



# Preliminary Design for the Rehabilitation of the Railway Corridor VIII Rrogozhina – Pogradec

Specific Contract number: AA-010284-001

## Environmental and Social Management Plan

### ESMP

### July 2024



A project implemented by a  
consortium led by SUEZ Consulting  
(SAFEGE)

## Name of Project:

### **Preliminary Design for the Rehabilitation of the Corridor VIII Rrogozhina - Pogradec Section, Albania**

**AA-010284-001**

## Environmental and Social Management Plan – ESMP

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*The authors take full responsibility for the contents of this report. The opinions expressed do not necessarily reflect the view of the European Investment Bank.*

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## PROJECT DATA SUMMARY

<b>ACTION</b>	Preliminary Design for the Rehabilitation of the Corridor VIII Rrogozhina - Pogradec Section, Albania
<b>REFERENCE NUMBER</b>	AA-010284-001
<b>BENEFICIARY</b>	Ministry of Infrastructure and Energy of Albania
<b>PROMOTER AND END RECIPIENT</b>	Albanian Railways – HSH
<b>COUNTRY</b>	Albania
<b>FINANCIER</b>	European Investment Bank
<b>Budget</b>	EUR 1,680,000
<b>Contract Signature</b>	30/01/2023
<b>Commencement date</b>	10/02/2023
<b>Duration (month)</b>	18
<b>Due date for completion</b>	10/08/2024
<b>Key Experts</b>	KE1 – Team Leader – Aris KARLAFTIS KE2 – Transport infrastructure engineer – Deputy TL – Hector MARTINEZ KE3 – Tunnel engineer – Alejandro Antonio VILLAESCUSA GONZALEZ KE4 – Rail signalling / telecom engineer – José Ignacio VIVAS ORTEGA

## LIST OF ABBREVIATIONS

Al	Albania
ASA	Academy of Albanological Studies
AShA	Archaeological services agency
asl	above the sea level
BAP	Biodiversity Action Plan
CBA	Cost Benefit Analysis
CCC	Communication on Climate Change
CD	Conceptual Design
CTC	Centralized traffic control
DCM/DCM	Decision of Council of Ministers
DD	Detailed Design
DG NEAR	EC DG Neighbourhood Policy and Enlargement Negotiations
EBRD	European Bank for Reconstruction and Development
EIB	European Investment Bank
EQR	Ecological Quality Ratio
ERA	European Railway Agency
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
EU	European Union
EUD	European Union Delegation
FAO	Food and Agriculture Organization
FD	Functional Design Stage of the Preliminary Design
FS	Feasibility study and financial affordability analysis
GDP	General Development Plan
Gg	10 <sup>9</sup> g (unit for measuring the CO <sub>2</sub> eq)
GHG	Green House Gas (Emissions)
GIP	Good International Practice
GLDP	General Local Development Plan
HC	Health Centre
IBA	Important Birds Area

<b>ICH</b>	Intangible cultural heritage
<b>IFI</b>	International Financial Institution
<b>IHM</b>	Institute of Hydrometeorology
<b>INF TSI</b>	Infrastructure TSI
<b>IPA</b>	Important Plant Area
<b>IPCC</b>	Intergovernmental Panel on Climate Change
<b>IPF</b>	Infrastructure Project Facility
<b>IPRO</b>	Immovable Property Registration Office
<b>IUCN</b>	International Union for Nature Conservation
<b>LARF</b>	Land Acquisition and Resettlement Framework
<b>LARP</b>	Land Acquisition and Resettlement Action Plan
<b>LUCF</b>	Land Use Change and Forestry
<b>MKS-64</b>	Mercalli Scale – scale used for seismic intensity
<b>MoEWA</b>	Ministry of Environment, Forestry and Water Administration – Albania (Nowadays Ministry of Tourism and Environment - MoTE)
<b>MoM</b>	Minutes of Meeting
<b>MoTE</b>	Ministry of Tourism and Environment
<b>NAPA</b>	National Agency of Protected Areas (AKZM)
<b>NATD</b>	National Agency of Territory Development
<b>NCCC</b>	National Communication on Climate Change
<b>NEA</b>	National Environmental Agency
<b>NIPAC</b>	National IPA Coordinator
<b>NMVOG</b>	Non-methane volatile organic compound
<b>NTC</b>	National Territorial Council
<b>PA</b>	Protected Area
<b>PD</b>	Preliminary Design
<b>PFS</b>	Pre-feasibility study
<b>PIU</b>	Project Implementation Unit
<b>PTT</b>	Public Transport Terminal
<b>R/E</b>	Roma and Egyptian Community
<b>RAP</b>	Resettlement Action Plan

<b>RAPA</b>	Regional Agency of Protected Area
<b>REA</b>	Regional Environmental Agency
<b>RPF</b>	Resettlement Policy Framework
<b>SEE</b>	South East Europe
<b>SEETO</b>	South East Europe Transport Observatory
<b>SEP</b>	Stakeholder’s Engagement Plan
<b>SoER</b>	State of Environment Report
<b>TA</b>	Technical Assistance
<b>TCH</b>	Traditional cultural heritage
<b>ToR</b>	Terms of Reference
<b>UIC</b>	International Union of Railways
<b>UNECE</b>	United Nations Economic Commission for Europe
<b>UNEP</b>	United Nations Environmental Programme
<b>WB</b>	World Bank
<b>WBIF</b>	Western Balkans Investment Framework
<b>WFD</b>	Water Framework Directive

# 1 Introduction and Context of ESMP

## 1.1 Project Background

According to national, EU, and EIB/EBRD requirements, the Project should be submitted to a comprehensive ESIA process.

The Environmental and Social Management Plan – ESMP (this document), is part of the ESIA study package on the Project.

The Project of Preliminary Design for the Rehabilitation of the Railway Line Rrogozhinë - Pogradec Section, Albania, is an important project that will contribute to the phased rehabilitation and improvement of the railway Corridor VIII in the territory of Albania to enable the provision of transport services and increased safety and speed to EU standards.

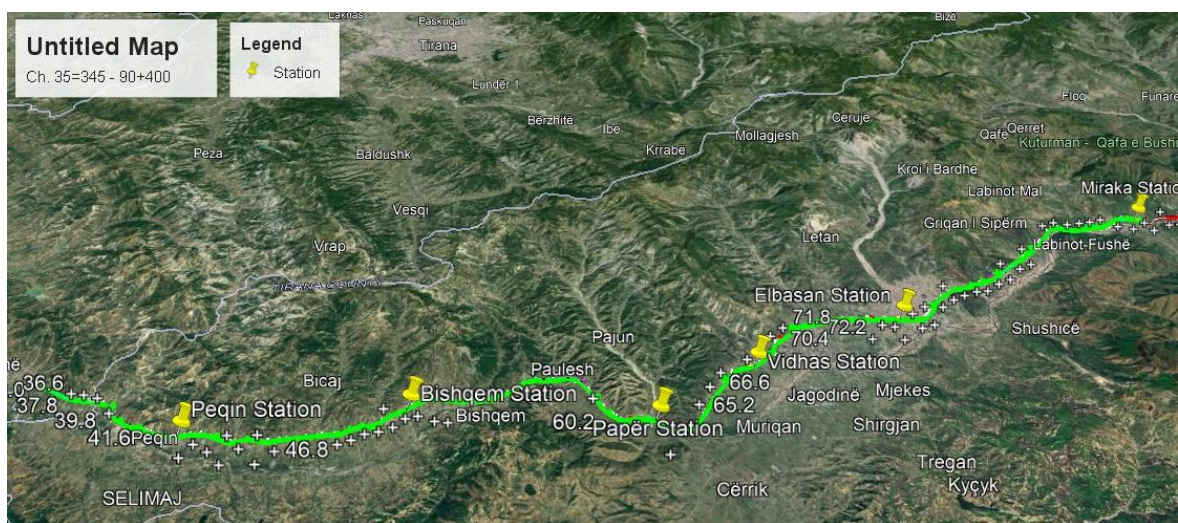
The Project will facilitate trade, regional integration, and sustainable growth and it will have a positive impact on the economy of Albania.

The railway line Rrogozhinë - Pogradec has a total length approximately of 117 km. the Railway has been constructed between the 1950s and the 1970s, according to the following sections:

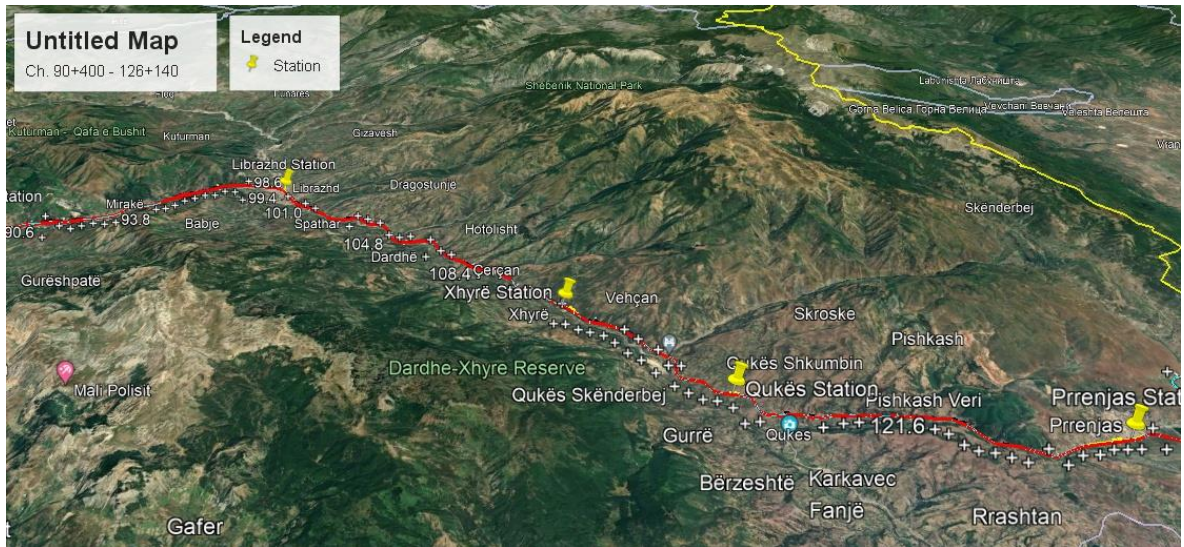
- Section Rrogozhinë - Peqin: constructed in 1947;
- Section Peqin - Elbasan: constructed in 1950;
- Section Elbasan - Librazhd: constructed in 1972;
- Section Librazhd - Prrenjas: constructed in 1974;
- Section Prrenjas - Pogradec: constructed in 1979.

The Albanian railway line is built with a single track with a gauge width of 1435 mm and the substructure bed has a width of 5.5m, narrower than the standard railway substructure bed.

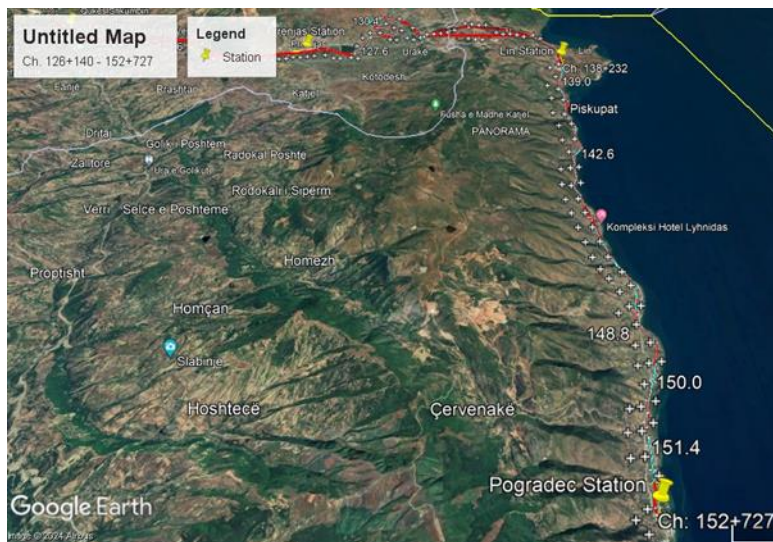
The maps in figure present the alignment of the railway line by sections Rrogozhinë – Mirakë length 55km (flat terrain), Mirakë – Prrenjas length 35.7 km (mountain terrain) and the section Prrenjas– Pogradec length 26.2 km (hilly/mountain terrain and near Ohrid lake).



**Figure 1-1 The map of the first section Rrogozhinë – Mirakë**



**Figure 1-2 Map of the second section Mirakë – Prrrenjas**



**Figure 1-3 Map of the third section Prrrenjas – Pogradec**

The railway line Rogozhinë – Pogradec passes through six municipalities – Rogozhinë, Peqin, Elbasan, Librazhd, Prrrenjas and Pogradec. The railway line passes mainly through urban, suburban, and agricultural areas and E&S sensitive areas. This area has experienced also the migration of population from the mountainous region to flat terrains, which has led to many unauthorized level crossings serving this population. Across the urban areas (i.e., Elbasan, Librazhd, Prrrenjas and Pogradec) many formal and informal buildings have been built at an inappropriate distance from the railroad. Besides, these buildings have damaged the drainage channels on both sides of the railroad.

## 1.2 ESMP requirements

The ESMP is a required assessment tool that guides the environmental and social implementation of any development project providing procedures for environmental and social management. This plan will guide the Project Implementation Unit (PIU) and Ministry of Energy and Infrastructure for this project. It will help these entities in determining the appropriate level of environmental and social management required for the project and it also outlines necessary environmental and social mitigation measures for the project and its proposed components during the development and operational phases of the project.

### 1.3 ESMP Content

Based on the mitigation measures specified by the Environmental and Social Impact Assessment (ESIA) study, the Consultant has developed Environmental and Social Management and Monitoring Plan (ESMMP), which is proposed as a framework document that will form the basis of detailed Environmental Social Management Plan (ESMP) for each phase of the Project. According to the standards of the European Investment Bank (EIB) and the European Bank for Reconstruction and Development (EBRD), an ESMP is a detailed document that outlines how potential environmental and social risks associated with a project will be managed throughout its lifecycle. Environmental and Social Management Plan consists of a set of management criteria and mitigation measures aiming at the successful implementation of a project development. The implementation by third parties requires the ESMP to be sufficiently clear on those criteria.

The task is to describe the avoidance, minimisation, mitigation, compensation and monitoring measures aimed at improving the Project and avoiding and reducing its E&S impacts in a framework Environmental and Social Management Plan (ESMP). The ESMP will ensure that all relevant stages of the Project are structured to meet applicable laws and regulatory requirements and the PRs and should include but not limited to:

- A high-level description of the Environmental and Social Management System including operational policies, management plans, management systems, programmes, procedures, practices and capital investments to be developed and deployed as part of the overall impact mitigation strategy;
- The resources necessary to ensure its effective implementation and define the roles and responsibilities for the actions/mitigation measures contained therein as well as for regular updates of the ESMP;
- Management of supply chains and responsibilities of third parties including Contractor Environmental and Social Management Plans (or site-specific plans) to be developed by the Contractor and approved by the Client;
- Training or capacity-building required to ensure that personnel tasked with implementing the ESMP have the necessary awareness and skills to execute these functions effectively;
- Performance indicators linked to significant environmental and social impacts as well as relevant elements of the EBRD PRs;
- A monitoring plan aimed at tracking actions specified in the ESMP as well as any regulatory monitoring and reporting requirements;
- Emergency procedures and management plans to address fire and explosion safety as well as pollution control and containment for potential incidents (e.g., emergency response plans, fire extinguishing measures, and alarm and communication systems);
- Management plans that will need to be developed (e.g., waste management plan, including hazardous materials, pollution prevention plan, health and safety plans, compliance assurance program etc);
- The level of detail and complexity of the ESMP will be commensurate with the Project's impacts and issues addressing risks, impacts and opportunities specific to the Project. The ESMP will define desired outcomes as measurable events to the extent possible with elements such as targets and performance indicators that can be tracked over defined time periods;
- Key Environmental and Social Management Plans;
- The Consultant will also draft the Land Acquisition and Resettlement Framework for the project and

will identify the future procedures for the implementation of the Land Acquisition and resettlement Plan.

## 2 Environmental and Social Management Plan

### 2.1 Purpose and Objectives

The purpose of this ESMP is to provide a consolidated summary of all the Environmental and Social (E&S) relevant for the construction and operational phase of the Project. The measures focus on environmental (such as air emissions, biodiversity and environmental contamination) and social aspects (such as the protection of human rights, safety of workers and communities).

The monitoring program to which the project operator is committed, will include the parameters, elements and indicators of the environment to be monitored, the methods and the frequency of recording.

The purpose of environmental monitoring of the project is to provide data to evaluate whether the development of the activity is in line with applicable laws and environmental standards, to evaluate the degree of impact (if any), and to evaluate its environmental management performance in the context of continuous improvement.

This ESMP is a “living document” that needs to be updated by the implementation Consultant, once final detail design is in place and according to the Standard Bidding Documents. The Contractor shall make it site-specific, to make the measures bespoke to the prevailing conditions as monitored during both construction and operations periods.

In the impact assessment session of the ESIA document are identified the project risks and proposed measures to mitigate them in the field of the environment, construction and operation staff and the local population. While the main objective of the Environmental and Social Management Plan (ESMP) is to provide a framework for the implementation of the measures identified in the impact assessment session of ESIA.

The ESMP purpose is to ensure:

- The adaptation of the good industry practices with regards to environmental and socioeconomic management during all phases of the Project (construction, operation and maintenance, and decommissioning) and all engineering activities;
- Defining the strategies, methods and control approaches to ensure implementation of measures to effectively mitigate potentially adverse environmental or socioeconomic impacts;
- Provide a framework for compliance monitoring (auditing and inspection) intending the assurance of the environmental and socioeconomic performance commitments for the Project are being met.
- The ESMP is composed of an Environmental and Social Management Plan and of an Environmental and Social Monitoring Plan.
- Defining the roles and responsibilities of the project proponent for the implementation of EMP and identifying areas where these roles and responsibilities can be shared with other parties involved in the execution and monitoring of the project;
- Developing a monitoring mechanism and identifying requisite monitoring parameters to confirm effectiveness of the mitigation measures recommended in the study;

The ESMP aims to ensure the following issue:

- Delivery of the prescribed environmental outcomes during all phases of the Project;
- Ensure that the construction work procedures minimize potential impacts on the environment

and community.

- Develop, implement and monitor measures that minimize pollution and optimize resource use.

No changes should be permitted with conflict with Albanian law or EIB/EBRD environmental and social requirements

## 2.2 Roles and responsibilities

This section provides the directions for the roles and responsibilities from the pre-construction, construction and decommissioning phases.

### 2.2.1 Project developer and other responsible bodies

The Project Implementation Unit (PIU) in the Ministry of Energy and Infrastructure (MEI), oversees the ESMP as part of their monitoring of the Project.

HSH is responsible for the implementation of the ESMP, which preparation aims at ensuring effective implementation of the mitigation strategies and measures, stakeholder engagement, and other environmental and social requirements. This implementation must comply with the relevant national, EIB, EU, EBRD and other international standards required. The contractors' activities will be monitored and audited in accordance with the Monitoring Program, which includes all phases of the Project's development. The monitoring results will be available for inspection by the representatives of the Contractors and Albanian Authorities.

