Republic of Serbia
Ministry of European Integration

This project is funded by
the European Union

#ЕУ ЗА ТЕБЕ

RAILWAY LINE BELGRADE–NIŠ, SECTION III PARAĆIN TO TRUPALE (NIŠ), Environmental and Social Impact Assessment, NON-TECHNICAL SUMMARY

EU PPF
PROJECT PREPARATION FACILITY

LIST OF ABBREVIATIONS

E&S	Environmental and social
EBRD	European Bank for Reconstruction and Development
ECoW	Ecological Clerk of Works
EIA	Environmental Impact Assessment
EIB	European Investment Bank
ESAP	Environmental and Social Action Plan
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
EU	European Union
GHG	Greenhouse gas emissions
IBA	Important Bird and Biodiversity Area
MCA	Multi-Criteria Analysis
MCTI	Ministry of Communication, Transport and Infrastructure
NTS	Non-Technical Summary
PIU	Project Implementation Unit
RAP	Resettlement Action Plan
RPF	Resettlement Policy Framework
SEP	Stakeholder Engagement Plan
SRI	Serbian Railway Infrastructure

Contents

LIST OF FIGURES

LIST OF TABLES

1 INTRODUCTION

1.1 Project Context

The **Belgrade-Niš Railway Corridor Rehabilitation Project** involves the modernisation of approximately **230 km** of existing railway between Belgrade Centre (Resnik) and Niš[1]. The goal is to enable **train speeds of up to 200 km/h** and significantly improve passenger and freight transport services. The modernisation is expected to significantly improve the **quality, safety and efficiency of passenger and freight transport** services.

The entire Belgrade-Niš Railway Corridor Rehabilitation Project is managed by the **Serbian Railway Infrastructure (SRI)**, with technical support from the **European Union Delegation**. It is being considered for financing by the **European Bank for Reconstruction and Development (EBRD)** and the **European Investment Bank (EIB)** (together: the Lenders). As such, the Project must comply with the environmental and social (E&S) standards of these international financial institutions, in addition to national legislation. SRI has established a dedicated **Project Implementation Unit (PIU)** to oversee and coordinate all activities related to the preparation and implementation of the Project.

For planning purposes, the Corridor has been divided into three sections:

- **Section 1:** Belgrade (Resnik) to Velika Plana
- **Section 2:** Velika Plana to Paraćin
- **Section 3:** Paraćin to Trupale (Niš)

In accordance with EBRD standards, the overall Corridor is classified as "**Category A**", due to its potential to cause significant adverse E&S impacts. For this reason, a **separate Environmental and Social Impact Assessment (ESIA) is being developed for each section**.

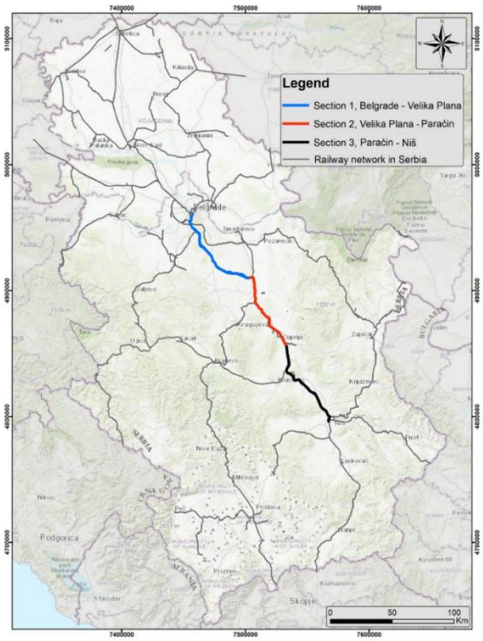

Figure 1-1. Sections of railway line Belgrade–Niš

[1] The existing railway line includes both double-track and single-track sections; specifically, Resnik–Velika Plana and Stalać–Đunis are currently single-track.

This document presents the Non-Technical Summary (NTS) of the ESIA for Section 3 (Paraćin to Trupale/Niš), hereinafter referred to as: the Project. The ESIA has been undertaken to assess potential risks and impacts, and to define measures that ensure alignment with EU environmental standards, the EBRD E&S Policy (2019), the EIB E&S Standards (2022) and good international practice. This NTS offers a simplified overview of the Project, explaining its background, legal obligations, as well as E&S impacts/risks and benefits. It also outlines the measures taken to address these impacts/risks.

1.2 Project Disclosure Package

Under the Lenders' requirements, the following documents form the Project Disclosure Package for Section 3:

- **Environmental and Social Impact Assessment** (ESIA) Report**,**
- **Environmental and Social Management Plan** (ESMP),
- **Environmental and Social Action Plan** (ESAP),
- **Biodiversity Management Plan**,
- **Biodiversity Appropriate Assessment**,
- **Resettlement Policy Framework** (RPF) ,
- **Stakeholder Engagement Plan** (SEP), and
- **Non-Technical Summary** (NTS) (this document).

These documents will remain disclosed for a minimum of 120 calendar days and will remain publicly available throughout the life of the Project. *For more details about disclosure and consultations, see Chapter 5 (Disclosure and Communications) of this NTS.*

2 PROJECT DESCRIPTION

2.1 Overview of the Project and its Technical Characteristics

Section 3 of the Belgrade – Niš railway is divided into **three additional subsections**:

1. **Paraćin – Stalać** (total length will be 20.4 km, double track will be retained),
2. **Stalać – Đunis** (*excluded as it is being developed separately at a more advanced stage of preparation – single track)*
3. **Đunis – Trupale** (Niš) (total length will be 37.7 km, double track will be retained).

The following chart represents a simplified overview of the entire Belgrade – Niš railway project and its sections and subsections relevant for this document.

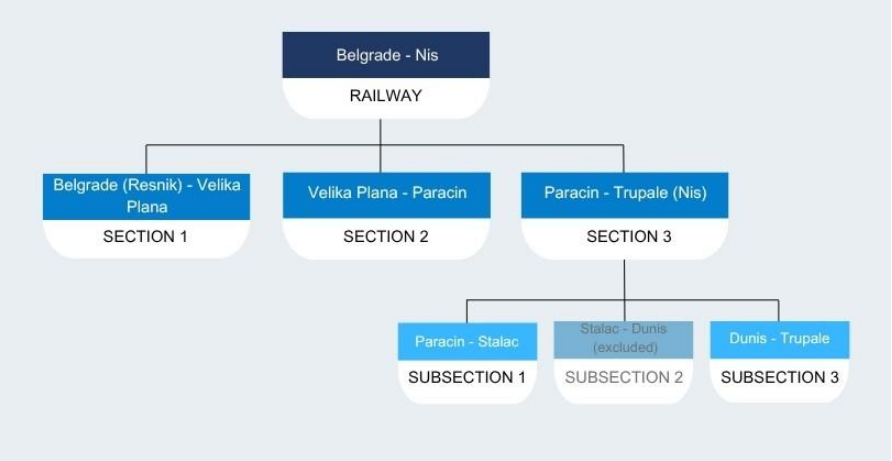

Figure 2-1. Project sections and subsections

The planned railway will be a modern, high-speed line built to meet European standards. It will allow for fast, safe and reliable travel for both passenger and freight trains. The table below summarises the main technical features of the design:

Table 2-1. Overview of technical features

Feature	Description
Speed	Designed for train speeds up to 200 km/h
Track strength	Supports heavy freight traffic (up to 22.5 tonnes per axle)
Rail profile	Built to fit international trains (UIC GC standard)
Station platforms	All stations will have safe, accessible platforms for passengers
Signalling and safety	The Project will be equipped with modern systems for safe and efficient train operation, including APB (automatic block signalling) for double-track operations, and both

	conventional electronic signal safety devices for speeds of up to 160 km/h and European Train Control System (ETCS) Level 2 for speeds of up to 200 km/h
Electrification	Electrified line using the 25 kV/50 Hz system
Crossings	All level crossings will be replaced with underpasses or overpasses
Fencing	The railway will be fully fenced to prevent unauthorised access
Bridges and culverts	New and upgraded structures to meet international load requirements
Emergency systems	Stations and equipping buildings will have fire protection, alarms and SOS phones
Telecommunication	Modern TK systems installed for train control and operations
Traction power	Modernised traction power supply system along track and in official places

2.2 History of Project Development

The development of the Belgrade–Niš Railway Corridor, including Section 3, has followed a phased and iterative approach involving technical design, environmental and social evaluations, stakeholder consultations and regulatory processes.

