Environmental and Social Management Plan (ESMP) Checklist

For the following sub-project:

Rehabilitation of the main road MI-108 (M-4), Rebrovac - Kotor Varos

May 2026

Public Company
"Republika Srpska Roads"

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ABBREVIATIONS

Abbreviation	Full Term
CRVA	Climate Risk and Vulnerability Assessment
E&S	Environmental and Social
ESCP	Environmental and Social Commitment Plan
ESF	Environmental and Social Framework
ESIRT	Environmental and Social Incident Response Toolkit
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESS	Environmental and Social Standards
OHS	Occupational Health and Safety
PC Roads	Public Company 'Republika Srpska Roads'
PIU	Project Implementation Unit
PPE	Personal Protective Equipment
RSA	Road Safety Audit
SISRI	Sustainable, Integrated and Safe Road Infrastructure Project
SOGI	Sexual Orientation and Gender Identity
WB	World Bank

1. INTRODUCTION

Name of the project	**Sustainable, Integrated and Safe Road Infrastructure Project**
Project Number	**P502979**
Summary of Project Development Objectives	The objectives of the proposed project are to improve regional transport connectivity, enhance road network management for climate resilient and safe roads, and in case of an eligible crisis or emergency, respond promptly and effectively to it.
Project Components	The project components are aimed to improve regional transport connectivity and enhance road network management for climate resilient and safe roads by financing: (i) Upgrade and improvement of the MI-118 (M-18) regional corridor between Brod na Drini (Foca) – Hum (Scepan Polje) (Route 2b of the TEN-T network (ii) Investments in the rehabilitation and strengthening resilience and safety of priority national roads for both entities (iii) Capacity building for enhanced road management for both entities (iv) Contingent Emergency Response Components The description of the project components is as follows: **Component 1:** Improved Regional Connectivity **Component 2:** Enhanced Road Sector Managementnt **Component 3:** Contingent Emergency Response

Name of the sub-project:	**Rehabilitation of the main road MI-108 (M-4), Rebrovac - Kotor Varos**
Component	1: Improved Regional Connectivity
Subcomponent	1.2: Rehabilitation of main roads
Estimated Investment	€ 6.6 M

This Environmental and Social Management Plan (ESMP) Checklist has been prepared for the sub-project "Rehabilitation of the main road MI-108 (M-4), section Rebrovac – Kotor Varoš", implemented by Public Company "Republika Srpska Roads" under the Sustainable, Integrated and Safe Road Infrastructure Project (SISRI).

The purpose of this ESMP Checklist is to identify potential environmental and social impacts associated with the proposed rehabilitation works and to define mitigation and monitoring measures necessary to prevent, minimize, or adequately manage adverse impacts during project implementation.

The road section Rebrovac – Kotor Varoš represents an important regional transport corridor connecting the City of Banja Luka with the municipalities of Čelinac and Kotor Varoš. The route

follows the Vrbanja River valley and passes through urban, suburban and rural areas, including residential zones, commercial areas, agricultural land and local community infrastructure. The road corridor is characterized by the presence of the Vrbanja River and associated drainage structures, bridges and culverts. No new road alignment, road widening, land acquisition, physical displacement, or involuntary resettlement is planned, and all works will be confined to the existing road footprint and right-of-way.

Temporary and localized impacts related to construction activities may occur, including dust generation, noise and vibration, traffic disruptions, limited construction waste generation, minor soil disturbance, temporary risks to surface water quality, and occupational health and safety risks.

This ESMP Checklist provides a practical framework for environmental and social management during project implementation and serves as a tool for the Contractor, Supervision Engineer, PC Roads, and other competent authorities to ensure compliance with applicable environmental, social, occupational health and safety, and traffic management requirements throughout the execution of the works.

2. ENVIRONMENTAL AND SOCIAL CATEGORY

The sub-project " Rehabilitation of the main Road MI-108 (M-4), section Rebrovac – Kotor Varoš" has been classified as **MODERATE** for Environmental risks and impacts and **LOW** for Social risks and impacts in accordance with the World Bank Environmental and Social Framework (ESF) Risk Classification.

The proposed rehabilitation works will be implemented entirely within the existing road alignment and right-of-way and do not involve construction of a new road, road widening, land acquisition, physical displacement, or involuntary resettlement.

Potential **environmental impacts** are expected to be temporary, localized, and typical for road rehabilitation activities, including dust emissions, noise, vibration, temporary traffic disruptions, limited construction waste generation, risks related to occupational health and safety, and minor risks to surface water resulting from runoff or accidental spills during construction.

The project corridor follows the Vrbanja River valley. However, the planned works are limited to the existing road corridor and do not include in-water works or activities that could alter the morphology of water bodies. No significant impacts on biodiversity, cultural heritage, groundwater, or environmentally sensitive areas are anticipated.

Potential **social impacts** are considered low and mainly related to temporary disturbances to traffic flow, access to adjacent properties, and nearby settlements during construction. These impacts are expected to be short-term, localized, and manageable through appropriate mitigation measures and traffic management arrangements.

Accordingly, a site-specific Environmental and Social Management Plan (ESMP) Checklist has been prepared to ensure that all identified environmental and social risks are adequately managed during project implementation.

2. 1 POTENTIAL ENVIRONMENTAL AND SOCIAL IMPACTS

The proposed rehabilitation works on the main road MI-108 (M-4), section Rebrovac – Kotor Varoš, are expected to generate temporary, localized, and manageable environmental and social impacts typical for road rehabilitation projects. The works will be implemented within the existing road corridor and right-of-way, without significant changes to land use or surrounding infrastructure.

Potential environmental impacts during construction may include:

- Temporary generation of dust from pavement rehabilitation, transportation of materials, and construction activities;
- Increased noise and vibration levels caused by construction machinery and vehicles;
- Generation of limited quantities of construction and demolition waste;
- Temporary risks to surface water quality due to runoff, accidental spills of fuel, lubricants, or other hazardous substances, particularly at locations where the road crosses local watercourses through existing bridges and culverts;
- Temporary disturbance of roadside vegetation within the existing road corridor;
- Occupational health and safety risks associated with the operation of machinery and construction activities.

