

Construction of new railway section from Kriva Palanka to the border with Republic of Bulgaria, as part of Corridor VIII

Environmental and Social Action Plan

Public Enterprise for Railway Infrastructure Railways of Republic of North Macedonia – Skopje

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1	EBRD PR 1: Assessment and Management of Environmental and Social Impacts and Issues EIB S1: Environmental and Social Impacts and Risks
2	EBRD PR 2: Labour and Working Conditions EIB S8: Labour Rights
3	EBRD PR 3: Resource Efficiency and Pollution and Prevention Control EIB S3: Resource Efficiency and Pollution Prevention
4	EBRD PR 4: Health, Safety and Security EIB S9: Health, Safety and Security
5	EBRD PR 5: Land Acquisition, Involuntary Resettlement and Economic Displacement EIB S6: Involuntary Resettlement
6	EBRD PR 6: Biodiversity and Living Natural Resources EIB S4: Biodiversity and Ecosystems
7	EBRD PR 7: Indigenous People EIB S7: Vulnerable Groups, Indigenous People and Gender
8	EBRD PR 8: Cultural Heritage EIB S10: Cultural Heritage
9	EIB S5: Climate Change EBRD PR 3: Resource Efficiency and Pollution and Prevention Control
10	EBRD PR 10: Information Disclosure and Stakeholder Engagement EIB S2: Stakeholder Engagement

List of Abbreviations

Abbreviation	Meaning
CESMP	Construction Environmental and Management Plan
CLO	Community Liaison Officer
CSO	Civil Society Organization
dB	Decibel
E&S	Environmental and Social
EBRD	European Bank for Reconstruction and Development
EIA	Environmental Impact Assessment
EIB	European Investment Bank
EPRP	Emergency Preparedness and Response Plan
ESAP	Environmental and Social Action Plan
ESDD	Environmental and Social Due Diligence
ESIA	Environmental and Social Impact Assessment
ESIA	Environmental and social impact assessment
ESMP	Environmental and Social Management Plan
ESMS	Environmental and Social Management System
ESP	Environmental and Social Policy
EU	European Union
FC	Full Compliance
GBVH	Gender-based Violence and Harassment
GHG	Greenhouse Gas
H&S	Health and safety
ILO	International Labor Organization
KP	Kriva Palanka
LSGU	Local Self Governmental Units
MoEPP	Ministry of Environment and Physical Planning
OESMP	Operation Environmental and Management Plan
OG	Official Gazette
OGRNM	Official Gazette of Republic of North Macedonia
OSH	Occupational Health and Safety
PAP	Project Affected People
PC	Partial Compliance
PE ZRSMI	Public Enterprise Railways of the Republic of North Macedonia, Infrastructure
PPE	Personal protective equipment
PR	Performance Requirement
PWS	Private Water Supply
RAP	Resettlement Action Plan
RNMT	Railways of North Macedonia Transport
SEP	Stakeholder Engagement Plan
TSI	Technical Specifications for Interoperability
WMP	Waste Management Plan

ENVIRONMENTAL AND SOCIAL ACTION PLAN

The table below constitutes the ESAP. It identifies the required actions during pre-construction, construction and operation of the project to ensure compliance with EBRD Environmental and Social Policy (2019) and associated Performance Requirements (PRs) and EIB Environmental and Social Standards (EIB-S) (2022), together the Lenders Standards.

The project is expected to be financed in part by an approved Instrument for Pre Accession II (IPA II) grant. This grant shall be deployed through the IPA Operating Structure. See for further details: <u>IPA</u> <u>2014-2020 (IPA II) - CFCD (finance.gov.mk)</u>. In that context, the Environmental and Social instruments, including this document, shall be implemented by the Public Enterprise for Rail Infrastructure Management of the Republic of North Macedonia in collaboration with the Contracting Authority, or Central Financing and Contracting Department (CFCD) within the Ministry of Finance, and the Ministry of Transport and Communication.

When contractors perform work under contract, the contracting entity i.e. either Central Financing and Contracting Department (CFCD) in the case of the Works Contract or PE ZRSMI in the case of signalling and telecommunication and electrification, shall be responsible for including the requirements of this ESAP into the relevant procurement documents and ultimately for contractors' compliance with the requirements of the ESAP. PE ZRSMI will engage a supervision consultant to provide support in monitoring the implementation of these requirements by contractors.

No.	Environmental and Social Action	E&S Risks /Benefits	Requirement (Legislative, EBRD/EIB, Best practice)	Resources, Investment Needs, Responsibilities	Timetable	Target and Evaluation Criteria for Successful Implementation
1	EBRD PR 1: Assessment and Manager EIB S1: Environmental and Social Impa			cial Impacts and Issue	es	
1.1	Contractor Procurement Process: All requirements and measures set out in the Supplementary E&S Disclosure package (which includes measures from the 2017 ESIA), compliance with Lenders standards and national legislation are included in the tender documentation. Undertake the procurement process for the construction works to identify and select a Contractors who have the required EHSS performance standards, resources, accidents statistics, management systems and policies. Include in tendering documents the requirement for the Contractor's to develop procedures / method statements for the project to manage the EHSS issues as set out in the ESAP and ESMP. As part of the selection process, an assessment of EHSS management policies, procedures and management capacities and previous performance should be undertaken. Contractors to have sufficient human and financial resources to implement the E&S requirements	Contractor / EHSS management.	National public procurement regulations; EBRD PRs, EIB S;	CFCD and PE ZRSMI to undertake construction works, signalling and telecommunications and electrification tender process respectively CFCD with support from PE ZRSMI to require the Works Contractor to provide the following resources, but not limited to these, to implement the EHSS requirements for the Project: Constructor Project Manager Construction Site Manager(s) Environmental Lead Biodiversity Specialist Health and Safety Lead Social Lead Railway Safety Manager	During Contractor selection process (procurement) and prior to contract award	E&S requirements set out in tender and contract documentation. Contractor evaluation and selection completed Contractor resources in place