HSH should engage a specialized staff to undertake the necessary steps to control the implementation of the appropriate mitigation measures, strategies, and decisions, as defined in the construction works contract and related permits. This control also includes the coordination with other state institutions, such as the Regional Directorate for Environment Protection, the NEA, RAPAs and the NAPA and the MoTE, the ASA within the Ministry of Culture, REAs and local governments of the municipalities affected by the project activities, etc.

HSH must develop the necessary mechanism for dealing with all the possible environmental and social issues during all phases of the project development. As a project developer, MIE also should serve as contact point for consultation and feedback with the all the affected actors, including the landowners and the public.

### 2.2.2 The contractor

The contractor represents the construction/operation/decommissioning company. It will prepare a detailed plan regarding the mitigation strategies and measures associated to all the detailed project's activities, from preconstruction to construction to operation and further on to the decommissioning and rehabilitation works, including the land ownership aspects, the temporary damages to the private, municipal or state propriety, as well as the public information and consultation issues. The contractor will provide the due plans and procedures to MIE for approval prior to the construction stage.

These plans and procedures must be developed in compliance with the following key aspects:

- Relevant legislation, procedures, and standards;
- Environmental and socioeconomic controls and mitigation strategies and measures outlined in the ESMP; and
- The codes of conduct required by the project developer (MIE).

The Contractor must fulfil a set of responsibilities, including:

- Undertaking regular environmental and socioeconomic inspections and reporting directly to the Project developer (HSH);
- Demonstrating how ESMP requirements will be ensured during Project development;
- Demonstrating commitment to ESMP at all levels in the Contractors' management structure including subcontractors; and
- Preparation of a Contractor's ESMP on the duties and procedures to be followed.

The ESMP on the contractor's responsibilities and procedures should mainly include:

- Environmental procedures;
- Organization and responsible person for each environmental and management issue, including EHS manager, EHS supervisor(s), CHS and OHS officer, etc., as well as their related tasks and responsibilities;
- Site Inspection and Health & Safety issues;
- Workers' Rights and work conditions;
- Audit procedures; and
- Reporting procedures.

The responsibilities related to the decommissioning stage are similar to the preconstruction and construction ones.

HSH and the construction company/ies will be responsible for the ESMP during the pre-construction and construction stages.

The operation and maintenance of the railway will be under the responsibility of the Albanian Railways – owner and operator. The Law dated 09.12.2019 plans to reorganize the Albanian Railways, into four Business Administrative Units that have the following responsibilities:

- Infrastructure;
- Passengers' transport;
- Freight's transport; and
- Maintenance of rolling stock.

The company in charge of the infrastructure will be responsible for the maintenance of the railway line, including the track (ballast, rails, slippers, fastenings, drainage system, bridges, signalling and telecommunications, fencing, etc.). While the company responsible for the rolling stock will deal with the maintenance of locomotives and wagons.

Other directories involved in the implementation of ESMP within the HSH are the Management Unit of the Project Implementation, as well as the respective Managers of Environment and Social issues, the Health and Safety, the Human Resource, the Procurement, the Coordinator for the Right of Information, the Public/Media Relations. In Tables 3-1, 3-2 and 3-3 in this document, their responsibilities are under the HSH.

### **2.2.3 Review and amendments**

The Project Implementation Unit (PIU) in the Ministry of Energy and Infrastructure will regularly review the ESMP to reflect any changes in the project implementation and organisation. Upon any amendment, the amended plan will be communicated to all relevant parties and stakeholders.

## 2.3 Outline of the Environmental and Social Management Plan

The Environmental and Social Management Plan consists of a set of management criteria and mitigation measures that should assure the successful implementation of the project development. They also include the institutional measures to be taken during project implementation, in order to eliminate adverse environmental and social impacts, offset them, or reduce them to acceptable levels.

The ESMP should ensure the implementation of all relevant project stages in compliance with the applicable Albanian environmental and social regulations, and EIB/ EBRDs and/or other IFI's Environmental and Social requirements, as well as in accordance with the findings of the stakeholder consultations.

The Mitigation and Management of Impacts and Issues, includes mainly the following:

- Predicting the sources of the likely environmental and social impacts;
- Description of the likely impacts associated to each of the project's stages (design, preconstruction and construction, operation, and decommissioning, closure and reinstatement);
- Evaluation of the probability, significance, and extent of the likely impacts;
- Suggestion of the related mitigation strategies and measures;
- Define the Responsibilities during all the stages of the project's development;
- Institutional arrangement; and
- Taking in consideration the possibility to enhance the environmental and social aspects within the project area.

The proposed mitigation measures must be incorporated in the environmental and social action plan (ESAP), which will be part of the ESIA study package during detail design phase.

The mitigation strategies and measures consist mainly of the following:

- Applying firstly the principle of avoidance;
- Minimise/Reduce the likely unavoidable adverse impacts in maximum during the routing selection process, and then later during design stage; and
- Compensate /Offset negative impacts of the risk by defining the mitigation strategies and actions in compliance with the national and international legislation and standards;

Where impacts cannot be avoided, they should be reduced to the minimum necessary for safe implementation of the project. Where significant effects cannot be avoided, consideration has been given to mitigation measures that seek to offset impacts through compensation. Any opportunities to enhance the positive effects will also be considered and identified.

### 2.3.1 Suggested mitigation strategies and measures

In the Table 3-1, at this document hereinafter show the suggested mitigation measures to be applied during the project's development stages.

## 2.4 Topic - specific management plans

The preparation of an Environmental and Social Management Plan is based on a number of topic-specific management plans. Each of them is developed to address in detail key issues of potential environmental

and socioeconomic impacts and risks.

These plans are considered as “live” documents, because they must be regularly updated as the quality and quantity of the information on the project area increases, and the assessment and the project’s development progress especially during detail design phase of the project where the data related to the technical project and environmental and social issue will be more detailed and updated.

Additional plans or sub-plans may be introduced to deal with the assessment of any newly receptor or identified effect during the project’s activities.

Hereinafter follows a list of specific management plans foreseen for the proposed project, as well as an outline of each of them. The list is based on the findings of the ESIA Report for Preliminary design phase and the EBRD Environmental and Social Policy<sup>1</sup>.

**Table 2-1 List of topic-specific sub-plans proposed by the Consultant**

No	Topic-specific sub-plan
1	Community Engagement Plan
2	Resettlement Action Plan/ Livelihood Restoration Action Plan RAP/LARP
3	Environmental Management Plan (EMP)
4	Biodiversity Action Plan
5	Social Management Plan (SMP)
6	Construction and Demolition Material Management Plan
7	Waste and Pollution Prevention Management Plan
8	Emergency Response Plan
9	Supply Chain Management Plan
10	Security Management Plan
11	Health and Safety Management Plan

Below follows an indicative description of each of the sub-plans included in the table above.

#### 2.4.1 Community Engagement Plan

Details strategies and mechanisms for engaging with affected communities and stakeholders. Facilitates communication, consultation, and participation in decision-making processes. Aims to build trust, address concerns, and maximize social benefits from the project.

ToR endorsed by EIB requires the preparation of the Stakeholders Engagement Plan, as a stand-alone document. SEP reflects the communication and consultation approach with the identified stakeholders throughout the whole project development stages. Albanian regulations require public consultation to be documented, but these requirements are less stringent than the EIB/EBRD ones. Thus, the SEP is prepared following the EIB/EBRD requirements.

EBRD PR 10 “Information Disclosure and Stakeholders Engagement” provides for the characteristics and objectives of an appropriate SEP. According to this PR, the Stakeholder engagement involves the following elements:

- stakeholder identification and analysis;
- stakeholder engagement planning;

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<sup>1</sup> <https://www.ebrd.com/news/publications/policies/environmental-and-social-policy-esp.html>

- disclosure of information;
- meaningful consultation, implementation of a grievance mechanism; and
- on-going reporting to relevant stakeholders.

The grievance mechanism is based on the EBRD Guidance note on “Grievance Management<sup>2</sup>”.

The Stakeholders Engagement Plan is developed as a separate report that is part of the ESIA report package. The SEP will be improved during the ESIA disclosure and information, once the ESIA report will be sent to the Ministry of Environment for obtaining the environmental permit.

#### **2.4.2 Resettlement Action Plan (RAP)/ Land Acquisition and Resettlement Action Plan (LARP)**

The Resettlement Policy Framework (RPF) – EIB/ Land Acquisition Resettlement Framework (LARF) – EBRD, is prepared to serve as additional guidance to bridge any gaps between the national legislation and the EIB/EBRD requirements related to land acquisition and livelihood restoration. This is one of the key safeguards’ documents of this project. RPF/LARF serve as a basis for the development of a detailed, RAP/LARP, which is developed once the exact nature and magnitude of the land acquisition or restrictions on land use related to the Project is known. The RP provides more details on the Project Affected People (PAP), the eligibility criteria and the procedures to be applied for the Project in line with the LARF and in compliance with the national laws (wherever applicable) and EIB Standard 6/EBRD PR5.

The purpose of the RP is to address the potential economic displacement (loss of assets or access to assets, leading to loss of income or means of livelihood) and physical displacement (relocation or loss of shelter) of stakeholders from Project land and easement acquisition. It establishes the entitlements of affected persons or communities and ensures that compensation is provided in a transparent, consistent, and equitable manner in line with the EIB/EBRD requirements.

The key objectives of the RP include:

- Provide compensation for loss of assets at replacement cost;
- Ensure that resettlement activities are implemented with appropriate disclosure of information, consultation, and the informed participation of the affected communities;
- Improve or, at a minimum, restore the livelihoods and standards of living of displaced persons to pre-project levels, to facilitate sustainable improvements to socioeconomic status; and
- Pay particular attention to the needs of vulnerable groups.

An approach to RP, include:

- Comprehensive description of the project including the land/easement to be acquired;
- Legal framework and legal procedures of private land/easement acquisitions;
- Measures to avoid and minimize physical and economic displacements;
- Comprehensive assessment of the impacts of the economic displacement;
- Entitlement matrix that identifies the type of impact from land and easement acquisition and provides detailed guidance on stakeholder’s compensation;

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<sup>2</sup> <https://www.ebrd.com/downloads/about/sustainability/grievance-mechanism.pdf>

- Detailed cost estimate for identified items based on the principle of replacement cost;
- Organizational responsibilities for the expropriation process;
- Stakeholder Engagement Plan, which outlines the principle of consultations during the expropriation process.
- RP Disclosure, which outlines procedures and timeline to disclose draft and final plan as well as monitoring reports at local level;
- Grievance Mechanism for addressing complaints, including the judicial recourse;
- Evaluation of the quality, outcomes and stakeholders' satisfaction;
- Monitoring the participatory performance to ensure on the objective information

### **2.4.3 Environmental Management Plan (EMP):**

Details measures to prevent, minimize, mitigate, or offset adverse environmental impacts of the project.

Specifies actions related to air quality, water quality, noise, waste management, land use, and biodiversity conservation.

Includes monitoring and reporting requirements to track environmental performance and compliance with regulatory standards.

#### **2.4.3.1 Air**

Include the baseline assessment of air quality in the project area. Identify potential sources of air pollution associated with project activities.

Specify measures to prevent or minimize emissions of pollutants into the air. Include technology choices, operational practices, and emission control strategies. Ensure compliance with local air quality regulations and international standards (e.g., World Bank Environmental, Health, and Safety Guidelines).

Establish a monitoring program to measure air quality parameters at key locations. Define thresholds and triggers for action in case of exceedances. Outline reporting requirements to regulatory authorities and stakeholders.

Develop procedures to respond to unexpected air quality incidents or emergencies. Ensure availability of resources and personnel for rapid response and mitigation.

Provide training to project personnel on air quality management practices. Build capacity to operate and maintain air pollution control equipment effectively.

#### **2.4.3.2 Noise**

Conduct baseline noise assessments to determine existing noise levels in the project area. Identify sources of noise emissions from project activities, including construction and operation phases.

Specify measures to minimize noise impacts on surrounding communities and sensitive receptors. Include noise control measures during construction, such as barriers, damping materials, and scheduling of noisy activities during less sensitive hours. Implement operational controls during project operation to reduce noise emissions.

Establish a noise monitoring program to measure noise levels at relevant locations. Define noise limits and criteria for compliance. Provide regular reports on noise levels and compliance status to regulatory authorities and affected stakeholders.

Communicate noise management measures and potential impacts to local communities. Address

community concerns and feedback related to noise during project planning and implementation.

Conduct periodic audits to assess the effectiveness of noise mitigation measures. Ensure ongoing compliance with noise regulations and standards throughout the project lifecycle.

### 2.4.3.3 Erosion and Sedimentation Control

There are around 77 intersections where railway crosses streams with a catchment area greater than 1 km<sup>2</sup>. These streams due to their mountainous nature during the rainfall storms bring very rapidly the flows causing like this the flash flood which can be dangerous to hydraulic structures. These streams bring alluvions also they cause erosion.

With regard to erosion, the most sensitive sections are the crossings of the watercourses, works near the bridges, box culvert as Km 88+635; Km 94+097 there is a risk of erosion from Shkumbini River; KM 108+113 etc;

So especially during detail design phase of the project it shall be on identifying the most sensitive area impacted by erosion and taken measures to improve drainage channels on both sides of the railway line to avoid the sediments' transport towards surface water (Shkumbini River).

The Erosion and Sedimentation Control Plan (ESCP) is a guidance manual for minimizing the erosion of soils and transportation of sediments during the project's activities. It aims to apply standards for the protection of environmentally sensitive areas.

The Plan shall provide general information on construction processes and describes specific measures to be taken during and following construction to minimize impacts on the environment on the project sites.

The Plan intends to preserve the integrity of the environmentally sensitive areas by implementing the following objectives:

- Minimize the extent and duration of disturbance;
- Protect exposed soil by diverting runoff to stabilized areas;
- Properly address the sediments management;
- Install temporary and permanent erosion control measures; and
- Establish an effective inspection and maintenance program.

### 2.4.3.4 Topsoil

As almost the footprint of the proposed project is on the existing railway line footprint, top soil generation is expected to be mostly on the deviation footprint from the existing line.

**Table 2-2: Main Railway Lines Alignment segments, deviating from the existing railway**

Fom Ch	To Ch	Relative Impact	Deviation aver. dist.	Corridor width	Area Estimate (in ares or 100m <sup>2</sup> )
39+000	39+600	Minor	~ 8.5 m		27
44+200	45+700	Minor	~ 9.0 m		72
58+700	59+500	Minor	~ 2.0 m		9
60+500	61+000	Major	~ 20.0 m		53
62+650	63+400	Major	~ 100.0 m	~ 28.0 m	185

Fom Ch	To Ch	Relative Impact	Deviation aver. dist.	Corridor width	Area Estimate (in ares or 100m2)
<b>66+900</b>	67+150	Minor	~ 5.0 m		7
69+100	69+550	Minor	~ 7.8 m		19
77+600	77+800	Minor	~ 4.5 m		5
78+500	78+850	Major	~ 24.0 m		45
<b>85+500</b>	<b>86+350</b>	<b>Major</b>	~ 17.0 m		77
<b>86+400</b>	<b>87+000</b>	Major	~ 30.0 m	~ 27.0 m	95
<b>89+150</b>	<b>89+500</b>	Minor	~ 7.0 m		13
<b>132+800</b>	<b>133+050</b>	Minor	~ 1.0 m		2

The sum of the areas of the above main segments of deviation makes the rough estimate around S= 610 Ares (61000 sq.m. or 6.1 ha),

Mostly of the deviation footprints presented in the table above represent cultivated or natural vegetated land (Rrogozhine Peqin , Paper,Vidhas,Mirake, Km 132 before the tunnel of Qafe Thanës ).

Other land occupied for road access, new service roads, connectivity roads is mostly urban area.

The top soil removed shall be stored and reused for rehabilitation purpose within the project or for rehabilitation of the area close to the project as per the agreement between the Contractor and the local governments.

The Topsoil Management Plan (TMP) is a guidance manual for minimizing the loss of productive soil, damages to the soil structure, or pollution of the productive soil.

The Plan provides for general information on construction processes and a map of the soil quality within the Project's fingerprint. It will provide specific measures to be taken before the construction process to minimize impacts to the top soil.

The Plan should include:

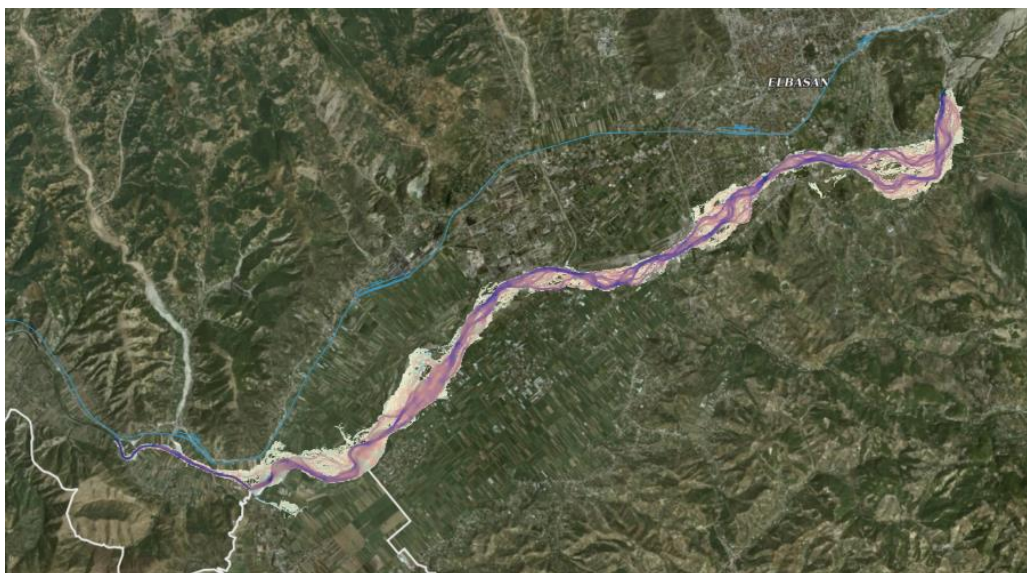
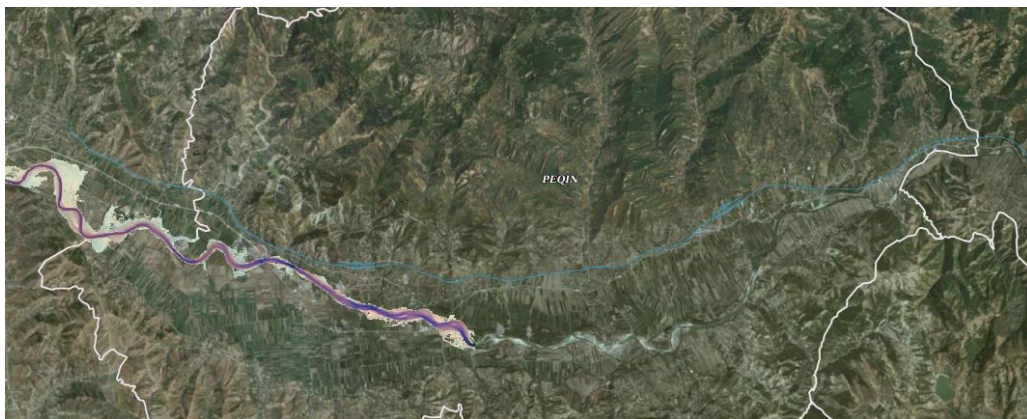
- Maps showing topsoil and subsoil types and areas to be stripped;
- Maps of areas of soil that need to be protected from construction activities;
- Access roads;
- Methods for stripping, stockpiling and improving the soils;
- Location and content and volume of each soil stockpile;
- Consultation with the local governments and other related institutions on the reuse of the soil stockpiles;
- The responsible persons/institutions for supervising soil management;

#### 2.4.3.5 Water Management

The construction activities to be executed consist of the main following activities that potentially may impact the water bodies :

- Earthworks in water where necessary, requiring use of heavy machinery
- temporary watercourse deviations
- Rehabilitation works on existing structures piling, requiring use of heavy machinery,
- Concrete works,
- Demobilisation including the removal of all equipment and reinstatement of areas
- Affected to their original condition.

