



**CONNECTIVITY AND TRANSPORT SECTOR IMPROVEMENT PROJECT  
REHABILITATION OF THE M-41 ROAD IN THE SURKHANDARYA  
REGION (SECTION 1525-1622 KM)**

**ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN**

CLIENT: THE COMMITTEE FOR ROADS OF THE REPUBLIC OF UZBEKISTAN

## DOCUMENT INFORMATION

<b>Project Name</b>	Rehabilitation of the M-41 road in the Surkhandarya region (section 1525-1622)
<b>Consultancy services</b>	Consultancy services to prepare Environmental and Social Impact Assessment (ESIA) and Environmental and Social Management Plan (ESMP)
<b>Document Title</b>	Environmental and Social Management Plan (ESMP)
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## LIST OF ABBREVIATIONS

BMP	Biodiversity Management Plan
CAR	Committee for Roads under the Ministry of Transport
CESMP	Construction Environmental and Social Management Plan
CSC	Construction Supervision Consultant
DDC	Detailed Design Consultant
E&S	Environmental and Social
EHS	Environment, Health and Safety
EIA	Environmental Impact Assessment
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
ESMS	Environmental and Social Management System
ESO	Environmental and Social Officer
ESS	Environmental & Social Standards
GIIP	Good International Industry Practice
GoU	Government of Uzbekistan
GRM	Grievance Redress Mechanisms
IFC	International Finance Corporation
ILO	International Labour Organisation
KMK	Construction Norms and Rules
MEEPCC	Ministry of Ecology, Environmental Protection and Climate Change of the RUz
O-ESMP	Operations Environmental and Social Management Plan
OHS	Occupational Health and Safety
LMP	Labor Management Procedures
PIU	Project Implementation Unit
RAP	Resettlement Action Plans
ROW	Right of Way
SanPiN	Sanitary Regulations and Norms of Uzbekistan
SEA	Sexual Exploitation and Abuse
SEE	State Environmental Expertise
SEP	Stakeholder Engagement Plan
SH	Sexual Harassment
TMP	Traffic Management Plan
WBG	World Bank Group
WHO	World Health Organization

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# 1. INTRODUCTION

## 1.1. BACKGROUND

The Connectivity and Transport Sector Improvement Project is closely aligned with the World Bank Group's Country Partnership Framework (CPF) for Uzbekistan for FY22-26. The Project aims to enhance existing road infrastructure and create conditions for further transport sector reforms. Subcomponent 1.1. M-41 Regional Road Corridor Reconstruction and Supervision will finance the reconstruction of 97km of the M-41 Bishkek-Dushanbe-Termez corridor (section 1525-1622) road into a four-lane, climate-resilient highway, including enhanced drainage, pavement, and embankment protection. Also supports construction of parking facilities with charging stations and other amenities. Half of the corridor will be maintained under a multi-year performance-based contract (PBC).

The objectives of the Project are multiple and include improving the resilience of the local road network to climate change (by actively pursuing climate change mitigation, climate change adaptation and other environmental benefits), optimising opportunities to provide positive impacts on the local economy and communities (by improving connectivity - reducing travel times, lowering road user costs, enabling increased domestic trade and contributing to job creation in the region), optimising opportunities to improve road safety for all users and adhering to technical standards including Presidential Decrees of Uzbekistan.

Committee for Roads under the Ministry of Transport (CAR) has appointed Al Mar Consulting Ltd. (Al Mar) to perform Environmental and Social Impact Assessment (ESIA) for the Phase-1, section km 1525-1622 (Lot 1 – 1570-1622km and Lot 2 – 1525 – 1570km) following World Bank's Environment and Social Framework 2018. The Project has already been subject to a separate national Environmental Impact Assessment (Stage 1 national EIA) in accordance with Uzbekistan legal and permitting requirements

## 1.2. PROJECT CATEGORIZATION

### 1.2.1. WB Categorization

Based on the initial screening, the tentative overall Environment and Social Risk Classification for the proposed project is rated as "Substantial," with both environmental and social risks individually rated as substantial. The types of the project activities, such as road construction/rehabilitation, construction/extension of bridges (possible impacts on natural water habitats), rehabilitation or reconstruction of hydraulic structures, operation of quarries and borrow pits, make it a complex project. These activities can generate significant potential environmental risks and impacts, including the risk of pollution of waterways and soil due to uncontrolled management hazardous materials (oil, fuel, cement, bitumen), the potential exposure of workers and the public to several health and safety risks and hazards, such as accidents, exposure to high level of noise, and hazardous chemicals.

The field visit to the proposed site indicated that the proposed road reconstruction will likely generate impacts on densely populated settlements with high likelihood of physical resettlement and livelihoods impacts. Therefore, it may involve mitigation or management measures which are complex and beyond the direct control of the project.

### 1.2.2. National Categorization

The Appendix to the Governmental Resolution No.541 includes the list of activities falling under the different Categories for the purposes of EIA. The Road construction projects are either Category I or Category II. Category I includes the high-speed highways and large bridges. According to the list of activities subject to state ecological expertise, which is established by the Resolution of Cabinet of Ministers No. 541 “On further improvement of the environmental impact assessment mechanism’ (2020), highways and bridges are categorized as follows depending on the level of impact on the environment<sup>1</sup>:

- ❖ Motorways, subways, railways, major highways, bridges and cargo terminals of state and international significance – Category I (high risk);
- ❖ Highways and bridges of the Republic of Karakalpakstan, regions and the city of Tashkent significance – Category II (medium risk);
- ❖ Highways and bridges of district and city (except Tashkent) significance – Category III (low risk).

There are no more detailed criteria for categorization. Therefore, the project relates to the Category I (high risk) of the projects with substantial impacts and requires the preparation of the SEI. The scope and content of SEI is in general in line with this ESIA (prepared for WB).

### 1.3. SCOPE OF THE ESMP

This document presents the Environmental and Social Management Plan (ESMP) for the Project. This ESMP collates all the mitigation measures identified in the individual assessment chapters of ESIA and presents the framework for implementation. Where appropriate this ESMP also elaborates on the identified measures to provide minimum standards, monitoring requirements and key performance indicators for completion.

This ESMP covers the Project and Associated Facilities and covers the design, construction and operational phases of the Project. The framework ESMP is developed to align with the environmental and social (E&S) requirements outlined in Chapter 3 of ESIA including national regulations and standards and the requirements of World Bank’s Environment and Social Framework 2018, each of the ten standards (ESS1 to 10), including the environmental, health and safety guidance of the World Bank Group (WBG).

E&S aspects relevant to the project and assessed in the ESIA are summarised in Table 1. Specific obligations for these topics are explained in the ESIA and summarised in Chapter 4. The framework ESMP applies to the CAR of Uzbekistan, the Contractor (to be determined), and all third-party subcontractors working on the Project.

**Table 1: Summary of topics addressed in the ESMP**

Environment	Social (including labour)
<ul style="list-style-type: none"> <li>▪ Air Quality</li> <li>▪ Hydrology</li> <li>▪ Climate Change</li> <li>▪ Soils</li> <li>▪ Designated Sites</li> </ul>	<ul style="list-style-type: none"> <li>▪ Noise</li> <li>▪ Vibration</li> <li>▪ Landscape and Visual Impact</li> <li>▪ Waste</li> <li>▪ Land Use</li> </ul>

<sup>1</sup> Under the Resolution of Cabinet of Ministers of Uzbekistan, No 541, all economic activities are classified into one of four categories of environmental impact: Category I (high risk), Category II (medium risk), Category III (low risk) and Category IV (local impact).

Environment	Social (including labour)
<ul style="list-style-type: none"> <li>▪ Notable Habitat</li> <li>▪ Tree Cutting</li> </ul>	<ul style="list-style-type: none"> <li>▪ Labour and Working Conditions</li> <li>▪ Occupational Health and Safety</li> <li>▪ Traffic and Transportation (including road safety)</li> <li>▪ Emergency Preparedness and Response</li> <li>▪ Cultural Heritage</li> </ul>

## 1.4. THE OBJECTIVE OF THE ESMP

This objective of this environmental and social management (ESMP) is to provide a framework to safeguard the environment and community against activity which may cause harm or nuisance as identified during the EISA process. The ESMP includes the following:

- ❖ Outline of the requirements for an environment and social management system (ESMS) aligned with WB ESS1 to address impacts on sensitive receptors and related potential E&S impacts due to Project activities as identified in the ESIA including requirements for:
  - o key staffing and responsibility
    - organization and responsibilities
    - training and awareness
    - emergency procedures and response.
    - record keeping; and
    - performance monitoring, reporting and auditing.
- ❖ Establish objectives for the ESMS;
- ❖ Define mitigation measures to reduce or reverse adverse impacts and enhancement measures that increase or distribute more equitably positive impact;
- ❖ Define monitoring activities for the construction and operation phases along with implementation arrangements that detail responsibility, schedule targets, key indicators and budget needs.

The ESMP is structured as follows:

Chapter 1: Introduction

Chapter 2: Project overview

Chapter 3: Organizational framework

Chapter 4: Environmental and social management

Chapter 5: Environmental Monitoring of Compliance, Auditing and Reporting

## 1.5. CHANGE CONTROL

This ESMP has been prepared as part of the process to meet WB ESSs. It will form part of the tender documentation for Construction contractors. This ESMP document will be updated prior to construction by the CAR PIU to reflect final design and the results of additional survey work required pre-construction (the Project ESMP).

The Construction contractor will be required to follow the overarching Project ESMP and prepare detailed specific Construction ESMPs (CESMP) for approval by the CAR PIU.

During construction, amendments may be required if any major changes occur to the Project's design, performance, environmental and social conditions or resulting from

incidents or accidents. The process of Change Management will be the ultimate responsibility of the Construction contractor and reviewed by the CAR PIU.

At least three months prior to the operation phase, the operational phase ESMP shall be finalized by the CAR PIU (O-ESMP). This will be implemented by the CAR.

## 2. PROJECT OVERVIEW

### 2.1. PROJECT BACKGROUND

M-41 is the Bishkek-Dushanbe-Termez highway, passing through Central Asia in mountainous areas through the territory of Uzbekistan, Tajikistan and Kyrgyzstan. The road connects the cities of Termez, Dushanbe, Khorog, Osh, passes through the Pamir and includes the Pamir tract. M-41 road serves as an important trade route connecting the eastern part of Central Asia (Kyrgyzstan, Tajikistan and one part of Uzbekistan) with Afghanistan, Pakistani ports and Turkmenistan.

The section 1525 and 1622 km of the M-41 road crosses five roads and adjoins 236 roads, 15 of which are national roads. Specifically, the highway connects with 4P100, 4P103, 4P101, M39 roads, and others and leads to Termez International Airport. At 1608 km, the road intersects with the M39A road and reaches the Hairaton Bridge over the Amu Darya River with access to Afghanistan and further to the ports of Pakistan and Iran.

Within the Project M-41 Regional Road Corridor Reconstruction (Section 1525-1622 km), it is planned to expand the M-41 road on the section km 1525-1622 into a four-lane highway by reconstructing the existing two traffic lanes and constructing two additional lanes of the highway with the installation of a cement concrete pavement.

More than half of the Project Road passes through settlements, with the remaining part passing through rural areas.

### 2.2. PROJECT LOCATION

M-41 - the main highway Bishkek-Dushanbe-Termez, passing in Central Asia in mountainous terrain through the territory of Uzbekistan, Tajikistan and Kyrgyzstan. The road connects the cities of Termez, Dushanbe, Khorog, Osh, and passes through the Pamirs and includes the Pamir Highway.

The existing road was built according to the standards corresponding to motorways of categories I–III with a roadbed width from 12.0 to 25.1 m, carriageway widths of 2x3.50, 2x3.75 and 2x7.5 m. The project section from 1525 to 1622 km is a 2-lane road, widening in 3 sites to a 4-lane road, with a total length of 97 km, of which approximately 91.1 km (~94%) are 2-lane sections and approximately 5.9 km (~6%) are 4-lane sections.

The Government of Uzbekistan (RoU) approached the World Bank (WB or Bank) with the request to provide a sovereign guaranteed loan to the CAR (the Client) for the urgent reconstruction of the 97 km section of M-41 road.

The highway of international importance M-41 road for 97 km crosses the territory of Surkhandarya region from the north-east, from the border with Tajikistan, to the south-west, to the border with Afghanistan. The planned character of the route coincides with the axis of the Surkhandarya river valley, including, in the north from the beginning of the road and up to 25 km - the road is laid through the valleys of the right-bank tributaries of the Surkhandarya, the central part of the route from 25 to 110 km, runs along the right-bank part of the valley almost parallel to the wide floodplain of the river, and in the south - from 110 km to Termez the road crosses the floodplain and terraces of the river twice.

The roadbed of the highway is laid through irrigated lands and settlements, including passing both along the outskirts and through the development of district centers of Kumkurgan, Dzarkurgan and Termez districts.