Potential social impacts may include:

- Temporary disruption of traffic flow during rehabilitation works;
- Temporary restrictions in access to adjacent properties and agricultural land;

- Increased traffic safety risks due to the movement of construction machinery and equipment;
- Temporary disturbance to nearby residents caused by noise, dust, and construction activities.

No land acquisition, restrictions on land use, physical displacement, or significant livelihood impacts are anticipated.

All identified environmental and social impacts are expected to be short-term, localized, reversible and manageable through implementation of mitigation and monitoring measures defined in this ESMP Checklist and through application of good construction practices.

3. ESMP CHECKLIST

The ESMP Checklist is applied for minor rehabilitation and maintenance works with localized environmental and social impacts. It provides a practical and user-friendly approach to environmental and social management and is designed to be compatible with the requirements of the World Bank Environmental and Social Framework (ESF). The checklist format covers typical mitigation and monitoring measures applicable to civil works contracts with limited and site-specific impacts.

The checklist has one introduction section and three main parts:

- **Part 1** constitutes a descriptive part ("site-passport") that describes the project specifics in terms of physical location, the institutional and legislative aspects, the project description, inclusive of the need for a capacity building program and description of the public consultation process.
- **Part 2** includes the environmental and social screening in a simple Yes/No format followed by mitigation measures for any given activity.
- **Part 3** is a monitoring plan for activities during project construction and implementation. It retains the same format required for standard World Bank ESMPs.

Parts 2 and 3 of this ESMP Checklist form an integral part of the bidding and contract documentation and shall be implemented throughout the execution of the rehabilitation works.

3.1 APPLICATION OF THE ESMP CHECKLIST

This ESMP Checklist has been prepared for the sub-project "Rehabilitation of the main road MI-108 (M-4), section Rebrovac – Kotor Varos" in accordance with the Environmental and Social Management Framework (ESMF) prepared for the Sustainable, Integrated and Safe Road Infrastructure Project (SISRI).

The ESMP Checklist identifies potential environmental and social impacts associated with the planned rehabilitation works and defines appropriate mitigation and monitoring measures to prevent, minimize, or mitigate adverse impacts during project implementation.

The ESMP Checklist shall form an integral part of the bidding and contract documentation and shall be implemented by the Contractor throughout the construction period. Compliance with the ESMP Checklist will be monitored by the Supervision Engineer, PC Roads, and other competent authorities, as applicable.

The implementation of the measures defined in this ESMP Checklist will ensure that rehabilitation works are carried out in compliance with applicable national legislation, occupational health and safety requirements, and the relevant Environmental and Social Standards (ESSs) of the World Bank. Continuous monitoring and supervision will be undertaken to verify compliance and ensure that any unforeseen impacts are promptly addressed through appropriate corrective actions.

Given the nature, scale, and location of the proposed works, the sub-project is classified as a project with Moderate Environmental Risk and Low Social Risk, for which the ESMP Checklist represents an appropriate environmental and social management instrument.

4. MONITORING AND REPORTING

Environmental and social monitoring during the implementation of the sub-project shall be carried out to ensure compliance with the requirements of this ESMP Checklist, applicable national legislation, and the World Bank Environmental and Social Standards (ESSs).

The Contractor shall be responsible for implementing all environmental, social, occupational health and safety (OHS), and traffic management measures prescribed by this ESMP Checklist. The Contractor shall maintain records related to environmental and social performance, including incidents, accidents, grievances, waste management activities, and implementation of mitigation measures.

A Supervision Engineer will be engaged through a separate procurement procedure and shall be responsible for monitoring the Contractor's compliance with environmental, social, health and safety requirements during the execution of works. Regular site inspections shall be conducted, and any identified non-compliance shall be documented and addressed through corrective actions within agreed timeframes.

PC Roads shall be responsible for overall supervision of environmental and social performance and shall ensure that periodic monitoring reports are prepared and submitted in accordance with project requirements and the Environmental and Social Commitment Plan (ESCP).

Any significant environmental, social, health and safety incident or accident occurring during project implementation shall be reported without delay and managed in accordance with applicable legislation, contractual obligations and World Bank requirements. Reportable incidents and accidents, including those subject to World Bank ESIRT requirements, are presented in Annex 1 of this ESMP Checklist.

PART 1: INSTITUTIONAL / ADMINISTRATIVE

The implementation of the **ESMP Checklist** will be monitored throughout the preparation, construction and operational phases of the sub-project. Monitoring activities will be undertaken to verify compliance with the mitigation measures defined in this ESMP Checklist, applicable national legislation and relevant World Bank requirements.

The **Contractor** shall be responsible for implementing all environmental, social, occupational health and safety (OHS), and traffic management measures prescribed by this ESMP Checklist. The Contractor shall maintain records related to environmental and social performance, including incidents, accidents, grievances, waste management activities, and implementation of mitigation measures.

A **Supervising Engineer** will be engaged through a separate procurement procedure and shall be responsible for monitoring the Contractor's compliance with the environmental, social, health and safety requirements during the execution of works. Regular site inspections shall be conducted, and any identified non-compliance shall be documented and addressed through corrective actions within agreed timeframes.

The **PC Roads** shall be responsible for overall supervision of environmental and social performance and shall ensure that periodic monitoring reports are prepared and submitted in accordance with project requirements and the Environmental and Social Commitment Plan (ESCP).

Any significant environmental, social, health and safety incident or accident occurring during project implementation shall be reported immediately to the Supervising Engineer and the PC

Roads, which shall take appropriate actions and notify the World Bank in accordance with the ESCP requirements.