The table below outlines the key milestones in the development of the overall Corridor and Section 3, tracing how the proposed alignment was shaped through various planning and design phases.

Table 2-2. Key milestones in the development of the Project

Year	Stage / Document	Key Development / Decision	Notes
2007	General Design + EIA (Environmental Impact Assessment)	Initial upgrade concepts for Belgrade–Niš Railway Corridor	No significant deviations proposed at this stage
2022	Pre-Feasibility Study + Preliminary ESIA Scoping	Multi-Criteria Analysis of 3 route variants (I, II, III); Variant II selected	Included stakeholder engagement and environmental/social scoping
2022	Corridor-level E&S Assessment	Completion of E&S Assessment Report, E&S Management Plan and E&S Action Plan for the entire Corridor	Provided a harmonised high-level baseline, assessment of impacts and generic mitigations for all railway sections and a basis for future section-specific ESIAs.
2023	Conceptual Design (Section 3: Paraćin - Trupale)	11 route deviations developed based on Variant II and terrain analysis.	Alignment optimisation to meet 200 km/h design standards
2024	Public Consultation on Draft Spatial Plan (Section 3: Paraćin - Trupale)	Draft plan publicly disclosed; consultations held with local governments	March–June 2024; presentations held in Paraćin, Aleksinac and Niš; stakeholder concerns regarding alignment and access were discussed

Year	Stage / Document	Key Development / Decision	Notes
2024	Spatial Plan of Special Purpose Area (Section 3: Paraćin - Trupale)	Final alignment (Variant II + deviations) adopted by National Assembly	Plan adopted in October 2024; published in Official Gazette No. 91/2024
2025	Location Conditions issued (Section 3: Paraćin - Trupale)	Technical planning permits obtained from relevant authorities	Location conditions issued in May 2025
2025	Draft Preliminary Design (Section 3: Paraćin - Trupale)	Detailed technical design of selected alignment, incorporating all approved deviations	Provides basis for ESIA disclosure and tender documentation

2.3 Project Location (Section 3)

A description of the Paraćin – Stalać and Đunis – Trupale subsections is given below.

SUBSECTION PARAĆIN – STALAĆ

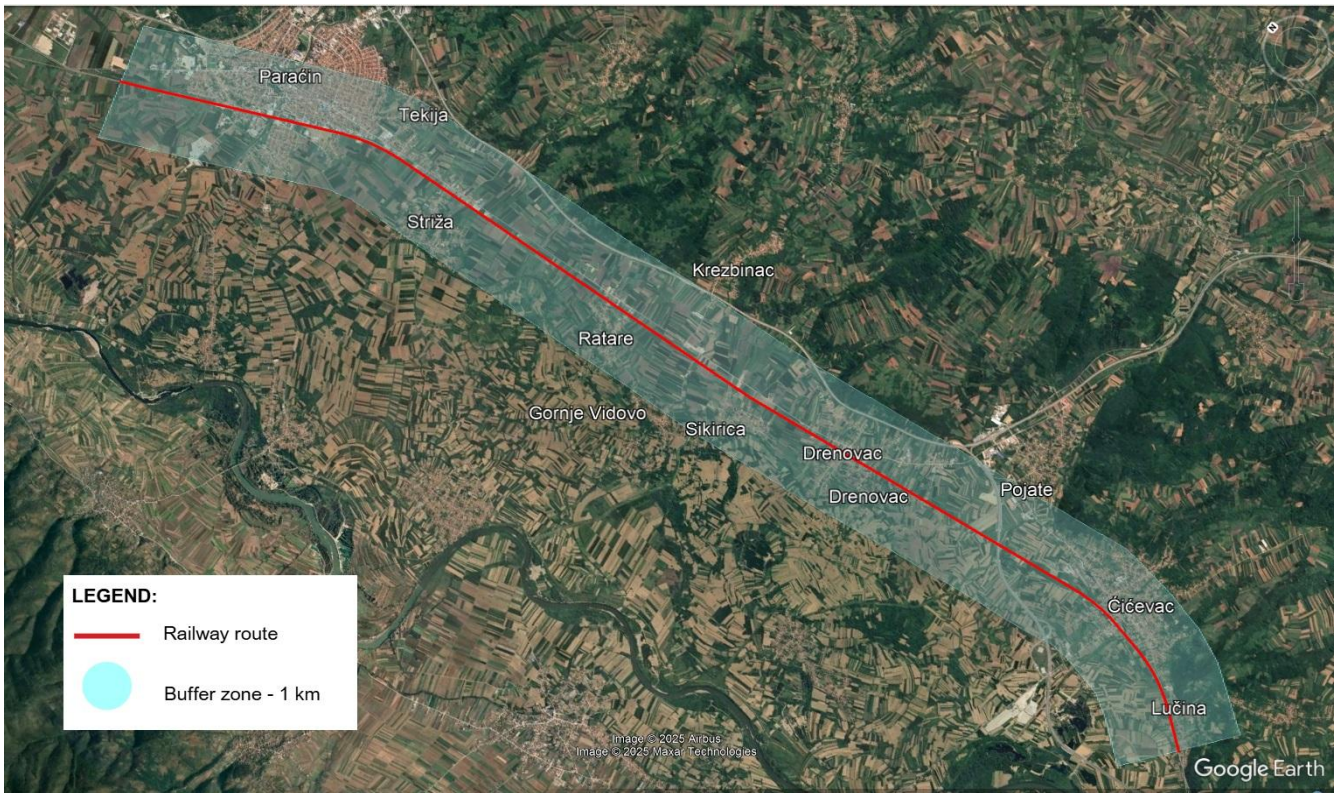

Figure 2.2 Map of the settlements along the Paraćin – Stalać route

This subsection extends for 20.4 km and can be divided into three segments for the purpose of analysis, based on distinct spatial and socio-economic characteristics:

Paraćin Station to Striža (0–7 km): This segment begins at Paraćin station, located in a densely populated urban area, running through a large industrial zone with numerous business and manufacturing facilities, with some closer than 50 m from the railway. The figure below presents the existing urban setting in Paraćin and its bridge and the visualisation of the future view of the planned bridge, which will be constructed at the same location as the existing one.

Figure 2.3 Comparison - current condition in the city of Paraćin and new planned bridge

Paraćin has a long industrial and agricultural tradition, including glass, cement and confectionery production, as well as arable farming and livestock breeding.