**Table 2: Road sections within district boundaries**

District	KM	Distance (km)	Settlements
Kumkurgan district	23 km	1525 -1548 km	10 mahallas – Hurriyat, Munchoktepa, Elabad, Jiydali, Besh Kahraman, Jarkishlak, Gultepa, Navbakhor, Mehrobad, Surkhan-sakhili.
Dzarkurgan district	58 km	1548 -1606 km	9 mahalla – Oltintepa, Surkhon sohili, Obi hayot, Ismoil tepa, Dostlik, Istiklol, Nurli diyor, Oktepa, Gur gur.
Termez district	16 km	1606-1622 km	5 mahallas - Korahon, Amir Temur, Sharof Rashidov, Kuyoshli yurt, Termiz

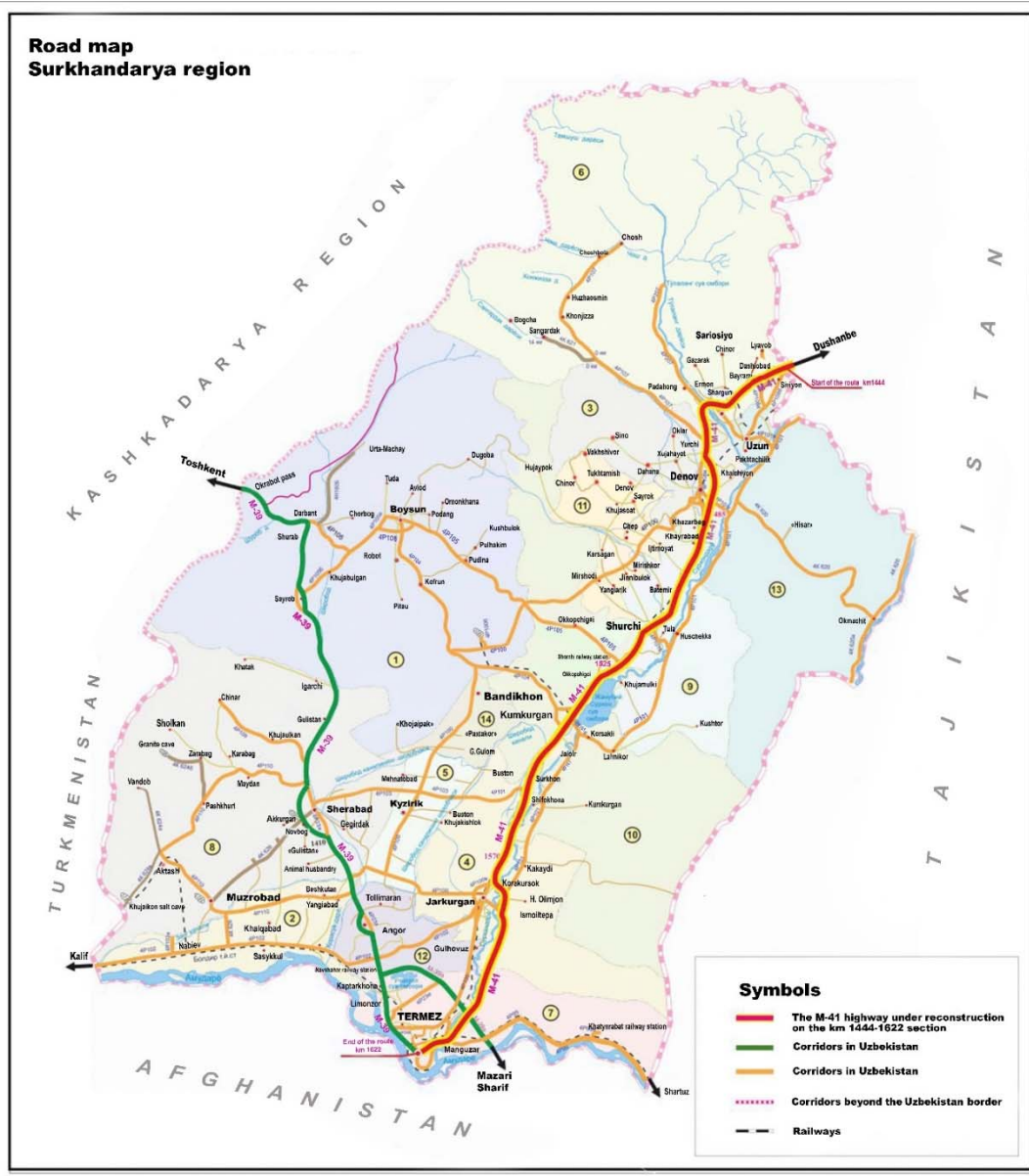
Between towns the road passes along the suburbs or through the development of 24 settlements, but the bulk of the length of the highway crosses agricultural land.

It is envisaged to reconstruct the road at the section 1525-1622 km for 4-lane traffic with cement concrete pavement. Implementation of the project will contribute to ensuring efficient and safe internal and regional connectivity, sustainable economic growth of domestic and foreign trade, allow to ensure the passage of ever-increasing volumes of road transportation, reduce the time of cargo and passenger delivery, as well as improve road safety and environmental situation in the region.

Road construction work will include:

- ❖ Construction and reconstruction of 90.218 km long Category 1-6 road with a cement concrete pavement (reduction of the length of the section from 97 km (design section according to the FS) to 90.218 km is explained by the fact that the road is reduced by about 3 km as a result of the arrangement of the road bypassing Djharkurgan city, as well as the fact that about 4 km of the road have already been reconstructed as part of another project);
- ❖ Construction of 4 bridges and reconstruction of 12 bridges;
- ❖ Construction of 6 overpasses;
- ❖ Construction of 14 elevated pedestrian crossings;
- ❖ Construction of 163 culverts;
- ❖ Construction of 6 interchanges;
- ❖ Construction of 236 ramps (junctions);
- ❖ Construction of 2 railway crossings;
- ❖ Installation of 106 bus stops;
- ❖ Installation of 60 traffic lights;
- ❖ Installation of 2,981 road signs, road markings, etc.

Figure 1: The map of designed road alignment



## 3. ORGANISATIONAL FRAMEWORK

This chapter summarizes the key roles and responsibilities for implementation of the ESIA.

### 3.1. KEY RESPONSIBILITIES

The resources required and responsibilities for the implementation of environmental safeguards are as follows:

**Lender** - The World Bank will potentially finance this Project. Responsibility for Project delivery will be with the Project Owner; however, reports will be required to be submitted to WB on the status of the ESAP, resolution of grievances and ESHS Project performance.

**Project Owner** – The CAR will ensure that the preparation, design, construction, implementation, operation and decommissioning of the project and all project facilities comply with (a) all applicable national laws and regulations relating to environment, health and safety; (b) the WB ESSs; and (c) all measures, and requirements set forth in the ESIA and this ESMP and any corrective or preventive actions required in the construction and operational phases of the Project. As part of this process the CAR will prepare an Environmental and Social Management System (ESMS) and establish a Construction Environmental and Social Management Plan (CESMP). During construction, the CAR will be supported by a Project Management Unit (PIU) who will assist in the management of the Construction Contractors. The CAR will be responsible for the operation stage.

**Construction Phase Management** – Construction Supervision consultant (CSC) will be responsible for overseeing the construction and monitoring all works and activities undertaken by the Contractor(s) and ensuring compliance with the specification and contractual requirements. The Contractor is responsible for preparing a construction environmental and social management plan (CESMP) that reflects its understanding and commitment to address environmental issues outlined in the ESIA and this ESMP. The Contractor should mobilize full-time Environmental and Social Officer (ESO) and full-time Health and Safety Manager (HSM) and a team of health and safety officers (HSOs). The Contractor is also responsible for the day-to-day implementation of the ESMP (and his CESMP) and compliance at all times with the requirements of the ESIA.

**Environmental and Social Management** – The CAR PIU will be responsible for the environmental and social management of the Project. The project design will include separate positions of Environmental Specialist and Social Specialist. This individuals will be responsible for ensuring implementation of this ESMP and ensuring adequate training of the PIU staff and, where necessary, contractor staff.

Contractors shall provide sufficient staffing to manage the environmental and social performance of the Project, with environmental, social, health and safety staff to be approved by the PIU. Contractors will also be responsible for developing detailed Construction ESMPs (CESMP) for approval by the PIU.

Construction Contractors will be expected to undertake monitoring and inspections of their compliance with the Project environmental and social documentation, including the CESMPs, and the PIU will undertake regular inspections and audits of contractors to ensure compliance with the Project environmental and social mitigation measures.

Due to the large number of potential interfaces, it will be essential to ensure that the contractual relationships between the CAR, PIU, WB and Contractors is clear.

### 3.2. SUMMARY OF RESPONSIBLE BODIES

A summary of the relevant responsible bodies are summarized in Table 3.

**Table 3: Project proponent and responsible organisations**

Organisation	Project function	Report to
CAR	Loan beneficiary, responsible for developing and implementing the Project. Responsible for all land acquisition. Also responsible for operation and maintenance activities.	Government WB
Road police	Responsible for road safety and will be required to approve the road safety measures that have been proposed.	Government
Local Provincial governments	Responsible for all permanent and temporary acquisition of land for the Project. Liaise with local communities.	CAR
Regional Departments of various Ministries	Project approval, issue of permits for various construction works.	Ministries
WB	Potentially funding the Project.	WB Board
PIU	General control of the Project construction. Selection and control of contractor s in accordance with contract conditions and schedule.	WB, CAR
Construction Supervision Consultant (CSC)	Directly responsible for contract administration and day-to-day project supervision including environmental and social management.	CAR, PIU
Consultants	Surveys and studies.	WB, CAR
Construction contractors	Responsible for constructing the road to tender specifications for each relevant lot they are commissioned for.	CAR, PIU

## 4. ENVIRONMENTAL AND SOCIAL MANAGEMENT

### 4.1. GENERAL

The ESMP forms part of the wider Project ESHS. The Project ESHS will provide a set of policies, procedures, tools and management plans to identify and manage environmental and social risks. An overview of the ESHS and management plans required for this Project is set out below, together with the mitigation and management measures required to be implemented as reported in the ESIA. The Monitoring Plan is set out in Chapter 5.

### 4.2. ENVIRONMENTAL, SOCIAL, HEALTH AND SAFETY MANAGEMENT SYSTEM (ESHS)

An overarching Project ESHS will be prepared by the CAR PIU. The ESHS will provide the framework for the Construction contractors' management systems, thus enabling a common standard to be met by all contractors. The ESHS will also provide the framework for the development of operational management plans.

The Project ESHS will cover the following:

Policies and procedures;

- ❖ Project ESMP;
- ❖ Permit Register;
- ❖ Project SEP;
- ❖ Project Resettlement Action Plan (RAP);
- ❖ Roles and roles and responsibilities; and
- ❖ Project schedule / programme.

The policies to be covered include:

- ❖ Environmental and social policy;
- ❖ Human resources policy (covering labour and working conditions and community health and safety);
- ❖ Contractor/Supplier policy; and
- ❖ Project Code of Conduct.

Relevant requirements during construction will be made the responsibility of Construction contractors, monitored by the PIU; and during operation the responsibility of the CAR.

### 4.3. ENVIRONMENTAL AND SOCIAL MANAGEMENT PLANS

#### 4.3.1. Overview of Required Measures and Management Plans

This document provides the CAR PIU and contractors with a framework for the development of a detailed Project ESHS and specific management plans (CESMPs).

During design and pre-construction, a number of additional surveys and measures have been identified that need to be addressed and incorporated into the Project ESMP to be developed by the CAR PIU. This may also include updating mitigation measures defined in this ESMP due to technical design changes or due to new survey data.

During construction, Construction contractors will be required to comply with all relevant Uzbek legislation and related standards as well as the measures set forth in the Project ESHS. Prior to the start of construction, Construction contractors will be required to prepare detailed CESMPs in line with the Project ESHS/ESMP, to be approved by CΦR PIU and CSC.

During operation, CAR will be required to comply with all relevant Uzbek legislation and related standards as well as the Project ESHS. Prior to the start of operation CAR should prepare the detailed O-ESMP.

The environmental and social management plans that need to be developed for the Project will contain:

- ❖ Roles and responsibilities;
- ❖ General measures to be employed;
- ❖ Site specific measures to be employed
- ❖ Inspection and monitoring requirements, including tools;
- ❖ Inspections, audits and reporting; and
- ❖ Non-conformance and Accident / Incident procedures.

#### 4.3.1.1. Pre-construction phase

Detailed management plans and measures to be addressed during the pre-construction phase to be prepared by CAR PIU include:

- ❖ Updated Project ESHS and Project ESMP;
- ❖ Biodiversity Action Plan;
- ❖ Project SEP; and
- ❖ Project Resettlement Action Plan (RAP).

Detailed management plans during the pre-construction phase to be prepared by the Construction contractor include:

- ❖ Health and Safety Plan;
- ❖ Contractor Emergency Response Plan;
- ❖ Anti-discrimination Policy;
- ❖ Process for tree removal/cutting;
- ❖ Traffic Management Plans;

#### 4.3.1.2. Construction phase

The Construction contractor will implement their detailed CESMP during the construction phase; it will include:

**Table 4: Summary of Project management plans and sub-plans**

#	Management Plan	Responsibility	
		PIU	Contractor
1	Soil Erosion, Reinstatement & Landscape Management Plan	Approves and monitors proper implementation of plan	Prepares plan and after approval proceeds with implementation

#	Management Plan	Responsibility	
		PIU	Contractor
2	Vegetation clearance and rehabilitation	Approves and monitors proper implementation of plan	Prepares plan and after approval proceeds with implementation Client's with
3	Bridge Construction Plan	Approves design	Prepares plan and after approval proceeds with implementation Client's with
4	Construction Vibration Management Plan	Approves and monitors proper implementation of plan	Prepares plan and after approval proceeds with implementation Client's with
5	Waste management plan	Approves and monitors proper implementation of plan	Prepares plan and after approval proceeds with implementation Client's with
6	Pollution Prevention Plan	Approves and monitors proper implementation of plan	Prepares plan and after approval proceeds with implementation Client's with
7	Biodiversity Management Plan	Approves and monitors proper implementation of plan	Prepares plan and after approval proceeds with implementation Client's with
8	Resettlement Action Plan (RAP)	Prepares RAP and carry out resettlement with a support of local authorities	Starts construction works only after completion of resettlement
9	Health and Safety Plan	Approves and monitors proper implementation of plan	Prepares plan and after approval proceeds with implementation Client's with
10	Emergency Management Plan	Approves and monitors proper implementation of plan	Prepares plan and after approval proceeds with implementation Client's with
11	Gender Responsive Action Plan	Approves and monitors proper implementation of plan	Prepares plan and after approval proceeds with implementation Client's with
12	Cultural Heritage Management Plan	Approves and monitors proper implementation of plan	Prepares plan and after approval proceeds with implementation Client's with

#### 4.3.1.3. Operation and maintenance phase

The operational ESMP (the O-ESMP) will contain the measures for implementing activities provided in this document for the operational phase.

#### 4.4. RESETTLEMENT ACTION PLAN

A Resettlement Action Plan (RAP) will be prepared as part of the ESIA package. The CAR is responsible for the preparation of Resettlement Action Plan (RAP) to demonstrate that the land is available for the road.

Construction Contractors will be responsible for ensuring that they have identified and secured all temporary land requirements (e.g., construction camps, borrow pits, haul roads, etc) and that where these will result in temporary or permanent physical and/or economic displacement, the sites are secured in accordance with the RAP.

## **4.5. LABOUR MANAGEMENT PLAN**

A Health, Safety or Labour Management Plan, to be prepared by the Contactor for each contract package/Lot, would need to cover construction and contractor H&S requirements and gender discrimination. The document shall also be in accordance with internationally (FIDIC) required standards and core labour standards of Uzbekistan. The PIU will ensure compliance to applicable WB ESSs, ILO policies, labour related H&S requirements as per manufacturer instructions (e.g. MSDS that come with hazardous materials) and National H&S legal framework of Uzbekistan during project implementation including:

- ❖ Freedom of association and the effective recognition of the right to collective bargaining
- ❖ Elimination of all forms of forced or compulsory labour
- ❖ Effective abolition of child labour
- ❖ Elimination of discrimination in respect of employment and occupation.

Eliminate discrimination in employment including, but not limited to race, religion, gender. The Health and Safety Plan to include the following (but not limited to)

- ❖ Personal Protective Equipment
- ❖ Construction site
- ❖ Workshops
- ❖ Traffic management
- ❖ Plants (concrete, materials processing etc.)
- ❖ Safety around HEP, based on existing HEP H&S Plans
- ❖ Chemicals and hazardous materials and waste transport
- ❖ Emergency management
- ❖ HIV/AIDS awareness
- ❖ Camps
- ❖ Workshops and stockpiling areas
- ❖ Equal Opportunity, Anti-harassment and anti-discrimination requirements
- ❖ QA/monitoring and reporting requirements (as per contract, as per donor requirements and as per client/employer requirements
- ❖ Non-compliance disciplinary actions.