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1	EBRD PR 1: Assessment and Managen EIB S1: Environmental and Social Impa			cial Impacts and Issue	es	
				 Human resources Lead Qualified Archaeological Specialist 		
1.2	Update the Supplementary E&S package based on results of disclosure and consultation as required	E&S documents account for stakeholder feedback	EBRD PR 1 EIB S1	Responsibility: PE ZRSMI Resources: Consultant Support	1. Within 90 days of completion of the disclosure period	1. Updated E&S documentation
1.3	EIA for electrification of Section 1, 2 and 3: Secure approval of new EIA, according to article 24 of the Law on Environment (simpler EIA) for the electrification works for Section 1, 2 and 3.	Compliance with legal requirements and Lenders standards	National legislation EBRD PR 1 EIB S1	Responsibility: PEZRSMI Resources: In house / Consultant support	 Prior to finalisation of the tender documents. Prior to start of electrification works 	 Tender documents include requirement for Contractor to prepare new EIA and secure approval prior to start of electrification works EIA approval
1.4	Permits and approvals: Ensure that the tender documents contain clear provisions requiring the Contractor to obtain all regulatory approvals and permits for the establishment of any quarries, borrow pits and landfills. Ensure that statutory environmental conditions are issued by authorities and construction permits are obtained before any construction activities are started.	Compliance with legal requirements and Lenders standards	National legislation EBRD PR 1 EIB S1	Responsibility: PE ZRSMI with support from CFCD to include in tender documents Contractor to implement Resources: In house (PE ZRSMI) Consultant support	Finalisation of the tender documents/ prior to start of construction.	Environmental approvals / construction permits obtained.

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1	EBRD PR 1: Assessment and Manager EIB S1: Environmental and Social Imp			cial Impacts and Issu	es	
1.5	Develop and implement an Environmental and Social Management System (ESMS) and E&S Policy: Develop and implement a formal ESMS system, aligned with the ISO 14001:2015, ISO 45001:2018 or equivalent international standards, international conventions signed by the Republic of North Macedonia, national regulation and requirements outlined in the Supplementary E&S Disclosure package. The ESMS shall upgrade the existing system (primarily based on fulfilment of regulatory requirements) and include environmental and social management planning and improvement. The ESMS shall cover all aspects of PE ZRSMI's operations, including railway construction, operation, and its own internal institutional operations.	Optimisation of PE ZRSMI's E&S management though a formalised document and associated system. All E&S risks are appropriately addressed and actions tracked.	EBRD PR 1: EIBS1:	Responsibility: PE ZRSMI Resources: In house (PE ZRSMI) Consultant Support	 Prior to the start of construction Prior to the start of construction Prior to operation of the Project and/or Sections 1 and 2 	 ESMS system developed in accordance with international standards including: 1. E&S Policy developed and adopted by the company management board. 2. ESMP updated and supporting procedures developed and under implementation (Action 1.11) 3. ESMS documentation for operations phase
1.6	Develop and implement an Occupational Health and Safety System (OHS) PE ZRSMI to develop and implement a formal OHS system, in aligned with the ISO 45001:2018 or equivalent international standards, international conventions signed by the Republic of North Macedonia, national regulation and requirements outlined in in the Supplementary E&S Disclosure package	Optimisation of PE ZRSMI's H&S management though a formalised document and associated system.	EBRD PR 1: Environmental and Social Management Systems EIBS1: Environmental and Social	Responsibility: PE ZRSMI Resources: In house (PE ZRSMI) Consultant Support	Prior to operation of the Project and/or Sections 1 and 2	H&S Policy developed and adopted by the company management board. OHS system developed in accordance with the international standards. OHS documentation, including provisions for and results of

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1	EBRD PR 1: Assessment and Manager EIB S1: Environmental and Social Impa	acts and Risks		cial Impacts and Issu	es	
	The ESMS should upgrade the existing system (primarily based on fulfilment of regulatory requirements) and include environmental and social management planning and improvement. OHS should cover all aspects of PE ZRSMI's operations, including railway construction, operation, and its own internal institutional operations.	All H&S risks are appropriately addressed and actions tracked.	Management Systems			monitoring related to the Project implementation.
1.7	 Appoint a Project Implementation Unit (PIU) and Project Reporting: The PIU shall be responsible for: Implementing PE ZRSMI responsibilities as defined in the Environment and Social Action Plan (ESAP) and the implementation of the Environmental and Social Management Plan (ESMP), and other associated documents including the Resettlement Action Plan (RAP), Biodiversity Management Plan (BMP), and Stakeholder Engagement Plan (SEP); Managing and monitoring the compliance of Contractor and sub- contractors with the above documents; and Preparing monthly progress reports on the environmental, health, safety and social (EHSS) aspects of the Project for the Lenders, and monitoring reports of EHSS aspects every 6 months. 	Clear EHSS management for the Project Compliance with Lenders EHSS requirements / standards	EBRD PR1 to PR10 (excluding PR7 and PR9). EIB S1 Best practice	PE ZRSMI to appoint PIU. PIU to use their own resources to fulfil outlined responsibilities. Contractor to provide required inputs to progress reports, including reporting on the agreed metrics using their own resources. PIU personnel to include the roles and responsibilities identified in the ESMP which include, but not limited to: PIU Manager EHSS Manager	Pre-construction Monthly submission pre- construction, and construction. Included in the Monthly Progress Report issued by the Supervision Consultant and PIU Annual reporting during operation.	PE ZRSMI to assign or recruit the required resources; Training for assigned personnel is completed; Contractor resources are in place; Submission of a Project progress report monthly (pre-construction, and construction) and annual (operation) to the Lenders that reports on: ESAP, ESMP, RAP, BMP, implementation progress, effective EHSS performance, stakeholder engagement activities in line with the SEP and resolution of grievances.