Based on the information provided during the Field Survey, existing relevant studies /documents, the Project area is not vulnerable to negative impacts from flooding. Storm water surface run off is directed away from the railway line, which therefore does not require any specific means of flood protection. Following picture showing the map of flooding risk to the project area .As it is seen the footprint of the railway is distanced from the risk area.





**Figure 2-1: Flooding risk map referring to the project area**

Meanwhile, construction activities requires using of the water bodies in a considerable quantity.

The preparation of the Water Management Plan (Water MP) aims at the following:

The purpose of this plan is to identify controls and mitigation measures related to the management of water in order to ensure that environmental and social/community impacts are minimised during construction and operation activities. The Water MP contains measures aimed to achieve the following objectives:

- Minimise water use;
- Evaluate potential water sources;
- Document water sources and extraction locations;
- Monitor water use;
- Discharge water in an environmentally responsible manner;
- Identify requirements for communications with water authorities;
- Providing approval from Institutions for using the water bodies. Identification of the national and local authorities and other relevant stakeholders and of the appropriate procedures to communicate with them. Water sources to be used will be agreed previously with the relevant local authorities;
- Identify activities, which require water consumption and evaluate the amount of water used by the project activities;
- Reporting procedure for registering volumes of water used;
- Provide appropriate measures to be considered for minimizing the use of water;
- Record all communications with Water Authorities;
- Management of the interruptions of irrigation systems;
- Provide for the procedures regarding internal and external communications during an Emergency Response;
- Provide for the training of employee, in order to minimize the use of water and to respond in the case of accidental water pollution.

➤ **Water Use Minimisation**

**Table 2-3: Water activities and minimisation**

Activity	Minimisation techniques
Dust suppression	<ul style="list-style-type: none"> <li>The volume of water used for dust suppression will be altered, as appropriate, for different applications and weather conditions</li> </ul>
Plant and equipment washing	<ul style="list-style-type: none"> <li>Trigger operated spray guns</li> </ul>
Piling – for bridge construction	<ul style="list-style-type: none"> <li>Hose lines to be inspected for leakage and repaired/replaced as required</li> <li>Water tight circulation tanks to be used</li> <li>Consumption will be monitored and action taken if too high</li> </ul>
Construction activity	<ul style="list-style-type: none"> <li>Trigger operated spray guns</li> <li>Water bowsers</li> </ul>
Concrete curing	<ul style="list-style-type: none"> <li>Damp sheets will be used instead of spray cooling</li> </ul>
Concrete washout	<ul style="list-style-type: none"> <li>Wastewater will be collected and, following filtering, reused as an ingredient in concrete production</li> <li>Concrete “socks” will be used to cover concrete chutes on wagons, where available</li> </ul> <p>Only designated areas for concrete washout will be used and concrete delivery drivers will all be made aware of where they are when entering the site</p>
Laying of temporary water supplies	<ul style="list-style-type: none"> <li>Checks for leaks will be undertaken regularly and repaired/replaced as required.</li> <li>Supplies will be isolated when not in use.</li> </ul>

### ➤ **Water Use Monitoring**

#### Water Discharge

##### Discharging to surface water

When discharging waters from dewatering activities back into streams or rivers, the discharge will occur in a way that will minimise physical impacts to channel morphology (i.e. at a rate as low as practical that does not cause turbulence)

- Used water/effluents will not be discharged into standing water (ponds, lakes etc.)
- Waste water will only be discharged to surface water that has enough flow at all times to dilute the water properly (a minimum of ten times dilution)

### ➤ **Communications with Water Authorities**

Before using water sources, the Contractor shall communicate with authorities to obtain relevant permit as per the framework requests as following:

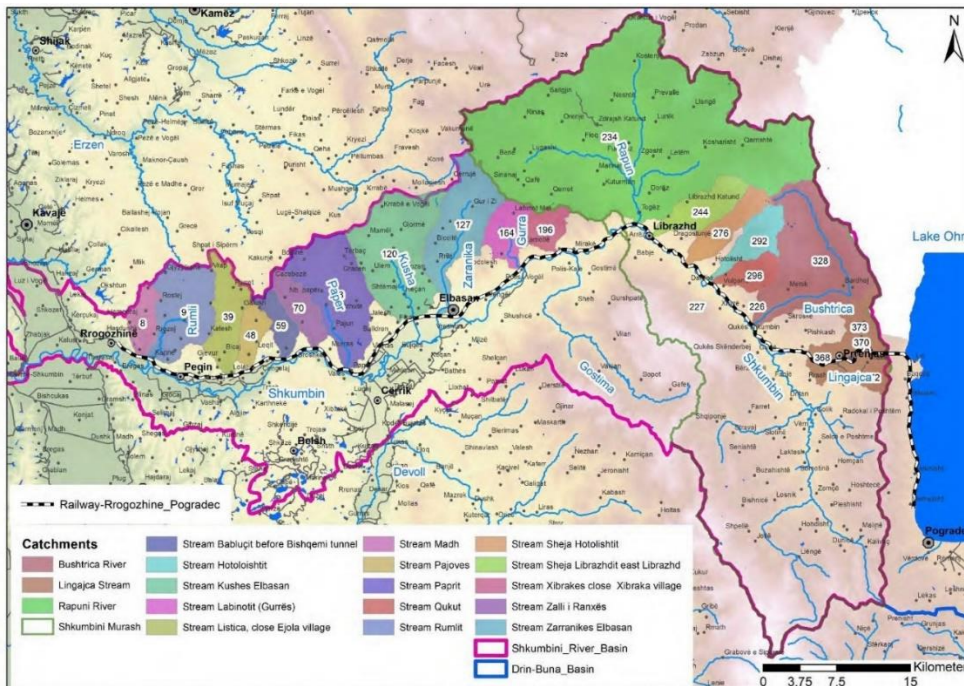
- Law No. 111/2012 amended by Law 6/2018 "On some amendments and additions on the integrated management of water resources";
- DCM No. 550 dated 15.05.2020 "For the approval in principle for granting of a concession for the use of the water source, the permit/authorization for the use of the water source"
- DCM No. 177, dated 31.3.2005 "On the allowed rates of liquid discharges and zoning criteria of receiving water environments";

#### **2.4.3.6 Watercourses Crossing**

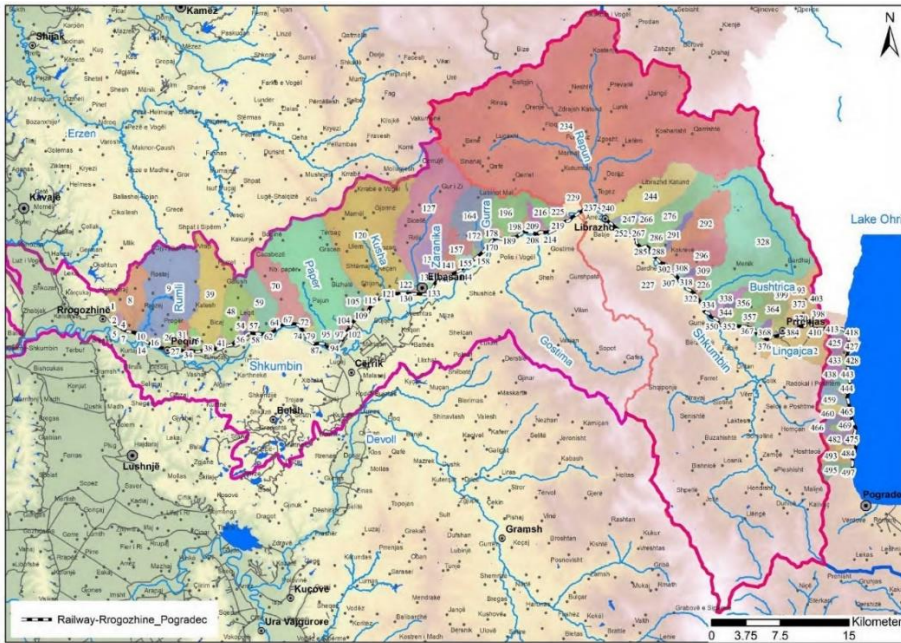
There are about 23 locations where railway crosses River or Streams with catchment area greater than 15 km<sup>2</sup>.

**Table 2-4: locations where railway crosses River or Streams**

No	Watershed Code	Stream Name	Area km <sup>2</sup>
1	8	Stream Madh	17.5
2	9	Stream Rumlit	53.2
3	39	Stream Listica, close Ejola village	34.4
4	48	Stream Pajoves	21.8
5	59	Stream Babluçit before Bishqemi tunnel	15.0
6	70	Stream Zalli i Ranxës	20.7
7	88	Stream Paprit	70.2
8	120	Stream Kushes Elbasan	82.7
9	127	Stream Zarranikes Elbasan	63.4
10	164	Stream Labinotit (Gurrës)	23.2
11	196	Stream Xibrakes close Xibraka village	16.0
12	226/227	Shkumbini Murash	1284
13	234	Rapuni River	431.0
14	244	Stream Sheja Librazhdit east Librazhd	27.0
15	276	Stream Sheja Hotolishtit	24.0
16	292	Stream Hotoloishtit	22.2
17	296	Stream Qukut	16.9
18	328	Bushtrica River	101.0
19	368/370/372/373	Lingajca Stream	49.0



**Figure 2-2: Main Subcatchments**



**Figure 2-3: River and Streams Catchments**

With respect to the Railway Line Project’s design, the watercourses crossing include:

- The construction and/or rehabilitation of bridges and culverts
- The construction and/or rehabilitation of protection works against erosion.

The Watercourse Crossing Plan (WCP) will describe the approaches and techniques planned to execute the watercourse crossings, predict environmental impacts, and outline the monitoring issues.

A Typical Watercourse Crossing Plan includes the following components:

Objectives and Approach:

- Identification of the key environmental and ecological receptors affected by the watercourse’s crossings;
- Provide a brief overview of the crossing approach and techniques; and
- Analyse the potential impact on these key receptors, and describe the proposed mitigation and reinstatement measures.
- The crossing approach and techniques and the impacts and mitigation should be based on site-specific data and information for each crossing. The monitoring approach will be based on the site-specific features, too.

Works’ description and schedule of project’s activities:

- Outline the watercourse crossing activities, and the foreseen schedule.

#### **2.4.4 Biodiversity Action Plan**

Several types of habitats have been registered along the railway including:

- Planted pine tree forests;
- Mediterranean Maquis (different type of shrubs);
- Riparian woodland along Shkumbini river;
- Chasmophytic vegetation in rock fissures and cracks;

- Oak woodland;
- Reedbeds;
- Plants in domestic gardens of villages and urban peripheries; and
- Plants in cities, towns and villages.

Besides the native plant species, the railway is inhabited by some invasive alien plant species that occur in different segments of the railway.

A range of fauna species, terrestrial, aquatic and semi-terrestrial are connected to the habitats along the railway in terms of shelter, foraging, reproduction etc. Some species are permanent to the above habitats while others are migratory and use the area either for wintering, breeding or as a passage area towards their wintering or breeding grounds.

The railway crosses through two areas of conservation concern:

- The Nature Managed Reserve of Kukurman-Qafe Bush which is also a Candidate Emerald Site RNM Kukurman-Qafe Bush (AL0000018)<sup>3</sup>;
- The Landscape Protected Area of Pogradeci Lake, the Candidate Emerald Site of Pogradec Protected Landscape (AL0000019)<sup>4</sup> in Map 2, Important Bird and Biodiversity Area (IBA) Lake Ohrid and the surrounding area (AL002)<sup>5</sup>, UNESCO Transboundary World Natural and Cultural Heritage Site (in 2019) and Transboundary Biosphere Reserve Ohrid-Prespa (designated in 2014).

Besides the above:

- Lake Ohrid is a freshwater ecosystem of high priority for conservation on the basis of high level of endemism for several aquatic species. Lake Ohrid could be considered as a Unique Ecosystem. Lake Ohrid supports migratory or congregatory species during periods of environmental stress. The ecosystem services of Lake Ohrid are crucial for the local communities' livelihood. Finally, Lake Ohrid is a landscape with high spatial heterogeneity and therefore high levels of species diversity. Based on the above qualities Lake Ohrid meets the Criteria 1, 4, 5 and 6 for Critical Habitat
- Overall, 43 species of conservation concern meet the criteria for Critical Habitat. The five habitats assessed as Critical are: (a) Shkumbin river mostly for restricted range fish species, (b) Ohrid lake for restricted range aquatic species, (c) caves in the surroundings and railway tunnels for bats, (d) surrounding forest and shrubland for reptiles and (e) serpentine habitats for plants of restricted range.

The Biodiversity Action Plan (BAP) aims the integration of biodiversity conservation within the environmental management system. It provides for the needed measures to ensure the biodiversity conservation and the maintenance of the affected ecosystems' functions.

Based on the above values, a Biodiversity Action Plan is needed, aiming to protect the existing biological environment and restore the affected local biodiversity once the construction activities are performed. The BAP will reach its main goal by identifying actions and means needed for its implementation. In addition, BAP defines the time, resources and responsibility to accomplish these needs.

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<sup>3</sup> <https://natura2000.eea.europa.eu/Emerald/SDF.aspx?site=AL0000018>

<sup>4</sup> <https://natura2000.eea.europa.eu/Emerald/SDF.aspx?site=AL0000019>

<sup>5</sup> <https://datazone.birdlife.org/site/factsheet/lake-ohrid-and-surrounding-area-iba-albania/text>

The main elements of a Biodiversity Action Plan include:

- Audit, to review the condition of the local biodiversity;
- Objectives, to focus actions on precise targets;
- Priorities, to optimize the available resources;
- Action plans for species and habitats, to list and describe all actions to be implemented on natural components;
- Monitoring and review arrangements, to keep track of how the targets are progressively met and to adapt the actions to changing conditions.

As part of this exercise, a consultation process will be undertaken with key stakeholders, including the Ministry of Tourism and Environment (MoTE), REAs, NAPA, RAPAs, NGOs involved in nature conservation and local community representatives. The participation of the local people is a key source for the evaluation of indirect impacts from logging, hunting and fishing.

BAP will be coordinated with the Watercourses Crossing Plan, Erosion and Sedimentation Control Plan, Aggregated Management Plan, Waste Water Management Plan and Spill Prevention Management Plan.

#### **2.4.5 Social Management Plan (SMP):**

Focuses on identifying and addressing potential social impacts and risks associated with the project.

Addresses issues such as community health and safety, labor rights, resettlement and compensation (if applicable), and community engagement.

Outlines measures to enhance benefits and opportunities for local communities affected by the project.

##### **2.4.5.1 Infrastructure and Utilities Management**

Existing gravity networks along the corridor (storm water / sewage) and drinking water networks are presented in drawings respectively.

No conflict is detected between the railway corridor and these utilities.

HSH has already taken action in coordination with OSSHE\_FSHU (power distribution operator) for the relocation of these substations outside the railway corridor boundary.

The Infrastructure and Utilities Plan (IUP) aims to minimize disturbance to infrastructure's utilities and enhance the existing situation.

The objectives of the Infrastructure and Utilities Plan include:

- Minimize the damage to infrastructure utilities from construction activities;
- Ensure that losses of infrastructure or services are temporary and insignificant;
- Ensure the availability of the infrastructure's services to the local communities through alternative temporary ways; and
- Ensure that the new infrastructures will enhance the life conditions in the study area.
- The Infrastructure and Utilities Plan includes:
  - Stakeholder notification and engagement: Approach and activities to notify and consult with stakeholders on infrastructure development;
  - Public Utilities Assessment: Detail the scope and findings of the public utilities' assessment;

- Road Closure and Construction: Requirements for road closure for construction/upgrade activity and measures to minimize traffic interruption;
- Infrastructure Improvement Plan: Approach to selecting infrastructure improvement activities; and
- Monitoring: Approach to monitoring infrastructure improvements and any utility disruptions including community grievance trends and response performance.

With respect to the Railway Line Project, the infrastructure utilities that can be affected from construction activities are power and telecommunication overhead and underground lines, water supply pipelines. Whereas, the likely Project's effects on the road infrastructure are mentioned in the Traffic Management Plan (see below).

#### **2.4.5.2 Traffic Management**

Besides, the new geometry of the railway line aligns better with local roads network causing less traffic disruption and intersections. Having said the above, the new railway alternative would affect the speed limit of the train service as the railway line enters the right of way.

The Traffic Management Plan (TMP) aims to avoid/minimize the traffic interruption and disturbance, including the roads' users delay, as well as to ensure the safety of the local communities, the workforce and the drivers of the working and transport machinery.

The Traffic Management Plan objectives include:

- Access to project's sites;
- Routing of construction traffic;
- Prevention of road user delay;
- Temporary traffic control and management;
- Reducing the probability of traffic incidents and accidents and improving the safety of local communities, workforce and road users;
- Preventing and remedying roads and railways degradation.
- The TMP is regularly updated when the construction methods are developed and vehicle movement requirements are identified in detail.

The specific objectives of the TMP include:

- Site access arrangements to the working strip;
- Identification of key sensitivities along the proposed access and service roads;
- Identification, demarcation and construction of all access and service roads;
- Mitigation measures to minimize traffic disturbance;
- Mitigation measures to ensure safety local communities, road users and workforce;
- Workers training requirements with respect to road safety;
- Driver competency, vehicle maintenance and refuelling locations;
- Schedule construction activities;
- Defining the roles and responsibilities for implementation of the TMP;

- Measures to prohibit “off-route” driving;
- Speed limits and methods of enforcement;
- Ways and means to inform the community of traffic risks;
- Inspection, auditing and reporting.

The TMP includes provisions for the procedures related to communication to stakeholders and affected communities. The consultations with the relevant government agencies and local authorities should identify the planned infrastructure projects. The Contractor should also consult the principal representative of the adversely affected communities, in order to develop appropriate mitigation measures.

The Project’s Design has already defined the location and other characteristics of all the necessary level crossings, service roads and underpasses. The construction of the new planned service roads and underpasses should precede the construction of the other railway elements in order to not interrupt or disturb the traffic.