## **4.6. ENVIRONMENTAL AND SOCIAL MANAGEMENT MEASURES**

The aim of the ESMP is to specify and combine all topic-related commitments, actions and legal, including permit and licence, requirements. This ESMP is set out for each stage of the Project, i.e. pre-construction, construction, and operation in Table 5, Table 6, Table 7 and Table 8.

## 4.7. MITIGATION AND MANAGEMENT REQUIREMENTS - DESIGN PHASE

Table 5: Mitigation and management requirements – Design phase

Objective	Activity	Mitigation Measures	Responsibility	Timescales	Evidence
Dust avoidance on road	Detailed Design	<ul style="list-style-type: none"> <li>Include sealed shoulders in pavement designs.</li> </ul>	CAR (through their Detailed Design Consultant (DDC))	Design Phase	Approved design
Resilience to climate changes	Detailed Design	<ul style="list-style-type: none"> <li>Increase ditch and culvert capacity based on further hydrological assessment and climate change risk assessment at the detailed design phase. Assessment shall also assess any water supply requirements and impacts to downstream receptors.</li> <li>Designs to account for potential increased groundwater flow and their impacts upon pavement stability, including the requirement for additional culverts as necessary.</li> <li>Use culvert trash racks to reduce blockage caused by road debris run-off.</li> <li>Design bridge drainage systems with adequately sized oil interceptor tanks considering increased run-off based on future projections.</li> <li>Review and select materials for pavement and structures that have demonstrated resistance to high temperatures, especially road rutting and areas close to rail crossings.</li> <li>Provide designs that improve visibility and pavement marking demarcation.</li> <li>Implementation of scour protection measures for bridge piers.</li> </ul>	CAR (through their DDC)	Design Phase	Approved design
Avoidance of contaminated land	Detailed Design	<ul style="list-style-type: none"> <li>Designs developed to prevent encroachment upon petrol stations and to ensure a minimum 5m buffer between the boundary of the petrol stations is observed.</li> </ul>	CAR (through their DDC)	Design Phase	Approved design

Objective	Activity	Mitigation Measures	Responsibility	Timescales	Evidence
Protect road from sand encroachment	Detailed Design	<ul style="list-style-type: none"> <li>Ensure that measures are included in the design to prevent the movement of sand onto the road in the desert part of the Project Road. Methods to be developed in consultation with CR and based on locally available materials/plants and techniques.</li> </ul>	CAR (through their DDC)	Design Phase	Approved design
River pollution prevention	Detailed Design	<ul style="list-style-type: none"> <li>Bridges over rivers/canals shall be designed to include oil interceptor tanks to collect any oil and grease from the bridge deck before discharge.</li> </ul>	CAR (through their DDC)	Design Phase	Approved design
Resilience to seismic events	Detailed Design	<ul style="list-style-type: none"> <li>All Project components will be designed and constructed in accordance with national design standards for earthquakes.</li> </ul>	CAR (through their DDC)	Design Phase	Approved design
Avoidance of vibration damage	Detailed Design	<ul style="list-style-type: none"> <li>A minimum 7m buffer should be maintained between the road edge and structures.</li> </ul>	CAR (through their DDC)	Design Phase	Approved design
Land acquisition	Detailed design	<ul style="list-style-type: none"> <li>Avoid and if not possible – minimise as much as possible resettlement, in particular residential areas;</li> <li>Avoid widening of road near or at areas of local cemeteries.</li> </ul>	CAR (through their design team)	As part of Design Phase	Approved Design
Cultural heritage	Detailed design	<ul style="list-style-type: none"> <li>Follow required buffer zone for existing cultural heritage objects of national importance;</li> <li>Avoid, if possible, relocation of existing cultural heritage objects of local importance.</li> </ul>	CAR (through their design team)	As part of Design Phase	Approved Design

#### 4.8. MITIGATION AND MANAGEMENT REQUIREMENTS - PRE-CONSTRUCTION PHASE

Table 6: Mitigation and management requirements – pre-construction

Objective	Activity	Mitigation Measures	Responsibility	Timescales	Evidence
Environmental and Social Management of	Prepare Management Plans prior to	<ul style="list-style-type: none"> <li>Prepare the following plans:                             <ul style="list-style-type: none"> <li>Construction Environmental and Social Management Plan (CESMP)</li> </ul> </li> </ul>	Contractor	at least 60 days prior to mobilisation for	Plans submitted to PIU and

Objective	Activity	Mitigation Measures	Responsibility	Timescales	Evidence
all project activities	commencement of work	<ul style="list-style-type: none"> <li>○ Pollution Prevention Plan</li> <li>○ Health and Safety Plan (for community health and safety and occupational health and safety)</li> <li>○ Soil Erosion, Reinstatement &amp; Landscape Management Plan</li> <li>○ Bridge Construction Plan</li> <li>○ Water Management Plan</li> <li>○ Biodiversity Management Plan</li> <li>○ Construction Vibration Management Plan</li> <li>○ Waste Management Plan</li> <li>○ Emergency Response Plan</li> <li>○ Construction Camp Management Plan (if applicable)</li> <li>○ Asphalt Plant Management Plan (if applicable)</li> <li>○ Concrete Batching Plant Management Plan (if applicable)</li> <li>○ Spoil Disposal Plan</li> <li>○ Social Plans</li> </ul> <p>Outline of the plan requirements are included in Annex 2 &amp; 3.</p>		site clearance works	approved by PIU.
Permits and environmental approvals	<p>Permits for various activities at the construction camp and workshop structures and activities</p> <p>Permits as per regulations of Uzbekistan:</p>	<ul style="list-style-type: none"> <li>▪ Sanitation requirements</li> <li>▪ Rental agreements</li> <li>▪ Require EIA and ZVOS approvals</li> <li>▪ Obtain before use all environmental documents including ZVOS</li> <li>▪ Permits including (but not limited to) for:                             <ul style="list-style-type: none"> <li>○ Material etc. (needs to be detailed)</li> <li>○ Opening a new borrow pit</li> <li>○ Using existing borrow pit etc.</li> <li>○ Waste disposal</li> <li>○ Use of certain hazardous materials</li> <li>○ Tree cutting (permission required or prohibited)</li> <li>○ Water and sanitation requirements</li> </ul> </li> </ul>	CAR with Contractor	As required	<p>Environmental approvals as needed (e.g. for borrow pits and quarries)</p> <p>Copies of permits that are up to date</p> <p>Traffic management plans</p>

Objective	Activity	Mitigation Measures	Responsibility	Timescales	Evidence
					ZVOS and ZEP for the project road
Qualified Environmental and Social staff engaged by project parties	Hire project E&S staff	<ul style="list-style-type: none"> <li>Hire environmental, health and safety staff per this ESMP</li> </ul>	PIU, Contractor	PIU – upon loan agreement. Contractor - Within 10 days of contract signing	Staff mobilised to site
Avoid impacts caused by inappropriate siting of facilities	Siting of facilities and equipment	<ul style="list-style-type: none"> <li>Locations for borrow pits, rock crushing facilities, concrete batching yards and asphalt plants will require approval from the PIU.</li> <li>Site facilities are as near to the Project Road as practical.</li> <li>Asphalt plants, construction camps, batching plants and rock crushing plants, will be prohibited within 500 meters of any residential area or sensitive receptor (school, hospital, etc.) and at least two kilometers from protected areas.</li> <li>The locations of these facilities will be indicated within the Contractors CESMP.</li> </ul>	Contractor	Prior to camp establishment	Camp sites agreed in writing between PIU and the Contractor
To ensure all complaints by all stakeholders, including communities are rapidly resolved	Handling Complaints that come from residents and other stakeholders	<ul style="list-style-type: none"> <li>Public informed of construction progress</li> <li>Grievance Redress Mechanism established and operating effectively Complaints logged, responded to quickly.</li> <li>Complaint logs exist and are being updated</li> <li>All Complaints received from the Grievance mechanism shall be resolved within 14 working days of written instruction from the PIU.</li> </ul>	PIU	Throughout project period	Complaint, resolution, satisfaction by complainant Choice of complainant to use the legal system and not the GRM
To avoid, reduce and compensate for	Resettlement and Land Acquisition and	<ul style="list-style-type: none"> <li>Inventory of assets that will be lost through temporary or permanent acquisition</li> </ul>	Khokimiyat / PIU	To be commenced as soon as detailed design is	Resettlement and Resettlement

Objective	Activity	Mitigation Measures	Responsibility	Timescales	Evidence
permanent or temporary physical and/or economic displacement	Livelihoods Restoration	<ul style="list-style-type: none"> <li>▪ Preparation of Resettlement Action Plan (RAP) in accordance with Resettlement Policy framework</li> <li>▪ Resettlement Plan implementation</li> <li>▪ Ensure plans to improve accessibility for customers to use businesses and farmers to access crops in the field and taking produce to markets.</li> </ul>		complete and prior to construction	Action Plan prepared and approved by WB and Government of Uzbekistan and in accordance with the prepared resettlement framework Resettlement and Land Acquisition Plan implemented

#### 4.9. MITIGATION AND MANAGEMENT REQUIREMENTS - CONSTRUCTION

Table 7: Mitigation and management requirements – construction

Objective	Activity	Mitigation Measures	Responsibility	Timescales	Evidence
Prevention of air pollution	Siting of Facilities and Equipment	<ul style="list-style-type: none"> <li>▪ Stationary emission sources, if used (e.g., portable generators, compressors, etc.) shall be positioned as far as is practical from sensitive receptors. At a minimum generator should be more than 50m from receptors.</li> </ul>	Contractor	Throughout construction	No reports of generators in the incorrect locations during supervision inspections
	Release of Exhaust Gases and Fugitive Emissions	<ul style="list-style-type: none"> <li>▪ Equipment and vehicles will be regularly maintained in accordance with the manufacturer's recommendations to maximize fuel efficiency and help minimize emissions. Preferentially the Project will use fuel that has low sulfur content of 0.1%, where practical and available within</li> </ul>	Contractor	Throughout construction	Contractors' checklists & monitoring reports PIU checklists and monitoring reports

Objective	Activity	Mitigation Measures	Responsibility	Timescales	Evidence
Prevention of air pollution		Uzbekistan. Controlled or uncontrolled burning of waste will not be allowed. There will be pre-requisite requirements of site vehicles to ensure no black smoke before entering site and that any identified machinery or vehicles with black smoke will require maintenance and re-assessment before it is returned.			
	Dust management	<ul style="list-style-type: none"> <li>▪ Dust control measures will be implemented on the main construction zones and haul routes and to 500 m from the camp and plant entrances.</li> <li>▪ Provide an adequate supply of bowsers and carry out watering for dust control at least once every two hours in these locations: in dry weather with temperatures of over 25Co, or in windy weather. Avoid overwatering as this may make the surrounding muddy. The plan for watering will be adjusted based on areas identified during works as being significant dust areas.</li> <li>▪ Vehicle movements will be restricted to defined access routes and demarcated working areas (unless in the event of an emergency).</li> <li>▪ A strict Project speed limit of 20km/hr. will be enforced for Project vehicles using unmade tracks and within Project construction zones.</li> <li>▪ Vehicles carrying fine aggregate materials will be sheeted to help prevent dust blow and spillages.</li> <li>▪ Earthwork operation will be suspended when the wind speed exceeds 20 km/h in areas.</li> </ul>	Contractor	Throughout construction	Contractors' checklists & monitoring reports. Watering schedule (including volume of water used) PIU checklists and monitoring reports
	Management of Volatile Organic Compounds	<ul style="list-style-type: none"> <li>▪ Hazardous materials stored and used on site with potential gas emissions (e.g., Volatile Organic Compounds) will be in well-ventilated, but secure low-risk areas, away from major</li> </ul>	Contractor	Throughout construction	Contractors' checklists & monitoring reports.

Objective	Activity	Mitigation Measures	Responsibility	Timescales	Evidence
Prevention of air pollution		<p>transport routes and away from the site boundary (where possible).</p> <ul style="list-style-type: none"> <li>▪ Volatile fuels and chemicals (including hazardous wastes) will be stored in sealed containers. On site storage of large quantities of volatile fuels will be avoided, equally prolonged exposure to direct sun and heat will be avoided.</li> <li>▪ Fires and material burning will not be allowed on the Project site.</li> <li>▪ Chemical storage areas will be purpose built and well maintained.</li> <li>▪ A data log of all chemicals with MSDSs will be provided at the storage facility within easy access.</li> </ul>			<p>PIU checklists and monitoring reports</p> <p>Log books provided by the contractor for inspection</p>
Prevention of air pollution	Greenhouse Gas (GHG) Emission	<ul style="list-style-type: none"> <li>▪ Do not keep open vehicles when they are not used,</li> <li>▪ Develop a management plan to use resources efficiently,</li> <li>▪ Use recycled materials,</li> <li>▪ Comply waste management hierarchy: prevent at source, reuse, recycle and recover,</li> <li>▪ Organize trainings and workshops for site staff about resource use and waste management.</li> <li>▪ Recommendations for fuel efficient machinery</li> <li>▪ Carbon offset by planting trees</li> <li>▪ Prevent activities that increase GHG emissions</li> </ul>	Contractor	Throughout construction	Contractors' checklists & monitoring reports. PIU checklists and monitoring reports
Climate Change Resilience	Embankment / slope revegetation	<ul style="list-style-type: none"> <li>▪ All embankments will be seeded to help increase stability. Seeding shall be completed immediately after completion of slope works.</li> </ul>	Contractor	Throughout construction	Contractors' checklists & monitoring reports.

Objective	Activity	Mitigation Measures	Responsibility	Timescales	Evidence
Preservation of topsoils	Topsoil management	<ul style="list-style-type: none"> <li>▪ Topsoil will be stored within the RoW.</li> <li>▪ Sites for temporary storage of the topsoil must be selected prior to commencement of works with due regard to environmental norms and conditions on the sites and approved by local administration and PIU. The area must be flat, located away from any surface water body, protected from runoff and erosion.</li> <li>▪ In order to avoid or mitigate impact on topsoil and other impacts caused by accidental fuel/oil spills, poor management of waste and/or polluted runoff, the operation ground must be established with consideration of environmental safety measures, as presented below:                             <ul style="list-style-type: none"> <li>○ Ground clearance must be minimized.</li> <li>○ Topsoil must be removed from all areas required for permanent and temporary needs of the project.</li> <li>○ To avoid loss of the productive soil layer, all suitable topsoil and other material shall be saved and stockpiled separately for the future re-cultivation of the area.</li> <li>○ Unwanted materials from topsoil such as roots of trees, rubble and waste removed prior to stockpiling.</li> <li>○ Stockpiles of removed topsoil must be properly designed/shaped and managed<sup>2</sup>; – stability of the stockpile will be achieved through preservation of ‘safe’ slope inclination and diversion of runoff from the area.</li> </ul> </li> </ul>	Contractor	Throughout construction	PIU checklists and monitoring reports Contractors’ checklists & monitoring reports. PIU checklists and monitoring reports

<sup>2</sup> Subsoil pile must have a natural angle of slope of up to 40° depending on texture and moisture content but, if stable stockpiles are to be formed, slope angles will normally need to be smaller. For stockpiles that are to be grass seeded and maintained, a maximum side slope of 1 in 2 (25°) is appropriate. If the soil is to be stockpiled for more than six months, the surface of the stockpiles should be seeded with a grass/clover mix to minimise soil erosion and to help reduce infestation by nuisance weeds that might spread seed onto adjacent land. Sites of temporary storage of excess material will be agreed with the local municipalities.