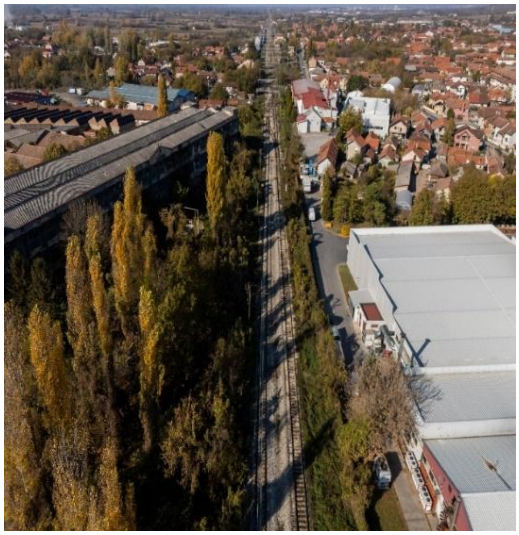

Figure 2.4 Paraćin – current railway route

The new alignment largely follows the existing route. As the line moves further from the urban core, settlement density decreases, giving way to sporadically developed communities and more continuous farmland. The settlements of **Striža** and **Tekija** mark the end of this segment. In Striža, several houses scheduled for demolition to make way for an underpass are reportedly inhabited by Roma families.

Striža to Sikirica (7–14 km): This section traverses a flat and predominantly agricultural landscape. The route passes through: **Ratare** (located 2 km from Striža, separated by large farmland areas where the alignment continues to follow the current railway), **Gornje Vidovo** (which is about 800 m from the alignment, with a local road crossing the existing railway) and **Sikirica** (the last settlement in this segment).

Figure 2.5 Ratare aerial view (left); road leading to Sikirica (right)

The new alignment also runs between these three settlements and **Krezbinac**, located approx. 1 km to the west, following the existing railway route.

Sikirica to Lučina (14–21 km): The final segment begins in Sikirica and continues through **Drenovac**, a small village with mixed land use, where the alignment will be reconstructed within the existing railway corridor.

The figure on the left below shows current view of the rural surroundings in Sikirica. After the Project, workers and passengers will be able to see new fence, tracks and passing trains. The figure on the right below shows the current condition in the settlement of Drenovac, and the planned underpass, which will appear in the lower part of the view toward the railway. In addition to the underpass, the nearest residents will be able to see the protective fence and passing trains.

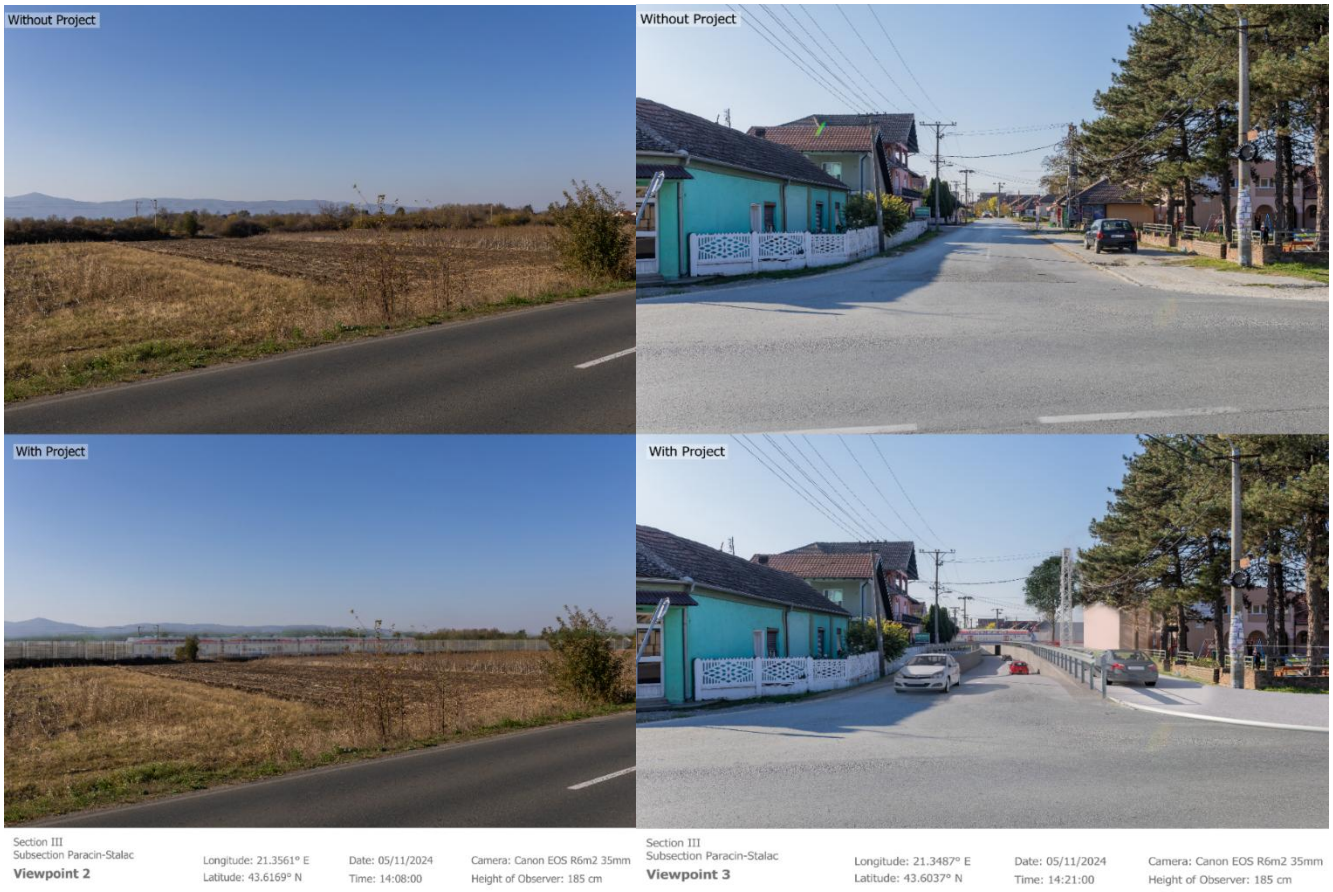

Figure 2.6 Comparison – view in Sikirica (left); view in Drenovac (right)

About 3 km further west lies **Pojate**, approximately 600 m from the alignment. The alignment intersects the E761 regional road, which connects Pojate to **Ćićevac**. On the outskirts of Ćićevac, both residential zones and farmland are observed.

In Ćićevac, the new alignment mostly follows the existing route; however, two deviations are planned: one at the entrance to the station, involving a curve correction and a 40 m shift to the west, and another further along the line, with a 50 m shift to the west.

Figure 2.7 Railway route in Ćićevac

The subsection ends at the settlement of **Lučina**, a small but populated rural area with significant agricultural activity. The railway alignment through Lučina follows the existing track.