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1	EBRD PR 1: Assessment and Manager EIB S1: Environmental and Social Imp			cial Impacts and Issue	es	
	Assign suitably qualified personnel to the PIU with EHSS management responsibilities, as detailed in the ESMP. PIU to provide training and undertake recruitment as required.			 Community Liaison Officer (CLO) Biodiversity Specialist HS Specialist Human Resources/Labour Specialist Social and Resettlement Expert Supervision Consultant 		
1.8	Appoint a Supervision Consultant (Engineer): Appoint a Supervision Consultant, with a range of expertise, as specified in the ESMP, to supervise the activities of the Contractor on a day-to-day basis. The Supervision Consultant shall supervise the Contactor to ensure that the requirements as set out in the ESIA, ESAP, ESMP, SEP, RAP, ERF, BMP, are applied. The Supervision Consultant shall assist in the preparation of monthly progress reports for the Lenders. Supervision Consultant to conduct regular inspection of Contractors' EHSS performance in accordance with a protocol	Compliance with Lenders EHSS requirements / standards	EBRD PR1 to PR10 (excluding PR7 and PR9). EIB S1 Best practice	PE ZRSMI to appoint Supervision Consultant via international tendering procedure. Supervision Consultant to implement regular supervision and inspection activities using their own resources, which shall include the following personnel with the responsibilities as set out in the ESMP: Supervision Contract Manager	To be appointed at least 2 months prior to of Works Contract award	Supervision Consultant Appointed by PE ZRSMI. Supervision Consultant to prepare Monthly Progress reports, or more frequently when needed. This is to include reporting on measures taken by the Contractor to address any non- conformances with EHSS performance, including OHS, and Lenders requirements. Monthly progress reports submitted to the Lenders

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1	EBRD PR 1: Assessment and Manager EIB S1: Environmental and Social Imp			cial Impacts and Issue	es	
	approved by PIU, which shall define the scope and frequency of the inspection.			 Environmental Expert Health and Safety Expert Social Supervisor 		
1.9	Establish E&S department/unit PE ZRSMI to amend its organizational structure to provide basis for establishing a separate department/unit for E&S matter; to allocate appropriate staff; to provide appropriate capacity building and annual training program. Recruitment of certified H&S specialist.	Compliance with Lenders EHSS requirements/ standards	EBRD PR1 EIB S1	PE ZRSMI	To be established prior to commencement of the operation.	E&S Department/ Unit established and operational.
1.10	Environmental and Social Management Plan: Update the ESMP prior to construction to reflect latest situation. Implement all mitigation measures identified in the Supplementary E&S Disclosure Package, as detailed in the ESMP (framework prepared by Connecta 2023). Ensure the development of all the sub-plans listed in the ESMP, in line with national legislation and the Lenders EHSS requirements for all phases of the Project.	Compliance with Lenders EHSS requirements/ standards	EBRD PR1 – PR 10 (excluding PR7 and PR9) EIB S1 Best practice	Responsibility: PE ZRSMI to use their own resources to update and implement the ESMP and prepare applicable sub-plans Contractor to prepare applicable sub-plans Resources:	Updated ESMP prepared prior to the commencement of construction/operation and updated annually, if required. Implementation of mitigation measures throughout the Project (pre-construction, construction and operation)	Updated ESMP and all sub-plans prepared, approved by Lenders and used to monitor EHSS compliance during construction. O-ESMP and associated plans developed, approved by Lenders and implemented Mitigation measures identified in the ESIA have been implemented throughout Project's entire lifecycle.

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1	EBRD PR 1: Assessment and Manager EIB S1: Environmental and Social Impa			cial Impacts and Issue	es	
	Continually review and update, as a minimum annually and with Project and / or legislative changes. The ESMP is a live document that should be used to document and monitor the implementation of mitigation measures in the ESIA. Develop an Operation Environmental and Social Management Plan (OESMP) and associated sub-plans as defined in the ESMP			Contractor Consultant support		
1.11	Environmental, Health, Safety and Social Incidents Procedure: Set-up, maintain and continually review an EHSS Incident Reporting Procedure to maintain records of monitoring, accidents and incidents, as required in the ESMP.	Management of EHSS accidents and incidents.	National legislation EBRD PR 1 EBRD PR 4 EIB S1	Responsibility: PE ZRSMI to establish and implement Monitoring by Supervision Consultant. Contractor to implement.	Throughout (pre- construction, construction and during operation).	EHSS Incident Reporting Procedure is developed. Lenders via the PIU during construction.
1.12	Contractor Management: Contractor to put in place a clearly defined ESMS for the Project including development of a C-ESMP and associated sub-plans and procedures for the Project and to provide for mitigation in case of non-compliance.	All supply management issues are appropriately addressed.	EBRD PR 1 EIB S1	Responsibility: CFCD with support from PE ZRSMI to include in tender documentation	1. Prior to procurement and contract award	 ESMP conditions incorporated into tender and contract documents.