<table>
<tr><td colspan="5">PART 1: INSTITUTIONAL & ADMINISTRATIVE</td></tr>
<tr><td colspan="5">INSTITUTIONAL & ADMINISTRATIVE</td></tr>
<tr><td>Country</td><td colspan="4">Bosnia and Herzegovina</td></tr>
<tr><td>Project Title</td><td colspan="4">Sustainable, Integrated and Safe Road Infrastructure Project (P502979)</td></tr>
<tr><td>Scope of project and activity</td><td colspan="4">Rehabilitation of the main road MI-108 (M-4), Rebrovac - Kotor Varos</td></tr>
<tr><td>Institutional arrangements (WB)
(Name and contacts)</td><td colspan="2">Task Team Leader:
Svetlana Vukanovic</td><td colspan="2">Environmental and Social Specialist:
Esma Kreso Beslagic
Selma Ljubijankic</td></tr>
<tr><td>Implementation arrangements (Borrower) (Name and contacts):
PC Roads</td><td>Safeguard / Environment Supervision:
PIU Environmental and Social Specialists</td><td>Works supervisor:
Supervision Engineer (to be appointed)</td><td>Inspectorate Supervision:
Relevant Inspectorates of Republika Srpska</td><td>Works Contactor:
Contractor selected through the procurement procedure</td></tr>
<tr><td colspan="5">SITE DESCRIPTION</td></tr>
<tr><td>Name of site</td><td colspan="4">Main road MI-108 (M-4), section Rebrovac - Kotor Varos</td></tr>
<tr><td>Describe site location</td><td colspan="4">The sub-project is located on the main Road MI-108 (M-4) between Rebrovac (Banja Luka) and Kotor Varoš in Republika Srpska, Bosnia and Herzegovina. The road follows the Vrbanja River valley and passes through urban, suburban and rural areas. All rehabilitation works will be carried out within the existing road corridor and right-of-way, without land acquisition or construction of a new alignment.</td></tr>
<tr><td>Who owns the land?</td><td colspan="4">The rehabilitation works will be carried out within the existing road right-of-way of main road MI-108 (M-4), which is public property managed by the Public Company “Republika Srpska Roads”. No land acquisition is required for the implementation of the sub-project.</td></tr>
<tr><td>Valid operating permit, licenses, approvals etc</td><td colspan="4">All permits, approvals and authorizations required under applicable national legislation prior to commencement of works, if applicable.</td></tr>
<tr><td colspan="5">LEGISLATION</td></tr>
<tr><td>Identify national &local legislation & permits that apply to subproject activity(s)</td><td colspan="4">Law on Public Roads of Republika Srpska
Law on Environmental Protection of Republika Srpska
Law on Spatial Planning, Construction and Ecology of Republika Srpska
Law on Waste Management of Republika Srpska
Law on Occupational Safety and Health of Republika Srpska</td></tr>
</table>

PART 1: INSTITUTIONAL & ADMINISTRATIVE	
	Law on Waters of Republika Srpska Law on Nature Protection of Republika Srpska Guidelines for the Design, Construction, Maintenance and Supervision of Road Infrastructure Rulebook on Waste Categories, Testing and Classification of Waste Rulebook on Traffic Signage and Road Safety Equipment; Relevant municipal requirements and approvals, where applicable Relevant bylaws, technical regulations and permits required under national legislation.
PUBLIC CONSULTATION	
Identify when / where the public consultation process took place and what were the remarks from the consulted stakeholders	The draft ESMP Checklist will be publicly disclosed on the PC Roads website in accordance with the Stakeholder Engagement Plan (SEP). Interested stakeholders and members of the public will be provided with an opportunity to review the document and submit comments during the disclosure period. Any comments received will be reviewed and, where appropriate, incorporated into the final ESMP Checklist prior to its adoption and implementation.
INSTITUTIONAL CAPACITY BUILDING	
Will there be any capacity building?	[ ] N or [X] Y Capacity building will be provided to the Contractor, Supervision Engineer and relevant PC Roads staff to ensure proper implementation of the ESMP Checklist requirements.
ATTACHMENTS	
Attachment 1: E&S Screening Questionnaire and Screening Report Attachment 2: Main Design Documentation Attachment 3: Road Safety Audit (RSA) Report Attachment 4: Climate Risk and Vulnerability Assessment (CRVA) Other permits / agreements as required: To be obtained, where applicable, prior to commencement of works in accordance with national legislation.	

PART 2: ENVIRONMENTAL AND SOCIAL SCREENING

The environmental and social screening was carried out to identify potential impacts and risks associated with the proposed rehabilitation works. The screening is conducted in accordance with the World Bank Environmental and Social Framework (ESF) and relevant national legislation. Based on the screening results, appropriate mitigation measures have been defined and are presented in the sections below.

PART 2: ENVIRONMENTAL & SOCIAL SCREENING			
Will the site activity include/involve any of the following potential issues/risks:	**Activity**	**Status**	**Additional References**
	A. General conditions	[X] Yes [ ] No	
	B. General Rehabilitation activities • Site specific vehicular traffic • Increase in dust and noise from rehabilitation activities • Generation of waste • Transport of materials and waste	[X] Yes [ ] No	If "Yes", See Section A, B below
	C. Activities taking place near water bodies such as rivers, lakes, international waters, etc • Increase in sediments loads in water bodies • Changes of water flow from rehabilitation activities • Pollution of water due to temporary waste disposal or spill leakages	[X] Yes [ ] No	If "Yes", See Section A, B, C below
	D. Physical damage of cultural and historical heritage • Risk of damage to known/unknown historical buildings/cultural and historical area • Chance finds are encountered	[ ] Yes [X] No	If "Yes", See Section A, C, D below
	E. Biodiversity, forests and protected areas • Vicinity of recognized protection area or ecological network	[ ] Yes [X] No	If "Yes", See Section A, B, E below