SUBSECTION 2: ĐUNIS-TRUPALE (NIŠ)

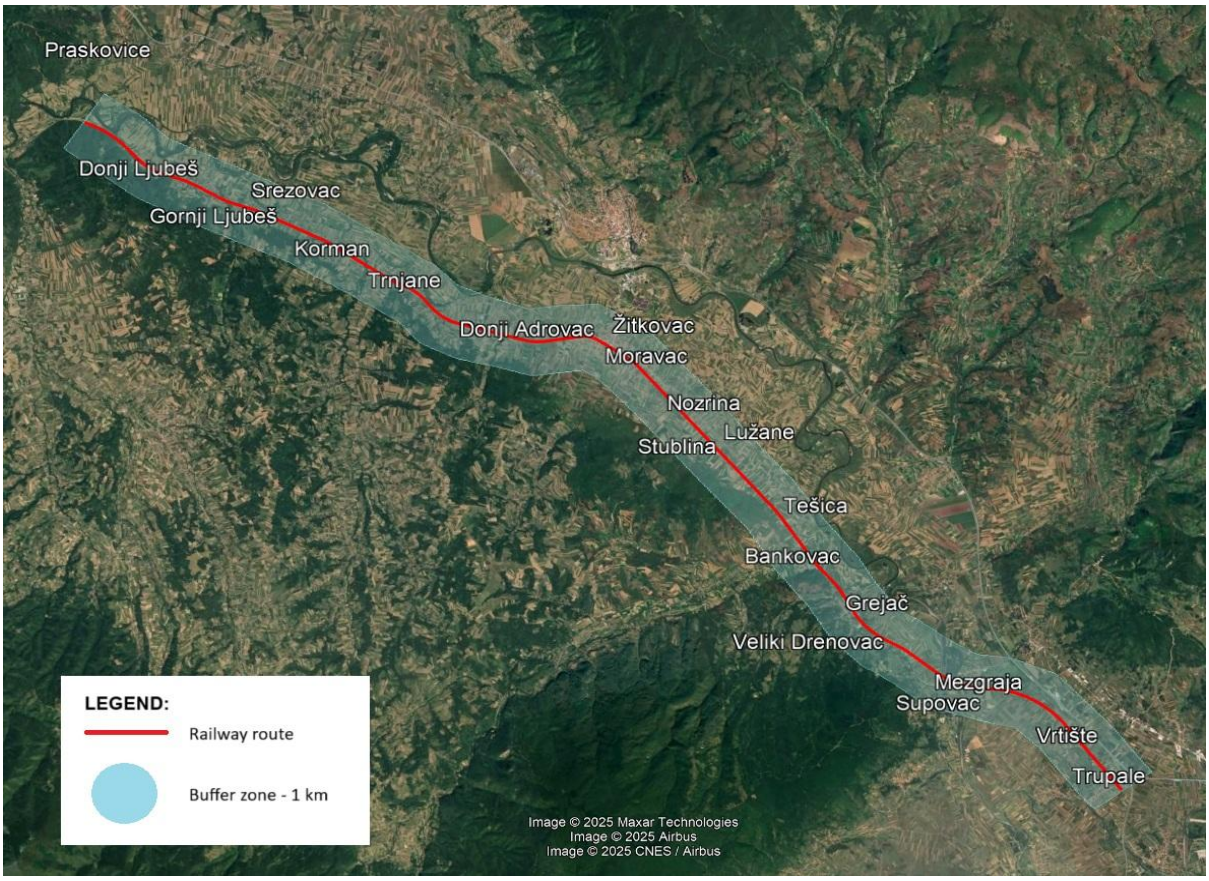

Figure 2.8 Map of the settlements along the Đunis - Trupale route

This subsection spans approximately 37.7 km, running parallel to the Južna Morava River and traversing a mix of agricultural landscapes, linear rural settlements and densely inhabited zones. The most common economic activity is small-scale farming. The section begins at the existing alignment, 2 km east of the settlement of **Praskovice**, passing through agricultural land adjacent to the Južna Morava River. Before entering **Vitkovac**, the construction of a new 580 m Đunis Tunnel is planned, with a route deviation that improves curve geometry and maintains the design speed. The alignment deviation passes mostly through forested, uninhabited areas. It then enters Vitkovac and continues along the existing corridor running through the centre of the settlement. A 950 m long deviation with a curve correction is planned here, involving a 40 m shift northeast from the existing line.

The figures below show the current appearance of Vitkovac, with the existing station in the background, which will be demolished, as well as the planned condition of the area, featuring a transparent and opaque noise barrier.

Figure 2.9 Comparison – view before and after Project in Vitkovac

Approx. 400 m further lies **Donji Ljubeš**, where the curve correction with a 70 m shift northeast from the existing line is planned. From here, the alignment continues to follow the existing tracks. The route proceeds to **Srezovac** (600 m from Donji Ljubeš), passing close to cultivated land. In Srezovac, two curve corrections are planned: a 30 m shift northeast at the first curve and a 50 m shift south at the second.

Figure 2.10 Aerial view of Srezovac

Gornji Ljubeš, located 200 m further, is already divided by the existing railway, which the new alignment continues to follow. The village is surrounded by farmland and remains closely linked to Srezovac. The existing alignment continues through agricultural areas to reach **Korman**, approx. 850 m from Gornji Ljubeš, where the settlement is divided by the existing railway corridor. It then enters **Trnjane**, where two deviations are planned.

Figure 2.11 Aerial view of Trnjane

The first involves a curve correction with a 60 m shift northeast from the existing line, and the second consists of a curve connection that retains the route through the existing station. This design was selected to minimise demolitions in the village centre due to terrain constraints and the need to maintain connections to Korman and Donji Adrovac stations.

The figures below show the current and future condition at the Trnjane location, with both transparent and opaque noise barriers options. Several buildings in the area will be demolished, and the space will be replaced by a widened and slightly offset railway alignment.

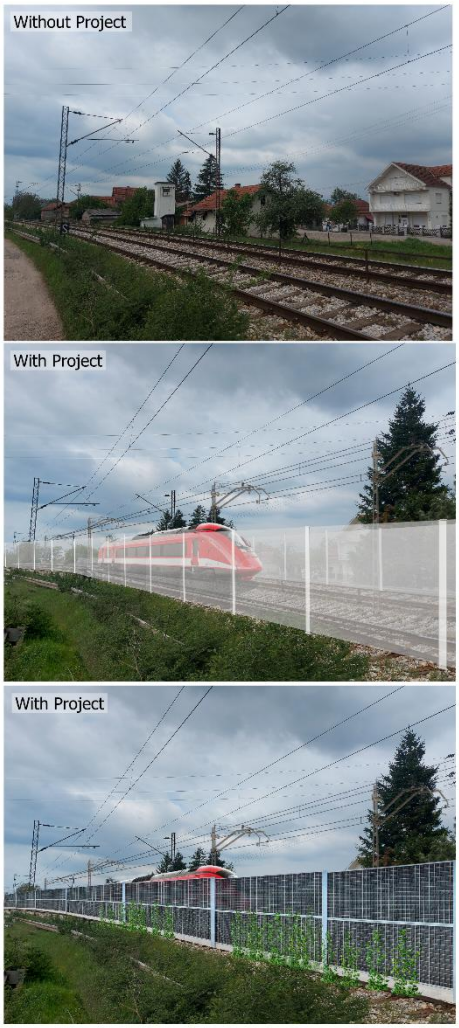

Figure 2.12 Comparison – view before and after Project in Trnjane

The alignment then continues to **Donji Androvac**, located 2 km away. In Donji Androvac, all residential structures are on one side of the alignment, meaning the settlement remains spatially unified, although cultivated land lies on the opposite side. Just 230 m onward lies **Prćilovci** (north of the railway), where the railway route follows the established corridor passing through the centre of the settlement. Two informal Roma settlements, located approx. 300 – 400 m from the railway line, are present in this area. Directly south is the settlement of **Žitkovci**, functionally merged with Prćilovci. The local primary school in Žitkovac reportedly has over 50% Roma students in the second grade, indicating a significant Roma population in the area.