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1	EBRD PR 1: Assessment and Manager EIB S1: Environmental and Social Impa			cial Impacts and Issue	es	
	All Contractors to appoint suitably qualified EHSS personnel who are responsible for the implementation of the EHSS elements of the Project as per their scope of work. Minimum construction contractor EHSS personnel are specified in the ESMP. Contractor to have equivalent E&S arrangements with their subcontractors, sub- contractors to have appropriate numbers of ESHS personnel and cascade the E&S requirements to their subcontractors.	Compliance with Lenders EHSS requirements/ standards		Monitoring by Supervision Consultant. Contractor Resources: PE ZRSMI/ PIU to establish using its own resources. Contractor to use their own resources to prepare and implement the C- ESMP and all applicable sub-plans and procedures.	2. Throughout (pre- construction, construction and during operation). Note C-ESMP and any relevant sub- plans shall be approved and in place prior to mobilisation	 C-ESMP, sub-plans and procedures developed and implemented
1.13	 Project Monitoring: Identify requirements for environmental and social monitoring during construction and operation and include in the relevant ESMP Sub-Plans. Pre-Construction Monitoring: Before construction update the baseline measurements for ambient noise to inform the updated noise model. Construction Monitoring: Ensure the works Contractor is required to develop an environmental and social monitoring plan and to agree its details with the Engineer. Key issues to be monitored include (but not 	All environmenta I and social effects are appropriately monitored.	Local regulatory requirements EBRD PR 1 EIB S1	Responsibility: CFCD with support from PE ZRSMI to control, monitor and ensure implementation Contractor is responsible to include monitoring in C-ESMP and sub-plans and organise the monitoring (a third party consultant may be hired). Resources:	1 - Prior to construction 2, 3, 4 During construction and operation	 Construction Monitoring Plan prepared Operation Monitoring Plan prepared Monitoring results published. Report on updates in regular report to the Lenders.

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1	EBRD PR 1: Assessment and Manager EIB S1: Environmental and Social Impa			cial Impacts and Issu	es	
	 limited to): air emissions, construction noise and vibration levels, water quality, habitat clearance, erosion, grievances, worker and community health and safety indicators, haulage routes, etc. Operation Monitoring: The ESMP set out the monitoring requirements for Project operation. During operation, the key issues to be monitored include noise and vibration (in case of complaints) and where necessary, biodiversity features, as identified in the Biodiversity Management Plan. Also, quality of the Project's universal access features, as defined in tendering documents. PE ZRSMI has to make publicly available the key monitoring results of the Project. 			Internal Contractor resources, external resources (consultants, laboratories, etc.).		

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2	EBRD PR 2: Labour and Working Conditions EIB S8: Labour Rights					
2.1	The requirements for management of environmental, Health & Safety (H&S), social and labour standards / Human Resources policies in line with Lenders standards must be adequately incorporated in tenders and works contracts for the Project components. Ensure contractual clauses setting out requirements for Environmental, H&S, labour and HR performance and routine reporting on the implementation of these requirements are developed and included in the tender documentation and contracts for the Contactor(s).	Contractor E&S management.	EBRD PR1; EBRD PR2; EBRD PR4; EIB S8 and Best practice.	Responsibility: CFCD with support from PE ZRSMI Contractor to implement Resources: Own Resources Consultant Support	Prior to release of tenders and appointment of the contractor(s).	PE ZRSMI / Supervising Engineer to undertake quarterly labour audits of the Contractor(s)' implementation of all relevant contract clauses.

	 Contractor to carry out the following actions in relation to the accommodation of construction labour. Identify the accommodation facilities required for the Project's construction phase (i.e., existing housing facilities and/or a temporary labour camp as necessary). Select existing facilities based on the results of an assessment of site-specific E&S impacts and on ability of accommodation to comply with IFC and EBRD workers' accommodation guidelines Define a Construction Worker's Accommodation Management Plan, including any site- specific mitigation measures for selected accommodation and minimum standards including (but not limited to) accommodation, sanitary, sustenance, medical, security, transportation, waste management and recreational facilities, measures to prevent GBVH, COVID-19 and compliance with h the IFC and EBRD workers' accommodation guidelines. 	Effective management of labour accommodation to reduce unsafe and unsanitary living conditions and community disturbance	EBRD PR2; EBRD PR4; EIB S8 EBRD/IFC Worker Accommodation Guidelines; Best practice	Responsibility: Contractor to implement the requirements. PE ZRSMI / PIU CFCD to monitor Resources: Own resources, Supervising Engineer	 1 – Prior to accommodation selection. 2 – Prior to occupying accommodation 3 – During construction. 	 Identification of accommodation options and site specific E&S assessment Construction Workers Accommodation Management Plan Records of monitoring, audits and corrective actions.
2.2	Contractor to prepare and implement Recruitment Management Plan to make use of Local Workforce trough: i) Advertising all jobs locally, ii) Encouraging and attracting local workforce (including women) to apply for jobs, and iii) Prioritizing the hire of local workforce and particularly those affected by land access and acquisition, wherever reasonable and practical.	Improved employer - worker relationship, Local economic benefits	EBRD PR2; EIB S8	Responsibility: Contractor to implement the requirements. Resources: Own resources,	Prior to construction	Plans approval before Construction commences.