Objective	Activity	Mitigation Measures	Responsibility	Timescales	Evidence
		<ul style="list-style-type: none"> <li>○ Topsoil and subsoil must be stored separately until reuse.</li> <li>○ To ensure stability, the soil piles shall not be higher than 2 meters. The piles must be placed and managed so as to avoid erosion and washing off. Drainage trenches around the piles must be provided.</li> </ul>			
Erosion prevention	Revegetation	<ul style="list-style-type: none"> <li>▪ Ensure material that is less susceptible to erosion will be selected for placement around bridges and culverts.</li> <li>▪ Ensure re-vegetation of exposed areas including; (i) selection of fast growing and grazing resistant species of local grasses and shrubs; (ii) immediate re-vegetation of all slopes and embankments if not covered with gabion baskets; (iii) placement of fiber mats to encourage vegetation growth.</li> <li>▪ Ensure that embankments are monitored continuously during construction for signs of erosion particular after a strong rainfall for signs of erosion.</li> </ul>	Contractor Contractor and PIU to monitor slopes	Throughout construction	Contractors' checklists & monitoring reports. PIU checklists and monitoring reports
Prevention of soil contamination	Use of hazardous liquids	<ul style="list-style-type: none"> <li>▪ Any temporary fuel tank (if contractor decided to have small stock of fuel on the site) shall be placed in a covered area with berms or dikes to contain any spills. Capacity of containment must be 110% of capacity of the tank. Any spill shall be immediately contained and cleaned up with absorbent material.</li> <li>▪ Areas using bitumen shall be constructed on impervious hardstanding to prevent seepage of oils into the soils. No bitumen drums or containers, full or used, shall be stored on open ground.</li> <li>▪ Onsite repairs /maintenance/fuelling activities shall be limited. Priority shall be given to offsite commercial facilities. If impossible, a designated area and/or secondary containment</li> </ul>	Contractor	Throughout construction	Contractors' checklists & monitoring reports. PIU checklists and monitoring reports

Objective	Activity	Mitigation Measures	Responsibility	Timescales	Evidence
		<p>for the on-site repair or maintenance activities must be provided.</p> <ul style="list-style-type: none"> <li>▪ On-site vehicles and equipment shall be inspected regularly for leaks and all leaks shall be immediately repaired. Incoming vehicles and equipment shall be checked for leaks. Leaking vehicles/equipment shall not be allowed on-site.</li> <li>▪ Secondary containment devices (drop cloths, drain pans) shall be used to catch leaks or spills while removing or changing fluids from vehicles or equipment. Drip pans or absorbent materials shall be provided. On small spills absorbent materials shall be used.</li> <li>▪ All valves and trigger guns shall be resistant to unauthorized interference and vandalism and be turned off and securely locked when not in use.</li> <li>▪ The site will be cleaned regularly, littering will be prohibited.</li> <li>▪ Waste collection area will be sited to avoid receiving a substantial amount of runoff from upland areas and draining directly to a water body.</li> </ul>			
Prevention of soil compaction	Use of heavy equipment	<ul style="list-style-type: none"> <li>▪ Confine operation of heavy equipment within the ROW, as much as possible, to avoid soil compaction and damage to privately owned land. If private lands are disturbed, promptly inform the owner and agree on the ways to remedy the situation.</li> <li>▪ Soil compaction may be reduced by strict keeping to temporary roads, camp/operation ground boundaries.</li> </ul>	Contractor	Throughout construction	<p>Contractors' checklists &amp; monitoring reports.</p> <p>PIU checklists and monitoring reports</p>
Borrow pit due diligence	Procurement of borrow material	<ul style="list-style-type: none"> <li>▪ Due diligence review of licensed borrow pits</li> </ul>	Contractor	Throughout construction	Reports submitted to PIU

Objective	Activity	Mitigation Measures	Responsibility	Timescales	Evidence
Prevent encroachment into potentially contaminated land	Works close to petrol stations	<ul style="list-style-type: none"> <li>▪ The Contractors ESO will be present for any site clearance and excavation works in areas close to petrol stations.</li> <li>▪ Should any soil contaminated by oil be observed the Contractor shall cease works and prepare a <b>Method Statement for the management of contaminated soil</b> in the identified area.</li> <li>▪ The method statements shall be submitted to the PIU for approval before any further works are undertaken.</li> <li>▪ Any contaminated soil must be disposed of according to GoU waste regulations.</li> </ul>	Contractor	Throughout construction	Contractors' checklists & monitoring reports. Photo evidence of inspections. PIU checklists and monitoring reports Method statements submitted to PIU Waste manifests.
Prevention of surface and groundwater contamination	Fueling and hazardous liquid storage	<ul style="list-style-type: none"> <li>▪ Should any temporary fuel tank be available, it must be located within at least 100m from the riverbed. The tank must be placed in covered areas with berms or dikes installed to intercept spills, if any. Any spill should be immediately localized and cleaned up with absorbent materials.</li> <li>▪ Onsite repairs /maintenance and fueling activities should be limited. Priority should be given to offsite commercial facilities. If impossible, a designated area with secondary containment for possible spills for on-site repair or maintenance activities must be provided. These areas shall be located away from drainage channels and surface water bodies (distance between the maintenance site and the river should be at least 100m).</li> <li>▪ Check integrity of fuel/hazardous substances containers for integrity. Undertake necessary repair or replacement if required.</li> <li>▪ Store materials in containers suitable for the purpose. Ensure that containers bear clear eligible labels. The same applies to containers for short term storage of used oil.</li> </ul>	Contractor	Throughout construction	Contractors' checklists & monitoring reports. PIU checklists and monitoring reports Waste management contracts

Objective	Activity	Mitigation Measures	Responsibility	Timescales	Evidence
Prevention of surface and groundwater contamination		<ul style="list-style-type: none"> <li>▪ Store all materials above flood level.</li> <li>▪ Avoid fuelling/maintenance of machinery and vehicles on the bare ground. Only contained areas can be used. Locate the maintenance/fuelling sites (if planned to have on the site away from watercourses and wetland areas. Distance of not less than 100m must be preserved.</li> <li>▪ Provide septic tanks for the camp sites servicing less than 150 employees. Contract authorized company to remove the liquid waste regularly. For larger sites, provide multiple septic tank facilities, or package wastewater treatment plants.</li> </ul>			
	Vehicle maintenance	<ul style="list-style-type: none"> <li>▪ On-site vehicles and equipment shall be inspected regularly for leaks and all leaks shall be immediately repaired. Leaking vehicles/equipment shall not be allowed on-site.</li> <li>▪ Secondary containment devices (drop cloths, drain pans) shall be used to catch leaks or spills while removing or changing oils from vehicles or equipment. For small spills, absorbent materials must be used.</li> <li>▪ Park construction machinery/vehicles and storage areas not less than 50m from the riverbed.</li> </ul>	Contractor	Throughout construction	Contractors' checklists & monitoring reports.  PIU checklists and monitoring reports
	Wastewater discharge	<ul style="list-style-type: none"> <li>▪ Discharge of any untreated water into the surface water body must be strictly prohibited.</li> <li>▪ Treated water discharge must comply with the project water quality standards.</li> <li>▪ Portable toilets shall be provided at all work sites.</li> </ul>	Contractor	Throughout construction	Contractors' checklists & monitoring reports. PIU checklists and monitoring reports Water quality monitoring reports

Objective	Activity	Mitigation Measures	Responsibility	Timescales	Evidence
Prevention of surface and groundwater contamination	Use of cement and concrete	<ul style="list-style-type: none"> <li>▪ Discharge of cement contaminated water must be avoided as cement pollution results in high alkalinity and raises the pH, which can be toxic to aquatic life.</li> <li>▪ Provide areas where concrete mixers can wash out leftover concrete without polluting the environment. This may be in the form of a lined settling pond.</li> <li>▪ Prior to discharge, alkaline water from the concrete batching area shall be settled and neutralized.</li> </ul>	Contractor	Throughout construction	Contractors' checklists & monitoring reports.  PIU checklists and monitoring reports  pH tests
	Stockpiles and runoff	<ul style="list-style-type: none"> <li>▪ Materials and waste must be stockpiled to avoid erosion (in stockpiles less than 2 m in height and with a slope gradient of less than 25%) and washing off into the river. Drainage trenches must be established to divert surface runoff from the site.</li> <li>▪ To prevent runoff contamination, paving should be performed only in dry weather.</li> <li>▪ Due to the design solution direct discharge of the runoff in surface water is reduced to minimum.</li> <li>▪ Locate stockpiles away from any watercourse or wetlands, outside drainage lines.</li> <li>▪ Protect stockpiles from erosion.</li> </ul>	Contractor	Throughout construction	Contractors' checklists & monitoring reports. PIU checklists and monitoring reports
	Spills and Leaks	<ul style="list-style-type: none"> <li>▪ Ensure availability of spill clean-up materials (e.g., absorbent pads, etc.) in the areas where accidental spills may occur.</li> <li>▪ Place clean up material in easily accessible locations.</li> <li>▪ Use drip pan beneath equipment likely to leak fuel and/or oil and/or during fueling or changing oil.</li> </ul>	Contractor	Throughout construction	Contractors' checklists & monitoring reports. PIU checklists and monitoring reports

Objective	Activity	Mitigation Measures	Responsibility	Timescales	Evidence
	Training	<ul style="list-style-type: none"> <li>Train construction personnel in soil and water protection measures, handling of fuels, spill control and response procedures and requirements.</li> </ul>	Contractor	Throughout construction	Training documents, including attendee lists and photos.
	Water use	<ul style="list-style-type: none"> <li>Where practical direct extraction from the river/canals should be limited and water supply from central water supply systems used during the construction phase.</li> </ul>	Contractor	Throughout construction	Water management plan
Prevention of pollution to surface waters beneath bridges	Management of bridge construction works	<ul style="list-style-type: none"> <li>Provide spill kits in worksites around any surface water course.</li> <li>Ensure no vehicle refueling occurs within 50 meters of any surface water course.</li> <li>Provide silt fences, sediment barriers or other devices to prevent migration of silt during construction within streams.</li> <li>Carry out bridge construction works without interrupting the traffic on existing roads with the provision of suitable diversions.</li> <li>Ensure no waste materials are dumped in the river, including re-enforced concrete debris.</li> <li>Place generators more than 20 meters from any surface water course.</li> <li>Ensure that no concrete waste from concrete mixers is dumped in the river/canals.</li> <li>Provide areas where concrete mixers can wash out leftover concrete without polluting the environment. This may be in the form of a lined settling pond at each bridge site. Drivers will be informed of these locations and the requirements to use these settling ponds on a routine basis by the PIU. Dried</li> </ul>	Contractor	Throughout construction	Contractors' checklists & monitoring reports. PIU checklists and monitoring reports

Objective	Activity	Mitigation Measures	Responsibility	Timescales	Evidence
		<p>waste from the settling ponds can be used as backfill for culverts, etc.</p> <ul style="list-style-type: none"> <li>▪ Carefully collect all polystyrene (from expansion joints) so that it does not litter the local environment.</li> <li>▪ Where coffer dams are envisaged, ensure that water removed from the coffer dams during the course of works is diverted to a sedimentation pond before final disposal in the river. Periodic monitoring of the water in the sedimentation pond is also required.</li> <li>▪ Ensure that no hazardous liquids are placed within 10 meters of the river/canals.</li> <li>▪ Provide portable toilets at bridge construction sites to prevent defecation by workers into the river/canal.</li> </ul>			
Biodiversity	General construction works	<ul style="list-style-type: none"> <li>▪ The works footprint will be reduced as far as possible e.g. through the use of a single vehicle track policies and use of low-impact vehicles where practical.</li> <li>▪ Vehicles will be driven at designated speed limits.</li> <li>▪ Off-road travel will be prohibited where practical.</li> <li>▪ Laydown areas and compounds will be sited to avoid unnecessary clearance of vegetation.</li> <li>▪ Natural breaks in vegetation will be used as preferred access routes where possible.</li> <li>▪ The workforce will adhere to working corridors.</li> <li>▪ All staff will be provided with biodiversity awareness training.</li> <li>▪ Workforce hunting and fishing bans will be enforced and cutting of wood by workers will be prohibited.</li> </ul>	Contractor	Throughout construction	<p>Contractors' checklists &amp; monitoring reports.</p> <p>PIU checklists and monitoring reports</p>

Objective	Activity	Mitigation Measures	Responsibility	Timescales	Evidence
Biodiversity		<ul style="list-style-type: none"> <li>▪ Fencing will be minimized to ensure that areas vital for wildlife are not isolated by workforce activities, unless this is for species protection measures.</li> <li>▪ Temporary barriers will be used to prevent wildlife from accessing waste disposal areas and similar areas.</li> <li>▪ Works will be minimized within riparian areas to safeguard aquatic organisms.</li> <li>▪ Crossing points across rivers/canals will be conducted where there is clear access to the banks and vegetation clearance is minimized.</li> <li>▪ Standard pollution control measures will be implemented in all sites (e.g. to prevent silt contamination water will be kept out of the works area using appropriate isolation techniques, such as coffer dams, silt fences and by-pass channels.</li> <li>▪ Demarcation and offsets for camp and storage locations and field activities will be at least 50m from watercourses where practical.</li> <li>▪ Erosion control using 'polders', pads of plants and geo-nets will be implemented.</li> <li>▪ Where trees have to be removed to facilitate the crossing, these will be replanted with a similar species composition.</li> <li>▪ Pits and excavations will be filled in as soon as possible following works.</li> <li>▪ A pre-start check for fauna will be completed prior to works commencing in the morning if trenches are left open overnight.</li> </ul>			

Objective	Activity	Mitigation Measures	Responsibility	Timescales	Evidence
		<ul style="list-style-type: none"> <li>▪ Regular crossing points will be installed to ensure wildlife can cross excavations, berms and drainage channels.</li> <li>▪ Native plants that are locally sourced will be used for re-planting.</li> <li>▪ A site wide ban will be placed on workers bringing vegetation or soil from outside the site area to prevent dispersion of non-native invasive species.</li> <li>▪ Minimize topsoil movements.</li> <li>▪ Wash down of all vehicles and equipment before entering the sensitive sites.</li> <li>▪ Follow species specific mitigation regarding invasive species which includes demarcation and avoidance.</li> </ul>			
	Tree cutting	Trees will only be removed by the Contractor based on the MEEPCC permission letters, with the NES supervision, and construction workers must not remove trees for firewood or any other reason. CAR should prepare detailed <b>Tree Management Plan</b> . The Borrower (CAR) will be responsible for ensuring this plan is followed correctly, including the requirements for tree planting and tree maintenance during the construction phase and defects liability period.	CAR	Throughout construction	Contractors' checklists & monitoring reports.  PIU checklists and monitoring reports.
Prevention of noise impacts to residents	General construction works	<ul style="list-style-type: none"> <li>▪ Time and Activity Constraints, i.e., operations will be scheduled to coincide with periods when people would least likely be affected; work hours and work days will be limited to less noise-sensitive times. Construction activities will be strictly prohibited between 10 PM and 7 AM in the residential areas. When operating close to sensitive areas (within 250 meters) such as medical facilities, the Contractor's hours of working shall be limited to 8 AM to 6 PM;</li> </ul>	Contractor	Throughout construction	Contractors' checklists & monitoring reports.  Noise monitoring reports provided to PIU