PART 2: ENVIRONMENTAL & SOCIAL SCREENING			
	• Disturbance of protected animal habitats • Cutting of trees/forest		
	F. Traffic disturbance and pedestrian safety • Site specific vehicular traffic site is in a populated area	[X] Yes [ ] No	If "Yes", See Section A, B, F below
	G. Usage of hazardous or toxic materials and generation of hazardous waste • Removal and disposal of toxic and/or hazardous waste during the rehabilitation activities • Storage of machine oils and lubricants	[X] Yes [ ] No	If "Yes", See Section A, B, G below
	H. Land acquisition	[ ] Yes [X] No	If "Yes", See Section H below

ACTIVITY	PARAMETAR	MITIGATION MEASURES CHECKLIST
A. General conditions	1. OHS and community safety	**Community and OH&S measures**: a) The relevant construction and environmental inspectorates and affected local communities shall be informed prior to commencement of rehabilitation works; b) The public shall be informed about the planned works through appropriate public notices, project information boards at the site, the website of PC Roads and other communication channels, where appropriate; c) All legally required permits have been acquired for the project activities; d) Preparation and implementation of the Site Management Plan; e) Appropriate installation of signposting of the project site will inform workers of key rules and regulations to follow; f) Ensure appropriate marking and securing of the construction site and work sections throughout the implementation period; g) Access to residential properties, businesses, agricultural land and community facilities shall be maintained, where feasible, throughout the construction period; h) Placed warning tapes, barriers and signs shall be installed to prevent unauthorized access to the construction site; i) Temporary material storage should be clearly marked; j) Preparation prior to commencement of works and implementation of the Traffic Management Plan; k) All work will be carried out in a safe and disciplined manner designed to minimize impacts on workers, citizens using the road and environment; **Labor procedures** at least includes: • Employment contracts shall be concluded with all personnel engaged on the project, in accordance with applicable labor legislation;

ACTIVITY	PARAMETAR	MITIGATION MEASURES CHECKLIST
		• Hiring only qualified and experienced workers; • Working hours shall be organized in accordance with applicable labor legislation and contractual requirements; • The Contractor shall implement labor management procedures, which shall also be applied by all subcontractors engaged on the project; • Preparation and implementation of a Construction Work Plan and schedule; • Occupational Health and Safety (OHS) risk assessments shall be carried out for all work activities. **OH&S measures for workers**: a) Machinery and equipment shall be operated only by trained and authorized personnel; b) All workers shall be trained and equipped with appropriate personal protective equipment (PPE), including safety helmets, safety footwear, high-visibility clothing, gloves, safety glasses, harnesses and other equipment as required by the nature of the work; c) Appropriate worker and community health and safety measures shall be implemented, including first aid equipment, personal protective equipment, safe machinery and tools, and emergency response arrangements; **Firefighting measures:** d) Constant presence of firefighting devices should be ensured on site in case of fire or other damage. Their position is communicated to workers and marked. The level of fire-fighting equipment must be assessed and evaluated through a typical risk assessment; e) A person should be appointed on the site responsible for the fire protection; f) Emergency and fire response procedures shall be communicated to all workers;

ACTIVITY	PARAMETAR	MITIGATION MEASURES CHECKLIST
		g) The part of the road not affected by rehabilitation works shall be kept clean and safe for road users at all times.
	2. Cultural Heritage preservation	a) In the case of chance finding, the site will be fenced (protected) and competent cultural heritage authority will be informed within 24 hours following the national procedures. Works will recommence upon approval of competent authorities. Their instructions will be followed in the further works; b) Construction workers shall be informed about the Chance Finds Procedure and their obligation to report any potential archaeological or cultural heritage findings.; c) It shall be ensured that provisions are put in place so that artefacts or other possible "chance finds" encountered in excavation or rehabilitation are noted and registered, responsible officials contacted, and works activities delayed or modified to account for such finds.
	3. Prevention of accidental situations	a) Spill response and spill containment kits shall be available on site at all times; b) Fire extinguishers shall be regularly inspected, maintained and kept in operational condition; c) The construction site shall be adequately secured, fenced where necessary, and provided with appropriate signage; d) Traffic around the project site should operate strictly in accordance with the Traffic Management Plan; e) Vehicles and construction machinery shall be regularly maintained, inspected and kept in proper working condition.
B. General Rehabilitation activities	1. Air Quality	a) On dry and windy days the construction site, transportation routes and materials handling sites should be water sprayed if needed; b) Where necessary, vehicles transporting construction materials shall be cleaned in designated areas to prevent the spread of mud, dust and debris onto public roads;

ACTIVITY	PARAMETAR	MITIGATION MEASURES CHECKLIST
		c) To minimize dust the construction materials should be stored in appropriate places and be covered; d) When transporting waste/materials the vehicles must be covered in order to decrease the dust emission; e) Vehicle speed within the construction site and work zones shall be adjusted to site conditions and traffic safety requirements; f) All machinery needs to be equipped with appropriate emission control equipment; g) Vehicles and machinery shall use fuel from authorized suppliers and in accordance with manufacturer specifications; h) Ensure all transportation vehicles and machinery is regularly maintained and attested; i) Construction activities generating dust shall be managed through dust suppression measures, particularly in sections passing through populated areas and near residential properties.
	2. Noise disturbance	a) Noise levels shall not exceed the limit values prescribed by the applicable legislation of Republika Srpska, including the Rulebook on Permissible Limit Values of Noise Intensity ("Official Gazette of Republika Srpska", No. 02/23), and other relevant environmental protection regulations. According to land use and the level of noise protection, the following zones are defined: • **Zone 1** – areas intended for rest, healing and recovery, quiet areas outside settlements, including protected areas (national parks, strict and special nature reserves, nature parks, etc.): L day 50 dB(A), L evening 45 dB(A), L night 40 dB(A), L den 50 dB(A); • **Zone 2** – exclusively residential areas and quiet zones within settlements (preschool and school zones): L day 55 dB(A), L evening 55 dB(A), L night 40 dB(A), L den 56 dB(A); • **Zone 3** – mixed-use areas, predominantly residential areas: L day 55 dB(A), L evening 55 dB(A), L night 45 dB(A), L den 57 dB(A);