2.3	Contractor to develop and implement a Project Grievance Mechanism for workers (and contractors) in-line with Lenders requirements to enable individuals/groups (including subcontractors) to raise reasonable workplace concerns, including GBVH. PE ZRSMI worker grievance mechanism to be accessible to contractor and subcontractors.	Compliance with EBRD/EIB PRs	EBRD PR2; EIB S8	Responsibility: Contractor to implement the requirements. Resources: Own resources,	Prior to construction	Plans approval before Construction commences.
2.4	Contractor to develop and implement Gender- based Violence and Harassment Action Plan to define specific ways that GBVH risks are to be addressed in the project by identifying mitigation measures	Compliance with EBRD/EIB PRs	EBRD PR2; EBRD PR4; EIB S7	Responsibility: Contractor to implement the requirements. Resources: Own resources,	Prior to construction	Plans approval before Construction commences.

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3	EBRD PR 3: Resource Efficiency and Pollution EIB S3: Resource Efficiency and Pollution Pr		rol			
3.1	 Earthen Material/ Spoil Management: Contractor shall: Conduct an E&S assessment of borrow pits and disposal sites prior to selection and approval in accordance with the Project EHSS requirements. Use only borrow pits and disposal sites that are approved by the regulator, including the environmental authority and in liaison with the Kriva Palanka municipality. Develop an earthen material/spoil management plan 	Pollution prevention	National regulation EBRD PR3 EIB S3	Responsibility: CFCD with support from PE ZRSMI to include the requirements in tender documentation. Contractor to implement and obtain permits and approvals. Resources: Contractor	Prior to the start of construction.	E&S assessments complete Environmental approvals obtained. Implemented Earthen Material/ Spoil Management Plan.
3.2	 Wastewater Management: Contractor to include the following in the final design: A requirement for installation of a septic tank for domestic wastewater effluent from the passenger building in Židilovo. A requirement for installation of oil separators for pre-treatment of potentially contaminated stormwater from parking areas at both Kriva Palanka and Židilovo before discharging 	Pollution prevention	Law on Environment, Law on Waters EBRD PR3 EIB S3	Responsibility: CFCD with support from PE ZRSMI to include the requirements in tender documentation; Contractor to implement the requirements. Resources: Contractor	Finalisation of the tender documents.	Tender documents included the requirements for septic tank in Židilovo and oil separators at both Kriva Palanka and Židilovo; Septic tank and oil separators installed;

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3.3	Construction Noise and Vibration: Contractor to develop and implement a Noise and Vibration Management Plan, as part of its C-ESMP, to include actions required in the ESMP. The plan must be agreed with the Engineer and approved by PIU and noise monitoring reports provided.	Reduction of construction noise and vibration levels	Law on Environment, EBRD PR3 EIB S3	Responsibility: CFCD with support from PE ZRSMI to include the requirements in tender documentation; Contractor to implement the requirements. Resources: Contractor, procured to third- party as required. Consultant support	Prior to construction: Noise and Vibration Management Plan.	Documented Noise and Vibration Management Plan approved by PIU and Engineer. Reports to PIU during construction. Reports to authorities. Regular Report to the Lenders.
3.4	 Blasting Mitigation and Management: Contractor to: Develop and implement a Blasting Management Plan, as part of its C-ESMP, to include actions required in the ESMP. Conducts test blasting measurements in the vibration sensitive areas and based on the results, implements the appropriate blasting methods with respect to the proximity of buildings. Undertakes a detailed pre-condition survey of buildings in the vibration blasting sensitive areas. The condition survey must also be conducted during the construction and post- construction. 	Control of vibration blasting levels	Law on Environment, EBRD PR3 EIB S3	Responsibility: CFCD with support from PE ZRSMI to include the requirements in tender documentation; Contractor to implement the requirements. Resources: Contractor, procured to third- party as required. Consultant support	Prior to construction: Noise and Vibration Management Plan.	Documented Blasting Mitigation and Management Plan approved by PIU and Engineer. Reports to PIU during construction. Reports to authorities. Regular Report to the Lenders.