Objective	Activity	Mitigation Measures	Responsibility	Timescales	Evidence
		<ul style="list-style-type: none"> <li>▪ Use temporary noise barriers while working in sensitive locations in case accident of allowable limits is expected. Placing the barrier close to the source proves to be effective.</li> <li>▪ Give notice as early as possible to sensitive receptors for periods of noisier works such as excavation. Describe the activities and how long they are expected to take. Keep affected neighbours informed of progress.</li> <li>▪ Within normal working hours, where it is reasonable to do so:               <ul style="list-style-type: none"> <li>○ schedule noisy activities for less sensitive times.</li> <li>○ provide periods of respite from noisier works (for example, periodic breaks from jackhammer noise).</li> <li>○ The weekend/evening periods are important for community rest and recreation and provide respite when noisy work has been conducted throughout the week. Accordingly, work should not usually be scheduled during these times.</li> </ul> </li> <li>▪ All mechanical plant is to be silenced by the best practical means using current technology. Mechanical plant, including noise-suppression devices, should be maintained to the manufacturer's specifications. Internal combustion engines are to be fitted with a suitable muffler in good repair.</li> <li>▪ Maintenance tools, machines and equipment so that they are in good conditions. When some wrong is found, they must be fixed immediately in order to reduce noise from the equipment.</li> <li>▪ Fit all pneumatic tools with an effective silencer on their air exhaust port.</li> <li>▪ Install less noisy movement/reversing warning systems for equipment and vehicles that will operate for extended periods, during sensitive times or in close proximity to sensitive sites.</li> </ul>			

Objective	Activity	Mitigation Measures	Responsibility	Timescales	Evidence
		<p>Occupational health and safety requirements for use of warning systems must be followed.</p> <ul style="list-style-type: none"> <li>▪ Turn off plant when not being used.</li> <li>▪ All vehicular movements to and from the site to only occur during the scheduled normal working hours, unless approval has been granted by the PIU.</li> <li>▪ Keep good conditions of trucks that use to transport construction materials so they cause no loud noise and control the truck speed, to be not exceeded 40 km/hr when driving through communities, and not exceeded 80 km/hr when driving on highways.</li> <li>▪ Where possible, no truck associated with the work should be left standing with its engine operating in a street adjacent to a residential area.</li> <li>▪ Provision of noise protection kits such as ear plug, earmuff, for workers who are working in the area with noise level is higher than 85 dB(A). It is designated as a regulation that workers must wear protection kits in case of working in a noisy area.</li> </ul>			
Prevention of vibration impacts	Use of vibratory rollers	<ul style="list-style-type: none"> <li>▪ Where the results of the vibration monitoring show that the specified construction vibration limit is reached at a particular location, the Contractor shall suspend the construction activities that generate the excessive vibration at such location, notify the PIU and with the approval of the PIU take mitigative actions necessary to keep the construction vibration within the specified limit. This may, for example include:                             <ul style="list-style-type: none"> <li>○ The use of low roller vibration settings and performing compaction without vibration.</li> </ul> </li> </ul>	Contractor	Throughout construction	Vibration monitoring results provided to PIU

Objective	Activity	Mitigation Measures	Responsibility	Timescales	Evidence
		<ul style="list-style-type: none"> <li>○ Provide temporary vibration barriers in sensitive locations.</li> </ul>			
<p>Waste management in line with WBG ESHG and national regulations</p>	<p>General waste management during construction phase</p>	<ul style="list-style-type: none"> <li>▪ Ensure that the waste hierarchy is followed including prevention, minimization, reuse and recycling.</li> <li>▪ The impact of waste generation on environment during construction will be mitigated by proper storage, maximum reuse and recycling of waste and timely removal of unusable waste to agreed location according to national waste management regulations.</li> <li>▪ The Contractor has an obligation to provide regular training of staff in waste management issues.</li> <li>▪ All recyclable waste (plastic, metal, paper, etc.) will be sorted on source and sent for recycling where facilities for recycling of these materials exist.</li> <li>▪ Provide septic tanks for the camp sites servicing less than 150 employees. State authorized company to remove the liquid waste regularly. For larger sites, provide multiple septic tank facilities, or package wastewater treatment plants. Measures for liquid waste management are outlined in the section relating to surface water and groundwater above.</li> <li>▪ Collect domestic waste in containers fitted with lids to avoid attraction of scavengers, scattering around. The lid will also protect waste from rain and snow.</li> <li>▪ Remove domestic waste to the nearest landfill under agreement with state authorized waste management companies.</li> </ul>	<p>Contractor</p>	<p>Throughout construction</p>	<p>Contractors' checklists &amp; monitoring reports.</p> <p>PIU checklists and monitoring reports</p> <p>Training records</p> <p>Waste manifests</p> <p>Waste management contracts</p>

Objective	Activity	Mitigation Measures	Responsibility	Timescales	Evidence
Waste management in line with WBG ESHG and national regulations		<ul style="list-style-type: none"> <li>▪ Provide garbage bins and facilities within the project site for temporary storage of domestic solid waste and construction waste.</li> <li>▪ Waste storage containers will be covered, tip-proof, weatherproof and scavenger proof.</li> <li>▪ Ensure that wastes are not haphazardly dumped within the project site and adjacent areas.</li> </ul>			
	Management of hazardous waste	<ul style="list-style-type: none"> <li>▪ At worksites and camps where hazardous waste is generated the Contractor will ensure compliance with the following safety measures:                             <ul style="list-style-type: none"> <li>○ Use containers suitable for each type of waste;</li> <li>○ Prohibit use of damaged containers. Check integrity of containers – regularly;</li> <li>○ Mark containers adequately specifying the waste types;</li> <li>○ Provide secondary containment for hazardous waste liquids;</li> <li>○ Do not mix various waste streams.</li> </ul> </li> <li>▪ Hire state authorized contractor for hazardous waste removal and keep agreements with hazardous waste management company's active.</li> <li>▪ Keep copies of waste manifests on site. Keep a record of waste on-site and waste removed.</li> </ul>	Contractor	Throughout construction	Contractors' checklists & monitoring reports.  PIU checklists and monitoring reports  Training records  Waste manifests  Waste management contracts
	Spoil disposal	<ul style="list-style-type: none"> <li>▪ Where spoil material is generated, the Contractor will be responsible for preparation of a <b>Method Statement for Spoil Disposal</b>, including site specific plans for spoil disposal areas.</li> </ul>	Contractor	Throughout construction	Method statements submitted to PIU for review and approval
Road safety	General construction road safety	<ul style="list-style-type: none"> <li>▪ Setting up, and maintaining, approved Traffic Management Plans (TMP) – the Contractor shall ensure that the approved Traffic Management Plan is established for each work site.</li> </ul>	Contractor	Throughout construction	Traffic management plans

Objective	Activity	Mitigation Measures	Responsibility	Timescales	Evidence
		<ul style="list-style-type: none"> <li>▪ Signs – all road signs used shall have a reflective sheeting on a metallic plate and shall conform to national standards for size, colour, shape, words and symbols.                             <ul style="list-style-type: none"> <li>○ The Contractor shall be required to have an adequate supply of spare signs, traffic cones, delineators, and safety barriers to replace any that go missing from the site, or are damaged, for any reason.</li> </ul> </li> <li>▪ Traffic cones and delineators – there will be a need to guide drivers through or past work sites in a safe and orderly manner. The paths to be used by drivers from each direction are to be clearly delineated with forgiving, highly visible traffic cones, bollards, and other forms of nationally agreed delineation.</li> <li>▪ Road works speed limit:                             <ul style="list-style-type: none"> <li>○ A 40kmh speed limit shall apply through the work zones.</li> <li>○ an inspection of the speed restriction signs along with the rest of the TMP layout shall be undertaken twice daily by the Contractors Health and Safety Manager. The Officer shall keep clear records of any change or deficiencies in the TMP at any time.</li> </ul> </li> </ul>			<p>Contractors' checklists &amp; monitoring reports.</p> <p>PIU checklists and monitoring reports</p>
<p>Health and Safety of Workers</p>	<p>General health and safety during the construction phase</p>	<ul style="list-style-type: none"> <li>▪ Regularly inspect, test and maintain all safety equipment (including firefighting equipment), scaffolds, guardrails, working platforms, hoists, ladders and other means of access, lifting, lighting, signing and guarding equipment. Lights and signs will be kept clear of obstructions and legible to read. Equipment, which is damaged, dirty, incorrectly positioned or not in working order, will be repaired or replaced immediately.</li> <li>▪ Workers will be provided (before they commence works) with of appropriate PPE suitable for electrical work such as safety</li> </ul>	<p>Contractor</p>	<p>Throughout construction</p>	<p>For training:</p> <ul style="list-style-type: none"> <li>○ Awareness materials</li> <li>○ Photographs</li> <li>○ Training reports</li> <li>○ List of participants</li> </ul> <p>Results of inspections of clinic, first aid kits and</p>

Objective	Activity	Mitigation Measures	Responsibility	Timescales	Evidence
		<p>boots, helmets, gloves, protective clothes, goggles, and ear protection at no cost to the workers.</p> <ul style="list-style-type: none"> <li>▪ All construction plant and equipment used on or around the Site will be fitted with appropriate safety devices. These will include but not be limited to:                             <ul style="list-style-type: none"> <li>○ Effective safety catches for crane hooks and other lifting devices, and</li> <li>○ Functioning automatic warning devices and, where applicable, an up-to-date test certificate, for cranes and hoists.</li> </ul> </li> <li>▪ Zones with noise level above 80 dBA must be marked with safety signs and appropriate PPE must be worn by workers.</li> <li>▪ Portable toilet facilities for workers at road work sites will be provided.</li> <li>▪ Fencing on all areas of excavation greater than 2m deep will be installed along with warning signs.</li> <li>▪ Ensure sufficient fresh air supply to confined work spaces.</li> <li>▪ Keep air inlet filters clean and free of dust and microorganisms.</li> <li>▪ Ensure reversing signals are installed on all construction vehicles.</li> <li>▪ Implement fall prevention and protection measures whenever a worker is exposed to the hazard of falling more than two meters, falling into operating machinery or through an opening in a work surface. Note: fall prevention/protection measures may include installation of guardrails with mid-rails and toe boards at the edge of any fall hazard area, proper use of ladders and scaffolds by trained employees, use of fall prevention devices, including safety belt and lanyard travel</li> </ul>			<p>contracts with local emergency services and hospitals.</p> <p>PPE is provided to each work and observed for the activity the worker is conducting, being fully worn by workers and any broken equipment replaced</p>

Objective	Activity	Mitigation Measures	Responsibility	Timescales	Evidence
		limiting devices to prevent access to fall hazard, fall protection devices such as full body harnesses, etc. <ul style="list-style-type: none"> <li>▪ Mark the areas where risk of injuries from falling objects exist with rope or flagging to minimize risks and injuries.</li> <li>▪ Provide spotters. Employ flag persons to control traffic when construction equipment is entering or leaving the work area.</li> <li>▪ A suitably staffed and equipped health clinic for all workers is to be provided on site.</li> <li>▪ First aid kits will be provided at all work sites.</li> </ul>			
Workers rights	Construction phase	<ul style="list-style-type: none"> <li>▪ Set targets for local employment based on initial assessment of the labor market for unskilled and semi-skilled work force.</li> <li>▪ For unskilled the Contractor shall use a 'ballot' system to ensure that employment is fair and not weighted to connected people for unskilled roles.</li> <li>▪ Repatriation of locals through recruitment measures will use online resources.</li> <li>▪ Provisions in the Contractors contract are to include as far as practicable items to address the collective bargaining, retrenchment, and worker accommodation and non-employee worker gaps, to ensure that ILO and Lender requirements are met. At a minimum, the Contractor shall ensure the following measures are followed:                             <ul style="list-style-type: none"> <li>○ The development and implementation by the Contractor of Human resources policies to hire, train, assess, and reward the project workforce. These policies should prevent any form of discrimination in the workplace and ensure that all employees are treated fairly and equally.</li> </ul> </li> </ul>	Contractor	Throughout construction	HR Policy Workers Contracts Workers GRM Training reports

Objective	Activity	Mitigation Measures	Responsibility	Timescales	Evidence
		<ul style="list-style-type: none"> <li>○ Policies should exclude the use of child or forced labor in the project, and that national and international requirements for non-employee workers and supply chain workers are also reflected in these policies.</li> <li>○ A grievance mechanism for workers will need to be provided for the workforce to be able to raise reasonable workplace concerns. The Contractor will inform the workers of the grievance mechanism at the time of hiring and make it easily accessible to them.</li> </ul> <p>The wages will be negotiated individually with each applicant based on the professional level of the applicant. With respect to labour and working conditions, negotiated wages should be in compliance with requirements under the Labour Code with respect to payment above minimum wages, working hours and workplace conditions. All workers will have contracts describing their job description and conditions of work, and will have the contents explained to them.</p> <p>A Service Provider will be subcontracted to provide an HIV Awareness Program to the Contractor’s Personnel and the Local Community. The HIV Awareness Program will be repeated at intervals not exceeding four months.</p> <p>The Contractor will hire a team of Health and Safety Specialists to implement and manage the tasks listed above.</p>			
To ensure health and safety of contractor and to community is optimized	Workers and Management of the Subcontractors have (in-) adequate environmental	<ul style="list-style-type: none"> <li>▪ Induction on health and safety and environmental mitigation will be held with each worker before starting work and with updates regularly</li> <li>▪ Contract documents to contain full information on scope of environmental safeguards, needs for adequate, qualified HSE staffing for number of workers expected, and other parts of</li> </ul>	Contractor and approved by PIU	Within month 1 of contractor commencement. Updates to be provided yearly and/or in cases of	H&S Plan prepared and approved (includes any subsequent updates)