ACTIVITY	PARAMETAR	MITIGATION MEASURES CHECKLIST
		• **Zone 4** – mixed-use areas, predominantly commercial and residential-commercial areas, as well as areas along main and regional roads: L day 65 dB(A), L evening 65 dB(A), L night 50 dB(A), L den 66 dB(A); • **Zone 5 –** industrial, service, storage and transport areas, as well as sports, recreational and hospitality-tourism areas: L day 65 dB(A), L evening 65 dB(A), L night 55 dB(A), L den 67 dB(A); • **Zone 6 –** industrial and similar areas, where noise at the boundary of the zone shall not exceed the limit values applicable to the adjacent zone. b) The construction work should be not permitted during the nights, the operations on site shall be restricted to the hours 7.00 -19.00, unless otherwise approved by the competent authority; c) Noise suppression measures must be applied to all construction equipment. During operations the engine covers of generators, air compressors and other powered mechanical equipment should be closed. Should the vehicles or equipment not be in good working order, the Contractor may be instructed to remove the offending vehicle or machinery from the site; d) Mechanical equipment shall be regularly maintained and kept in proper working condition.
	3. Waste management	a) The different waste types that could be generated at the rehabilitation site need to be identified and classified according to the *Rulebook on Waste Categories, Testing and Classification of Waste;* b) Containers for each identified waste category are provided in sufficient quantities and positioned and marked for separate collection; c) Waste shall be segregated in accordance with the Rulebook on Waste Categories, Testing and Classification ("Official Gazette of Republika Srpska", No. 19/15, 79/18), and the Law on Waste Management ("Official Gazette of Republika Srpska", No. 111/13); d) Communal service enterprise for waste collection is the responsible for communal and inert waste collection and transportation within the Municipality. The waste disposal will be

ACTIVITY	PARAMETAR	MITIGATION MEASURES CHECKLIST
		performed in the local landfill. For the expected waste types from cleaning and rehabilitation activities the waste collection and disposal pathways and sites will be identified; e) The construction waste will be separated from the general waste, liquid and chemical waste on site, by sorting in appropriate containers; f) Construction waste shall be removed from the site regularly and reused or recycled where technically and economically feasible; g) The records of waste disposal (waste manifest) will be regularly updated and archived h) Only licensed collectors of waste will collect and dispose of the construction waste; i) All of the records of the disposed waste will be kept as proof for proper management; j) For any hazardous waste that may be generated (e.g. waste oils, fuels, contaminated containers, paint residues and leftover paint from signage works), licensed waste management operators shall be engaged for collection, transport and disposal; k) The materials should be covered during the transportation to avoid waste dispersion; l) Burning of construction waste or storage of waste in natural areas alongside the road shall be prohibited.
	4. Hazardous materials and waste management	a) In the event of hazardous material spill, it needs to be stopped and removed, then the site needs to be cleaned and the procedures and measures for hazardous waste management need to be followed; b) Contractor shall engage a licensed company for collection, transport and disposal of hazardous waste in accordance with national legislation; c) Transportation of hazardous waste shall be performed only by licensed operators and in accordance with applicable legislation governing hazardous waste transport; d) According to the national the hazardous waste needs to be identified and classified; e) Applying appropriate packaging and labelling of the boxes with hazardous waste;

ACTIVITY	PARAMETAR	MITIGATION MEASURES CHECKLIST
		f) The packaging should follow the requirements of national specifically the Rulebook on the Method of Storage, Packaging and Labelling of Hazardous Waste ("Official Gazette of Republika Srpska", No. 49/15): • The label should present the hazardous classification code, attention note "HAZARDOUS WASTE", general data for the waste holder, R-risk phrase, S – safety phrase, quantity of waste, physical conditions of hazardous waste and graphical symbol • The transport of hazardous waste is forbidden if it is not packaged and labelled according the national legislation requirements • In the case of any run-off coming from the works, in order to avoid contamination of the area it needs to be collected on site and placed in a temporary retention basin; g) Install/provide and maintain proper sanitary facilities for workers (mobile toilets). These toilets need to be cleaned and the wastewater needs to be properly transported to be further treated by the company that has a license for maintaining and cleaning of the mobile toilets; h) Waste water collected at the site must not be released to the environment without prior treatment; i) The temporary or final disposal of any waste stream near the water courses is forbidden; j) Servicing of vehicles and machinery is forbidden to be conducted on the construction-site; k) Measures shall be implemented to prevent leakage of oils, fuels and other pollutants to soil and water; l) If necessary, the stream flow is made to bypass the construction area within drainage lines. - No diversion of watercourses is anticipated under the sub-project. If unforeseen circumstances require works in the vicinity of a watercourse, appropriate protection measures shall be implemented to prevent pollution and sediment runoff and any other disturbances of the flow, including seasonal considerations.