The figures below show the current situation and planned Project components in Žitkovac, including noise barriers and the new underpass. Several buildings will be demolished in this area.

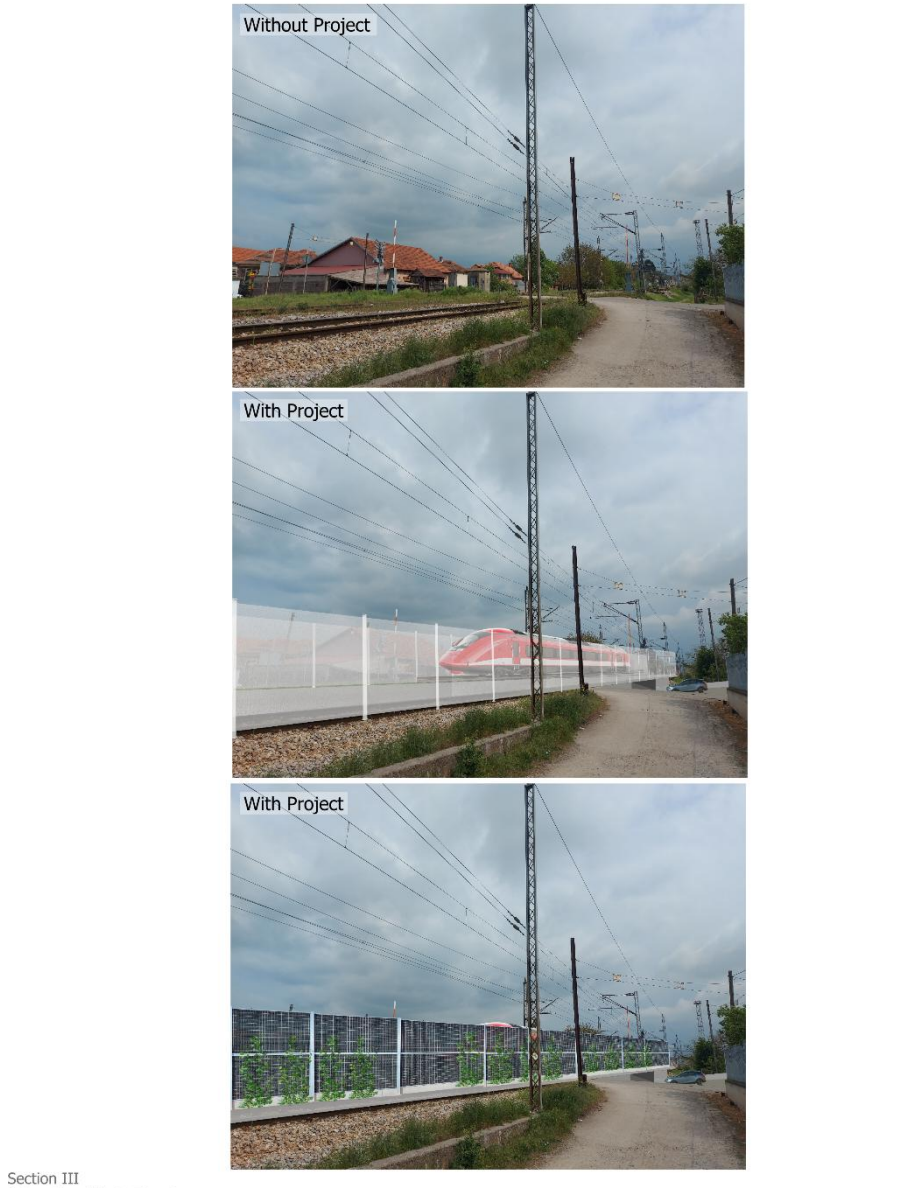

Figure 2.13 Comparison – view before and after Project in Žitkovci

Immediately south lies **Moravac**, which is already intersected by the existing railway alignment, and the new route continues along this path.

The figures below show the current and future appearance of Moravac. The current situation is shown in the first image, while the second illustrates the planned infrastructure, including noise barriers and the new overpass, which may appear visually dominant.

Figure 2.14 Comparison – view before and after Project in Moravac

Continuing 500 m further are **Nozrina** and **Lužane**, both entirely situated east of the alignment. To the west lies **Stublina** (500 m from the railway). Approx. 1.5 km from the previous group of settlements lies the village of **Tešica**, which extends on both sides of the existing railway. The figure below shows current state of the road in Tešica, where railway is not seen. After the Project, travellers or workers in the field will be able to see a railway steel fence.

Figure 2.15 Comparison – view before and after Project in Tešica

The new alignment will generally follow the current route, with a slight curve correction involving a 20-m shift to the northeast. Although formally considered separate settlements, Tešica and **Bankovac** are closely connected by a local road lined with houses on both sides, forming a continuous residential area. The new railway will cross this road diagonally.

Figure 2.16 Road to Tešica, surrounded by agricultural fields

The alignment continues 1.2 km further to **Grejač**, which remains intact on the western side of the track, along with **Veliki Drenovac**, to which it is connected. There are numerous agricultural plots on the eastern side of the railway. However, in this area, a set of curve corrections is planned, resulting in shifts of up to 600 m from the existing alignment through Grejač, and following the settlements Mezgraja and Vrtište.

Figure 2.17 Grejač settlement

Further south, the existing railway separates **Supovac** (west side) from **Mezgraja** (east side), and the new alignment will follow this.

Figure 2.18 Aerial view of Supovac (left) and Mezgraja (right)

In Supovac, the railway will be realigned further north, increasing the distance between the settlement and the tracks. As a result, residents will see the railway infrastructure from farther away compared to the current alignment, as shown in the figure below.

Figure 2.19 Comparison – view before and after Project in Supovac

Between Mezgraja and the next village, **Vrtište** (2 km further), a set of curves will be corrected, with up to a 600 m shift from the existing line. As seen from the figure below, residents of Vrtište will mostly see the noise barrier after the construction.

Figure 2.20 Comparison – view before and after Project in Vrtište

Trupale, the final settlement, lies 950 m further. Most of the residential area is located west of the alignment, which follows the existing railway route.

2.4 Analysis of Alternatives

As part of the Pre-Feasibility Study (PFS) completed in 2022, a Multi-Criteria Analysis (MCA) was conducted to assess three development variants and the “no-Project” scenario. The “no-project” option was rejected, since leaving the railway in the current state would worsen transport quality and safety as well go against Serbia’s development goals and EU obligations. All other variants proposed rehabilitation of the existing double-track railway, with the goal of enhancing design speeds, improving operational efficiency, and aligning with TEN-T standards.

These aspects were considered just as important as financial ones in the multi-criteria analysis. The sub-criteria assessed under the E&S category included:

- impacts on biodiversity and protected areas,
- effects on surface water and flood risk,
- noise and vibration impact on settlements,
- potential resettlement requirements.

All three variants largely followed the existing corridor with varying degrees of realignment, affecting station locations, speeds, and consequently, E&S impacts.

Variant I, while enabling the highest share of 200 km/h design speed (84% of the corridor), required significant realignments and station relocations (e.g., Ćićevac and Aleksinac), resulting in a greater resettlement and land acquisition impacts. The associated high cost and longer construction timeline outweighed its operational benefits and led to its exclusion from further consideration.

