة إلى الموافقة (أعط درجة 5) أو عدم الموافقة (أعط درجة 1)

	الردود المطلوبة					
	1 غير موافق	2	3	4	5 موافق	
1	☐	☐	☐	☐	☑	سيكون التمويل الاضافي لقرض ممرات النقل - تأثيرات إيجابية متعددة على سكان المنطقة؟
2	☐	☐	☐	☐	☑	سيساعد التمويل الاضافي لقرض ممرات النقل - الاثر الكبير في توفير فرص عمل للمجتمعات المحلية
3	☐	☐	☐	☐	☑	سيساعد التمويل الاضافي لقرض ممرات النقل - الاثر على تعزيز روح المبادرة وإنشاء المشاريع الصغيرة
4	☐	☐	☐	☐	☑	سيعمل التمويل الاضافي لقرض ممرات النقل - على تحسين ظروف الطرق ، وبالتالي تحسين إمكانية الوصول وتحسين السلامة على الطرق.
5	☐	☐	☐	☐	☑	سيستفيد جميع أعضاء المجتمعات المحلية من المشروع
6	☐	☐	☐	☐	☑	تشمل الآثار البيئية المتوقعة للمشروع الضوضاء وتوليد الغبار والانبعثات في الهواء وتوليد النفايات الصلبة. لا يمكن تخفيفها بسهولة بسبب الطبيعة البسيطة لأعمال الصيانة المتوقعة
7	☐	☐	☐	☐	☑	الآثار المتوقعة على الصحة والسلامة المهنية للمشروع ضئيلة ويمكن تخفيفها بسهولة بسبب الطبيعة البسيطة لأعمال الصيانة المتوقعة
8	☐	☐	☐	☐	☑	الآثار الاجتماعية والاقتصادية المتوقعة للمشروع ضئيلة ويمكن تخفيفها بسهولة
9	☐	☐	☐	☐	☑	يعد إنشاء آلية معالجة التظلم للمشروع أمرًا ضروريًا لكل من المجتمع والعاملين

د المطلوبة						
		1 غير موافق	2	3	4	5 موافق
10	لن تكون هناك اضرار سواء كانت دائمة او مؤقتة من شأنها ان تؤثر على معيشة السكان او تتسبب في خسارة الدخل بسبب نشاطات اعادة التأهيل؟	☐	☐	☐	☐	✓
11	من فهمك لطبيعة العمل ، إلى أي مدى توافق على أن المشروع لن يتضمن أي استملاكات للأرض؟	☐	☐	☐	☐	✓
12	من خلال فهمك لطبيعة العمل ، إلى أي مدى توافق على أن المشروع لن ينطوي على أي نزوح للسكان؟	☐	☐	☐	☐	✓
13	هل هناك أي استخدام من قبل السكان المحليين للمنشآت أو الارضي ؟	✓	☐	☐	☐	✓
14	لن يتسبب المشروع في أي صراعات اجتماعية " أو تغييرات في التركيبة السكانية أو البنية الاجتماعية في منطقة المشروع." إلى أي مدى توافق؟	☐	☐	☐	☐	✓
15	لن يتسبب المشروع في أي أضرار بالمنشآت أو المنازل	☐	☐	☐	☐	✓
16	هل هناك حاجة للعلامات التحذيرية والتوجيهية أثناء أنشطة إعادة التأهيل؟		☐	☐	☐	☐

يرجى تدوين اي ملاحظات او مقترحات ان وجدت:

عند القيام بأي مشروع من الضروري الاهتمام او الاهتمام بحالة السكان المحليين من تشغيل آلياتهم وتشغيل السكان في تلك المناطق المجاورة بالنسبة للعمالة وتشغيل الآليات فقط دون الاعمال اليدوية والفنية .

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