### **2.4.5.3 Community Health and Safety**

The Community Health and Safety Management Plan (CHSMP) aims to avoid or minimize the potential risks and effects on the health and safety of the local community during the project activities. In addition, it aims to ensure that the safeguarding of project, related personnel and property respect the regulations regarding the local communities’ safety and security.

#### **EIB Environmental and Social Standards that encompass aspects related to community health and safety:**

##### **ESS 1: Environmental and Social Assessment and Management System**

- This standard requires the implementation of an Environmental and Social Management System (ESMS) by the project proponent.
- It includes requirements for identifying and assessing potential environmental and social risks and impacts of the project, which would inherently cover community health and safety concerns.

##### **ESS 2: Labour and Working Conditions**

- This standard addresses aspects related to occupational health and safety of workers involved in the project.
- It includes requirements for ensuring safe working conditions, providing adequate training, and managing occupational health risks.

##### **ESS 3: Pollution Prevention and Abatement**

- While primarily focused on environmental pollution, this standard also considers impacts on community health resulting from pollution.
- It includes requirements for preventing and mitigating pollution to protect human health and well-being.

##### **ESS 4: Community Health, Safety and Security**

- This standard specifically addresses aspects related to community health, safety, and security.
- It requires the project proponent to identify and assess potential risks to community health and safety, develop measures to prevent or mitigate these risks, and engage with affected communities to address concerns and provide information.

## ESS 7: Cultural Heritage

- Although focused on cultural heritage preservation, this standard also addresses community safety concerns related to potential impacts on cultural sites and assets.

## ESS 8: Land Acquisition, Involuntary Resettlement and Economic Displacement

- This standard includes requirements for ensuring the safety and well-being of affected communities during land acquisition and resettlement processes.

### **The Community Health includes (EBRD):**

- Legal framework, EBRD PR4 and national Policies and Strategies related to community Health and Safety (H & S) and the related rights;
- Whether necessary, agree with health facilities to provide health care in emergency situations;
- Stakeholder H&S Awareness and Engagement – provide approach, activities and description of materials for stakeholder engagement and consultation;
- Project Security Measures and Conduct to prevent trespassing onto working areas and equipment and manage security personnel conduct;
- Community and Worker Grievance Mechanisms to outline the workers and community grievance mechanism for evaluating potential risks and impacts to community health, safety and security;
- Monitoring the performance of worker H&S and rights, as well as worker and community grievance trends and response.

### **2.4.5.4 Cultural Heritage Monitoring**

As mostly of the footprint passes along the existing line of the railway, and only some slight deviation are proposed as per the project, based on findings of ESIA, the footprint of the project does not impact any identified cultural heritage monument. Anyway, due to the deviation, potentially during construction activity may be chance findings;

The Cultural Heritage Management Plan (CHMP) aims to avoid any potential damages to cultural heritage resources. The Plan takes into account the relevant national legislation on cultural heritage (Law 17/2018 “On Cultural Heritage and Museums”, EBRD PR 8 (Cultural Heritage), as well as the Good International Practice (GIP).

The Cultural Heritage Management Plan includes:

- Formal relevant Albanian, EBRD and international requirements and standards, and the ESIA Commitments and actions;
- Information on research material archiving procedures, and recordkeeping;
- Details of preconstruction surveys, identification, impacts and mitigations for any new TCH and ICH sites;
- Identification and mitigations of all known Cultural Heritage sources TCH and ICH;
- A detailed chance find procedure, which includes a section of ICH chance finds;
- Verification and Monitoring, including procedures for the identification of unknown cultural heritage not initially identified including ICH; and

- Roles and responsibilities, including details on the communication lines between the onsite Cultural Heritage Managers, the construction team and municipal and national conservation bodies;
- Licensing procedures needed for any archaeological work and on how the licensing will be achieved;

Suggested protection measures regarding the known Cultural Heritage resources, with main principle of avoidance and protection; but also, for dust, noise and vibration with consideration for ICH

The management strategy of the cultural heritage resources includes the following steps:

- Institutional engagement strategy to involve the related Albanian authorities with in-depth evaluation of sites and the use of intrusive and non-intrusive methods; development of a chance finds procedure; developing site-specific mitigation approaches for archaeological sites; and application of appropriate archaeological rescue and recording methods (if applicable).
- Community consultation strategy to: inform local stakeholders of project activities; define site boundaries, user access, timing of use, and schedule of special events; and provide feedback to Project about community concerns with reference to ICH.
- Chance Finds Procedures to be developed and implemented in collaboration with the related state institutions (Archaeological Survey Agency). This includes the involvement of licensed archaeologists prior to contract to handle an archaeological rescue if required at a chance find; monitoring of construction activities by a professional archaeologist; cessation of work and consultation with relevant authorities and community stakeholders in case of any new archaeological discovery.
- Recording and monitoring program, including pre-construction survey and recording; follow-up protection from pollution and vibration of the recorded sites; Use of low impact construction techniques near sites at risk from project's activities; pre-construction preparation of conservators in the case of accidental damage to cultural resources; and periodic monitoring of site conditions during the Project activities.
- The plan will include provisions for the training of all workers and will include procedures related to communication to stakeholders and community improvement opportunities.

#### **2.4.6 Construction and demolition Material Management Plan**

The Construction Material Management Plan (CMMP) identifies the estimated amount and type of construction material and the potential impacts that may rise from its management. The Plan will recommend good practice procedures to ensure appropriate management of the construction material.

The CMMP includes the procedures for the management and mitigation of the potential impacts that may rise from the extraction, transportation and management of the construction material. These impacts may include:

- Air pollution;
- Noise and vibrations;
- Impacts to biodiversity and sensitive habitats;
- Visual Impacts;
- Water pollution;

- Waste management;
- Temporary traffic control and management;
- Erosion and sediment control; etc.

#### 2.4.7 Waste Management Plan

The Waste Management Plan aims at reducing, reusing and recycling wherever possible the waste generated during the Project's implementation stages. The Plan deals with the management of the solid and liquid wastes, including hazardous waste, to avoid any discharges into the soil or water. It establishes procedures for the storage, collection and disposal of waste.

The Waste Management Plan should be developed prior to commencement of any activities. It should comply with EU Directives, Albanian legislation, EIB ESS3 /EBRD PR3<sup>6</sup> requirements and other international best practices.

##### EIB ESS 3: Pollution Prevention and Abatement

- ESS 3 focuses on preventing and mitigating pollution from project activities, which includes waste management. The key aspects related to waste management under ESS 3 include:
- Project proponents are required to develop and implement Waste Management Plans (WMPs).
- WMPs should outline strategies to minimize waste generation, such as through source reduction and efficient use of materials.
- They should also specify procedures for handling, storing, transporting, and disposing of waste generated during project construction, operation, and decommissioning phases.

##### Hazardous and Non-Hazardous Waste:

- ESS 3 distinguishes between hazardous and non-hazardous waste.
- It requires measures to ensure proper segregation, storage, and treatment of hazardous waste to prevent environmental and health risks.
- Non-hazardous waste should also be managed responsibly to minimize environmental impacts.
- Reuse, Recycling, and Disposal:

ESS 3 encourages the reuse and recycling of waste materials whenever feasible and appropriate.

- When disposal is necessary, it should be carried out in compliance with applicable regulations and standards to minimize adverse impacts on the environment and human health.
- The standard includes requirements for monitoring waste management practices to ensure compliance with WMPs and regulatory requirements.
- Regular reporting on waste generation, handling, and disposal practices is essential to demonstrate adherence to EIB standards and facilitate transparency.
- ESS 3 emphasizes the importance of developing contingency plans for managing unexpected events, such as spills or accidents involving hazardous waste.
- These plans should outline emergency response procedures and measures to minimize potential impacts on human health and the environment.

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<sup>6</sup> EBRD PR 3 Resource Efficiency and Pollution Prevention and Control

- Project proponents are required to engage with affected stakeholders, including local communities, on waste management issues.
- Consultation and communication help address concerns, provide information, and incorporate community feedback into waste management planning and implementation.

The objective of the Waste Management Plan is to avoid/reduce impact of waste generated during the construction activities via the following strategy (EBRD PR3):

- Minimize the amount of generated waste;
- Maximize the amount of waste that is recovered for recycling-including segregation of recyclable wastes at source;
- Waste disposal in accordance with the waste management hierarchy; and
- Storage and transfer of the hazardous waste to appropriate facilities, in coordination with the responsible local/national institutions, and in compliance with the EU, national, EBRD, and best practice regulations.

As the waste management is a continuous process, the Plan shall be updated during all the preconstruction and construction phases. This plan also includes provisions for the training of the workforce and technical staff, as well as for the procedures related to communication to stakeholders and the affected community.

Based on the Project's design it is a considerable excavation and demolishing material that will be generated and it is taken into account the minimizing of waste generation and, overall, the reuse of the railway body filling material and the concrete material that will derive from the demolition of some of the existing bridges.

#### **2.4.7.1 Pollution Prevention**

The Pollution Prevention Plan (PPP) will take into account all the relevant national regulations and EIB/EBRD requirements related to the pollution prevention. It includes the following issues:

Hazardous materials: fuels, oils, greases:

- General measures that concern good material handling practices during the construction phase;
- Safety removing the asbestos from existing abandon buildings ( ex-facility of railway) before demolishing the buildings; Dispose it in a proper way
- Product Substitution: Whether possible, using environmentally friendly construction materials;
- Prohibited Materials: Do not use prohibited construction materials or chemicals that have hazardous or toxic nature.
- Air pollution from dust and gaseous emissions;
- Noise and Vibrations from Project's activities

With regard to the hazardous substances, the following will be taken into consideration:

- Adoption of Product Specific Practices regarding the following aspects:
- Fuels, oils and greases: monitoring of vehicles and construction equipment for leaks;

- Regular maintenance of working machinery and transport trucks to reduce the potential for leakage;
- Storage of fuels, oils and greases in appropriate containers;
- Fertilizers: Using as less as possible fertilizers for the re-vegetation works. Storage fertilizers in appropriate bins;
- Paints: Appropriate storage of paints and disposal in accordance to manufacturer's instructions;
- Isolation of Potentially Hazardous Materials in appropriate sealed containers. In case of a large amount of such substance, prepare a beamed area that isolates possible leaks.

Prevention of Accidental Spills. The Plan should define the following issues:

- Responsibilities: Define the responsibility of all employees and contractors to take appropriate measures to prevent spills in their work and to immediately report any detected spills to their supervisor;
- Spill Prevention Measures: Describes the requirements for secure storage of hazardous liquids, including physical measures, procedures, auditing, inspections and risk assessment;
- Reporting: Records, reporting and notification procedures to be maintained by the HSE team on site;
- Actions and measures to prevent leakages and spills and to enable effective response to unplanned releases of liquids, such as fuels, oils, greases and chemicals.

As per the air quality and noise. The Plan should include:

- As part of the Pollution Prevention and Response Plan, prepare a section for the management of ambient air quality detailing the concept for managing emission control from construction and transport machinery.
- As part of the Pollution Prevention and Response Plan, prepare a section for the management of management of noise emissions and vibrations detailing the concept for managing noise and vibrations generated from construction and transport machinery.
- The Pollution Prevention Plan will include provisions for the workers training and procedures to communication with stakeholders and community improvement opportunities regarding the pollution prevention and the environmental protection.
- The Pollution Prevention Plan is of relevant importance for the proposed project.

#### **2.4.8 Emergency Response Plan**

The Emergency Response Plan (ERP) provides for the site-specific actions and procedures to be taken in Emergencies occurring during construction and operation activities. It aims to prevent the potential negative effects in case of accidental and emergency situations. This prevention is based on the EIB/EBRD Policy requirements, the national regulations, as well as on the best international practice. The Plan should identify and prevent the major-accident hazards, and avoid/reduce their negative effects on the biophysical and socioeconomic environment.

Environmental and Social Management System (ESMS):

- ESS 1: Environmental and Social Assessment and Management System requires the establishment of an ESMS by the project proponent.
- The ESMS should include provisions for identifying potential emergency situations that could arise from project activities.

Risk Assessment and Management:

- ESS 2: Labour and Working Conditions and ESS 3: Pollution Prevention and Abatement both require the identification and assessment of risks associated with project operations, including risks that could lead to emergencies.

The ERP (EBRD) will address incidents and respective response scenarios, based on the following:

- The identification of the relevant hazards, during project activities, and of their potential effects to the environment and human health;
- Identification of the national and local authorities and other relevant stakeholders and of the appropriate procedures to communicate with them;
- Identification of the necessary measures to reduce human and environmental effects associated with the project activities, as provided in the Albanian law 45/2019 “On civil Protection<sup>7</sup>”, as well as in the EU legislation;
- Description of the technical measures to protect the human and natural environment from potential hazards;
- Lessons learned approaches to railways incidents and accidents;
- Description of the organization structure, and explain interactions with project and operational procedures;
- Identification of the system and procedures for providing personnel refuge, evacuation, rescue, and medical treatment;
- Description of training activities and the arrangement for training response teams and for testing emergency systems and procedures; and
- Provisions for the training of all workers on the Emergency Response procedures, and for the information regarding internal and external communications during an Emergency Response.

#### **2.4.9 Supply Chain Management Plan**

The Supply chain Management Plan aims to increase local procurement and to support the creation of a local supply chain that can provide products and services needed. The EPC/Primary Contractor will be required to develop an ESMS, or equivalent, for the construction of the Project based on the requirements of the ESMP.

The SCMP includes:

- E&S requirements within the criteria for the short-listing and selection of sub-contractors.
- Assess the risk of child labour and forced labour being used in the operations of the primary suppliers;

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<sup>7</sup> <https://www.parlament.al/Files/Akte/20190724173027ligj%20nr.%2045,%20dt.%2018.7.2019.pdf>

- Ensure clauses on minimum age, forced labour, and health and safety are included in procurement documents in the primary supply chain as part of the Project ESMS.
- Review / audit of all sub-contractors and third-party suppliers to verify their eligibility to meet the E&S obligations prior to contracting.
- Implement activities to increase local procurement and to support the creation of a local supply chain;
- Identify local companies able to provide goods, materials and services;
- Put in place a mechanism for checking the presence/absence of child labour, forced labour and high risks of significant safety issues, in the production of core materials and equipment.

#### **2.4.10 Security Management Plan**

The Security Management Plan (SMP) intends to provide and promote the safest possible physical environment during the project implementation. The main purpose of this plan is to describe how the EPC Contractor will provide and maintain a safe physical environment, set out appropriate security arrangements for the project, ensure personnel, equipment and other tools are on-site, as well as manage staff activities to reduce the risks of personal injury, property loss and any adverse impacts on local communities.

Plan shall include:

- Security arrangements roles and responsibilities
- Security procedures (contractor and company personnel identification, visitors' identification, vehicles identification etc.)
- Security-related communication arrangements;
- Interface with government agencies and public security forces;
- Provisions to ensure compliance with regulations and good industry practice regarding:
- Security personnel selection and employment
- Security personnel rules of conduct;
- Security personnel training and equipment;
- Monitoring of compliance and investigation process of non-compliance acts
- Security training program including:
- Code of Conduct modules specific to security personnel;
- Voluntary Principles on Security and Human Rights
- Grievance mechanism.

#### **2.4.11 Health and Safety Management Plan**

##### **2.4.11.1 Occupational Health and Safety**

Occupational Health and Safety Management Plan (OHSMP) aims to ensure safe project's activities that

protect the human health, the environment, and the assets. It provides for the following aspects:

- Planning for Health and Safety;
- Accident and Incident Investigation; and
- Health and Safety Auditing.
- The Plan includes the following issues:
  - Identify the potential hazards and assess the risks associated to the project’s activities;
  - Describe the response’s strategies and the management’s organization;
  - Define the communication strategies to manage the impacts of any eventual incidents;
  - Define the roles and responsibilities of the involved key staff;
  - Provisions for the workforce and staff training;
  - Define the internal and external notification procedures, community resources, response organization charts, resources and personnel;
  - Procedures of communication with stakeholders and affected communities

#### **2.4.11.2 Labour and Working Conditions**

Labour and Working Conditions Management Plan (LWCMP) addresses potential risks to workers’ rights, labour standards, and health and safety by summarizing expectations and procedures to maintain the quality of the working conditions, activities and code of conduct.

The Labour and Working Conditions Management Plan includes:

- The legal framework and Policies and Strategies related to workers’ Health and Safety and Rights, based on EBRD PR2, relevant Albanian law and other international standards (ILO labour standards, etc.). The EIB (European Investment Bank) Environmental and Social Standard (ESS) on labour and working conditions is detailed under ESS 2: Labour and Working Conditions. This standard outlines the requirements that projects financed by the EIB must adhere to in order to ensure fair and safe working conditions for all individuals involved in the project;
- The Health and Safety performance of the Contractors on the working conditions that should be in line with Albanian law and international standards;
- The approach and procedures for a workers’ grievance mechanism that should be accessible to all workers;
- Approach to monitor and improve the performance of the workers’ Health and Safety and rights; and
- Approach to monitor and improve the performance of the workers’ grievance trends and response.

### 3 Mitigation Measures and Environmental and Social Monitoring Plan

#### 3.1 Outline of the environmental and social monitoring plan

The preparation of the Environmental and Social Monitoring Plan for the design, construction and operation phases of a project is an integral part of the environmental permit. Selected techniques, standards and methods of monitoring should comply with international, European and/or Albanian standards. CMD 912/2015, “On the EIA methodology” requires the preparation of a monitoring programme, while the Law 10431/2011, “On Environmental Protection”, provides for the topics/environmental receptors to be monitored during a project development stages. Article 41 of this law<sup>8</sup>, the list of these receptors includes:

- the quality of surface water;
- the quality of groundwater;
- air quality;
- waste;
- noise and vibration;
- the quality of the land/soil;
- flora, fauna, biodiversity, forests;
- the impact of economic and social sectors on the environment components;
- monitoring of natural phenomena and their potential impact on the environment;
- monitoring the impacts of environmental pollution on human health;
- monitoring of social and cultural receptors (Cultural Heritage).

#### 3.2 Main monitoring activities

ESMP drafted in this phase of the project shall be updated during detail design phase including specific findings as per specific issue raised by the detail design.

The main monitoring activities to be followed during project’s development are outlined in the **Error! Reference source not found.** and **Error! Reference source not found.** at the end of this document (shall be updated more specifically during detail design phase).