Variant III, representing the lowest-cost alternative, retained all stations at their existing locations and introduced only minor geometric improvements. It scored more favourably than Variant II in terms of minimised resettlement, reduced noise and vibration impacts, and shortest construction duration. However, its lower operational performance, limited travel time savings, and reduced potential for modal shift limited its long-term sustainability.

Variant II emerged as the preferred option due to its balanced performance across environmental, social, operational, and safety dimensions. It provided:

- significantly better operational efficiency and shorter travel times, promoting rail competitiveness,
- enhanced modal shift potential, contributing to CO_2 and pollutant emission reductions,
- lower risk of accidents, particularly at level crossings, benefiting public safety,
- possibility for targeted E&S improvements, such as maintaining station locations to avoid resettlement and reduce noise/vibration impacts, without major compromise on speed or efficiency.

While both Variants II and III presented lower environmental and social impacts compared to Variant I, Variant II demonstrated superior long-term benefits by achieving a better trade-off between cost, operational performance, and E&S sustainability.

Therefore, **Variant II** was selected as the most balanced option.

In addition to these broader corridor-level decisions, most relevant location-specific alternatives were examined in response to technical needs and stakeholder feedback. Although the new alignment predominantly follows the existing railway corridor, several **route deviations** and **infrastructure adjustments** were required to address engineering constraints, improve operational performance and minimise social impacts.

These include 11 deviations, primarily introduced to improve curve geometry and maintain high-speed design parameters, while reducing impacts on populated areas. These deviations were also assessed for effects on noise, land use, biodiversity and whether homes or farmland would be affected.

Additionally, four key infrastructure-related changes were also introduced:

- **Aleksinac station**: Initially proposed for relocation outside of the urban area to improve speed and freight access but ultimately retained at its existing location in Žitkovac to avoid extensive resettlement and to reduce costs and disruption. However, it will affect approx. 5-7 structures.
- **Trnjane deviation**: Multiple options were evaluated to avoid demolishing homes in the village centre. Realignment through open land was not feasible due to terrain constraints and the need to maintain connections to Korman and Donji Adrovac stations. Among the alternatives considered, curve connection with retention of the route through existing station was chosen as it minimizes demolitions compared to other options but still affects around 20 buildings.
- **Sikirica–Ratare station**: Upgraded from a stop to a full station to improve local accessibility and serve nearby communities while several other stops (e.g., Drenovac, Lučine, Vitkovac, Donji Ljubeš, Gornji Ljubeš, Trnjane, Nozrina, Grejač, Supovački most, Mezgraja, Vrtište) will be decommissioned due to low passenger demand or proximity to larger hubs based on the demand analysis conducted as part of the Feasibility Study.
- **Šumadijska street level crossing** (Paraćin): Due to safety concerns and incompatibility with high-speed rail operations, the crossing is planned for closure. Alternatives such as underpasses or overpasses were considered, and alternative access routes will be provided to maintain local connectivity. A grade-separated crossing at the existing Šumadijska street was found to be technically unfeasible due to limited space and nearby buildings. Instead, the proposed solution involves a new road connection leading to an overpass at km 153+942, which is part of the planned Paraćin bypass road. This bypass would include a future bridge over the Crnica River and connection to an underpass at km 155+991, ensuring access to Vidovdanska Street and southern Paraćin.

Table 2-3. Overview of planned deviations

PARAĆIN - STALAĆ

No.	Chainage (km)	Approx. Length (m)	Description / Number of affected facilities
1	157+100 - 158+000	900	Paraćin, curve correction, 20 m shift to the south. Houses not affected.
2	171+000 - 171+650	650	Ćićevac, curve correction at the entrance point of the railway station, shift 40 m to the west from existing line. Houses not affected
3	172+350 - 173+300	950	Ćićevac, curve correction, shift 50 m to the west from existing line. Houses not affected.
ĐUNIS – TRUPALE			
No.	**Chainage (km)**	**Approx. Length (m)**	**Description / Number of affected facilities**
4	192+100.00 – 193+200.00	1,100	New tunnel (580 m) and associated alignment adjustment between Đunis and Trupale to ensure minimum curve radius and maintain design speed. Houses not affected.
5	194+150.00 – 195+100.00	950	Vitkovac, curve correction, shift 40 m northeast from existing line, 1 house affected.
6	195+700.00 – 196+500.00	800	Donji Ljubeš, curve correction, shift 70 m northeast from existing line, 4 houses affected.
7	196+700.00 – 197+750.00	1,050	Srezovac, correction of two curves: 30 m shift NE in first curve, 50 m shift S in second, 2 houses affected.
8	202+150.00 – 203+050.00	900	Trnjane, curve correction, 60 m shift northeast from existing line, 10 houses affected.
9	218+150.00 – 219+150.00	1,000	Tešica, curve correction, 20 m shift northeast. Houses not affected.
10	220+000.00 – 221+300.00	1,300	Grejač, curve correction, 50 m shift south from existing line, houses not affected.
11	221+650.00 – 228+200.00	6,550	Grejač/Mezgraja/Vrtište, set of curves corrected, up to 600 m shift from existing line, over 20 houses affected.

More details on the considered alternative and variants are available in **ESIA *Chapter 4 – Assessment of Alternatives***.

Wherever impacts such as displacement, noise and other impacts were unavoidable, mitigation measures are planned through the ESIA, ESMP and RPF.

3 LEGAL ASPECTS AND COMPLIANCE WITH RELEVANT LAWS AND POLICIES

The implementation of this Project will enable Republic of Serbia to meet national requirements, as well as EBRD, EIB and EU requirements. The Environmental and Social Action Plan (ESAP) which has been approved by SRI and the Lenders includes a set of comprehensive mitigation measures to bring the (re)construction of Section 3 into compliance with all these requirements.

3.1.1 National Requirements

The implementation of the Project requires compliance with a set of national laws and bylaws in the areas of railway safety, environmental protection, water protection, air pollution, nature protection, solid waste management, etc. With regard to railway design and management, the key relevant laws are the Law on Planning and Construction, the Law on Railways, the Law on Safety in Railway Operations and the Law on Interoperability of the Railway System. Since Corridor X is a project of particular importance to Republic of Serbia, procedural matters (such as preparation of documentation and obtaining permits) are regulated by the Law on Special Procedures for the Implementation of Construction and Reconstruction Projects of Linear Infrastructure of Particular Importance for Serbia.

With regard to permitting requirements, the Law on Planning and Construction defines that the Location Conditions must be obtained for the railway project. The Location Conditions for Section 3 have been issued on the basis of the Conceptual Design. A Preliminary Design is currently being prepared. The design is based on the conditions from the Location Conditions, relevant regulations, measures for a facility prescribed in different studies developed at this stage (e.g. EIA) and rules of profession. The Design for Construction Permit will be submitted together with an application for the Construction Permit. After construction is completed, a Use Permit will be issued based on the Technical Acceptance of the project and its components.

The key laws related to the national EIA procedure are the Law on Environmental Protection and the Law on EIA. EIA is mandatory for projects with significant E&S impacts. The EIA Study must be approved by the competent authority. It is planned that an EIA will be developed for Section 3 in Q1 2026 and approved by the relevant authorities prior to securing the Construction Permit.