ACTIVITY	PARAMETAR	MITIGATION MEASURES CHECKLIST
	5. Nature protection	a) The construction site footprint shall be minimized in order to reduce impacts on surrounding land and vegetation. Removal of vegetation shall be limited to the minimum area necessary for implementation of the works; b) Disturbance of wildlife and collection of plants in the area is prohibited; c) Collection of firewood from and around working areas is prohibited; d) Although no protected areas are located within the project area, rehabilitation activities shall be organized to minimize unnecessary disturbance to local wildlife and vegetation; e) Collection of the generated waste on daily basis, selection of waste, transportation and final disposal on appropriate places; f) Any vegetation unintentionally damaged during construction activities shall be restored, where feasible, using native species; g) Strictly forbidden collection of plants and herbs from the vicinity of the site; h) Upon completion of works, all temporarily occupied areas shall be cleaned and restored to their original condition, where feasible.
	6. Transport and Materials Management	a) Rehabilitation routes are clearly defined; b) Transport of materials and use of access roads shall be coordinated, where necessary, with relevant local authorities and road management authorities, particularly in urban and densely populated sections of the project corridor. Appropriate safety measures shall be implemented to prevent accidents; c) All materials prone to dusting are transported in closed or covered trucks; d) All materials prone to dusting and susceptible to weather conditions are protected from atmospheric impacts either by windshields, covers, watered or other appropriate means; e) Roads are regularly swept and cleaned at critical points. Spilled materials are immediately removed from a road and cleaned. Access roads are well maintained;

ACTIVITY	PARAMETAR	MITIGATION MEASURES CHECKLIST
		f) Spilled materials are immediately removed from roads and work areas and properly cleaned; g) Access of the construction and material delivery vehicles are strictly controlled, especially during the wet weather; h) Topsoil and stockpiles are kept separate; i) Stockpiles are located away from drainage lines, natural waterways and places susceptible to land erosion; j) There will be no unlicensed borrow pits, quarries or waste dumps in adjacent areas, especially not in protected areas. k) All loads of soil are covered when being taken off the site for reuse/disposal; l) Stockpiles shall be properly managed and stabilized to prevent erosion, dust generation and accidental spreading of material; m) Producer of asphalt, gravel, concrete should possess all necessary working and emission permits and quality certifications; n) Producers/suppliers of asphalt, gravel and concrete shall possess all required permits, licenses and approvals in accordance with applicable environmental and occupational health and safety legislation; o) Ensure all transportation vehicles and machinery have been equipped with appropriate emission control equipment, regularly maintained and attested;
C. Activities taking place near water bodies such as rivers, lakes, international waters, etc	Water pollution	a) Good construction practices shall be implemented to prevent pollution of nearby watercourses. Special care shall be taken during rehabilitation works along sections running adjacent to the Vrbanja River and at locations where the road crosses the river through existing bridges, culverts and drainage structures, in order to prevent accidental discharge of pollutants, construction waste, sediments or other materials into water bodies; b) Proper storage, handling and refuelling procedures for fuels, oils and other hazardous materials shall be implemented;

ACTIVITY	PARAMETAR	MITIGATION MEASURES CHECKLIST
		c) Temporary or permanent storage and disposal of construction waste, excavated material, fuels, oils or other substances harmful to water shall be prohibited in or near the Vrbanja River, its tributaries, drainage channels and other water bodies located within the project area; d) Access roads, work areas and storage locations shall be kept clean and tidy to prevent the accumulation of oil, fuel, sediments and other pollutants that could be washed into nearby watercourses during rainfall events; e) Stormwater management and erosion control measures shall be implemented, particularly in sections located adjacent to the Vrbanja River and existing drainage structures, in order to prevent sediment runoff, erosion, flooding and accidental pollution of surface waters.
D. Vicinity of any historical building/s or areas	Historical/cultural buildings/area preservation	a) If there is a building designated as a historic structure in the surrounding or along the rehabilitation route the notification shall be made and approvals / permits should be obtained from local authorities; b) Apply all measures proposed by the competent authorities after the notification; c) Apply the preventive measures to avoid noise disturbance, vibrations, easy access during the ceremonials, etc.; d) Avoid the already known period of a day when the specific ceremony has been performed (e.g. religious holidays).
E. Biodiversity, forests and protected areas	Ecosystem protection	a) All recognized natural habitats and protected areas in the immediate vicinity of the activity will not be damaged or exploited, all staff will be strictly prohibited from hunting, foraging, logging or other damaging activities; b) For large trees in the vicinity of the activity, mark and cordon off with a fence large tress and protect root system and avoid any damage to the trees; c) Adjacent wetlands and streams will be protected, from construction site run-off, with appropriate erosion and sediment control feature to include by not limited to hay bales, silt fences;

ACTIVITY	PARAMETAR	MITIGATION MEASURES CHECKLIST
F. Traffic disturbance and pedestrian safety	Direct or indirect impact to public traffic and pedestrians	The construction site including the regulation of the traffic will be accordingly secured by the Contractor. This includes but is not limited to: a) The Contractor shall prepare the Traffic Management Plan and the design for temporary traffic regulation. The design shall be reviewed by PC Roads and approved by the competent Ministry. Temporary traffic regulation during construction works shall be implemented in accordance with the approved design and applicable regulatory requirements; b) The neighboring communities located along and near the project corridor shall be informed in a timely manner about the planned works, expected traffic disruptions and temporary traffic regulation measures. Local communities will be informed through community notice boards, information boards at the construction site and, where appropriate, through meetings with local communities. Wider road users will be informed through targeted media announcements and information campaigns implemented in cooperation with the police and the Auto Moto Association of Republika Srpska; c) If temporary traffic restrictions are required, they shall be implemented in accordance with the approved Traffic Management Plan and appropriate traffic regulation measures; d) Placing of sign posts, warning signs, barriers and traffic diversions signs (vertical signalization and signs at the beginning of the rehabilitation site): the passing citizens will be warned about the potential hazards; e) Installed boards and signs must not interfere with traffic safety and visibility; f) Adequate warning tapes and signage need to be provided and placed; g) Unauthorized access to the construction site shall be prohibited; h) Traffic management measures and staff training shall be implemented, particularly in urban and populated sections of the project corridor. Safe pedestrian access, crossings and movement shall be maintained wherever construction activities may interfere with normal pedestrian traffic; i) Active traffic management should be conducted by trained and visible staff at the site, if required for safe and convenient passage for the public;