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	- Monitors vibration levels at representative receptor locations during blasting.					
3.5	 Operational Noise Mitigation and Monitoring; Contractor to finalise the noise mitigation design in accordance with the ESMP and ensure applicable noise standards are met at receptors by: - include mitigation measures including optimised noise barriers in the final design (as provisionally identified in the Supplementary E&S Disclosure Package) - provide individual sound-insulation to buildings where noise-barriers would not be effective (as provisionally identified in the Supplementary E&S Disclosure Package). The affected people to be given the option to accept this mitigation. Undertake operational noise monitoring and respond to any complaints as described in the ESMP. 	Reduction of operational noise levels	Law on Environment, Law on ambient noise protection, WHO Guidelines EBRD PR3 EIB S3	Responsibility: CFCD with support from PE ZRSMI to include in the tender documents. Contractor to design and implement. PE ZRSMI to undertake operational monitoring Resources: Consultant support Contractor PE ZRSMI	Finalisation of the tender documents.	Tender documents to include the requirements Noise Mitigation Design Study Final Design of Noise Barriers implemented Sound insulation package offered and installed in applicable properties. Noise Monitoring Reports
3.6	Operational Vibration Mitigation and Monitoring Contractor to finalise the vibration (including groundborne noise) mitigation design in accordance with the ESMP and ensure applicable vibration standards are met at receptors by- including vibration attenuation measures within the Project final design and construction methodology	Attenuation of the propagation of vibration to buildings	Law on Environment, EBRD PR3 EIB S3	Responsibility: CFCD with support from PE ZRSMI to finalise the tender documents. Contractor to design and implement. PE ZRSMI to undertake operational monitoring Resources:	Finalisation of the tender documents.	Tender documents to include the requirements Detailed design to include vibration attenuation Vibration Monitoring Reports

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	Undertake operational vibration monitoring and respond to any complaints as described in the ESMP.			Contractor PE ZRSMI Consultant Support		
3.7	 Hazardous Materials and Hazardous Waste Management during Operation; Contractor to include within the detailed design that the traction power transformers at the TPS Kratovo and TPS Kriva Palanka are equipped with spill containment structures. PE ZRSMI to establish an appropriate interim storage of hazardous waste and hazardous materials at the Kriva Palanka station and Židilovo halt. Ensure the Contractor develops and implements a Contaminated Material Management Procedure as part of the CESMP to ensure that excavated soil in the area around the proposed exit from the tunnel No. 8 is tested for contamination and if contaminants are detected, soil is handled in accordance with the ESMP. 	Proper management of hazardous materials/ waste during operation	EBRD PR3 EIB S3 Law on waste management (2021)	Responsibility: CFCD with support from PE ZRSMI to include in tender documentation. Contractor to implement during construction Resources: Contractor In house Consultant support	Finalisation of the tender documents. Prior to start of construction. Operational phase	Requirement for transformer spill containment structures in the tender documents, final design and implemented Established appropriate interim storage of hazardous waste / materials at the Kriva Palanka station and Židilovo halt.
3.8	PE ZRSMI will set up, maintain and continually review a procedure for management of chemicals for removal of plants along the railway.	Reducing impacts	Law on chemicals EBRD PR3 EIB S3	Responsibility: PE ZRSMI Resources: In-house; Consultant support	Prior operations	Procedure developed.

No.	Environmental and Social Action	E&S Risks /Benefits	Requirement (Legislative, EBRD/EIB, Best practice)	Resources, Investment Needs, Responsibilities	Timetable	Target and Evaluation Criteria for Successful Implementation
4	EBRD PR 4: Health, Safety and Security EIB S9: Health, Safety and Security Adequate em	ergency response.				
4.1	Community Health Safety and Security: Develop and implement Community Health, Safety and Security Plans compliant with monitoring and management systems, as required in the ESMP. Community Health, Safety and Security Plans for operation stage should also include actions related to provision of information at stations in formats that are accessible to all, with a focus on gender-responsive access; integrating community awareness as part of the Stakeholder Engagement Plan, and ensuring these activities are regularly implemented during operation to increase communities' understanding of accessibility features; and capacity building within PE ZRSMI for continued supervision, implementation and monitoring of universal access in stations, and of regular community awareness activities during operation PE ZRSMI to liaise with the national transmission operator (MEPSO) related to minimisation of disruption in electricity supply during the installation of connections.	To minimise accidents and incidents and ensure community safety. To ensure accessible rail transport services for all passengers, including people with reduced mobility, and senior citizens.	EBRD PR4 EIB S9	Responsibility: PE ZRSMI Contractor Resources: In house or Consultant support	Contractor prior to and during Construction. PE ZRSMI prior to and during operation.	Management plans developed and implemented.

4.2	Operational Emergency Preparedness and Response : Develop and implement an Operational Emergency Preparedness and Response Plan (OEPRP), to address risks as set out in the ESMP. Ensure liaison with 'Railways of Republic of North Macedonia Transport (RNMT)', the State Directorate for Protection and Rescue, the local authority of Kriva Palanka and local emergency responders in development of the OEPRP. Harmonise the OEPRP with the Local Plan of Protection and Rescue which local authorities are required to implement, according to the Law on Protection and Rescue (2018). Initiate discussions with the Directorate for Protection and Rescue, the local fire authority, emergency services, Municipality of Kriva Palanka and other relevant stakeholders so that local responders are provided with adequate equipment and training.	Adequate preparedness and emergency response	Law on Protection and rescue (2018) EBRD PR4 EIB S9	Responsibility: PE ZRSMI Resources: In house or Consultant support	Before the operation commences the Plan must be prepared and approved by the national and local authorities and stakeholders	Documented Emergency Preparedness and Response Plan; Local responders are provided with adequate equipment and training. PE ZRSMI to report on updates in annual reports to the Lenders.
4.3	Contractor to establish an Occupational Health & Safety Plan as part of an OHS management system in line with ISO 45001 or other international standard and ensure sufficient provision of medical care facilities and resources for workforce. The contractual conditions are to ensure all sub-contractors are also required to follow the Health & Safety Plan and the OHS management system.	Compliance with EBRD/EIB standards	Law on Safety and Health at Work (2013)	Contractor(s), to implement CFCD with support from PE ZRSMI to monitor Resources: Contractor Supervision Engineer	To be approved prior construction commences.	Plan approved prior construction commences. Regular implementation reports to Lenders.