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<sup>8</sup> Law 10431/2011 “On environmental protection”, as amended, Article 41

**Table 3-1 Summary of mitigation measures during preconstruction, and construction activities**

Indicator	EIB/EBRD's PR reference	Issue/risk	Mitigation actions/measures	Implementation phase	Requirements	Key performance indicator	Responsibility
<b>Assessment and Management of Environmental and Social Risks and Impacts</b>	EIB ESS 1/PR1: Assessment and Management of Environmental and Social Risks and Impacts	Implementation of ESMP measures	<p>The contractor shall produce and implement: The ESMS is composed of an Environmental and Social Management Plan, and an Environmental and Social Monitoring Plan. The Contractor shall establish and implement corporate policy and procedures for oversight of contractor environmental, social, stakeholder engagement, health and safety (EHS) performance during construction, including:</p> <p>Environmental and Social Management System (ESMS), which meets the requirements of ISO 14001 for the preconstruction and construction period.</p> <p>Contractor's Environmental and Social Management Plan (CESMP), which shall contain the following topic-specific sub-plans and topics:</p> <ul style="list-style-type: none"> <li>•Community Engagement Plan</li> <li>•Resettlement Action Plan/ Livelihood Restoration Action Plan RAP/LARP</li> <li>•Biodiversity Action Plan</li> <li>•Social Management Plan (SMP)</li> <li>•Construction and Demolition Material Management Plan;</li> <li>•Waste and Pollution Prevention Management Plan;</li> <li>Erosion and sedimentation control ;</li> <li>•Emergency Response Plan;</li> <li>•Supply Chain Management Plan;</li> <li>•Security Management Plan;</li> <li>•Health and Safety Management Plan</li> </ul>	All phases of the project's development	EIB ESS 1/EBRD PR1; Albanian environmental and social legislation;(DCM 686, dated 29.07.2015 (amended)	<p>Appointed contractors to have in place and implement an ESMS aligned to ISO 14001.</p> <p>Environmental and social monitoring in compliance with ESS and EBRD PRs.</p> <p>Approved Construction Environmental and Social Management Plan (CESMP) and E&amp;S sub plans shall be aligned to ESIA commitments, ESMP, national and Lender requirements, and strictly implemented SE to opine on adequacy.</p>	Contractors; HSH/PIU; Supervising Engineer;

Indicator	EIB/EBRD's PR reference	Issue/risk	Mitigation actions/measures	Implementati on phase	Requirements	Key performance indicator	Responsibility
			<ul style="list-style-type: none"> <li>Organisational structure, roles and responsibilities for environmental, social and stakeholder management</li> <li>ESIA commitments and how these will be delivered.</li> <li>Scope and training objectives with specific focus on code of conduct and care for the wildlife and cultural heritage, HSE requirements and procedures.</li> </ul>				
<b>Community Liaison</b>	EIB ESS 10/PR10: Information Disclosure and Stakeholder Engagement;  PR5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement ; PR2: Labour and Working Conditions; PR4: Health, Safety and Security	Expected positive effects; Problems within communities; Participation and Access to Information and grievance mechanism ;	<ul style="list-style-type: none"> <li>Publicly disclose Land acquisition and Livelihood Restoration Framework (LALRF) and Resettlement Plan (RP);</li> <li>Disclose Grievance mechanism;</li> <li>Organize separate meetings with affected (if any) vulnerable people;</li> <li>Monitoring to ensure awareness of grievance submittal process, monitoring grievance trends;</li> <li>Implement a communication strategy, as laid out in the SEP;</li> <li>Maintain close liaison with local community representatives, landowners and competent authorities throughout the construction period;</li> <li>Community engagement for any impacts on cultural heritage ICH, environmental, social aspects, health and safety etc.;</li> </ul>	Prior to preconstruction;  During construction	EIB Resettlement and Economic Displacement (ESS 8); Environmental and Social Impact Assessment (ESS 1):  RD PR2, PR4, PR5, PR 6, PR8, PR10; Albanian regulations; IFC General EHS Guidelines.	<ul style="list-style-type: none"> <li>Monitoring and audits reports;</li> <li>Financial report to evaluate outcomes of investment;</li> <li>MoMs from engagement and consultations;</li> <li>The number of grievances and resolutions.</li> <li>Updated leaflets on the progress of the investment plan and on livelihood restoration.</li> </ul>	Contractor; HSH; PIU;

Indicator	EIB/EBRD's PR reference	Issue/risk	Mitigation actions/measures	Implementati on phase	Requirements	Key performance indicator	Responsibility
	PR8 For any ICH issues						
<b>Air Quality</b>	EIB ESS 3: Pollution Prevention and Abatement/ PR3: Resource Efficiency and Pollution Prevention and Control; PR4: Health, Safety and Security	Temporary reversible impacts on local air quality due to atmospheric emissions from construction activities	<p>Implementation of a Construction Material Management Plan;</p> <p>As part of the Pollution Prevention and Response Plan, prepare a section for the management of ambient air quality detailing the concept for managing emission control from construction and transport machinery;</p> <p>Pre-notification to stakeholders of critical dust and gaseous emissions from Project's activities;</p> <p>Community Liaison and Public Grievance Procedures;</p> <p>Good construction practice to prevent dust and particulate emissions by effective control of the potential sources, including:</p> <p>Design earthworks to allow future successful re-vegetation;</p> <p>Dust Suppression and Dust Abatement to reduce emissions by applying water in case of visible dust;</p> <p>Proper maintenance of construction machinery / equipment; Respect the deadlines for technical control of the vehicles;</p> <p>Appropriate restriction of vehicle speeds on dust roads /tracks;</p> <p>Cover trucks and stockpiles as needed to prevent dust release;</p> <p>Compliance with construction procedures and schedule;</p>	Prior to preconstructi on; Preconstructi on; Construction.	<p>EIB ESS 3: Pollution Prevention and Abatement.</p> <p>EBRD PR3, PR4;</p> <p>IFC Guidelines (Environmental, Health and Safety Guidelines);</p> <p>Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe</p> <p>Albanian regulations on air quality</p> <p>DCM no. 803, dated 4.12.2003 "On the approval of air quality standards"</p> <p>DCM No. 352, dated 29.4.2015</p> <p>"On the assessment of environmental air quality and requirements for some related pollutants"</p>	<p>Best practice HSE clauses in construction contract to include provision of dust suppression measures;</p> <p>Air quality complaints at sensitive receptors per year;</p> <p>Monitoring and audits reports;</p> <p>Records of grievance mechanism.</p>	Contractor; Supervising Engineer; HSH/PIU/NEA; Affected Municipalities

Indicator	EIB/EBRD's PR reference	Issue/risk	Mitigation actions/measures	Implementation phase	Requirements	Key performance indicator	Responsibility
			<p>Perform earthwork out of the period when the migratory birds stay within the area. This period extends approximately from April to the end of July;</p> <p>Use fuels, which comply with official standards (as per standards and legal requirements)</p> <p>Monitor the air quality by involving accredited laboratory based on the provisions of the relevant regulations, including the DCM 352/2015 "On the assessment of environmental air quality and the requirements related to some pollutants", based even on the conditions of the environmental declaration that will be obtained during detail design phase</p>				
<b>Noise and vibrations</b>	EIB ESS 3: Pollution Prevention and Abatement/ PR3: Resource Efficiency and Pollution Prevention and Control; PR4: Health, Safety and Security;	<p>Potential annoyance of local residents in the vicinity of working sites; especially near the train stations that passes through urban area.</p> <p>Potential disturbance and/or displacement of fauna;</p>	<p>Pre-notification to stakeholders of critical noise and vibration generation activities;</p> <p>Implementation of a Construction Material Management Plan;</p> <p>As part of the Pollution Prevention and Response Plan, prepare a section for the management of noise emissions and vibrations detailing the concept for managing noise and vibrations generated from construction and transport machinery; especially near the train stations that passes through urban area.</p> <p>Community Liaison and Public Grievance Procedures;</p> <p>Specification during design phase should ensure that noise level generated at source is below 70 dB(A) during the day;</p> <p>Installation of appropriate elements to reduce noise emission as barriers, noise camouflage etc;</p>	<p>Detail Design;</p> <p>Preconstruction;</p> <p>Construction</p>	<p>EIB ESS 3: Pollution Prevention and Abatement/ EBRD PR3, PR4; IFC Guidelines (Environmental Health and Safety Guidelines); Albanian regulations; (instruction no 8 dated 27.11.2007 of MoTE "(for allowed level of noise in certain environment); Low 9774 date 12.07.2007 (For assessment of the level on noise);</p>	<p>Best practice HSE clauses in construction contract to include provision of noise and vibration reduction measures;</p> <p>Monitoring and audits reports;</p> <p>-Records of grievance mechanism.</p> <p>Potential Impacts on CH</p>	<p>Contractor;</p> <p>HSH;</p> <p>MoTE;</p> <p>NEA;</p> <p>Affected Municipalities;</p>

Indicator	EIB/EBRD's PR reference	Issue/risk	Mitigation actions/measures	Implementation phase	Requirements	Key performance indicator	Responsibility
			<p>Good construction practice to prevent noise and vibration generation that would cause nuisance, including:</p> <p>Any compressors brought on to construction sites would be sound reduced models fitted with acoustic enclosure;</p> <p>Care would be taken when lying rails and slippers to avoid impact noise from banging steel;</p> <p>Care would be taken when unloading vehicles to minimize noise;</p> <p>Delivery vehicles would be routed so as to minimize disturbance to local residents;</p> <p>Delivery vehicles would be prohibited from waiting within or close to the site with their engines running;</p> <p>All machinery items will be properly maintained and operated in order to avoid causing excessive noise;</p> <p>Fencing stations to reduce noise generated from stations' construction;</p> <p>Restrictions on periods of operation and locations of specific construction activities will be agreed upon by the contractor with the relevant local authority;</p> <p>Night-time construction operations only when necessary and after consultation with local residents;</p> <p>Concerned residents will be notified and informed prior to the construction phase when construction works are planned.</p>				
<b>Geology &amp; Soils</b>	EIB ESS 1: Environmental and Social	Erosion on the riverbeds	Erosion and Sediments Control Plan;	Design;	Biodiversity and Habitat Protection (ESS 6): ESS 6 focuses on biodiversity	Report on the initial monitoring of	Contractor;

Indicator	EIB/EBRD's PR reference	Issue/risk	Mitigation actions/measures	Implementation phase	Requirements	Key performance indicator	Responsibility
	Assessment and Management System/ PR3: Resource Efficiency and Pollution Prevention and Control; PR1: Assessment and Management of Environmental and Social Risks and Impacts;	and streambeds; Modification of rivers and streams morphology; Accidental pollution of soil by solid and liquid wastes; Temporary land take and surface sealing; Soil compaction; Re-mobilization of contaminants within the soil profile.	Watercourses Crossing Plan for Shkumbini river and main stream crossing; Construction Material Management Plan; Topsoil Management Plan; Waste Management Plan and monitoring its application; Hazardous Materials Management Procedure; Pollution Prevention Plan, and monitoring its application; Community Liaison and Public Grievance Procedures; Good construction practice to prevent geological risks and soil deterioration and supplemented with commitments to site-specific mitigation through future project development: Take in consideration the geotechnical study and the seismic features, etc., during design; Where tree is removed for the working strip, suitable re-vegetation would be undertaken (in accordance with ecological constraints) to reduce the potential for erosion through the loss of the soil binding effect of surface cover; Temporary storage of excavated soil will be done in secure location with run-off and erosion prevented. Any soil piles left at end of construction will be removed. Excess concrete or stone will be removed; Specific measures at the river/stream crossings considered as sensitive; Activities for land restoration and re-vegetation will be overtaken immediately upon completion of works, including re-vegetation / seeding with native species. Monitoring until	Preconstruction; Construction;	conservation and sustainable natural resource management, which includes protecting soil ecosystems and habitat integrity. Land Use and Resettlement (ESS 8): Address impacts on land use and potential soil degradation associated with resettlement and economic displacement. EBRD PR1, PR3; Albanian Law; FAO: Land capability classification; International best practice.	subcontractor procedures; Report on the initial monitoring of subcontractor list of materials; Results of audits (application of mitigation measures); Report on application of Water Management Plan; Report on application of Waste Management Plan; Report on application of Hazardous Materials Management Procedure and Pollution Prevention Plan; Records verifying the restoration and erosion control measures; Report on use of removed topsoil of high agricultural quality; Quantities and composition of drilling mud used;	Supervising Engineer; HSH;

Indicator	EIB/EBRD's PR reference	Issue/risk	Mitigation actions/measures	Implementati on phase	Requirements	Key performance indicator	Responsibility
			<p>vegetation cover is self-sustaining will be performed;</p> <p>Vehicle movements on untracked ground would be limited to reduce the impact of construction on surface cover loss and soil compaction and in particular in areas with softer deposits / soils. The contractor will be responsible for the planning of construction works to avoid access road construction during periods of highest rainfall;</p> <p>Installation and maintenance of control measures for erosion, run-off and sedimentation on steep terrain and in erosion prone areas;</p> <p>Provision of equipment ( spill kit)for evacuation of leakages;</p> <p>Any eventual fuel tanker vehicles for servicing the construction activity and equipment will carry a suitable sized spill kit and the staff would be trained and regularly updated on their use;</p> <p>Prior to any construction in geological sensitive areas, geotechnical investigations will be completed by the contractor to ensure that there is no likely risk associated with underground workings;</p> <p>Site-specific mitigation measures will be further developed prior to construction through appropriate technical documents.</p>				
<b>Water resources</b>	PR3: Resource Efficiency and Pollution	Impact on surface water by sediment plumes;	<p>Water Management Plan and monitoring;</p> <p>Watercourses Crossing Plan for each crossing;</p> <p>Spill Prevention and Response Plan;</p> <p>Construction Material Management Plan;</p>	Detail Design; Preconstructi on; Construction;	EBRD PR1, PR3; Water Framework Directive (WFD);	Report on the initial monitoring of subcontractor procedures;	Contractor; HSH; MIE; MoTE;

Indicator	EIB/EBRD's PR reference	Issue/risk	Mitigation actions/measures	Implementation phase	Requirements	Key performance indicator	Responsibility
	Prevention and Control; PR1: Assessment and Management of Environmental and Social Risks and Impacts	Accidental pollution of freshwater; resources by solid and liquid wastes; Modification of river morphology; Consumption of freshwater resources	<p>Waste Management Plan and monitoring its application;</p> <p>Hazardous Materials Management Procedure, Pollution Prevention Plan, and monitoring its application;</p> <p>Erosion and Sediments Control Plan;</p> <p>Community Liaison and Public Grievance Procedures;</p> <p>Specific measures at the watercourse's crossings;</p> <p>Specific measures over the perched aquifers (Lakes and Rivers);</p> <p>Good construction practice to prevent water pollution, including:</p> <p>Minimise use of groundwater and use low sensitivity ground water;</p> <p>Adopt measures that avoid or reduce water usage so that the project's water consumption does not have significant adverse impacts on water resources: use of additional technically feasible water conservation measures within the construction activities; the use of alternative water supplies, water consumption offsets to reduce total demand for water resources to within the available supply;</p> <p>To develop and implement procedures for water usage (monitoring and controlling the quantity and the quality). Work on soft ground in wet weather will be minimized, wherever possible;</p> <p>No water discharge directly to surface or ground waters;</p>		<p>EU Directive 78/659 on Water Quality to Support Fish Life;</p> <p>EU Directive 76/160 on Quality of Bathing waters;</p> <p>UNECE: Guidelines on River Water Categorization Based on their Quality Indicators;</p> <p>Albanian regulations;</p>	<p>Results of audits (application of mitigation measures);</p> <p>Report on application of Water Management Plan;</p> <p>Report on application of Waste Management Plan;</p> <p>Report on application of Hazardous Materials Management Procedure and Pollution Prevention Plan;</p> <p>Reports on restoration works at each crossing;</p> <p>Volumes of water used;</p> <p>Quantities and composition of drilling mud used;</p> <p>Turbidity/suspended solids, oils, fuels, and grease concentrations measured at the crossings before and after construction;</p> <p>Sensitivity of aquifers traversed;</p>	<p>NEA;</p> <p>-Water agencies</p> <p>Local authorities</p>

Indicator	EIB/EBRD's PR reference	Issue/risk	Mitigation actions/measures	Implementation phase	Requirements	Key performance indicator	Responsibility
			<p>Measures to prevent the run-off of sediment from areas of the works to watercourses;</p> <p>Stockpiling out of the construction sites will be prohibited and areas close to watercourses will be avoided;</p> <p>Provision of equipment for evacuation of leakages;</p> <p>Fuel tanker vehicles for servicing the construction activities and equipment will carry a suitable sized spill kit and the staff would be trained and regularly updated on their use;</p> <p>Regular maintenance of all machinery to prevent engine oil and fuel leaks;</p> <p>Use water only from the approved sources as per legal requirements</p>			<p>Monitor and keep records on water usage and effectiveness of water efficiency measures;</p>	
<b>Biological environment</b>	<p>EIB ESS 6: Biodiversity Conservation and Sustainable Management of Natural Resources/</p> <p>ESS 4: Biodiversity and Ecosystems;</p> <p>ESS 3: Resource Efficiency and Pollution Prevention;</p>	<p>Habitat loss/degradation, fragmentation, Direct species loss to noise, vibration, disturbance, displacement, accidental killing, collision and electrocution</p>	<p>General commitments – good construction practice:</p> <p>Develop a Biodiversity Action Plan (BAP) for species and habitats impacted by the project;</p> <p>A Biodiversity Offset Strategy (BOS) must be prepared by the Contractor. BOS should be part of the bidding process;</p> <p>BAP and BOS must be approved by EIB representatives before implementation;</p> <p>The BAP should be coordinated with the Watercourses Crossing Plan, Erosion and Sedimentation Control Plan, Topsoil Management Plan, Construction Material Management Plan, Waste Water Management Plan and Spill Prevention Management Plan;</p>	<p>Detail Design;</p> <p>Preconstruction;</p> <p>Construction;</p> <p>Post construction;</p>	<p>EIB Environmental and Social Standards;</p> <p>Bern Convention;</p> <p>Convention on the conservation of European wildlife and natural habitats;</p> <p>EU Habitats Directive;</p> <p>EU Birds Directive;</p> <p>Albanian legal framework on nature conservation;</p>	<p>Records verifying implementation of mitigation measures;</p> <p>Monitoring of the Restoration within the working strip;</p> <p>Restoration after construction activities within the forested and shrubby area;</p>	<p>Contractor;</p> <p>HSH;</p> <p>MIE;</p> <p>MoTE;</p> <p>NEA;</p> <p>REAs;</p> <p>RAPAs;</p>

Indicator	EIB/EBRD's PR reference	Issue/risk	Mitigation actions/measures	Implementation phase	Requirements	Key performance indicator	Responsibility
		<p>on, vegetation fires, persecution and pollution; Compensation in the form of biodiversity offsets; Habitat restoration;</p>	<p>Schedule construction period to avoid disturbance to nesting birds and breeding animals;</p> <p>Use, as much as possible, existing access roads and minimize the construction of new access roads;</p> <p>Prohibit fires for any reason unless with the approval of local fire authorities.</p> <p>Prohibit and strict control of illegal hunting (poaching) by workers;</p> <p>Limit workers to construction sites and prohibit their disturbance of local flora and fauna. Specifically, do not allow:</p> <ul style="list-style-type: none"> <li>the collection of medicinal plants;</li> <li>disturbance and hunting of game birds;</li> <li>collection of eggs from birds;</li> <li>disturbance of young animals and other;</li> <li>cutting plants or trees of any kind.</li> </ul> <p>Designate smoking areas for workers when constructing in forests or in dry periods;</p> <p>As soon as construction is complete, restore all construction sites and temporary tracks used for construction. If required, certain bio-technical activities would be implemented.</p> <p>Habitats' protection:</p> <p>Develop a Biodiversity Action Plan impacted habitats;</p> <p>In case of sensitive and/or important habitat's presence ensure that qualified biologist or environmental engineer is present at all times to ensure that all plans are followed and there</p>			<p>Records verifying implementation of restoration measures;</p> <p>Monitoring will need to audit measures to check implementation of the Biodiversity Action Plan.</p> <p>Complementary criteria specific to the construction practices employed such as presence of oil/grease or drilling mud should be considered;</p> <p>Reporting of rehabilitation targets and findings;</p> <p>Preparation of a site Audit and summary document of all Biodiversity Action Plan targets, activities, and results.</p>	