ACTIVITY	PARAMETAR	MITIGATION MEASURES CHECKLIST
		j) Set up a special traffic regime for the vehicles of the contractor during the period of rehabilitation (where required, in coordination with the competent authorities) and installation of signs to ensure safety, traffic flow and access to land and facilities; k) Road users and local communities shall be informed in advance of any temporary traffic regulation measures required during construction works; l) Special attention shall be given to pedestrian safety in populated areas, particularly near schools, public institutions, commercial facilities, bus stops and other locations with increased pedestrian activity (fence off the site, install safe corridors, regulate traffic manually in the peak hours, etc.); m) Ensuring safe and continuous access to office facilities, shops and residences during rehabilitation activities; n) Working hours and construction activities shall be organized, where feasible, to minimize disruption to peak traffic periods and maintain acceptable traffic flow along the project corridor.
G. Usage of hazardous or toxic materials and generation of hazardous waste	Toxic / hazardous materials management and Hazardous waste management	a) Temporary storage of hazardous materials and hazardous waste shall be carried out in designated, secure and properly labelled areas; b) The containers holding ignitable or reactive wastes must be located at least 15 meters (50 feet) from the facility's property line. Large amounts of fuel will not be kept at the site; c) The containers of hazardous substances shall be placed in a leak-proof container to prevent spillage and leaking. This container will possess secondary containment system such as bunds (e.g. banded-container), double walls, or similar. Secondary containment system must be free of cracks, able to contain the spill, and be emptied quickly; d) The containers with hazardous substances must be kept closed, except when adding or removing materials/waste. They must not be handled, opened, or stored in a manner that may cause them to leak; e) Hazardous waste should not be mixed and will be transported and handled only by licensed companies in line with the national regulation;

ACTIVITY	PARAMETAR	MITIGATION MEASURES CHECKLIST
		f) Hazardous waste shall be collected, transported, treated and disposed of by licensed operators in accordance with applicable national legislation; g) Paints with toxic ingredients or solvents or lead-based paints will not be used.
H. Land acquisition	Land acquisition	a) If expropriation of land was not expected but is required, or if loss of access to income of legal or illegal users of land was not expected but may occur, that the Bank's Task Team Leader shall be immediately consulted; if any need for land acquisition arises the Contractor must not enter the private property until a settlement Plan is prepared, approved, disclosed, consulted and implemented

PART 3: MONITORING PLAN

The monitoring plan identifies the parameters to be monitored, monitoring methods, frequency, responsibilities and reporting requirements during implementation of the sub-project. Monitoring will be undertaken to ensure effective implementation of the mitigation measures defined in this ESMP Checklist.

PHASE	WHAT (Is the parameter to be monitored?)	WHERE (Is the parameter to be monitored?)	HOW (Is the parameter to be monitored?)	WHEN (Define the frequency / or continuous?)	WHY (Is the parameter being monitored?)	COST (if not included in project budget)	WHO (Is responsible for monitoring?)
During preparation	Inclusion of ESMP Checklist requirements into bidding and contract documentation	PIU / project documentation	Review of bidding and contract documents	Prior to commencement of works	To ensure environmental and social requirements are incorporated into project implementation	Included in project preparation costs	PIU / PC Roads
During implementation	Implementation of mitigation measures related to air quality, noise, waste management, traffic management, water	Construction site and adjacent areas along the road corridor	Site inspections, visual observations, review of contractor records and supervision reports	Regularly throughout construction works (monthly and as required)	To verify compliance with ESMP Checklist requirements and applicable legislation	Included in Contractor's costs	Contractor, Supervision Engineer, PIU, PC Roads

PHASE	WHAT (Is the parameter to be monitored?)	WHERE (Is the parameter to be monitored?)	HOW (Is the parameter to be monitored?)	WHEN (Define the frequency / or continuous?)	WHY (Is the parameter being monitored?)	COST (if not included in project budget)	WHO (Is responsible for monitoring?)
	protection and OHS						
	Specific environmental measurements and additional monitoring in response to complaints received (e.g. noise, dust, water quality), if any	Construction site and affected areas	Measurements, inspections, review of complaints and corrective actions	As required, following receipt of complaints	To verify and address concerns raised by affected communities and ensure compliance with ESMP requirements	Included in Contractor's costs	Contractor, Supervision Engineer, PIU, PC Roads
During operational period	Condition of drainage structures, road safety equipment and environmental protection measures	Along the rehabilitated road section	Periodic inspections and maintenance records	Periodically during operation and routine maintenance activities	To ensure continued road safety and proper functioning of environmental protection measures	Included in routine maintenance budget	PC Roads

REPORTING

The Contractor shall prepare and submit regular environmental and social monitoring reports to the Supervising Engineer. These reports shall include information on implementation of mitigation measures, incidents, accidents, grievances, waste management activities, and occupational health and safety (OHS) performance.

The Supervising Engineer shall review and verify the reports and submit consolidated progress reports to PC Roads.

PC Roads shall monitor overall environmental and social performance of the sub-project and shall submit periodic environmental and social performance reports to the World Bank, in accordance with project requirements and the Environmental and Social Commitment Plan (ESCP).

Any incidents, accidents, grievances, non-compliances or significant environmental and social issues shall be reported without delay and addressed in accordance with applicable legislation, contractual obligations and World Bank requirements. Monitoring findings and corrective actions shall be documented through regular supervision records and progress reports.

ANNEX 1: REPORTABLE INCIDENTS

The following incident types are to be reported in the course of 24 hours:

- **Fatality:** Death of a person(s) that occurs within one year of an accident/incident, including from occupational disease/illness (e.g., from exposure to chemicals/toxins).
- **Lost Time Injury:** Injury or occupational disease/illness (e.g., from exposure to chemicals/toxins) that results in a worker requiring 3 or more days off work, or an injury or release of substance (e.g., chemicals/toxins) that results in a member of the community needing medical treatment.
- **Acts of Violence/Protest:** Any intentional use of physical force, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, deprivation to workers or project beneficiaries, or negatively affects the safe operation of a project worksite.
- **Disease Outbreaks:** The occurrence of a disease in excess of normal expectancy of number of cases. Disease may be communicable or may be the result of unknown etiology.
- **Disease Outbreak Example: Reporting COVID-19**

  The purpose of reporting incidents on a project through ESIRT is to inform management so they can help determine if the Bank needs to adapt to, manage or correct the situation. COVID19 is a global pandemic, and there is not yet an internationally agreed determination whether, or in what circumstances, it is considered an occupational disease (as discussed in the following resources: WHO and ISSA). This makes it difficult to use occupational disease as a criterion for determining whether to report COVID-19-related incidents through ESIRT. Therefore, the Bank is requiring teams to apply ESIRT for reporting COVID-19-related incidents on projects only under certain circumstances, as follows.