4.4	Contractor to prepare Traffic Management Plan. The Plan to ensure suitable access or suitable alternatives to local communities is retained at all times and effects on journey times are minimised. Haulage routes shall avoid (as far as possible) local settlements and sensitive biodiversity areas (as identified in BMP), where they cannot additional mitigations shall be implemented	Compliance with EBRD/EIB standards, Avoid or reduce impact from traffic	EBRD PR4 EIB S9	Contractor(s), to implement CFCD with support from PE ZRSMI to monitor Resources: Contractor Supervision Engineer	Prior construction	Plan approved prior construction commences. Regular implementation reports to Lenders.
4.5	Occupational Health Safety and Security: Develop and implement Occupational Health, Safety and Security Plan compliant with national relevant legislation and Lender's OHS policy and monitoring and management systems, as required in the ESMP.	Compliance with national requirement and EBRD/EIB standards To minimise accidents and incidents and ensure occupational safety.	EBRD PR4 EIB S9	Responsibility: PE ZRSMI Resources: In house or Consultant support	PE ZRSMI prior to operation.	Management plan developed and implemented.

No.	Environmental and Social Action	E&S Risks /Benefits	Requirement (Legislative, EBRD/EIB, Best practice)	Resources, Investment Needs, Responsibilities	Timetable	Target and Evaluation Criteria for Successful Implementation				
5	EBRD PR 5: Land Acquisition, Involuntary Resettlement and Economic Displacement EIB S6: Involuntary Resettlement									
5.1	Update the Resettlement Action Plan (RAP)/Prepare an addendum to the RAP for the land acquisition required for the re- designed access roads and any other changes due to the final design and disclose the document to affected people Ensure sufficient resources (human and financial) to implement the RAP including the provision of compensation, other assistance and livelihood restoration measures Implement the Resettlement Action Plan (RAP) including any addendum(s).	Minimisation of impacts of land acquisition and to ensure that adequate compensation is provided for lost income and land.	National legislation on land expropriation EBRD PR5, EIB S6.	Responsibility: PE ZRSMI / PIU Resources: Supervision Engineer Consultant support	 Prior to land acquisition and 3. Prior to land entry and start of construction. 	 RAP updated/addendum for permanent access roads and any other design changes and disclosed RAP implemented 				

	 Require the Contractor to undertake an E&S assessment and mitigation planning for any additional land acquisition for the Project not included in the current design (including permanent and temporary land such as site access roads and potentially other temporary construction facilities), in line with national requirements and Lenders standards. Optimize the design of permanent and temporary facilities to minimise involuntary resettlement to the extent possible. Undertake necessary activities for temporary land acquisition. 	Minimisation of impacts of land acquisition and to ensure that adequate compensation is provided for lost income and land.	National legislation on land expropriation EBRD PR1, 5, EIB S1 and 6.	Contractor Resources: Contractor Supervision Engineer Consultant support	Prior to any additional land acquisition or impact	• Evidence of E&S assessment and mitigation planning for any additional land acquisition.
5.2	Undertake internal and external monitoring of land acquisition as per RAP. Ensure that the grievance mechanism is implemented throughout all stages of the Project implementation. Produce periodic internal monitoring reports on the land acquisition and livelihood improvement or restoration process and submit the reports to the Lenders as part of the periodic ESAP monitoring reports.	Minimize the potential court cases in case of disaffection with compensation offered.	National legislative; EBRD PR5; EIB Standard 6 and 7; Good practice.	PE ZRSMI through a qualified consultant, if necessary, Resources: Supervision Engineer.	Prior to, and during the construction phase	Regular implementation reports to Lenders. Upon completion of resettlement activities submit Land Acquisition and Resettlement Execution Report to Lenders

5.3	Undertake a two-stage completion audit after completion of the Resettlement Plan in order to determine whether requirements of PR5 and EIB S6 and 7 and the provisions of this plan have been met. This completion audit will be undertaken by competent, independent resettlement professionals.		National legislative; EBRD PR5; EIB Standard 6 and 7; Good practice.	PE ZRSMI through a qualified consultant Resources: Consultant Support	•	First stage upon completion of compensation and livelihood restoration measures provided upfront, within the first year of RAP implementation Second stage two years post completion of RAP implementation, focused on long term livelihood impacts and livelihood restoration effectiveness	•	Conduct of stage I and stage II completion audits by independent auditor(s). Issue of stage I LRP audit report. Issue of stage II LRP audit report. Evidence of implementation of corrective actions as required
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No.	Environmental and Social Action	E&S Risks /Benefits	Requirement (Legislative, EBRD/EIB, Best practice)	Resources, Investment Needs, Responsibilities	Timetable	Target and Evaluation Criteria for Successful Implementation	
6	EBRD PR 6: Biodiversity and Living Natural Resources EIB S4: Biodiversity and Ecosystems						
6.1	Ensure the Contractor: Updates the Biodiversity Management Plan (BMP) with the results of pre-construction biodiversity surveys Implements the BMP during construction Develops and implements applicable sub- plans including detailed habitat reinstatement as part of the Landscape Management Plan to achieve No Net Loss/Net Gain of identified habitats Monitor the implementation of all mitigation measures	Minimise, mitigate and restore I biodiversity impacts. Effective project implementation	EBRD PR6. EIB S4 Law on nature protection	CFCD with support from PE ZRSMI to include in tender documentation. Contractor(s) to implement Resources: Contractor Supervision consultant. Consultant support	 Prior to construction. and 3. During construction and prior to completion of works 	 Pre-construction surveys completed and updated BMP BMP implemented; sub-plans developed and implemented Regular monitoring and reporting on implementation to Lenders 	
6.2	Update the BMP for operations and implement biodiversity monitoring as outlined in the BMP. Undertake maintenance of habitat restoration areas to ensure no net loss/net gain targets are met	Proper implementation of mitigation measures	EBRD PR6. EIB S4 Law on nature protection	PE ZRSMI / PIU. Resources: Consultant support	 Prior to Operation and 3. During Operation 	 Operation BMP developed BMP implemented including maintenance activities Regular reporting on implementation to Lenders 	