Indicator	EIB/EBRD's PR reference	Issue/risk	Mitigation actions/measures	Implementati on phase	Requirements	Key performance indicator	Responsibility
			<p>is no unnecessary damage to habitat and other natural resources;</p> <p>Use, as much as possible, existing access roads and minimize the construction of new access roads through marshy vegetation (reed beds), riparian habitats and meadows.</p> <p>Wherever possible, place new access roads in areas of low ecological sensitivity. As soon as construction is complete, restore all temporary tracks used for construction;</p> <p>No construction camps or machinery parks would be located within sensitive ecological areas, highly sensitive habitats or on alluvial terrains (in the river and stream valleys) in order to avoid adverse impacts on valuable riparian habitats and surface and ground waters;</p> <p>Do not store any waste material (concrete, steelworks, soil, etc.) in sensitive areas;</p> <p>After construction activities re-establish vegetation by planting seeds or young plants of native species, and monitor until full vegetation cover is re-established;</p> <p>All sites that should serve as temporary deposits for various construction material have to be proposed by the designer and constructor in advance in order to be assessed for possible adverse impacts on the habitats;</p> <p>Compensate for forests' loss by planting adequate / corresponding area of bare forestland or other land that can serve for this purpose. The afforestation is to be carried out with autochthonous species.</p> <p>Flora and vegetation:</p>				

Indicator	EIB/EBRD's PR reference	Issue/risk	Mitigation actions/measures	Implementation phase	Requirements	Key performance indicator	Responsibility
			<p>Minimum clearing of vegetation and re-vegetation works to disturbed areas as soon as construction is completed;</p> <p>Restore vegetation cover with autochthon species;</p> <p>Avoid cutting of any rare and endangered species;</p> <p>Avoid destruction of marshy vegetation. Where this is unavoidable, it should be limited to the minimum.</p> <p>Fauna:</p> <p>Birds:</p> <p>No construction would take place during the breeding bird season apart from where pre-construction survey has indicated that no birds are nesting;</p> <p>Where possible all access track construction and vegetation clearance for the working strip would not be undertaken during the breeding bird season;</p> <p>All site staff would be briefed on procedures to be implemented if any nesting birds are found within the construction area. Work would stop in the area until specialist advice is sought and implemented.</p> <p>Mammals, Amphibians, Reptiles:</p> <p>If any evidence of bats is identified, consult with competent authority to develop appropriate mitigation measures before intervening in biotopes used by bats.</p>				

Indicator	EIB/EBRD's PR reference	Issue/risk	Mitigation actions/measures	Implementati on phase	Requirements	Key performance indicator	Responsibility
			<p>If there is evidence of breeding bats or young bats, postpone construction until bats have left the biotopes;</p> <p>Direct destruction of the populations of amphibians and reptiles can be avoided through application of certain restrictions during the construction period (avoiding spawning period - spring) in the areas close to the water habitats.</p> <p>Ecosystem Services</p> <p>Extensive field survey to identify and assess the ecosystem services as part of pre-construction survey to complement baseline data with recent site-specific data;</p> <p>To fully prevent impacts, such as relocating a project or changing its spatial layout to prevent impacts in specific locations;</p> <p>To establish alternative access to maintain accessibility where alternative grazing areas within the surrounding areas are located;</p> <p>To maintain accessibility where medicinal plants areas are located and establish alternative access;</p> <p>To control of railway construction to ensure downstream water supply and quality changes are minimized and do not disrupt grazing quality and disrupt vegetation cover outside of the construction areas;</p> <p>To reduce the duration, intensity and/or extent of impacts that cannot be completely avoided</p> <p>Hazardous materials and emergency response management to avoid contamination of surface water and soil; Judicious clearance of</p>				

Indicator	EIB/EBRD's PR reference	Issue/risk	Mitigation actions/measures	Implementati on phase	Requirements	Key performance indicator	Responsibility
			<p>vegetation in the working strip area to minimize impacts on habitats and species;</p> <p>To ban the use of pesticides for vegetation clearance during construction and operation;</p> <p>To take actions to assist the recovery of any feature that has been degraded, damaged, or destroyed;</p> <p>A Construction Traffic Management Plan will be implemented to reduce traffic disturbance to ecosystem services and touristic facilities and sites in the area;</p> <p>Reinstatement of temporary disturbed areas during construction will include reprofiling and re-vegetation;</p> <p>Good construction industry wildlife management practise, including injured wildlife protocol, workforce awareness sessions, reduced speed limits, wildlife interaction reporting, waste and litter controls.</p>				
<b>Landscape and visual Effects</b>	EIB ESS 1: Environmental and Social Assessment and Management System / PR1: Assessment and Management of Environmental and Social	Impacts from: construction works for the working strip; new service roads; new freight station; fencing; walls. from the biophysical	<p>The Landscape Management Plan should be executed in close coordination with the Erosion and Sedimentation Control Plan and the Biodiversity Action Plan.</p> <p>Include visibility of the working strip during construction activities;</p> <p>Working strip:</p> <p>Restore the vegetation within the working strip;</p> <p>Width of the working strip and access roads will be kept to the minimum necessary for their use during project's activities.</p> <p>Protective fencing to retain the vegetation within the forested and shrubby area;</p>	Design; Preconstruction; Construction; After Construction;	Stakeholder Engagement (ESS 10): Involves stakeholders, including local communities and visual receptors, in assessing landscape and visual impacts and developing mitigation strategies. Biodiversity Conservation (ESS 6): Considers the integration of landscape features into biodiversity conservation plans,	Monitoring reports provided by appropriate landscape/ecological site supervisor during reinstatement; Report on vegetation restoration; Records verifying the implementation of restoration measures;	Contractor; HSH; MIE; MoTE; NEA; REA; RAPA;

Indicator	EIB/EBRD's PR reference	Issue/risk	Mitigation actions/measures	Implementation phase	Requirements	Key performance indicator	Responsibility
	Risks and Impacts PR6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.	rehabilitation of the working strip;	Reduce the visual impact by planting trees around the station; Choose appropriate painting colour. Fencing and walls: Walls as low as practicable; Avoid use of concrete to reduce the adverse visual effect of walls;		ensuring connectivity and ecological functionality. EBRD PR6; Best practice in Guidelines for Landscape and Visual Impact Assessment.	Presence of protective fencing to protect vegetation; Preparation of a summary document on the Biodiversity Action Plan targets, activities, and results after construction and during operation.	
<b>Land Acquisition and Land Use</b>	EIB ESS 8: Land Acquisition, Involuntary Resettlement, and Economic Displacement / PR10: Information Disclosure and Stakeholder Engagement; PR5: Land Acquisition, Restrictions on Land Use and Involuntary	Permanent land acquisition (roughly 6.1 ha is new land required due to deviation from existing line , ) for the railway line, and the corridor/right of way through the rail; The land surface is needed	Community consultation on the strategy and disclosure; Resettlement policies and procedures framework; Publicly disclose Land acquisition and Livelihood Restoration Framework; Grievance mechanism; Compensation at replacement cost; Prepare and disclose Resettlement Plan; Consultations on the existing level crossings and underpasses; Consultation to add new underpasses and agricultural underpasses in suitable sections; Design additional Project's components that improve the existing land use restrictions (new underpasses and agricultural underpasses); Design of additional secured level crossings in the function of the current urban situation; HSH should identify reliable cadastral data, identify landowners and secure land titles.	Before construction; During and after construction;	EIB ESS 8: Land Acquisition, Involuntary Resettlement, and Economic Displacement / EBRD PR5, PR7, PR10; IFC General EHS Guidelines; Albanian regulations; International best practice;	Additional Project's components that improve the existing land use restrictions; New secured level crossings; Presentations and other information disclosure materials available and accessible; Reviews of planned and ad hoc engagements with local communities; Updated cadastral data, identify former landowners and secure land titles;	HSH; MIE; National Expropriation Agency; Affected Municipalities; Contractor;

Indicator	EIB/EBRD's PR reference	Issue/risk	Mitigation actions/measures	Implementation phase	Requirements	Key performance indicator	Responsibility
	Resettlement ; PR8: Cultural Heritage; PR4: Health, Safety & Security;	also for the construction of the planned local roads, the improvements in level crossings for about 36 km or about 18 ha, and the construction of the freight stations in Elbasan and Prrrenjas for about 2.5 ha. Temporary land acquisition for working strip; Temporary loss of livelihood and income because of the working strip;	Assistance to be provided to vulnerable persons who are not able to relocate and resettle on their own. Additional targeted assistance (e.g., training, or job opportunities) to be provided and opportunities to improve or at least restore their income-earning capacity, production levels, and standards of living to Economically Displaced Persons whose livelihoods or income levels are adversely affected; The amount of land occupied during the construction to be minimized; Construction workers are to be trained to stay within the border of the construction areas and expropriation corridor and avoid trespass on private lands; If complaints related with unauthorized use of privately-owned lands, damages on adjacent lands, etc. are received through Project's Grievance Mechanism, evaluation/inquiry will be conducted on a case-by-case basis and where necessary, corrective actions/ measures (e.g., repair, maintenance, rebuilding, restoration, etc.) will be planned and carried out.			Meeting minutes from consultations; -Signed compensation agreements	

Indicator	EIB/EBRD's PR reference	Issue/risk	Mitigation actions/measures	Implementati on phase	Requirements	Key performance indicator	Responsibility
		Displaceme nt of physical structures; Disturbanc e to animal grazing.					
<b>Economy and Employment</b>	ESS 2: Labor and Working Conditions. ESS 8: Land Acquisition, Involuntary Resettlement and Economic Displacement ; ESS 10: Stakeholder Engagement/ PR2: Labour and Working Conditions; PR10: Information Disclosure and Stakeholder Engagement.	Temporary employeme nt and economic impact at the local level; Vulnerable groups;	Optimise contract opportunities for local companies; Recruitment procedures will be developed and aim to: Fair and transparent recruitment process for all openings; Advertise jobs so they are accessible locally; To provide opportunities for employment of local workforce to the extent possible considering unskilled, semi-skilled, and skilled workforce; To give priority to vulnerable persons (especially those who will be economically disable); Contractors and HSH to outline and require a fair and transparent, gender-neutral recruitment process for all job opening, and seek to employ Project PAPs on each part of the project route. To encourage Subcontractors to employ local personnel; Capacity enhancement benefits to be increased through training programs for contractors and subcontractors on related policies, as well as potential and specific training programs for national and local suppliers, affected local authorities;	Planning; Preconstructi on; Construction; After Construction;	ESS 2: Labor and Working Conditions. ESS 8: Land Acquisition, Involuntary Resettlement and Economic Displacement; ESS 10: Stakeholder Engagement/ EBRD PR2, PR10; IFC General EHS Guidelines; -Albanian regulations; -Best Practice.	-Contracts with local companies; -€ spent on goods and services in Albania; -Percentage of unskilled labour within the country; -Recruiting local people; -Recruiting local people from vulnerable groups; Training programme implemented and trained companies/personnel and other local stakeholders;	-Contractor; -HSH -PIU

Indicator	EIB/EBRD's PR reference	Issue/risk	Mitigation actions/measures	Implementation phase	Requirements	Key performance indicator	Responsibility
			To adopt measures/ criteria that provide opportunity for local scale businesses to tender for procurement of subcontracted good and services (e.g., advertising locally).				
<b>Indigenous People</b>	EIB ESS 7: Indigenous Peoples/PR 7: Indigenous People	Direct physical and economic damages	PR 7 (Indigenous People) is not applied in Albania.	n/a	ESS 7/PR 7	n/a	n/a
<b>Cultural Heritage</b>	EIB ESS 6: Biodiversity Conservation and Sustainable Management of Natural Resources/ PR8: Cultural Heritage	Direct physical damages; Noise, vibration and pollution; Blockage of user access; Visual effects.	<p>Cultural Heritage Management and Monitoring Plan- CHMP;</p> <p>Guidelines in Employee Code of Conduct;</p> <p>Avoidance of known archaeological sites/objects during construction activities;</p> <p>Consultation with the relevant Albanian Institutions (ASA) and affected municipalities during the ESIA Scoping stage;</p> <p>Conduct an intensive TCH and ICH archaeological survey prior to construction works;</p> <p>Implementation of appropriate mitigation for any TCH and ICH.</p> <p>Obtain a permit from ASA, after conducting an archaeological survey carried out by a licensed expert;</p> <p>A licensed archaeologist must be involved during construction works;</p> <p>Develop and implement a chance find the procedure and ensure all contractors and other relevant parties are trained in its use;</p> <p>Restrictions on timing and location of project activities with reference to ICH;</p>	Design; Preconstruction; Construction; After Construction; Decommissioning; Reinstallation ;	EIB ESS 6: Biodiversity Conservation and Sustainable Management of Natural Resources/ EBRD PR8; Albanian law on Cultural heritage; Best International Practice;	<p>Records of meetings and correspondence</p> <p>Cultural heritage survey during design;</p> <p>Percentage of avoidance of known cultural heritage resources;</p> <p>Chance Finds procedure and Record Forms;</p> <p>Percentage coverage within archaeological site protection checklist.</p> <p>Percentage of response to relevant Grievances;</p> <p>Percentage of delivery of Code of Conduct to project management and workforce;</p>	Contractor; HSH; MCT; National Agency of Cultural Heritage;

Indicator	EIB/EBRD's PR reference	Issue/risk	Mitigation actions/measures	Implementation phase	Requirements	Key performance indicator	Responsibility
			Apply mitigation actions and measures related to noise and vibration, and pollution issues; Apply mitigations for any ICH impacts through community stakeholder engagement.			Project activities restriction schedule; Monitoring pollution, and noise and vibration; Close out of EISA CH Commitments; Noise protection barriers in front of cultural heritage sites;	
<b>Infrastructure</b>	ESS 1: Environmental and Social Assessment and Management System/ PR5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement ; PR1: Assessment and Management of Environmental and Social	Disruption/ Damage to infrastructure and utilities (power and telecommunication lines.); Temporary loss of water flow by disruption to flooding channels and irrigation systems; Temporary interruption of power	Community liaison; Infrastructure and Utilities Management Plan; Consultations with the affected service providers; Documented agreements and collaboration with local authorities and utility companies; Compensation to affected persons/companies/institutions; Diversion to put in place; Grievance mechanism; Flooding control plan in agreement with local authorities; Planned infrastructure crossings in cooperation with local communities; Reinstatement of roads, irrigation and drainage system, power and telecommunication lines, water supply pipelines, etc.	Design; Construction; After construction and following post-construction restoration work.	ESS 2: Labor and Working Conditions ESS 3: Pollution Prevention and Abatement ESS 6: Biodiversity Conservation and Sustainable Management of Natural Resources ESS 8: Land Acquisition, Involuntary Resettlement, and Economic Displacement ESS 10: Stakeholder Engagement/ EBRD PR1, PR4, PR5, PR10; IFC General EHS Guidelines; Albanian regulations;	Population affected from disruption/damages to infrastructure; Type of infrastructure that can be affected (electricity, water, etc.); Duration of the temporary services interruption; Standards of the infrastructure services after rehabilitation; The number of accidents and other events. Percentage of relevant grievances responded;	Contractor; HSH; PIU;

Indicator	EIB/EBRD's PR reference	Issue/risk	Mitigation actions/measures	Implementation phase	Requirements	Key performance indicator	Responsibility
	Risks and Impacts; PR10: Information Disclosure and Stakeholder Engagement; PR 4: Health, Safety and Security	and telecommunications services; etc.			International best practice.	Meeting minutes signed compensation agreements; Monthly reviews of engagements with local communities; Percentage of irrigation and drainage channels and local roads affected and rehabilitated.	
<b>Traffic and Transport</b>	EIB ESS 3: Pollution Prevention and Abatement/ PR4: Health, Safety and Security; PR10: Information Disclosure and Stakeholder Engagement	Impacts on Safety of local communities, road users and others; Road incidents; Road infrastructure degradation; Road user delay.	All construction activities would be assessed for traffic management requirements, in accordance with the national legislation on roads and transport. Only contractors licensed by the Albanian road competent authorities would undertake decommissioning traffic activities; Conduct a detailed traffic survey of the access roads to be used during construction. Specific focus, to assess any social risks along the selected transportation route; Assessment of buildings and houses during preconstruction surveys to present in the proximity of the roads and access roads to be performed before the starting of the works and continuous monitoring of the buildings conditions is required and included in the TMP; Develop and implement Traffic Management Plan, that would, include: Transport management planning; Access road maintenance;	Design; Preconstruction; Construction;	EIB ESS 3: Pollution Prevention and Abatement/ EBRD PR4, PR 10; IFC General EHS Guidelines 3 & 4 requirements to ensure community safety and manage traffic; Albanian regulations;	Letters, MoMs and register of all Communications; Records showing application of notification periods for roads/railways damages and closures; Register of dates and all notifications; Number of days and kilometres of roads affected; Record of repaired roads; Training records on traffic management Traffic incident/accident records;	Contractor; HSH; PIU; Local authorities; Traffic Police;

Indicator	EIB/EBRD's PR reference	Issue/risk	Mitigation actions/measures	Implementati on phase	Requirements	Key performance indicator	Responsibility
			<p>Vehicle management and maintenance; and Community liaison and safety.</p> <p>Restrictions on timing and location of project activities; and Guidelines in Employee Code of Conduct.</p> <p>The Traffic Management Plan should follow the Construction Material Management Plan.</p> <p>In case of using local roads for transportation, repair works will be made in collaboration with the local authorities;</p> <p>Temporary loss of, or access to, infrastructure or services should be avoided by providing alternative routes and roads, as necessary and to inform local communities of the program and sequence of works;</p> <p>Engagement will be made with local authorities on the issue of traffic movement during the construction phase. Plan transportation routes in consultation with Municipalities, road department and Police;</p> <p>Traffic control supervisors to be assigned with competence in traffic control principles and who will assume overall responsibility for the safety of the work zone setup.</p> <p>Temporary traffic control devices, such as signage, warning devices, paddles, and concrete barriers will be set up where required in a consistent manner throughout the work zone to provide passing motorists with advanced warning of upcoming work zones;</p> <p>Avoid the routes that crosses sensible receptors like schools or hospitals or limit traffic at these receptors during day hours;</p>			<p>Audit compliance with speed limits;</p> <p>Audit compliance with statutory vehicle limits;</p> <p>Photos.</p>	