Objective	Activity	Mitigation Measures	Responsibility	Timescales	Evidence
Prevention of injury or mortality of contractor or community	awareness / experience of which is reflected in levels of compliance in detailed design and construction.	<p>Contract documents include specifics that require costing, as necessary.</p> <ul style="list-style-type: none"> <li>Conducting special briefings and/or on-site training for the Subcontractors and workers on the environmental requirements of the Project.</li> <li>Conducting briefing sessions as and when required.</li> </ul>		significant H&S breach occurring Detailed instruction provided in bidding documents Training awareness conducted every 3-months	<p>Training evidence includes</p> <ul style="list-style-type: none"> <li>Awareness materials</li> <li>Photographs</li> <li>Training reports</li> <li>List of participants</li> </ul>
To reduce interruptions to farms and businesses, thereby not compromising income generation	Commercial farms in the along the length of the road may be interrupted during construction	<ul style="list-style-type: none"> <li>Access for commercial establishments and farmers with farms along the length of the road shall be continued for the whole Construction period.</li> <li>During Harvesting periods and various busy crop operation periods, roads accesses will be provided, and construction shall be restricted.</li> </ul>	Contractor	Throughout Project construction period	<p>Related Grievances Regular inspection of site</p> <p>Photographs / awareness materials / names of participants in awareness meetings and consultations with residents and other stakeholders</p>
To reduce risk of incidents on site, causing injury or death	Safety on Construction site	<ul style="list-style-type: none"> <li>Compliance with safety regulations and laws of Uzbekistan and contract requirements.</li> <li>Construction vehicles will avoid, as much as possible, built up areas, driving during peak hours and peak school commuting times.</li> <li>Random monitoring checks of drivers obeying traffic safety regulations, appropriate licensing for vehicle operation, alcohol and drug testing, driving safety, speed restrictions and of vehicle equipment maintenance and working</li> </ul>	Contractor and monitoring by PIU	Throughout construction period	<p>Numbers of incidents and records of injuries / mortality</p> <p>Investigation and Plan updates</p> <p>Transport management plans</p>

Objective	Activity	Mitigation Measures	Responsibility	Timescales	Evidence
		<p>(brakes/horns/mechanics) including maintenance record books; installations of traffic signs; and driving safety education</p> <ul style="list-style-type: none"> <li>▪ <b>Traffic Management Plans</b> approved by Police and PIU will be prepared for safe traffic flow on-site and for when vehicles for materials deliveries on the public roads coming to/waste going off- site.</li> <li>▪ In event of accidents of any form, a full report will be prepared, filed and a copy provided to the PIU.</li> </ul>			<p>for truck access roads and public vehicles around the construction site</p> <p>Inspection during construction to ensure site H&amp;S and flagman (as needed) is fully operational. Police approved traffic management plans.</p>
To ensure cultural heritage (Tangible / intangible; local or national importance) is maintained	Memorial / Cemeteries	<ul style="list-style-type: none"> <li>▪ Construction shall not interfere with this area, and will shall not work in the vicinity</li> <li>▪ Construction shall not take place during ceremonies at the memorial.</li> </ul>	Contractor	At the time when working near the sensitive site	Minutes of meetings Contractor work schedules
	Mosque	<ul style="list-style-type: none"> <li>▪ Work close to religious sites such as the Mosques shall only be conducted outside of prayer times and also will not be conducted on religious holidays for both cultural and safety reasons for community members.</li> <li>▪ Consultations will be conducted at the mosque and with nearby residents, constantly, to update on the construction schedule and inform about mitigations measures and places to lodge complaints.</li> <li>▪ Consult with local stakeholders and users of the Mosque and graveyard to agree access during construction and operation including any adjustment to the working time of the mosque.</li> </ul>	Contractor	At the time when working near the sensitive site	Minutes of meetings, Contractor work schedules

Objective	Activity	Mitigation Measures	Responsibility	Timescales	Evidence
		<ul style="list-style-type: none"> <li>▪ The community will be informed about the nature of construction activities and possibility of any blocked route; alternate routes will be identified with the help of local/affected community. Duration of such blockage will be minimized to the extent possible;</li> <li>▪ All road safety measures including road signage, warning lights, lane dividers, and safety railings should be installed.</li> <li>▪ Liaison with the community should be maintained.</li> </ul>			
	Cultural or archaeological objects within the construction alignments/site found by chance. Chance-find and/or damages to unknown objects and resources of cultural and archaeological value, if found, are a potential, but small risk.	<ul style="list-style-type: none"> <li>▪ All efforts made to identify potential archaeological and cultural resources on the Project. If any archaeological / cultural resources are identified or damaged during construction, “chance find” procedures will be immediately implemented:</li> <li>▪ Ceasing work as soon as archaeological or cultural find is encountered during earthworks or other construction related activities.</li> <li>▪ Providing relevant information to the Employer who will immediately inform the Republic of Uzbekistan “State Committee for Geology” to assess and identify further course of action.</li> </ul>	PIU / Contractor / Republic of Uzbekistan “State Committee for Geology”	Throughout Project	Report of stop-work Report of Republic of Uzbekistan “State Committee for Geology”  Activity to avoid damage to heritage site
Health, Safety and Security of Contractor camp is maintained	Camps are not expected to be large because the contractor intends to use local labour where possible.	<ul style="list-style-type: none"> <li>▪ Need for camps will be reduced as much as possible, by utilizing local labour where possible.</li> <li>▪ Identify location of work camps in consultation with the Khokimiyats and PIU.</li> </ul>	Contractor	Throughout construction	Health and Safety Plan  H&S audits results and corrective

Objective	Activity	Mitigation Measures	Responsibility	Timescales	Evidence
catering for influx of labour	However, camps and workshops operation and location causing social and environment hazards to neighboring areas	<ul style="list-style-type: none"> <li>▪ As a rule, the camps shall not be located near settlements or near drinking water supply intakes.</li> <li>▪ Any construction of camps shall need follow Uzbekistan laws, standards, permits, inspections.</li> <li>▪ No trees shall be cut in building the camp or workshop and removal of vegetation shall be minimized.</li> <li>▪ Water and sanitation facilities shall be provided sufficient for all users of the camps.</li> <li>▪ Sanitation facilities will be located appropriately so as not to affect surface or ground water sources nearby and human health impacts</li> <li>▪ Contractor shall organize and maintain a waste separation, collection, and transportation system (refer to Waste Management above).</li> <li>▪ Ensuring that all liquid and solid hazardous and non-hazardous waste are separated, collected, and disposed of according to Uzbekistan laws and regulations.</li> <li>▪ At conclusion of the project, removing all debris and waste, as well as all temporary structures.</li> <li>▪ All temporary structures, including office buildings, shelters, and latrines, shall be removed to prevent encroachment within the road right-of-way. The site shall be restored to near natural and stable conditions.</li> <li>▪ The PIU shall report in writing that the camp has been vacated and restored to pre-project conditions before acceptance of the works.</li> </ul>			<p>action letters from PIU to contractor</p> <p>Monthly waste management separation list in Environmental Monitoring Report</p>

Objective	Activity	Mitigation Measures	Responsibility	Timescales	Evidence
		<ul style="list-style-type: none"> <li>Male and female quarters will be separated. Gender separate latrines and ablutions will be required.</li> </ul>			
Community health, safety and security	Construction sites will impact on health of local communities	<ul style="list-style-type: none"> <li>Safety signs will be included in the design warning people not to attempt to cross the four-lane section of the road without using dedicated crossing areas.</li> <li>Place warning signs outside of each school to alert construction vehicles of their locations and to be aware of children crossing the road in these areas.</li> <li>At least two weeks before construction starts within the vicinity of one of the schools along project road, the Contractor will be responsible for informing the School of the works program and schedule so that the school can inform pupils of the impending works and to be vigilant throughout the construction program.</li> <li>Consider additional traffic safety measures close to schools, including reduced speed limits (maximum 40 kilometers per hour) and traffic calming measures such as speed bumps.</li> <li>Construct pedestrian walkways in urban areas, specifically in the four lane section of the road.</li> </ul>	Contractor	Throughout construction	Contractor to provide letters to schools to Engineer to confirm that the schools have been informed of impending works.
Business and residents accessibility will be maintained, with minimal disruption	Construction sites will impact on access to houses, shops, pedestrians and farmers	<ul style="list-style-type: none"> <li>Police and legal requirements for the project will only allow a 500m section of road to be block at a time</li> <li>Community shall be consulted and made aware of the construction program, and discussions as to where access sites for pedestrian, vehicles (if possible) and other services (e.g. bus stops)</li> <li>Businesses shall be provided alternative access if construction blocks normal accesses.</li> </ul>	Contractor	Throughout the project, although may be timed based on construction schedule	Consultation with potentially affected residents and business. Minutes of meetings Resettlement and Livelihoods action plan to compensate those businesses whose access are temporarily and permanently

Objective	Activity	Mitigation Measures	Responsibility	Timescales	Evidence
		<ul style="list-style-type: none"> <li>Construction shall as much as possible, avoid peak periods when farmers need to work in cropping, harvesting and taking products to markets.</li> </ul>			blocked by the road construction. Grievances submitted and resolution found. Inspection of alternative accesses
Income opportunities for local residents affected by project; and risk reduction of health and other issues often brought in with influx of labour	Income gap between the workers and the local residents may occur	<ul style="list-style-type: none"> <li>Priority in giving local resident employment opportunities.</li> <li>Provision of on-the-job training.</li> </ul>	Contractor	Throughout the project	Labour record (numbers of local, uzbek, international; salaries; hours worked etc)
Reduce risk of Emergency events	Several hazards (natural and manmade) can cause serious emergency situations disaster. There is possibility of accidents by workers	<ul style="list-style-type: none"> <li>Installation of fire prevention system, fire extinguisher, fire escape exit, etc.</li> <li>Compliance of safety regulations.</li> <li>Checking of traffic regulations, driving safety education, checkup of vehicle equipment (brake, horns).</li> <li>Health and Safety plan is to be prepared for PIU approval.</li> <li>Emergency response plan is to be prepared for PIU approval.</li> </ul>	Contractor with ministry of Emergency Situations and PIU & Contractor	Throughout construction	Emergency management plan and updates after emergency events occur (as necessary). Audits of emergency equipment conducted quarterly as a minimum

#### 4.10. MITIGATION AND MANAGEMENT REQUIREMENTS - OPERATION PHASE

Table 8: Mitigation and management requirements – Operation phase

Objective	Activity	Mitigation Measures	Responsibility	Timescales	Evidence
Management planning for the operational phase	Preparation of CESMP	<ul style="list-style-type: none"> <li>Complete a CESMP based on the requirements of this ESMP and the Project ESIA, as well as any lessons learned during the construction phase.</li> </ul>	CAR	60 days prior to commercial operation date	CESMP completed and approved by WB
Climate resilience	Routine monitoring during operational phase	<ul style="list-style-type: none"> <li>Maintenance checks for structures identified at risk (including drainage structures) extreme precipitation or flooding events.</li> <li>Maintenance checks of pavement surface and structures identified at risk following periods of extreme high temperatures.</li> </ul>	CAR	Throughout operational phase	Maintenance reports.
Avoid soil pollution	Ice management	<ul style="list-style-type: none"> <li>Use of environmentally friendly solutions for ice on the roads.</li> </ul>	CAR	Throughout operational phase	Maintenance reports.
Avoid pollution of surface and groundwater	Routine maintenance throughout construction	<ul style="list-style-type: none"> <li>Ensure clean up and waste removal from carriageway and roadsides.</li> <li>Ensure maintenance and timely clean-up/removal of sediments accumulated in bridge deck runoff treatment facility.</li> <li>Perform maintenance paving of the road sections and bridge decks only in dry weather to prevent runoff contamination.</li> <li>Use staging techniques to reduce the spread of paving materials during the repair of potholes and worn pavement. These can include covering storm drain inlets and manholes during paving operations, using erosion and sediment controls</li> </ul>	CAR	Throughout operational phase	Maintenance reports.

Objective	Activity	Mitigation Measures	Responsibility	Timescales	Evidence
		<p>to decrease runoff from repair sites, and using drip pans, absorbent materials and other pollution prevention materials to limit leaks of paving materials and fluids from paving machines.</p> <ul style="list-style-type: none"> <li>At drainage discharge points, including interceptor tanks, reinstatement with native wetland plant species in discharge locations to remediate the water and provide soil stability.</li> </ul>			
Biodiversity	Operational phase	<ul style="list-style-type: none"> <li>Regular collection of waste from roadside.</li> <li>Monitoring of mitigation implementation according to the requirements of any BAP</li> <li>Fencing and animal crossings maintenance.</li> </ul>	CAR	Throughout operational phase	Maintenance reports. BAP Monitoring Reports
To reduce risk of traffic incidents involving vehicles and local residents	Community safety may be compromised post-construction, with increasing traffic numbers and speed of vehicles along the road.	<ul style="list-style-type: none"> <li>Community Awareness Programs be prepared targeting community members, including children and elderly.</li> </ul>	CAR	<p>Commence within 1-month of road sections being handed over to Uzbekistan Government</p> <p>To be conducted at least once every 6-months for the first 2 years of operations</p>	<p>Awareness materials</p> <p>Photographs</p> <p>Training reports</p> <p>List of participants</p>
To reduce risk of spread of health issues, know to be associated with opening up roads to increased inter-regional and international traffic use,	Additional traffic, especially trucks and other inter-regional and international traffic, increasing	Awareness will be provided HIV/AIDS, STI and Infectious diseases and Human Trafficking awareness. Awareness materials and consultation with community, will be regularly conducted in local communities, ensuring potential issues, complaints and construction inconveniences/impacts are	CAR	Commence within 1-month of road sections being handed over to Uzbekistan Government	<p>Awareness materials</p> <p>Photographs</p> <p>Training reports</p>

Objective	Activity	Mitigation Measures	Responsibility	Timescales	Evidence
such as HIV/AIDS and other illnesses.	the risk of HIV/AIDS.  Other communicable diseases	discussed and mutual mitigations in the home are suggested.		To be conducted at least once every 6-months for the first 2 years of operations	List of participants
To prevent traffic accidents along the road, causing injury or mortality to local residents living on the roadside or within communities through which the road traverses	Additional traffic, especially trucks and other inter-regional and international traffic, increasing accessibility for of Human Trafficking and drug trafficking		CAR	Commence within 1-month of road sections being handed over to Uzbekistan Government To be conducted at least once every 6-months for the first 2 years of operations	Awareness materials  Photographs  Training reports  List of participants
Provide a safe road for road users and pedestrians	Routing road maintenance	The CAR is to maintain the road, with a focus on items that impact road safety. These include: <ul style="list-style-type: none"> <li>○ Ongoing maintenance of road signs and line marking.</li> <li>○ Maintenance of delineation, especially tactile edge lines, in rural areas.</li> <li>○ Maintenance of safety barriers.</li> </ul>	CAR	Throughout operational phase	Maintenance reports.

## **5. ENVIRONMENTAL MONITORING OF COMPLIANCE, AUDITING AND REPORTING**

### **5.1. REQUIREMENTS FOR COMPLIANCE MONITORING**

All controls, inspections, audits and reporting will be undertaken in accordance with the Project ESHS requirements and procedures. These requirements should be reflected in the Construction contractor CESMP.

### **5.2. INSPECTIONS AND INTERNAL AUDITS**

Stakeholder engagement can be described as the systematic method to understand and involve stakeholders and their concerns in project activities and decision-making processes. It identifies the appropriate approach to be used for consultation and information disclosure.