No.	Environmental and Social Action	E&S Risks /Benefits	Requirement (Legislative, EBRD/EIB, Best practice)	Resources, Investment Needs, Responsibilities	Timetable	Target and Evaluation Criteria for Successful Implementation
8	EBRD PR 8: Cultural Heritage EIB S10: Cultural Heritage					
8.1	Develop and implement a Chance Finds Procedure (CFP), as required in the ESMP.	Minimise potential impacts on cultural heritage. Minimise potential loss of partial damage to undiscovered belowground heritage assets.	EBRD PR8. EIBS10 Republic of North Macedonia heritage laws.	CFCD with support from PE ZRSMI to include in tender documentation. Contractor(s) to implement Resources: Contractor	Develop prior to and implement during construction.	Regular reporting on implementation of CFP

No.	Environmental and Social Action	E&S Risks /Benefits	Requirement (Legislative, EBRD/EIB, Best practice)	Resources, Investment Needs, Responsibilities	Timetable	Target and Evaluation Criteria for Successful Implementation		
9	EBRD PR3: Pollution Prevention and Control; EBRD PR4:							
	EIB S5: Climate Change							
9.1	 Minimise GHG emissions: Ensure that material selection requirements set out in the ESMP are implemented by the Contractor. Ensure that energy efficient lighting and efficient water fittings are installed in Kriva Palanka and Židilovo stations. 	Minimisation of Project-related GHG emissions	EBRD PR3. EIB S5.	Responsibility: CFCD with support from PE ZRSMI to include in tender documentation. Contractor(s) to implement	Finalisation of the tender documents. Prior to start of construction.	Contractor ESMP developed and implemented. Energy efficiency measures are incorporated to the tender documents and final design.		
				Resources: Contractor				
9.2	 Ensure that climate change-related risks are included in the Project development: Review the detailed design to ensure that it includes the appropriate climate change allowances related to flooding. Ensure that climate change adaptation measures set out in the ESMP are implemented by the Contractor. Develop and implement the operational maintenance procedures for extreme weather events and related emergencies, as set out in the ESMP, including the liaison with the local emergency services. 	Risks to Project infrastructure from extreme weather events. Adaptation to climate change.	EBRD PR4. EIB S5.	Responsibility: CFCD with support from PE ZRSMI to include in tender documentation. Contractor(s) to implement during design and construction PE ZRSMI to implement for operation and maintenance	 During detailed design and prior to start of construction and continuing throughout the Project. Prior to operation 	 Contractor ESMP developed and implemented. Operational maintenance procedures developed and implemented. 		
				Resources: Contractor Consultant support				

No.	Environmental and Social Action	E&S Risks /Benefits	Requirement (Legislative, EBRD/EIB, Best practice)	Resources, Investment Needs, Responsibilities	Timetable	Target and Evaluation Criteria for Successful Implementation		
10	EBRD PR 10: Information Disclosure and Stakeholder Engagement EIB S2: Stakeholder Engagement							
10.1	Implement and update the Stakeholder Engagement Plan (SEP) for the duration of the project and strengthen its existing Grievance Mechanism (GM).	Information dissemination and continuous engagement with affected stakeholders, improvement of stakeholder awareness and compliance with EBRD PRs	EBRD PR1; EBRD PR4; EBRD PR5; and EBRD PR10.	PE ZRSMI /PIU/CLO Contractor(s). Resources: Contractor Supervision Engineer Consultant support	Prior to construction and throughout the lifecycle of the Project	Regular reporting on implementation of SEP.		
10.2	Grievance mechanism to set out a procedure in the case of complaints on noise and/or vibration from the local residents. The procedure should define how the noise and/or vibration issue should be verified and what mitigation measures will be undertaken in response		EBRD PR10.	PE ZRSMI /PIU/CLO Contractor(s). Resources: Contractor Supervision Engineer Consultant support	1. Prior to construction and operation	1. Procedure developed and implemented		
10.3	Establish project office in Kriva Palanka, in cooperation with the municipality of Kriva Palanka, regularly staffed. PE ZRSMI and Contractor CLO present on regular basis. Contact details for the CLO to be disclosed at the rail stations	Information dissemination and continuous engagement with affected stakeholders, improvement of stakeholder awareness and compliance with EBRD PRs	EBRD 10 EIB Standard 2 and 7	Responsibility: PE ZRSMI and Contractor PE ZRSMI Resources: In-house Contractor	Prior to and during construction During operation	Regular reporting on implementation of SEP.		