Environmental protection is ensured through a set of laws which define the standards for quality of air, water, noise and soil, waste management and other environmental guidelines. In addition, a range of legislation covers other issues such as labour, health and safety, protection of cultural heritage and land acquisition.

3.1.2 EBRD and EIB Requirements

EBRD's E&S Policy 2019 details the commitments of the Bank to promote environmentally sound and sustainable development. The Bank has defined specific Performance Requirements for key areas of E&S issues and impacts as listed below:

- PR 1: Assessment and Management of E&S Risks and Impacts
- PR 2: Labour and Working Conditions
- PR 3: Resource Efficiency and Pollution Prevention and Control
- PR 4: Health, Safety and Security
- PR 5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement
- PR 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources
- PR 7: Indigenous Peoples (not applicable to this Project)
- PR 8: Cultural Heritage
- PR 9: Financial Intermediaries (not applicable to this Project)
- PR 10: Information Disclosure and Stakeholder Engagement

EIB requires that all the projects it is financing are acceptable in E&S terms by applying appropriate safeguards to all its operations. The EIB E&S Standards (2022) provides an operational translation of those standards grouped across 11 thematic areas, as follows:

- Standard 1: Environmental and Social Impacts and Risks
- Standard 2: Stakeholder Engagement
- Standard 3: Resource Efficiency and Pollution Prevention
- Standard 4: Biodiversity and Ecosystems
- Standard 5: Climate Change
- Standard 6: Involuntary Resettlement
- Standard 7: Vulnerable Groups, Indigenous People and Gender (Indigenous People – not applicable to this Project)
- Standard 8: Labour Rights
- Standard 9: Health, Safety and Security
- Standard 10: Cultural Heritage
- Standard 11: Intermediated Finance (not applicable to this Project).

3.1.3 EU Requirements

EU requirements relevant to the Project are as following:

- Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment, as amended by Directive 2014/52/EU (EIA Directive)
- Directive 2000/60/EC (Water Framework Directive)
- Directive 2007/60/EC (Flood Risk Directive)
- Directive 2008/105/EC (Water Environmental Quality Standards)
- Directive 2006/118/EC (Groundwater Directive)
- Directive 91/271/EEC on Urban Wastewater Treatment, as amended
- Directive 2006/11/EC on discharges of dangerous substances into water
- Directive 2002/49/EC (Environmental Noise Directive)
- Directive 2008/50/EC (Ambient Air Quality Directive)
- Directive 2008/98/EC (Waste Framework Directive)
- Directive 92/43/EEC (Habitats Directive)
- Directive 2009/147/EC (Birds Directive)
- Directive 89/391/EEC (Occupational Safety and Health Framework Directive)
- Directive 2012/18/EU (Seveso III Directive) *(if applicable)*
- Directive 2012/34/EU (Single European Railway Area Directive)
- Directive 2016/797 (Rail Interoperability Directive)
- Directive 2016/798 (Railway Safety Directive)
- Regulation (EU) 402/2013 on the Common Safety Method – Risk Assessment (CSM-RA)
- Directive 2008/96/EC (Road Infrastructure Safety Management Directive)

4 SUMMARY OF E&S BASELINE, POTENTIAL IMPACTS/RISKS AND MITIGATION

4.1 Introduction

The ESIA Report has been prepared to assess the potential E&S impacts and impacts of the proposed Section 3 (Paraćin–Trupale) and to define measures for impact mitigation, management and monitoring in line with national legislation, EU requirements and EBRD/EIB requirements.

The ESIA Report is structured as follows:

1. Chapter 1: **Introduction**
2. Chapter 2: **Project Description**
3. Chapter 3: **Legal Framework**
4. Chapter 4: **Assessment of Alternatives**
5. Chapter 5: **Approach to ESIA**
6. Chapter 6: **Air Quality**
7. Chapter 7: **Soil Quality**
8. Chapter 8: **Geology**
9. Chapter 9: **Surface Water**
10. Chapter 10: **Groundwater**
11. Chapter 11: **Climate Change**
12. Chapter 12: **Noise and Vibration**
13. Chapter 13: **Landscape and Visual**
14. Chapter 14: **Biodiversity**
15. Chapter 15: **Cultural Heritage**
16. Chapter 16: **Materials and Waste**
17. Chapter 17: **Major Accidents**
18. Chapter 18: **Occupational H&S**
19. Chapter 19: **Social Impact Assessment**
20. Chapter 20: **Cumulative Effects**

Appendices to the ESIA Report include:

- **Maps**
- **Baseline survey reports**
- **Greenhouse Gas Assessment**
- **Biodiversity Management Plan**
- **Biodiversity Appropriate Assessment**
- **Resettlement Policy Framework**
- **Stakeholder Engagement Plan**

Standalone documents also include the **Environmental and Social Management Plan** (ESMP), which outlines the required E&S mitigation and monitoring measures during both construction and operation phases, the **Environmental and Social Action Plan** (ESAP), which sets out specific actions and timeframes for implementation to ensure implementation of Lenders' Requirements and **Resettlement Policy Framework** (RPF), which provides the principles and procedures for land acquisition and resettlement..

The following chapters provide a summary of the key E&S topics assessed in the ESIA and the measures proposed to mitigate identified impacts.

4.2 Air Quality

*For detailed information, please see **ESIA Chapter 6: Air Quality**.*

Baseline summary	Phase	Potential impact(s)	Mitigation measures
The area studied for air quality includes a 1-km-wide corridor along the railway, covering 500 m on each side of the planned route. This area was chosen to reflect where dust and other pollutants from construction and operation could affect people and nature. Air pollution is already a serious problem in Serbia, especially in urban areas. It mainly comes from road traffic, heating with wood and coal, old vehicles, industrial activity and dust from roads and fields. According to national reports, small particles in the air and other pollutants often go above safe levels, especially in winter. To better understand the current air quality along the Paraćin–Niš route, air was sampled at four locations in December 2023, during the most polluted time of year. The sampling sites were near homes and businesses and chosen to fill data gaps. The measurements confirm that the air in the Project area is already under pressure from multiple pollution sources, especially in larger towns. This will need to be	Construction phase	During construction, temporary deterioration of air quality is expected, particularly in areas near towns and villages. The primary concern is dust generation, which will result from activities such as demolition of existing structures, excavation and earthworks and the movement of construction vehicles and machinery on unpaved surfaces. This dust can easily spread through the air, particularly during dry and windy days and may cause problems for people who live nearby. It can make it harder to breathe and may be especially uncomfortable for children, older people and those with health issues. Dust can also disturb birds and other animals living close to the works. In addition to dust, the air will be affected by smoke and fumes from machines and trucks that use fuel. These include equipment used for digging, transporting materials and generating electricity on the construction sites. Factories set up to mix concrete or asphalt can also release pollution into the air. These activities will take place every day and may cause strong smells and smoky air in areas close to the railway. This is particularly a concern for people living or working near the line.	▪ To define measures to reduce air pollution, the railway route has been divided into zones based on sensitivity. More stringent measures will be applied in areas with higher population density or close to protected nature sites. ▪ During construction, the main goal is to reduce dust and air pollution from activities such as demolition, digging, transporting materials and operating heavy machinery. The Contractor will prepare a Construction Air Quality and Dust Management Plan and a Construction Traffic Management Plan. These will include location-specific measures considering how sensitive each area is. ▪ In the most sensitive zones, where many people live or go to school, measures will include keeping equipment far from homes, washing trucks before they leave the site, spraying water to control dust, using covered trucks to transport materials, reducing vehicle speeds and avoiding burning waste. All machines and vehicles must be in good condition and use cleaner fuels. Dust screens will be used where needed and exposed soil will be covered or replanted as soon as possible.