  Teams should request their PIUs to keep the Bank informed of any outbreaks on project offices or worksites, and in particular, when either:

  i. The infection rate in the workforce increases to the point that the client or contractor's ability to implement the project is compromised.

  ii. The client or contractor is unable to ensure that infected workers are receiving proper care.

  iii. The client or contractor is failing to deliver preventative measures adequately.

  An investigation into an outbreak of COVID-19 does not need to be undertaken by the Borrower. But the PIU should keep teams informed of any concerns or problems associated with providing care to infected workers on project sites. For example, if there are shortages of PPE, equipment, medicines, or if health care workers become ill and incapacitated etc.; the information should enable teams to discuss and identify any assistance that they may be able to bring to bear to resolve any problems. In addition, should works need temporarily to be halted (for example due to widespread worker illness) teams should seek reassurance that the worksite has been left in a safe condition, from the supervision agency. These actions would be part of regular implementation support.

  If a fatality occurs, and the information available suggests that the fatality may be a result of the client or contractor failing to deliver preventative measures adequately (i.e., scenario (iii) above), the ESIRT process should be followed, including any appropriate investigation, so that the appropriate follow-up actions of the Bank can be brought to bear

on the project, to help correct the situation. The Bank will track only fatalities reported as part of the ESIRT process.

- **Displacement Without Due Process:** The permanent or temporary displacement against the will of individuals, families, and/or communities from the homes and/or land which they occupy without the provision of, and access to, appropriate forms of legal and other protection and/or in a manner that does not comply with an approved resettlement action plan.
- **Child Labor:** An incident of child labor occurs: (i) when a child under the age of 14 (or a higher age for employment specified by national law) is employed or engaged in connection with a project, and/or (ii) when a child over the minimum age specified in (i) and under the age of 18 is employed or engaged in connection with a project in a manner that is likely to be hazardous or interfere with the child's education or be harmful to the child's health or physical, mental, spiritual, moral or social development.
- **Forced Labor:** An incident of forced labor occurs when any work or service not voluntarily performed is exacted from an individual under threat of force or penalty in connection with a project, including any kind of involuntary or compulsory labor, such as indentured labor, bonded labor, or similar labor-contracting arrangements. This also includes incidents when trafficked persons are employed in connection with a project.
- **Unexpected impacts on heritage resources:** An impact that occurs to a legally protected and/or internationally recognized area of cultural heritage or archaeological value, including world heritage sites or nationally protected areas that were not foreseen or predicted as part of the project design or the environmental or social assessment.
- **Unexpected impacts on biodiversity resources:** An impact that occurs to a legally protected and/or internationally recognized area of high biodiversity value, to a Critical Habitat, or to a Critically Endangered or Endangered species (as listed in IUCN Red List of threatened species or equivalent national approaches) that was not foreseen or predicted as part of the project design or the environmental and social assessment. This includes poaching or trafficking of Critically Endangered or Endangered species.
- **Environmental pollution incident:** Exceedances of emission standards to land, water, or air (e.g., from chemicals/toxins) that have persisted for more than 24hrs or have resulted in harm to the environment.
- **Dam failure:** A sudden, rapid, and uncontrolled release of impounded water or material through overtopping or breakthrough of dam structures.
- **Violence on the basis of SOGI:** The threat or use of physical force that injures or abuses a person, or damages or destroys property, and that is motivated in whole or in part by the victim's real or perceived sexual orientation, gender identity, gender expression, or sex characteristics.
- **Discrimination on the basis of SOGI:** Discrimination means creating a distinction, exclusion, or restriction which has the purpose or effect of impairing or excluding a person based on their real or perceived sexual orientation, gender identity, gender expression, or sex characteristics from being on an equal basis with others.
- **Sexual Exploitation:** Any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another. In Bank financed operations/projects, sexual exploitation occurs when access to or benefit from a Bank financed Goods, Works, Non-consulting Services or Consulting Services is used to extract sexual gain.
- **Sexual Abuse:** Actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions. In Bank financed operations/projects, sexual abuse occurs when a project related worker (contractor staff, subcontractor staff, supervising engineer) uses

force or unequal power vis a vis a community member or colleague to perpetrate or threat to perpetrate an unwanted sexual act.

- **Sexual Harassment:** Any unwelcome sexual advance, request for sexual favor, verbal or physical conduct or gesture of a sexual nature, or any other behavior of a sexual nature that might reasonably be expected or be perceived to cause offence or humiliation to another, when such conduct interferes with work, is made a condition of employment, or creates an intimidating, hostile or offensive work environment. In Bank financed operations/projects, sexual harassment occurs within the context of a subcontractor or contractor and relates to employees of the company experiencing unwelcome sexual advances or requests for sexual favor or acts of a sexual nature that are offensive and humiliating among the same company's employees.
  Task teams also have the discretion to elevate incidents to management, irrespective of whether the type is listed in this annex: task teams should apply the ESIRT process to inform about such incidents they deem worthy of management attention using the 'Other incident type' defined below.
- **Other:** Any other incident or accident that may have a significant adverse effect on the environment, the affected communities, the public, or the workers, irrespective of whether harm had occurred on that occasion. Any repeated non-compliance or recurrent minor incidents which suggest systematic failures that the task team deems needing the attention of Bank management.