Indicator	EIB/EBRD's PR reference	Issue/risk	Mitigation actions/measures	Implementation phase	Requirements	Key performance indicator	Responsibility
			<p>Avoid transport activities, particularly those involving heavy goods vehicles during peak hours (7:30-8:30 AM and 12:00-13:00 pm);</p> <p>Plan and implement awareness campaigns on risks related to the traffic increase, especially in the schools present in the area;</p> <p>Frequent testing of drivers to eliminate drunk driving, also check for use of seatbelts and identify speed limits that are monitored during the construction phase.</p>				
<b>Waste management</b>	<p>PR3: Resource Efficiency and Pollution Prevention and Control;</p> <p>PR4: Health, Safety &amp; Security;</p>	-Pollution from all types of waste including asbestos	<p>Develop Waste Management Plan to guide the management of all waste types to be generated during the preconstruction and construction phase. It would include: Waste selection options; Recycling/reuse options; Waste transport; Disposal options; and Separation of hazardous waste;</p> <p>Existing rail tracks, including wooden slippers to be collected and stored in authorized designated areas and managed based on GIP;</p> <p>Contaminated land identified near the existing railway track by the minerals (previous disposal of mine in ,Xhyre station , Librazhd, Prenjas and Pogradec ) is to be removed and rehabilitated the area according to the national law requirements and GIP.</p> <p>Consultation with the affected municipalities on the reuse of the solid waste that will be not reused for construction purposes;</p> <p>Consultation with the affected municipalities on the disposal of solid waste that cannot be reused or recycled;</p> <p>Pollution Prevention and Response Plan;</p> <p>Watercourses crossing Plan.</p>	<p>Design;</p> <p>Preconstruction;</p> <p>Construction</p>	<p>EBRD PR3, PR4;</p> <p>Albanian regulations</p> <p>GIP;</p>	<p>Number of pollution accidents, type of polluting substances and sensitivity of the polluted environment;</p> <p>Response to any eventual pollution and monitoring result;</p> <p>Letters, MoMs and register of all Communications;</p> <p>Photos.</p>	<p>Contractor;</p> <p>HSH;</p>

Indicator	EIB/EBRD's PR reference	Issue/risk	Mitigation actions/measures	Implementation phase	Requirements	Key performance indicator	Responsibility
<p><b>Health, Safety and Security</b></p>	<p>EIB ESS 3: Pollution Prevention and Abatement/ PR2: Labour and Working Conditions; PR4: Health, Safety &amp; Security; PR10: Information Disclosure and Stakeholder Engagement;</p>	<p>Site trespass and injuries; Potential transmission of communicable diseases; Disturbance from air pollution and noise and vibrations generation; Pressure on Health Care Facilities; Environmental changes.</p>	<p>Community Health and Safety Management Plan; Occupational Health and Safety Management Plan; Emergency Response Plan including local authorities and hospitals; Manage air quality and noise as part of the Pollution Prevention and Response Plan; Training on communicable diseases; Guidelines and training on worker and community interactions; Implement EIB/ EBRD guidelines regarding the construction and management of worker accommodation; Agreements with local health centres/hospitals to provide emergency health care; Install appropriate signage to alert of trespass risks; Install temporary noise barriers in the densely inhabited areas; Appoint a female CLO who will manage the possible causes related to GBVH; Mandatory and repeated training and awareness-raising for the workforce about refraining from unacceptable conduct toward local community members, specifically women; Provide training to workers on the HSH Code of Conduct and policies related to the GBVH; Provide training and regular communications to human resources and/or other relevant persons (employees, supervisors, managers, and contractors) on understanding sexual</p>	<p>Design; Preconstruction; Construction;</p>	<p>EIB ESS 3: Pollution Prevention and Abatement/ EBRD PR2, PR4, PR 10; IFC General EHS Guidelines; National regulations; Best practice.</p>	<p>Monitoring and audits reports; Complaints received from local communities and percentage of the addressed complaints; Records from health care facilities; Pre-employment screening records. Health checks conducted for all workers; Training records; Information disclosure of minutes of the meetings from engagement community grievance trend monitoring and response performance.</p>	<p>Contractor; HSH;</p>

Indicator	EIB/EBRD's PR reference	Issue/risk	Mitigation actions/measures	Implementation phase	Requirements	Key performance indicator	Responsibility
			<p>harassment in the workplace, and on how to respond to allegations of sexual harassment in the workplace;</p> <p>Provide training to community liaison officers and/or other relevant persons on how to respond to allegations of GBVH perpetrated by employees and contractors in affected communities;</p> <p>Implement a confidential grievance mechanism for making anonymous reports of incidents of sexual harassment in the workplace;</p>				
<p><b>Workforce Social Issues -Workers Management</b></p>	<p>EIB ESS 2: Labor and Working Conditions/ PR2: Labour and Working Conditions; PR10: Information Disclosure and Stakeholder Engagement.</p>	<p>Workforce health and safety; Worker rights; Child labour, forced labour.</p>	<p>Include requirements related to EBRD PR2 in all tender documents and contractors for technical service providers and contractors; Evaluate contractor performance regarding respecting workers' rights.</p> <p>Provide clear written contracts;</p> <p>Worker Management Plan;</p> <p>Health and Safety Management Plan;</p> <p>PPE: regular training and monitoring.</p> <p>H&amp;S monitoring and audits;</p> <p>Install barriers to prevent accidents; stop work authority;</p> <p>Human Resources Policy (include commitments to non-discrimination and forbidding forced and child labour);</p> <p>Confirm contractor grievance procedure or provide employee grievance mechanism to non-employee workers;</p> <p>No discrimination policy;</p> <p>Manage working hours and adopt HR practices;</p>	<p>Before construction; Construction;</p>	<p>EIB ESS 2: Labor and Working Conditions/ EBRD PR2; Albania labour law; IFC General EHS Guidelines.</p>	<p>H&amp;S performance evaluations for contractors;</p> <p>Contracts contain references to international guidance on worker accommodation;</p> <p>Supplier contracts to include information on the possibility of assessments to verify compliance with core ILO standards;</p> <p>Secured contractor contracts;</p> <p>Supplier contracts to include explicit language on child and forced labour;</p>	<p>Contractor; HSH; PIU;</p>

Indicator	EIB/EBRD's PR reference	Issue/risk	Mitigation actions/measures	Implementati on phase	Requirements	Key performance indicator	Responsibility
			<p>Worker grievance mechanism.</p> <p>Code of Conduct to be developed in compliance with the national legislation. Gender equality, positive discrimination and sexual harassment issues and approaches on gender sensitivity should be included.</p> <p>All workers to be trained in their native languages about the Code of Conduct;</p> <p>All workers to receive project orientation and cultural awareness training that covers sensitive social issues on the local communities;</p> <p>Grievance Mechanism to be developed and gender-based complaints and necessary measures to be taken accordingly.</p>			<p>Total recordable incidents, lost time incidents, and other H&amp;S indicators;</p> <p>Health checks parameters;</p> <p>PPE: regular training and monitoring;</p> <p>H&amp;S monitoring and audits;</p> <p>Risk assessment on security technical service providers completed;</p> <p>Worker grievance trends, workforce survey results;</p> <p>Training records (compliance with assigned training);</p> <p>Grievance records- Number of genders-based grievances received quarterly</p> <p>Recruitment of women CLO;</p>	
<b>Accidental situations</b>	ESS 1: Environmental and Social Assessment and Management System; ESS	<p>Potential risks from no routine events;</p> <p>Impacts on water</p>	<p>Emergency Response Plan;</p> <p>General commitments – good construction practice:</p> <p>Hierarchy of safety measures;</p> <p>Eliminate: wherever possible, hazards are designed out;</p>	<p>Design;</p> <p>Preconstruction;</p> <p>Construction;</p>	<p>Guidelines on the requirements to ensure safety and manage non-routine events;</p> <p>Best practice;</p> <p>National regulations.</p>	<p>Inspections to ensure adherence to the Emergency Response Plan;</p> <p>Training records (compliance with assigned training);</p>	<p>Contractor;</p> <p>HSH;</p>

Indicator	EIB/EBRD's PR reference	Issue/risk	Mitigation actions/measures	Implementation phase	Requirements	Key performance indicator	Responsibility
	3: Pollution Prevention and Abatement; ESS 8: Land Acquisition, Involuntary Resettlement and Economic Displacement : ESS 10 Stakeholder Engagement/ PR3: Resource Efficiency and Pollution Prevention and Control	resources, soil, etc.	Prevent: measures are taken to ensure that the hazard cannot be realized; Detect: if a hazardous event occurs, the design ensures that it will rapidly be detected; Control: measures will be in place to control a hazardous Event; and Mitigate: suitable measures will be taken.			H&S monitoring and audits;	

**Table 3-2: Summary of mitigation measures during operation and maintenance**

Indicator	EBRD's PR reference	Issue/risk	Mitigation actions/measures	Implementation phase	Requirements	Key performance indicator	Responsibility
<b>Environmental and Social Appraisal and Management</b>	EIB ESS 1/PR1: Assessment and Management of Environmental and Social Risks and Impacts / PR1: Assessment and Management of Environmental and Social Risks and Impacts;	Implementation of the ESMP measures;	Produce and implement an Environmental and Social Management Plan for the operational period; HSH should regularly review the compliance with the requirements of the ESMS; Appropriate environmental training of the operational staff; HSH would implement a communication strategy - as laid out within the Stakeholder Engagement Plan (SEP); HSH should liaise with the relevant local authorities and community to identify major events and plan mitigation strategies.	All phases of the project's development;	EBRD PR1; Albanian regulations;	Environmental and Social management organization setup; Monitoring and audits reports; Compliance with the requirements of the ESMS; Meeting minutes from engagement and consultations.	HSH/PIU/MIE;
<b>Community Liaison</b>	EIB ESS 10/PR10: Information Disclosure and Stakeholder Engagement; PR5: Land Acquisition, Restrictions on Land Use	Expectations for benefits; Community Liaison; Tensions within and between communities;	HSH would implement a communication strategy - as laid out within the Stakeholder Engagement Plan (SEP); Grievance mechanism; Managing community liaison personnel; Review SEP and communication mechanisms annually.	SEP before operation; Annual SEP review during operation.	EBRD PR1, PR2, PR4, PR10; Albanian regulations; IFC General EHS Guidelines.	Finalization of SEP; Monitoring and audits reports; Percentage of response to relevant grievances; Monitoring of grievance trends and response performance; Annual Report on community liaison;	HSH/PIU;

Indicator	EBRD's PR reference	Issue/risk	Mitigation actions/measures	Implementation phase	Requirements	Key performance indicator	Responsibility
	and Involuntary Resettlement ; PR2: Labour and Working Conditions: PR4: Health, Safety and Security PR8 For any ICH issues						
<b>Air quality Climate changes</b>	EIB ESS 3: Pollution Prevention and Abatement/ PR3: Resource Efficiency and Pollution Prevention and Control; PR4: Health, Safety and Security	Expected positive impacts; Agricultural land inundated;	Avoidance of agricultural land inundation because of the: a- Improvement of the drainage system (drainage channels, culverts, conveyance capacity of bridges); Successful re-vegetation after the construction phase; The electrification of the railway line to avoid CO2 and other gaseous release from fuel combustion from locomotives.	Operation	EBRD PR3, PR4; Directive 2008/50/EC; IFC (Environmental Health and Safety Guidelines; Albanian regulations;	Results of audits (application of mitigation measures); Records of Grievances; CO2 data and compliance with EU and national limit values.	HSH;
<b>Noise and vibrations</b>	EIB ESS 3: Pollution Prevention and Abatement/	Expect positive impacts; The potential annoyance of local residents in the	Community Liaison and Public Grievance Procedures; Adopt design changes (if necessary) and implement measures to mitigate rolling	Design; Construction; Operation; and Maintenance	-EBRD PR3, PR4, PR8; IFC (Environmental Health and	Results of audits (application of mitigation measures); Noise levels;	HSH;

Indicator	EBRD's PR reference	Issue/risk	Mitigation actions/measures	Implementation phase	Requirements	Key performance indicator	Responsibility
	PR3: Resource Efficiency and Pollution Prevention and Control; PR4: Health, Safety and Security;	vicinity of the railway line; Potential disturbance to fauna;	noise and vibrations during the operational phase; Noise is reduced at the source by installing appropriate rails, slippers, electrical trains emit less noise etc., and by proper maintenance of the railway superstructure elements; Installation of noise barriers to reduce noise emission; Noise is reduced at the source by designing a building with appropriate substructure elements (sub-ballast, sub-grade, etc.). Good construction practices to prevent noise emission levels that would cause nuisance, including (at a minimum): Specification during the design phase should ensure that noise levels generated at the source are within the permitted standards; Investigate complaints about noise, including cumulative noise levels, and take appropriate action to reduce noise levels as needed. Impacts of noise and vibration on ICH and TCH sites.		Safety Guidelines; EU and Albanian noise standards; Best practice	Compliance with applicable regulatory standards; Stakeholder engagement;	
<b>Earthquakes</b>	EIB ESS 1: Environmental and Social	Damages to railway infrastructure (bridges) and	Community Health and Safety Management Plan; Emergency Response Plan;	Design; Construction; Operation;	EBRD PR1, PR4; Eurocode 8;	Records verifying the application of Eurocode 8 provisions	Designer; Construction company;

Indicator	EBRD's PR reference	Issue/risk	Mitigation actions/measures	Implementation phase	Requirements	Key performance indicator	Responsibility
	Assessment and Management System/ PR3: Resource Efficiency and Pollution Prevention and Control; PR1: Assessment and Management of Environmental and Social Risks and Impacts;	interruption of the rail traffic;	Community Liaison and Public Grievance Procedures; The design has already taken into consideration the seismic features of the Project area;	Maintenance;		in the construction of the Project's components;	HSH; Ministry of Health and Social Protection (MHSP); MIE;
<b>Water resources and erosion and sedimentation ;</b>	EIB ESS 1: Environmental and Social Assessment and Management System/ PR3: Resource Efficiency and Pollution Prevention and Control; PR1: Assessment and	Accidental pollution of freshwater resources, Shkumbini river water and main streams by railway accidents;	Pollution Prevention Plan, and monitoring its application; Hazardous Materials Management Procedure; Waste Management Plan and monitoring its application; Good operation practices to prevent water pollution, including (at a minimum): Regular maintenance of facilities to prevent engine oil leaks; Provision of equipment for evacuation of leakages; Avoid trains incidents, etc.;	After construction; Operation;	EBRD PR1, PR3; Water Framework Directive (WFD); EU Directive 78/659 on Water Quality to Support Fish Life; EU Directive 76/160 on Quality of Bathing waters;	Environmental Management training; Results of audits (application of mitigation measures): Monitoring of Sub-contractor procedures; Procedure and Pollution Prevention Plan. Records verifying the restoration and erosion control measures;	-HSH

Indicator	EBRD's PR reference	Issue/risk	Mitigation actions/measures	Implementation phase	Requirements	Key performance indicator	Responsibility
	Management of Environmental and Social Risks and Impacts;				Albanian regulations;	Reports on restoration work at each crossing;	
<b>Biological environment</b>	EIB ESS 6: Biodiversity Conservation and Sustainable Management of Natural Resources/ ESS 4: Biodiversity and Ecosystems; ESS 3: Resource Efficiency and Pollution Prevention;	Forested and shrubby area residual impacts on Habitat loss /degradation, direct species loss, disturbance /displacement	Implementation of Biodiversity Management Plan for the forested and shrubby area; Monitoring of the reinstatement of all construction sites and temporary tracks used for construction. Restore vegetation cover with autochthon species.	At least 5 years after construction.	EBRD PR 6: Bern Convention; Convention on the conservation of European wildlife and natural habitats; EU Habitats Directive; EU Birds Directive; EU Natura 2000 -Albanian regulations.	Implementation of monitoring parameters similar to the construction phase. Survey of biodiversity offset forest rehabilitation, key species and habitats, logging activity and protection status. This survey should be provided as part of the annual report of all BAP findings during operation; Annual reporting of all BAP findings and targets/goals achieved will be made available externally;	HSH/ PIU; Consultant; NEA& REA & RAPA;
<b>Landscape and visual issues</b>	PR1: Assessment and Management of Environmental and Social	Impacts from new stations, railway line fencing and eventual noise barriers.	Monitoring the implementation of the Landscape Management Plan; Good design, construction, and operation practice to reduce effects on landscape and visual issues, including (at a minimum):	Detail Design; Preconstruction; Construction; Operation; The post-construction rehabilitation period could	Best practice in Guidelines for Landscape and Visual Impact assessment.	Site monitoring reports provided by appropriate landscape/ecological site supervisor during the construction period;	Designer; Construction company; MIE; HSH; NEA& REA & RAPA;

Indicator	EBRD's PR reference	Issue/risk	Mitigation actions/measures	Implementation phase	Requirements	Key performance indicator	Responsibility
	Risks and Impacts;		<p>Include visibility of new stations, railway line fencing and eventual noise barriers;</p> <p>Monitoring and maintenance of the reinstallation of the vegetation within the working strip across the degraded forest and shrubs;</p> <p>Monitoring restrictions of working strip;</p>	reach up to 10-15 years for the forests and shrubs.		<p>Presence of protective fencing to restrict the damage to vegetation within the working strip;</p> <p>Establishment and growth of planting as part of the mitigation landscape design.</p>	
<b>Land Acquisition and Land Use</b>	<p>PR5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement ;</p> <p>PR10: Information Disclosure and Stakeholder Engagement;</p>	<p>Permanent loss of land mostly due to deviation from existing line and land required for construction of the planned local roads, the improvements in level crossings and the construction of the freight stations in Elbasan and Prrenjas .</p> <p>Land use restriction;</p>	<p>Resettlement policies and procedures framework before construction works;</p> <p>Livelihoods Restoration Plan identifying reliable cadastral data, identifying landowners and secure land titles;</p> <p>Compensation at replacement cost;</p> <p>Grievance mechanism;</p> <p>Expected positive effects on land use restriction from the design of additional underpasses and agricultural underpasses;</p>	Before operation;	<p>EBRD PR5, PR10;</p> <p>IFC General EHS Guidelines;</p> <p>Albanian regulations;</p>	<p>Land Acquisition and Livelihoods Restoration Plan;</p> <p>Meeting minutes from consultations;</p> <p>Signed compensation agreements monitoring;</p> <p>Any eventual complaints on the added new underpasses;</p>	<p>MIE;</p> <p>HSH;</p>
<b>Economy and Employment</b>	<p>PR2: Labour and Working Conditions;</p> <p>PR10: Information Disclosure and Stakeholder Engagement</p>	<p>Permanent employment;</p> <p>The permanent and economic impact on national and local levels;</p>	Optimize economic impacts;	Before and during operation	<p>EBRD PR2, PR10;</p> <p>IFC General EHS Guidelines;</p> <p>International best practices;</p>	<p>Employment strategy, information materials on job postings;</p>	<p>HSH;</p> <p>MIE;</p> <p>Central government;</p>