During construction, site inspection/monitoring will be undertaken by the Construction contractor to ensure that works are being undertaken in conformance with the requirements of the Project ESHS and CESMP. These inspections will be undertaken on a daily, weekly and monthly basis by the roles identified in the CESMP, and will be recorded using Checklists, Forms and Registers. Any non-conformances will be recorded, and appropriate corrective measures undertaken by the Construction contractor.

Internal audits will be conducted by the Construction contractor ESO on the CESMP to assess its effectiveness and relevance as follows:

- ❖ A full annual review;
- ❖ Following a reportable incident, or a significant non-compliance; and
- ❖ Following an addition, up-date or change order to the ESMP.

### **5.3. EXTERNAL AUDIT REPORTING REQUIREMENTS**

During construction the Construction contractor will report to the CAR PIU. The format for reporting will be agreed between the CAR PIU and Construction contractor.

### **5.4. ACCIDENTS, INCIDENTS AND NON-CONFORMANCES**

During construction, the Construction contractor will implement a Non-Conformance and Corrective Action Procedure to ensure that all non-conformances are identified and recorded, and that appropriate corrective action is taken to rectify all identified non-conformances, preventing their reoccurrence in the future.

During construction, the Construction contractor will also implement an Accident, Incident and Near Miss Procedure to ensure that environmental incidences and health and safety incidences and accidents, including near-misses, are identified and recorded, and that appropriate corrective action is taken to prevent reoccurrence in the future.

During operation, the CAR will follow a similar procedure, in accordance with their existing internal practices and as agreed with WB.

## 5.5. STAKEHOLDER ENGAGEMENT PLAN

A SEP has been prepared as part of the ESIA package. The SEP is a living document, so will be updated throughout the construction and operational phases of the Project. During construction, the CAR PIU will manage the overall implementation of the stakeholder engagement process. During operation, the Project SEP will be the responsibility of the CAR.

## 5.6. NON-CONFORMANCE PROCEDURES

A non-conformance is a deviation from:

- ❖ Project policies and procedures;
- ❖ Project permits/licenses; and
- ❖ Project requirements as set out in ESMP.

Non-conformances may be identified through the following activities:

Daily/weekly/monthly site inspections/monitoring, and recorded in the Checklists/ Inspection records;

- ❖ Third party audit findings;
- ❖ Accidents, Incidents and Near-misses;
- ❖ Meetings notes;
- ❖ Performance reviews; and
- ❖ Grievances (internal or external).

Where necessary, a Corrective Action will be identified to address a Non-conformance. The Corrective Action can be a remedial action to address the immediate problem and, where necessary, further action to understand the root cause of the problem and identify further action required to address the root cause.

All Non-conformances and Corrective Actions will be reported in a Non-conformance and Corrective Action Form and Register.

## 5.7. ACCIDENT / INCIDENT PROCEDURES

All accidents and incidents (including accidents, spills, work-related illnesses, damages, near misses, etc) will be reported in the Accident and Incidences Form and Register. The following procedure will be followed:

- ❖ If an accident/incident/near miss occurs, the Site Manager must be alerted immediately, and immediate action must be taken to minimise the impact or the potential impact. Depending on the nature of the accident or incident, the following will need to be employed:
  - Emergency preparedness and response plan and procedure
  - Spill emergency response procedure
- ❖ Once the immediate accident/incident/near miss has been addressed, the Site Manager must advise the NES.
- ❖ CAR PIU should also be informed of the accident/incident, in accordance with procedures agreed within the Construction contractor.
- ❖ The NES will complete an Accident, Incident and Near Miss Form.

- ❖ The NES will maintain a Register of all Accidents, Incidents and Near Misses.
- ❖ The NES and Project Manager and other nominated persons as necessary, will determine what further action or investigation is required, and record this on the Accident, Incident and Near Miss Form.
- ❖ Subsequent investigation and verification activities will be undertaken by the nominated person(s) to determine the root cause(s) of the incident or accident.
- ❖ Once the cause is identified, the corrective action is to be documented in a Corrective Action Form. The Corrective Action Form will identify the corrective action required and the person responsible for delivering the action, together with an agreed timeframe for implementation. The Corrective Action Form reference number is to be added to the Accident, Incident and Near Miss Form by the NES.
- ❖ Following implementation of the corrective action, a review of the effectiveness of the corrective action will be undertaken by the NES or nominated representative.
- ❖ Where investigation indicates that the accident/incident/near miss arose as a result of a non-conformance, this will also be logged by the NES in the Non-Conformance and Corrective Action Register.
- ❖ On the successful closure of the implementation of corrective actions, the Corrective Action Form will be signed off by the NES and Project Manager, and the updated to “action closed”. The Accident, Incident and Near Miss Register and, as necessary, Non-Conformance and Corrective Action Register will be updated by the NES.

For any serious accidents or incidents, the Construction contractor will complete an Accident Report within two weeks for submission to PIU.

## 5.8. ENVIRONMENTAL MONITORING

The monitoring and reporting outlined below are required as a minimum for the design, construction, and operation respectively.

**Table 9: Monitoring and reporting obligations**

Monitoring	Parameters	Frequency & Duration	Location	Reporting obligations	Responsibility
<b>Design</b>					
Detailed Design	<ul style="list-style-type: none"> <li>▪ Dust design measures</li> <li>▪ Climate resilience measures</li> <li>▪ Avoidance of petrol stations</li> <li>▪ Sand encroachment protection measures</li> <li>▪ Oil interceptor tanks</li> <li>▪ Seismic standards</li> <li>▪ Vibration buffer zones</li> <li>▪ Road safety audit</li> <li>▪ Biodiversity requirements</li> </ul>	Once, during Detailed Design	Whole Project	DDC provide designs to CR for review	CAR (and eventually PIU to complete design review)
<b>Construction</b>					
Air emissions	Routine site inspections against ESMP Instrumental Monitoring per the ESIA	Daily Monthly	Site Locations specified in ESIA	Weekly checklists Monthly reports	Contractor / PIU
Climate Change Resilience	Routine site inspections against ESMP	Daily	Site	Weekly checklists Monthly reports	Contractor / PIU
Soil contamination	Routine site inspections against ESMP	Daily	Site	Weekly checklists Monthly reports	Contractor / PIU
Water pollution	Routine site inspections against ESMP	Daily	Site	Weekly checklists Monthly reports	Contractor / PIU

Monitoring	Parameters	Frequency & Duration	Location	Reporting obligations	Responsibility
Noise	Routine site inspections against ESMP Instrumental Monitoring per the ESIA	Daily Monthly	Site Locations specified in ESIA	Weekly checklists Monthly reports	Contractor / PIU
Waste	Waste manifests	Monthly	Site	Weekly checklists Monthly reports	Contractor / PIU
Road safety	Accidents and injuries. Incident reporting and follow up actions.	Monthly	Site	Monthly construction monitoring report	Contractor
OHS and environmental and social statistics	Numbers of fatalities, accidents and injuries. Incident reporting and follow up actions.	Monthly	Site	Monthly construction monitoring report	Contractor
Labor and conditions of labor	Compliance with labor laws, regulations and safety regulations No child labour, no people trafficking, HIV awareness, gender and living conditions to contract standards.	Constantly Monthly audits	In all territories of construction site	Register Minutes of meetings	Contractor / PIU
Complaints	The numbers, content and results of the processing of complaints. Complaints resolved and how resolved	During construction and after construction	In all territories of construction site	Surveying and regular audits	Contractor / PIU
Security incidents	Security incidence. Incident reporting and follow up actions.	Monthly	Site	Monthly construction monitoring report	Contractor
Biodiversity	Chance find procedure Biodiversity monitoring against BMEP	Daily Monthly	Site Locations specified in ESIA	Weekly checklists Monthly reports	Contractor / PIU
<b>Operation</b>					
Accident	Compliance with labor laws, regulations and safety regulations and contract conditions	Post-Construction – Monthly basis	In all territories of construction site	Surveying and audits	CAR / Local police and emergency services

Monitoring	Parameters	Frequency & Duration	Location	Reporting obligations	Responsibility
Awareness of community to new road traffic hazards	<ul style="list-style-type: none"> <li>▪ Awareness materials</li> <li>▪ Photographs</li> <li>▪ Training reports</li> <li>▪ List of participants</li> </ul>	1-day Every quarter	On-site at each community along the road	Reporting to WB, MoT and Uzbek Cabinet of Ministers	CAR

## 5.9. ESMP IMPLEMENTATION BUDGET<sup>3</sup>

Most costs associated with the environmental recommendations of the ESMP are a normal part of preparing the bid and contract documents and ensuring that proper environmental provisions are incorporated therein.

The budget for implementation of this ESMP has been estimated to be USD (see Table 11) and should be incorporated in the project costs. This includes the cost for mitigation measures, monitoring, and capacity building as well as PIU operation relating to E&S aspects. Certain works (see Table 10) will be included in the BOQ of civil works, which are to be an integral part of civil works and will be executed as an environmental management measure.

**Table 10: ESMP Works to be implemented as per Civil Works BOQ**

No	Description	Amount
1	Disposal of Excess debris Material with an applicable lead	Cost included under Civil Works
2	CSC's Environmental Monitoring (Air Quality, Noise Levels, Water Quality, Soil Quality, solid waste and etc)	Cost included under Civil Works
3	Provision of traffic safeguards measures on the road (information/caution boards, chevrons etc.)	Cost included under Civil Works
4	Traffic and Safety Management During Construction	Cost included under Civil Works
5	Enhancement Measures (Provision of Drinking Water Facility, septic, Noise Barriers and etc)	Cost included under Civil Works
6	Landscaping	Cost included under Civil Works

Tables below summarizes the costs required for environmental mitigation measures and monitoring.

**Table 11: ESMP Implementation Budget**

Activity	Unit	Number of Units / Unit cost	Total Cost (USD)
PIU operation on E&S (Provisions of Environmental Specialist (full time), Social Specialist - (5 years x USD 1000 per month/per Specialist)	month	\$1000	\$120 000,00
Environmental Enhancement and /Cultural Heritage Conservation Measures along Project Road	Lump sum		\$10 000,00
Technical safety measures for the construction sites	Lump sum		\$10 000,00
Third-party monitoring (RAP Implementation Consultant)			\$50 000,00
Environmental and Social Management trainings and workshops	Lump sum		\$50 000,00
SEP Budget <sup>4</sup>			\$169 600,00

<sup>3</sup> Cost estimates are indicative

<sup>4</sup> Preliminary detailed SEP Budget indicated in Table 12

Activity	Unit	Number of Units / Unit cost	Total Cost (USD)
BMP Budget <sup>5</sup>			\$1 936 629,92
<b>TOTAL ESTIMATE</b>			<b>\$2 346 229,92</b>

**Table 12: Preliminary SEP Budget**

Stakeholder Engagement Activities	Q-ty	Unit Cost, USD	No of years	Total cost (USD)
Community liaison officer (5 years x USD 1000 per month)	1	\$1000	5	\$60 000,00
Travel expenses of staff (cost per year)		\$5000	5	\$25 000,00
Information desk (PIU - 1, regional Hokimiyats - 6) = 300	7	\$300	1	\$2 100,00
Communication materials (leaflets, posters, PR kits including design)				\$25 000,00
Project press conferences (twice per year)	2	\$1000	5	\$10 000,00
Trainings (Social issues, outreach, GRM, etc.) for PIU, Regional employment departments and ESCs	14	\$1500	1	\$21 000,00
Suggestions / GRM boxes (PIU and in each Regional department and ESCs)	7	\$100	1	\$700,00
MIS/GRM data base (including mobile application with online and offline uploads)		\$10 000	1	\$10 000,00
<b>Subtotal</b>				<b>\$158 200,00</b>
Contingency				\$15 800,00
<b>Total</b>				<b>\$169 600,00</b>

<sup>5</sup> Preliminary detailed BMP Budget indicated in Table 13

**Table 13: Estimated BMP budget**

Description	Unit	Q-ty	Coefficient to the BEC*	Rate	Total (in USD)
Permission cost to transplant 1 valuable tree**	Piece	3 077		100,00	307 700,00
Transplant costs for 1 tree	Piece	3 077		100,00	307 700,00
Tree care costs over 3 years	Piece	3 077		90,00	276 930,00
Permission cost to cut 1 low-valuable tree					
0-4,1 cm	Piece	155	1	34,26	5 310,51
8,1-12 cm	Piece	15	2	68,52	1 027,84
12,1-16 cm	Piece	37	3	102,78	3 803,01
16,1-20 cm	Piece	4	5	171,31	685,23
20,1-24 cm	Piece	1	7,5	256,96	256,96
24,1-28 cm	Piece	9	9	308,35	2 775,17
28,1-32 cm	Piece	2	11,5	394,01	788,01
32,1-36 cm	Piece	3	16,5	565,31	1 695,94
Cost on planting new trees to compensate removed trees	Piece	17660		60,00	1 059 600,00
Protection of trees during the construction activities	Lump sum				50 000,00
Other BMP measures	Lump sum				50 000,00
<b>Subtotal</b>					<b>1 760 572,65</b>
Contingency (10%)					<b>176 057,27</b>
<b>Total</b>					<b>1 936 629,92</b>

\*The coefficient to the Base Estimated Cost is given in accordance with APPENDIX 4 of the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. 464 dated August 22, 2022.

\*\*Depends on the diameter of the tree. The cost is given as average.