Indicator	EBRD's PR reference	Issue/risk	Mitigation actions/measures	Implementation phase	Requirements	Key performance indicator	Responsibility
<b>Cultural Heritage</b>	PR 8: Cultural Heritage	No negative effect is expected	Cultural Heritage Management and Monitoring Plan – a chance to find procedures during the construction stage; Guidelines in Employee Code of Conduct; and Restrictions on timing and location of project activities close to cultural heritage sites/monuments and ICH.	Design; Preconstruction; Construction; Operation	EBRD PR 8; Albanian regulations;	Project activity restrictions schedule; Presentations, disclosure documents, MoMs; Percentage of response to relevant grievances.	Designer; HSH; Construction company; ASA; MIE; Albanian Railways;
<b>Infrastructure</b>	PR10: Information Disclosure and Stakeholder Engagement; PR 4: Health, Safety and Security; PR5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement ;	Benefits to local settlements due to infrastructure and service improvements	Infrastructure Management Plan; Grievance mechanism; Monitoring of grievance trends and response performance. Adequate strengthening of the local electrical grid to support the electrification of the railway and avoid any reduction in the availability of the communities/businesses to electricity in the area.	After construction and following post-construction restoration work.	EBRD PR4, PR5, PR10; IFC General EHS Guidelines; International best practice	Infrastructure improvement plan; signed agreements with authorities; Percentage of relevant grievances responded.	HSH; Local authorities; MIE;
<b>Waste management</b>	PR3: Resource Efficiency and Pollution Prevention and Control	Impact on health, soils, water resources, and, biodiversity	Waste generation during operation is limited to leakage of oils, , and greases that can be accidentally released by the locomotives. Mitigation measures are similar to the construction phase.	Operation;	EBRD PR3; Waste Framework Directive; Albanian regulations;	Similar to the construction phase;	HSH;

Indicator	EBRD's PR reference	Issue/risk	Mitigation actions/measures	Implementation phase	Requirements	Key performance indicator	Responsibility
<b>Health, Safety and Security</b>	PR4: Health, Safety and Security; PR10: Information Disclosure and Stakeholder Engagement;	Railway incidents and accidents	Community Health and Safety Management Plan; Emergency Response Plan including local authorities and hospitals; Community grievance mechanism and education program on safety; Guidelines and training on worker and community interactions; Primary health care and first aid at railways stations; Maintenance of the railway line fencing, and noise barriers; Application of relevant standards on the railway line operation. Adequate electrification of the railway to be done in order to avoid lack of electricity in the area.	Before operation; Periodically during operation.	EBRD PR4, PR 10; IFC General EHS Guidelines; International best practices; ILO Conventions; Albanian regulations	Statistics on railways incidents and accidents published yearly by MIE; Monitoring and audits reports; Monitoring to ensure accessibility/awareness of grievance submittal process, monitoring grievance trends, response performance; Security arrangement disclosed in ongoing reporting.	HSH; MIE;
<b>Workforce Social Issues; Workers Management;</b>	PR2: Labour and Working Conditions	Worker health and safety; Worker rights; Child labour, Forced labour	Labour and Working Conditions Management Plan; Occupational Health and Safety Management Plan; H&S monitoring and audits; Include requirements related to EBRD PR2 in all tender documents and contractors for technical service providers and contractors. Include in contracts for worker accommodation the	Before and during operation	Albania labour law; EBRD PR2; IFC General EHS Guidelines; ILO Conventions; Albanian regulations;	Similar to the construction period	HSH; MIE;

Indicator	EBRD's PR reference	Issue/risk	Mitigation actions/measures	Implementation phase	Requirements	Key performance indicator	Responsibility
			<p>requirement to follow international guidance;</p> <p>Provide clear written contracts;</p> <p>Socioeconomic compliance monitoring, including review of compliance with laws against forced and child labour; and</p> <p>Worker grievance mechanism.</p>				
<b>Gender-Based Violence</b>	<p>PR1 Assessment and Management of Environmental and Social Risks and Impacts;</p> <p>PR2: Labour and Working Conditions;</p>	Potential gender-based violence within the workforce;	<p>Code of Conduct to be developed in compliance with the national legislation. Gender equality, positive discrimination and sexual harassment issues and approaches to gender sensitivity should be included.</p> <p>All workers to be trained in their native languages about the Code of Conduct;</p> <p>All workers to receive project orientation and cultural awareness training that covers sensitive social issues in the local communities;</p> <p>Grievance Mechanism to be developed and gender-based complaints and necessary measures to be taken accordingly.</p>	Preconstruction; Construction; Operation;	EBRD guidance best practice; National regulations;	<p>Training Records on Code of Conduct - Employees attended the Code of Conduct Training and the Cultural Awareness Training;</p> <p>Grievance records- Number of genders-based grievances received quarterly;</p> <p>Recruitment of women CLO;</p>	Contractor; Supervising Engineer; HSH/PIU;
<b>Accidental situations</b>	<p>PR4: Health, Safety and Security;</p> <p>PR3: Resource Efficiency</p>	Potential risks from no routine events; Impacts on water resources, soil, etc.	<p>Emergency Response Plan;</p> <p>General commitments – good construction practice:</p> <p>Hierarchy of safety measures;</p>	Design; Preconstruction; Construction; Operation	Guidelines on the requirements to ensure safety and	Statistics on railways incidents and accidents are published yearly by MIE;	Designer; Contractor; Supervising Engineer; HSH /PIU;

Indicator	EBRD's PR reference	Issue/risk	Mitigation actions/measures	Implementation phase	Requirements	Key performance indicator	Responsibility
	and Pollution Prevention and Control;		<p>Eliminate: wherever possible, hazards are designed out;</p> <p>Prevent: measures are taken to ensure that the hazard cannot be realized;</p> <p>Detect: if a hazardous event occurs, the design ensures that it will rapidly be detected;</p> <p>Control: measures will be in place to control a hazardous Event; and</p> <p>Mitigate: suitable measures will be undertaken.</p>		<p>manage non-routine events;</p> <p>Best practice;</p> <p>National regulations.</p>	<p>Inspections to ensure adherence to the Emergency Response Plan;</p> <p>Training records (compliance with assigned training);</p> <p>H&amp;S monitoring and audits</p>	MIE;

**Table 3-3 Monitoring activities during pre-construction and construction stages**

Indicator	Requirements	Monitoring Task	Monitoring Parameter	Timing
<b>Community Liaison</b>	EBRD PR10: Information Disclosure and Stakeholder Engagement; EBRD PR5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Social investment figures; Maintenance of grievance mechanism;	€ spent on investment; Percentage achieved of the investment plan and on livelihood restoration; Percentage of relevant Grievances responded and addressed	Monthly
<b>Air Quality</b>	EBRD PR3: Resource Efficiency and Pollution Prevention and Control; IFC Guidelines (Environmental, Health and Safety Guidelines); Air Quality Directive 2008/50/EC; Law 162/2014 "On environmental air quality protection" DCM 352/2015 "On the assessment of environmental air quality and the requirements related to some pollutants"	Monitor local air quality; Maintenance of grievance mechanism;	Monitoring and audits reports; Records on dust suppression measures; Records of responses and addressed grievances.	Visual daily monitoring; Monthly record of grievances;
<b>Noise and vibrations</b>	EBRD PR3: Resource Efficiency and Pollution Prevention and Control; IFC Guidelines (Environmental, Health and Safety Guidelines); Environmental Noise Directive 2002/49/EC Law 9774/2007 "On the assessment and management of environmental noise"; MoE ordinance 1037/1, date 12.4.2011 " On the assessment and management of environmental noise"; German Standards on vibrations (there are no national or EU standards on vibrations).	The potential annoyance of local residents near the railway line; Potential disturbance of fauna; Maintenance of noise barriers; Maintenance of trains' wheels and rails;	Best practice HSE clauses in a construction contract to include the provision of noise and vibration reduction measures; Monitoring and audits reports; Records of the grievance mechanism. Impacts and mitigations for TCH and ICH;	Daily monitoring; Monthly record of grievances;
<b>Erosion and sedimentation</b>	EBRD PR1: Assessment and Management of Environmental and Social Risks and Impacts	Monitor erosion at the crossing of the drainage channels;	Results of audits (application of mitigation measures) effectuated by MIE, MoTE and REAs;	Before and during construction works; and

Indicator	Requirements	Monitoring Task	Monitoring Parameter	Timing
		Identification and reporting of erosive events;	Number of erosive events caused by the project activities; Percentage of project-related erosive events detected and corrected.	After restoration works;
<b>Soil</b>	EBRD PR3: Resource Efficiency and Pollution Prevention and Control; EBRD PR1: Assessment and Management of Environmental and Social Risks and Impacts; National regulations; FAO: Land capability classification; International best practice.	Monitor the soil handling measures;	The volume of removed topsoil of high agricultural quality; Verification of replacement procedures and restoration results;	Weekly
		Visual inspection of soil disturbance and pollution;	Number of times where construction engines have been identified outside of the designated areas (working strip, access roads, etc.); Number of times where fuels by construction engines have polluted the soil.	Daily
		Sample and analyse specific areas where polluted soil has been identified;	TPH in soil	Prior to construction works
<b>Water resources</b>	EBRD PR3: Resource Efficiency and Pollution Prevention and Control; EBRD PR1: Assessment and Management of Environmental and Social Risks and Impacts; Water Framework Directive (WFD); EU Directive 78/659 on Water Quality to Support Fish Life; EU Directive 76/160 on Quality of Bathing waters; Water Framework Directive 2006/118 / EU "On the protection of groundwater against pollution and deterioration";	Water quality at river Shkumbini and streams crossings;	Turbidity/suspended solids, Oil and grease, pH, Dissolved Oxygen, .BOD;, heavy metals conductivity ;TDS ; nutrients (phosphorus & nitrogen)	Prior to construction works; During construction (100m upper the stream and 100m down the stream from the stream crossing ) One week after crossing
		Water consumption;	Volumes of water used; concrete production; dust suppression; etc.;	Continuous;

Indicator	Requirements	Monitoring Task	Monitoring Parameter	Timing
	<p>Water Framework Directive 2006/44 “On the quality of freshwater that need protection for supporting fish life”;</p> <p>Law 111/2012 "On Integrated Water Resources Management";</p> <p>DCM 379/2016 “On the approval of the regulations on drinking water quality”;</p> <p>DCM 267/2014 "On approval of the list of priority substances in water environment"</p> <p>DCM 246/2014 "On the definition of environmental quality norms for surface water".</p>			
<b>Terrestrial ecology</b>	<p>EBRD PR6: Biodiversity Conservation and Sustainable Management of Living Natural Resources;</p> <p>EBRD PR3: Resource Efficiency and Pollution Prevention and Control;</p> <p>Convention on the conservation of European wildlife and natural habitats;</p> <p>EU Habitats Directive;</p> <p>Law 9587/2006 "On Biodiversity Protection";</p> <p>Law 81/2017 "On Protected Areas";</p> <p>Law 1006/2008: "On the protection of wild fauna";</p> <p>Law 10120/2009, "On Protection of the Medicinal Plants";</p>	<p>Site inspection and audit of all Biodiversity Action Plan targets, activities, and results.</p>	<p>Records verifying the implementation of mitigation measures;</p> <p>Conclusions of the audits effectuated by REA and MoTE;</p>	<p>Weekly and daily before, during, and after construction;</p>
<b>Landscape and visual Effects</b>	<p>EBRD PR1: Assessment and Management of Environmental and Social Risks and Impacts;</p> <p>EBRD PR6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.</p> <p>Best practice in Guidelines for Landscape and Visual Impact Assessment.</p>	<p>Project area monitoring provided by appropriate landscape/ecological site supervisor during reinstatement;</p>	<p>Records verifying the implementation of restoration measures;</p> <p>Presence of protective fencing to protect vegetation;</p>	<p>Weekly</p>
<b>Land acquisition and Land use</b>	<p>EBRD PR10: Information Disclosure and Stakeholder Engagement;</p> <p>PR5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement;</p>	<p>Monitoring signed agreements for compensations;</p>	<p>Number of land owners affected with signed compensation agreements;</p>	<p>Monthly</p>

Indicator	Requirements	Monitoring Task	Monitoring Parameter	Timing
	Law 8561/1999 “On Expropriations and Temporary Takings of the Private Property for Public Interest”, as amended in 2016, and 4 DCMs define the procedures for expropriation of immovable property.	Maintenance of grievance mechanism	Percentage of relevant Grievances responded to and addressed;	
<b>Economy and Employment</b>	EBRD PR10: Information Disclosure and Stakeholder Engagement; IFC General EHS Guidelines; Albanian Law; Best Practice.	Temporary employment and economic impact at the local level; Monitoring employment of the vulnerable groups;	Number of contracts with local companies, and amount (in Euro) of each contract	Prior to construction; and Eventually during construction;
			Euro spent on Albanian goods and services Percentage of unskilled labour from within the country Percentage of contractors trained on socioeconomic policies Euro spent on goods and services in Albania; Percentage of unskilled labour within the country; Number of local people recruited; Number of local people from vulnerable groups recruited	Monthly
<b>Cultural heritage</b>	EBRD PR8: Cultural Heritage; Albanian law on Cultural heritage;	Implementation of CHMP and Chance find procedure; Monitoring of all ground-breaking construction activities; Implementation of any required protection measures; Monitoring of mitigation activities; Maintenance of grievance mechanism;	Completion of required reporting, including daily logs of archaeological monitoring; and Chance Finds Records, compliance with EISA CH Commitments	Daily & Weekly; CF reports as per Find,
			Percentage of avoidance of cultural heritage resources, where applicable; Percentage coverage within archaeological site protection checklist;	Monthly

Indicator	Requirements	Monitoring Task	Monitoring Parameter	Timing
			Percentage of relevant Grievances responded and addressed; Percentage of delivery of Code of Conduct to project management and workforce;	
<b>Infrastructure</b>	EBRD PR10: Information Disclosure and Stakeholder Engagement; IFC General EHS Guidelines; Albanian regulations; International best practice.	Signed agreements with authorities and public companies; Maintenance of grievance mechanism,	Number of entities having a signed agreement; Percentage of response to relevant Grievances;	Monthly
<b>Traffic and Transport</b>	EBRD PR10: Information Disclosure and Stakeholder Engagement	Potential impacts related to traffic; Traffic-related parameters; Maintenance of grievance mechanism;	Records showing the application of notification periods for roads damages and closures; Register of dates and all notifications; Number of days and kilometres of roads affected; Record of repaired roads	Monthly
<b>Waste management</b>	EBRD PR3: Resource Efficiency and Pollution Prevention and Control; Law 10463/2011, "On integrated waste management", as amended; DCM 687/2015 "On adopting rules for keeping, updating and publishing data on differentiation of waste collection at source	Visual inspection of eventual pollution from all types of waste;	Number of times where waste has polluted the environment; Conclusions of the audits effectuated by the local government and the related state agencies;	Daily
<b>Community Health and Safety and security</b>	EBRD PR4: Health, Safety and Security; IFC General EHS Guidelines; Best practice; DCM 564/2013: "On the approval of the rules on Minimum Safety and Health Requirements at the Workplace"; Law 5/2014: "On safety and health in construction"	Local Communities and Workers health; Application of training; Medical facilities and first aid equipment at the sites;	Health checks are conducted for all workers every 6 months; Training records on medical facilities and first aid equipment conditions;	Monthly

Indicator	Requirements	Monitoring Task	Monitoring Parameter	Timing
<b>Working conditions and Workers' Management</b>	EBRD PR2: Labour and Working Conditions; EBRD PR 4: Health, Safety and Security; DCM 564/2013: On the approval of the rules "On Minimum Safety and Health Requirements at the Workplace"; Law 10237/2010: "On occupational safety and health", as amended;	H&S performance evaluations for subcontractors; PPE monitoring; H&S monitoring and audits.	Total recordable incidents; Lost time incidents and other H&S indicators; Records on Health check parameters; Records on the conditions of PPE. The number of times when compliance with core ILO standards has been breached.	Weekly H&S audits
		Workforce surveys; Maintain grievance mechanism; Maintain training records.	Workforce surveys results; Community and workers grievance trends; Records on the number of times where Code of Conduct has been breached; Compliance with assigned training,	Monthly
<b>Accidental situations</b>	Guidelines on the requirements to ensure safety and manage non-routine events; Best practice; National regulations.	Monitor risks from non-routine events	Record of number of accidents; Records on the number of times where Adherence to the Emergency Response Plan has been breached;	Daily

**Table 3-4 Monitoring activities during operation and maintenance stages**

Indicator	Requirements	Monitoring Task	Monitoring Parameter	Timing
<b>Air Quality Climate change</b>	EBRD PR3: Resource Efficiency and Pollution Prevention and Control; IFC Guidelines (Environmental, Health and Safety Guidelines); Directive 2008/50/EC; DCM 352/2015; Law 162/2014;	As the train will be electrical no need to monitor air emissions at the stations, but it is recommended mostly at the freight stations  Annually, quantify GHG emissions in accordance with EBRD Methodology for Assessment of Greenhouse Gas Emissions;	As required by DCM 352/2015;	As appropriate
<b>Noise and vibrations</b>	EBRD PR3: Resource Efficiency and Pollution Prevention and Control; IFC Guidelines (Environmental, Health and Safety Guidelines); Ministry of Environment Ordinance 1037/1, dated 12.4.2011; Law 9774/2007;	Noise monitoring across the urban areas at the beginning of the operation stage and prior to construction of eventual noise barriers, as well as after the installation of the noise barriers	Day and night-time noise levels;	As appropriate
<b>Erosion and sedimentation</b>	EBRD PR1: Assessment and Management of Environmental and Social Risks and Impacts; National regulations; Best Practice;	Monitor erosion on the riverbeds and streambeds; Identification and reporting of erosive events; Riverbeds and riverbanks restoration at crossings.	Comparison of before and after photos at rivers and streams crossings; Number of erosive events caused by the project activities; Percentage of project-related erosive events detected and corrected; Photographs comparing before and after crossings.	After restoration works
<b>Terrestrial ecology</b>	EBRD PR6: Biodiversity Conservation and Sustainable Management of Living Natural Resources; EBRD PR3: Resource Efficiency and Pollution Prevention and Control;	Verification of the results of the Biodiversity Action Plan targets, and results.	Records verifying the implementation of mitigation measures; Percentage of restoration within the forested and shrubby area;	Every 6 months, for a period of 10 years

Indicator	Requirements	Monitoring Task	Monitoring Parameter	Timing
	Convention on the conservation of European wildlife and natural habitats; EU Habitats Directive; Law 9587/2006 "On Biodiversity Protection"; Law 81/2017 "On Protected Areas";		Conclusions of the audits effectuated by REA and MoTE;	
<b>Landscape and visual Effects</b>	EBRD PR1: Assessment and Management of Environmental 18 and Social Risks and Impacts; EBRD PR6: Biodiversity Conservation and Sustainable Management of Living Natural Resources; Best practice in Guidelines for Landscape and Visual Impact Assessment.	Project area monitoring provided by appropriate landscape/ecological site supervisor during reinstatement;	Records verifying the implementation of restoration measures; Presence of protective fencing to protect vegetation;	Annual
<b>Workers Health</b>	EBRD PR4: Health, Safety and Security; IFC General EHS Guidelines; National regulations; Best practice;	Worker's health; Application of training; First aid equipment at the main stations	Reports on monitoring of medical facilities at the first aid services at the main stations; Health checks are conducted for all workers every 6 months; Training records on first aid equipment conditions;	Monthly
<b>Accidental situations</b>	Guidelines on the requirements to ensure safety and manage non-routine events; Best practice; National regulations.	Monitor risks from non-routine events (train incidents and railway line and station accidents).	Record of number of accidents; Records on the number of times where Adherence to the Emergency Response Plan has been breached;	Continuous