## ANNEX 1: PROJECT GRIEVANCE FORM

Ref №		
1	Name (indicate if complainant preferred to be anonymous)	Full name (if applicable): Gender: Age: Address (if applicable): Occupation (if applicable): I wish my identity not to be disclosed: _____
2	Contact information (need to specify the way to get back to complainant)	Mob phone: Fax: Email: Other (specify):
3	How compliant/feedback/request was received and by whom	Phone call: Text/WhatsApp applications: Verbal communication: Letter/Email: Receiver's name:
4	Purpose of contact	Make a compliant: Give a feedback: Request information: Other (specify):
5	Date application was received	Date: Time:
6	Text of applicant's message	
7	Response message (after receipt of application)	Dear _____ We confirm that we have received your application. We would like to inform you that your application is under review. You will receive the response within two weeks of submission of the application. We also would like to inform you that you will get written response for the issues you have raised in your request. We will keep you updated. Thank you for your understanding. <i>This message was delivered to the applicant by _____ on _____ at _____ via _____</i>
8	Summary of the response provided to the applicant	
9	Follow up actions required:	
10	Date the application was closed	Date:

The message was addressed by \_\_\_\_\_

Date/Month/Year \_\_\_\_\_

The response was delivered by \_\_\_\_\_

Date/Month/Year \_\_\_\_\_

Signature and stamp \_\_\_\_\_

## ANNEX 2: OUTLINE FOR KEY ENVIRONMENTAL MANAGEMENT PLANS

Plan	Scope	Content
<b>Soil Erosion, Reinstatement &amp; Landscape Management Plan</b>	For all areas where topsoil has been removed.	<p>The plan shall describe topsoil stripping procedures and rules, topsoil stripping depth and volumes, topsoil stripping supervision, transportation and stockpiling requirements, stockpile location, topsoil stockpile design, stockpile management, erosion hazard and erosion control, runoff drainage/diversion, soil protection measures at the storage area, maintenance of the stockpile and topsoil application procedure.</p> <p>Structure:</p> <ul style="list-style-type: none"> <li>▪ Introduction</li> <li>▪ Project Description</li> <li>▪ Statutory Requirements</li> <li>▪ Key areas for Management</li> <li>▪ Site Specific Mitigation and Management Measures</li> <li>▪ Monitoring requirements and responsibilities</li> <li>▪ Financing and provision</li> <li>▪ Training</li> <li>▪ Reporting and Review.</li> </ul>
<b>Vegetation clearance and rehabilitation</b>	Covering all sited temporarily used for the needs of the project.	<p>The plan must state necessity to prohibit the use alien or invasive plant species and need/method for control and removal of Exotic Species. (Note: The plan can be developed/revised at a later stage or stepwise site by site to provide a plan and schedule of re-cultivation works.</p> <p>Structure:</p> <ul style="list-style-type: none"> <li>▪ Statutory requirements</li> <li>▪ Existing environment</li> <li>▪ Vegetation management objectives for different habitat types</li> <li>▪ Vegetation to be retained</li> <li>▪ Vegetation clearance</li> <li>▪ Protection of PBF and other key habitats/species Rehabilitation management (objectives for each vegetation type)</li> <li>▪ Rehabilitation methodology</li> <li>▪ Supporting actions (invasive species management, topsoil stripping, recovery and stockpiling, erosion and sedimentation control, species selection and seed collection, fire management)</li> <li>▪ Completion criteria, remedial actions and rehabilitation monitoring</li> <li>▪ Financing and provision</li> <li>▪ Training</li> <li>▪ Reporting and Review</li> </ul>
<b>Construction Vibration Management Plan</b>	Applicable to all areas within 20m of road.	Detailing the procedures for vibration surveys, monitoring and control. Such details shall include; procedures to complete condition surveys (for all properties indicated in this EIA), Measurement locations and methods; Method

Plan	Scope	Content
		<p>statements for works likely to induce vibrations, including programs of trial construction sections to determine the likely magnitude of vibrations at defined distances from the vibration source, in sufficient detail for the contractor to develop a final method for constructing the works without excessive vibration; Description of the instrumentation and equipment to be used; Copies of the instruction manuals and the laboratory calibration and test equipment certification; The resumes of the vibration monitoring technical support personnel, sufficient to define details of relevant experience; Procedures for data collection and analysis; Frequency of measurements; Means and methods of providing warnings when the specified construction vibration limits are reached; and Action plans to be implemented in the event the specified construction vibration limits are reached. The generalized plans of action shall comprise the positive measures by the Contractor to control vibrations using alternative construction methods.</p> <p>Structure:</p> <ul style="list-style-type: none"> <li>▪ Introduction</li> <li>▪ Project Description</li> <li>▪ Statutory Requirements</li> <li>▪ Key areas for Management</li> <li>▪ Site Specific Mitigation and Management Measures</li> <li>▪ Monitoring requirements and responsibilities</li> <li>▪ Financing and provision</li> <li>▪ Training</li> <li>▪ Reporting and Review.</li> </ul>
<p><b>Pollution Prevention Plan</b></p>	<p>Applicable for all work sites.</p>	<p><b>Waste Water</b> - The plan must provide details on waste water (sewage) volume, disposal scheme, information on capacity and type of waste water treatment facility, location of the discharge point/points with indication of coordinates.</p> <p><b>Noise</b> - The plan shall provide details of mitigation measures, specific location and schedule where such measures shall be implemented to minimize impacts to sensitive receptors due to the presence of the camp, construction works, sourcing and transport of construction materials, and other project-related activities. Recommendations provided in the ESIA must be considered.</p> <p><b>Air Quality</b> - The plan shall provide details of mitigation measures, specific location and schedule where such measures shall be implemented to minimize impacts to sensitive receptors due to the presence of the camp, construction works, sourcing and transport of construction materials, and other project-related activities. Recommendations provided in the EIA must be considered. Prior to commencement of works likely emissions from crushers, concrete production facilities and other emissions generating facilities must be calculated and agreed with the relevant agencies.</p>

Plan	Scope	Content
		<p>Structure:</p> <ul style="list-style-type: none"> <li>▪ Introduction</li> <li>▪ Project Description</li> <li>▪ Statutory Requirements</li> <li>▪ Key areas for Management</li> <li>▪ Site Specific Mitigation and Management Measures</li> <li>▪ Monitoring requirements and responsibilities</li> <li>▪ Financing and provision</li> <li>▪ Training</li> <li>▪ Reporting and Review.</li> </ul>
<p><b>Construction Camp Management Plan</b> (if applicable)</p>	<p>To all camp sites, permanent and temporary</p>	<p>The plan shall cover such aspects as community relations, restriction of access to camp and facilities, induction briefing on camp rules and local issues/sensitivities, camp rules (such as restrictions on alcohol, drugs use; discipline; noisy activities; community liaison; no poaching; environmental protection measures applicable to the camp site; decommissioning and re-cultivation, etc.); workers welfare. The plan shall also describe power supply methods.</p> <p>Structure:</p> <ul style="list-style-type: none"> <li>▪ Introduction</li> <li>▪ Project Description</li> <li>▪ Statutory Requirements</li> <li>▪ Key areas for Management</li> <li>▪ Site Specific Mitigation and Management Measures</li> <li>▪ Monitoring requirements and responsibilities</li> <li>▪ Financing and provision</li> <li>▪ Training</li> <li>▪ Reporting and Review.</li> </ul>
<p><b>Bridge Construction Plan</b></p>	<p>For each bridge construction site</p>	<p>Describes methods for construction, working in river/canal beds, safety of workers, etc.</p> <p>Structure:</p> <ul style="list-style-type: none"> <li>▪ Introduction</li> <li>▪ Project Description</li> <li>▪ Statutory Requirements</li> <li>▪ Key areas for Management</li> <li>▪ Site Specific Mitigation and Management Measures</li> <li>▪ Monitoring requirements and responsibilities</li> <li>▪ Financing and provision</li> <li>▪ Training</li> <li>▪ Reporting and Review.</li> </ul>
<p><b>Biodiversity Management Plan</b> (if applicable)</p>	<p>To be applied to areas of specific concern:</p> <ul style="list-style-type: none"> <li>▪ Surkhandarya</li> <li>▪ Tree cutting</li> <li>▪ Environment</li> </ul>	<p>Outlines the actions required by the contractor to safeguard, conserve or enhance biodiversity during site works.</p> <p>Structure:</p> <ul style="list-style-type: none"> <li>▪ Introduction</li> <li>▪ Project Description</li> <li>▪ Statutory Requirements</li> <li>▪ Key areas for Management</li> <li>▪ Site Specific Mitigation and Management Measures</li> <li>▪ Monitoring requirements and responsibilities</li> </ul>

Plan	Scope	Content
		<ul style="list-style-type: none"> <li>▪ Financing and provision</li> <li>▪ Training</li> <li>▪ Reporting and Review.</li> </ul>
<b>Spoil Disposal Plan</b>	Applicable to all spoil disposal sites.	<p>The plan shall include information on location, layout of the spoil disposal area (dimensions, slope angle) with 3D view, cross sections, runoff management and bank protection measures, re-cultivation measures, designation of suitable transport routes and schedule for spoil truck movements to minimize traffic disruption/congestion, and environmental mitigation measures to address impacts during transport and disposal of spoils. The plan must specify spoil dewatering procedures (and facilities), as necessary, and describe mitigation measures to ensure adequate treatment of wastewater prior to disposal.</p> <p>Structure:</p> <ul style="list-style-type: none"> <li>▪ Introduction</li> <li>▪ Project Description including haul routes</li> <li>▪ Statutory Requirements &amp; Permitting</li> <li>▪ Key areas for Management</li> <li>▪ Site Specific Mitigation and Management Measures</li> <li>▪ Monitoring requirements and responsibilities</li> <li>▪ Financing and provision</li> <li>▪ Training</li> <li>▪ Reporting and Review</li> </ul>
<b>Waste Management Plan (WMP)</b>	General hazardous and waste disposal	<p>Plan to include the following:</p> <ul style="list-style-type: none"> <li>❖ Identify who is responsible - different individuals may be responsible during the various stages of the Project i.e., planning, construction and operation of the Plant. These individuals must be identified for each key stage and be aware of their responsibilities. They will be required to hold sufficient authority to ensure compliance with the WMP by other site operatives.</li> <li>❖ Identify the types and quantities of waste - all waste streams that will be produced during construction, operation and decommissioning require to be identified.</li> <li>❖ Hazardous Classes – hazardous wastes will be classified according to the requirements of the GoU Hazardous Waste classification system.</li> <li>❖ Identify waste management options - as described in the construction and operational EMMPs provided in above, a waste hierarchy for on and off-site options needs to be prepared. Where hazardous wastes are being generated, particular attention to the arrangements for identifying and managing such waste will need to be addressed and procedures put in place.</li> <li>❖ Identify waste management sites - the location of waste management sites will need to be identified, ideally the most local sites will be used to minimise transportation costs. It is important that legal contracts are in place when using waste disposal</li> </ul>

Plan	Scope	Content
		<p>contractors and waste disposal contractors comply with the legal responsibilities of the local and national area.</p> <ul style="list-style-type: none"> <li>❖ Training - all staff must be trained to ensure they understand the requirements of the WMP and their responsibilities therein, this includes in-house teams and sub-contractors.</li> <li>❖ Plan - using the steps above, establish indicative percentages of the waste quantities to be produced over the life span of the Project.</li> <li>❖ Measures - the quantities of wastes produced will be recorded on a monthly basis, and where possible measures taken to re-use, reduce or recycle waste as appropriate; and</li> <li>❖ Monitor – throughout the Project life cycle, waste management on site will be monitored, to ensure compliance with the WMP.</li> </ul>

## ANNEX 3: OUTLINE FOR SOCIAL MANAGEMENT PLANS

Plan	Scope	Content
<p><b>Health and Safety Plan</b></p>	<p>To provide conditions, in accordance with WB ESS 2 and 4 and Uzbekistan core labour standards, that protect health and safety of workers and nearby communities from the harmful affects of construction and in case of contractor camps, material stockpile sites, material processing sites and construction within community areas. It additionally covers general FIDIC contract requirements and gender discrimination. This Plan shall also address all aspects of protecting the community from impacts caused by labour and influx of labour and conversely protection measures of labour, if circumstances are foreseen (eg. any security issues etc.)</p>	<p>The Health and Safety Management Plan should cover, as a minimum the following areas:</p> <ul style="list-style-type: none"> <li>❖ Personal Protective Equipment</li> <li>❖ Construction site</li> <li>❖ Workshops</li> <li>❖ Traffic management</li> <li>❖ Plants (concrete, materials processing etc.)</li> <li>❖ Chemicals and hazardous materials and waste transport</li> <li>❖ Emergency management</li> <li>❖ HIV/AIDS awareness</li> <li>❖ Camps</li> <li>❖ Workshops</li> <li>❖ Specialist construction activity health and safety</li> <li>❖ Incident management, monitoring and reporting</li> <li>❖ Personnel roles, responsibility and management of risks</li> </ul>
<p><b>Emergency Management Plan</b></p>	<p>Identify potential, foreseen emergency risks and provide details on how the risks will be reduced and actions in cases of an Emergency event, be they natural disaster or anthropogenic events.</p>	<p>Emergency Management Plan may be presented in many formats, some of which are available on-line. However, the Plan should cover:</p> <ul style="list-style-type: none"> <li>❖ Reference to WB Safeguards and legislation of Uzbekistan for emergency response planning (if any) carrying out emergency measures.</li> <li>❖ Roles and responsibilities are to be set out for the various individuals, by title, who are responsible for specific duties in preparedness, response and recovery as well as those responsible for maintenance and development. Training should be given both within the contractor organisation and for those that would be directly called upon (externally) in an emergency situation.</li> <li>❖ Written agreements should be made with external agencies (emergency services, hospitals and clinics etc).</li> <li>❖ Emergency procedures must be developed and maintained for response and recovery activities, in the event of an emergency event occurring</li> <li>❖ Preparedness requirements for all staffs must be identified.</li> </ul>

		<ul style="list-style-type: none"> <li>❖ Procedures must be developed for identifying situations and signaling alert early warnings at the contractor sites.</li> <li>❖ Emergency operations procedures must be developed, including:             <ul style="list-style-type: none"> <li>○ Arrangements for activating, implementing and closing down the operations</li> <li>○ Staffing arrangement, evacuations and duty rosters</li> <li>○ Communications and back-up systems and support facilities</li> <li>○ Relevant, up-to-date information to support decision making</li> <li>○ Training requirements</li> </ul> </li> </ul> <p>Each Contractor's Emergency Management Plan should consider preparedness, response, recovery and mitigation actions. This includes detailing the following key provisions: general emergency procedures; emergency team/rescue team; and emergency communication. The contractor should also consult with local representatives of emergency management authorities when writing the Plan and should meet regularly during the Project period.</p>
<p><b>HIV/AIDs, Human Trafficking Prevention Plan (s)</b></p>	<p>Provide detail of awareness methods, training and other requirements to prevent HIV/AIDS, other communicable diseases, Human Trafficking and Drug trafficking</p>	<p>Training plan, training materials and photographs of training for prevention training; awareness posters for worker and management common room areas; PPE for workers (including masks and sanitizer; male and female condoms for workers); provision of clinic and testing services.</p>
<p><b>Gender Responsive Action Plan</b></p>	<p>To ensure impacts that may affect male only or female only are foreseen and mitigated</p>	<p>While not always obvious, social data and site inspections and consultations do show the extreme importance of the role of women in livelihoods development and potential impact of the Project construction phase and, less so, the operation phase of the Project will need to ensure activities are gender and vulnerability sensitive and responsive in the form of an action.</p>
<p><b>Traffic Management Plan (TMP)</b></p>	<p>Ensure safety on all sections of the road during the construction phase.</p>	<p>The Contractor will prepare a set of Traffic Management Plans and send these to the Committee for Roads for checking and approval. A TMP should be developed for each section of road and for each stage of work in that section that is expected to last for more than one month. The Contractor is also responsible for the appointment of a Health and Safety Manager, who will be responsible for checking that the TMP's are correctly in place (morning and evening), that missing signs and delineators are replaced on the same day, that</p>

		<p>the “after care” signs are installed when work ends for the day/week, and that all/any road crashes/incidents are recorded.</p>
<p><b>Labour Management Plan</b></p>	<p>To ensure the management and control of activities that may pose labour-related risks</p>	<ul style="list-style-type: none"> <li>❖ Freedom of association and the effective recognition of the right to collective bargaining</li> <li>❖ Elimination of all forms of forced or compulsory labour</li> <li>❖ Effective abolition of child labour</li> <li>❖ Elimination of discrimination in respect of employment and occupation</li> <li>❖ Eliminate discrimination in employment including, but not limited to race, religion, gender.</li> </ul>