considered during both construction and operation of the railway.		Although these impacts are expected to last only during the construction period and in certain locations, they may still cause discomfort to people and affect the environment while the works are ongoing.	▪ In moderately and less sensitive zones, many of the same measures will apply, but with slightly lower requirements. Trucks will still need to be covered, machines maintained and dust suppressed during dry weather, but restrictions on equipment placement may be less strict.
	Operation phase	Once the railway becomes operational, the overall air quality in the area is expected to improve. This is because electric trains will replace a portion of car and truck traffic on local roads, leading to fewer vehicles that pollute the air. The biggest improvements are expected in places where road traffic is currently high, including towns and villages along the route. These positive changes are likely to last for many years and may benefit both people and nature across a wide area. However, some air pollution may still occur during railway repairs and maintenance. Activities such as track replacement, stone cleaning, or equipment repairs can create small amounts of dust. These impacts will be limited to specific locations, short in duration and much less severe than those expected during the construction period.	▪ SRI will prepare an Operational Dust and Air Quality Management Plan. In sensitive areas, maintenance will be scheduled during suitable weather conditions and measures such as covered transport of materials, well-maintained vehicles and regular inspection of braking systems will be implemented. Green buffers along the line will help reduce the spread of fine dust from train operations.

4.3 Soil

*For detailed information, please see **ESIA Chapter 7: Soil**.*

Baseline summary	Phase	Potential impact(s)	Mitigation measures
The area studied for soil conditions covers a 1-km-wide strip along the planned railway route. This land is mostly used for farming and includes fertile valley soils, vineyards, fruit orchards and forested areas. The most common soil types are alluvial soils and black clay soils, both known for good fertility. There is very little barren or unused land. The soils in this region are important for agriculture but face several pressures, including erosion, pollution from farming and transport and the impact of climate change. Some small industrial areas and the presence of the existing railway line also contribute to potential soil contamination. Soil sampling was carried out at eight locations in December 2023 to measure fertility and pollution levels. The results show that the soils generally have neutral to slightly alkaline pH, moderate moisture and a wide range of textures. Organic matter levels vary, which affects soil fertility and its ability to retain water. Some samples contained metals such as nickel, cobalt, zinc and copper in amounts that are above the	Construction phase	During construction, soil along the railway corridor may be affected in several ways. One key risk is contamination from fuel, oil or chemicals, or from poorly managed wastewater. This can harm soil health and in sensitive areas like farmland or protected zones, affect plants, animals and food production. Another concern is the removal of topsoil, the most fertile layer of soil essential for crops. Excavation can strip this layer, reducing the land's productivity if not properly restored. Soil compaction is also a risk, especially where heavy vehicles move repeatedly over the ground. This reduces the flow of air and water, limits plant growth and can lead to drainage problems, particularly in clay-rich soils.In places where new railway tracks, stations, or access roads are built, land use will change. This means farmland, natural areas, or even urban spaces might be permanently converted to railway infrastructure. These changes will reduce the amount of productive or natural land and may affect local communities, especially farmers.	▪ To protect soil along the railway corridor, mitigation strategies have been tailored to three sensitivity zones: the very-highly sensitive Dobrić–Nišava protected area, the highly sensitive fertile lands along the Velika and Južna Morava rivers and moderately sensitive urban and rural areas. ▪ During construction, the Contractor will implement a dedicated Water and Soil Management Plan. In the Dobrić–Nišava zone, strict pollution control measures will be in place, including spill response teams, safe storage of fuel and chemicals and immediate cleanup of any spills to prevent contamination. Special care will be taken near this internationally protected bird habitat, with soil monitoring triggered if contamination is suspected. In cultivated lands, similar precautions will apply, along with specific measures for stockpiling, handling and reusing topsoil to preserve soil fertility. ▪ Topsoil removed during works will be stored in marked and protected stockpiles to prevent erosion, contamination or compaction. Heavy machinery will be restricted to designated access routes in all zones. After construction, compacted

national limit values but still below the levels that would require clean-up. These higher values are believed to come from a mix of natural sources, farming activities and railway operations. Substances such as oil residues, pesticides and other industrial chemicals were also checked, but all were found to be within safe limits. The findings confirm that while some metals are present in higher concentrations, the overall soil quality along the railway route remains within acceptable standards and reflects conditions typical for central Serbia's farming and transport corridors.		Lastly, soil erosion can occur when vegetation is cleared and land is left bare. Rain and wind can wash or blow away the exposed soil, especially on slopes or near river valleys. This is a particular concern at construction sites for tunnels, bridges and crossings. Overall, construction poses a high risk of soil damage, especially in agricultural and ecologically sensitive areas. If not properly managed, these impacts can be long-lasting or permanent.	soil will be restored through aeration or ploughing. ▪ Erosion-prone areas (such as slopes and locations near tunnels or bridges) will be stabilised using proper drainage systems and revegetated once works are completed. ▪ Changes in land use will be minimised in sensitive areas, with any disturbed land restored or compensated, especially in zones where local communities depend on agriculture for their livelihoods.
	Operation phase	During railway operation, soil may be gradually affected by contamination and erosion. Contamination can result from maintenance activities such as fuel or oil leaks; herbicide use and improper waste disposal. While less intensive than in the construction phase, these activities can still reduce soil fertility and introduce pollutants like heavy metals and organic chemicals, particularly near sensitive ecosystems, farmland or already degraded soils. Soil erosion may arise from altered drainage patterns, train-induced vibrations and repeated maintenance work. Although typically limited to the railway corridor, these impacts can be long-lasting in erosion-prone geological areas. Without adequate drainage and slope stabilisation, erosion could affect terrain stability and nearby habitats.	▪ SRI will prepare an Operational Water and Soil Management Plan and an Emergency Response Plan. In the Dobrić–Nišava zone, herbicide use and maintenance will follow strict rules, with applications limited to approved areas and weather conditions. Regular inspections will be conducted to detect illegal dumping or soil contamination. ▪ In protected and agricultural zones, drainage and vegetation will be maintained to prevent erosion and support slope stability, with lighter measures in moderately sensitive areas. ▪ Across all zones, soil quality will be monitored throughout the railway's lifetime. If contamination or degradation is observed, corrective actions and extra safeguards will be introduced.

4.4 Geology

*For detailed information, please see **ESIA Chapter 8: Geology**.*

Baseline summary	Phase	Potential impact(s)	Mitigation measures
To understand the ground conditions along the railway, field investigations and drilling were carried out in 2023 and 2024. Most of the railway route runs through flat river valleys formed by the Velika and Južna Morava rivers. These areas are made up of soft materials such as gravel, sand, clay and silt that were deposited by rivers over thousands of years. In some sections, especially between Đunis and Trupale where a tunnel is planned, the route passes through older and harder ground layers, including rocks that formed millions of years ago. The land along the railway includes both flat and gently hilly areas. Most of it is stable and suitable for construction, but a few locations may need special attention due to softer soils or slopes that could be affected by rain or other natural forces. Although the area includes places where erosion or rock movement could happen, detailed fieldwork confirmed that there are no active landslides along the route. However, areas near the planned tunnel require careful design to prevent any risk from erosion, rockfalls, or unstable slopes. These risks will be managed with special construction methods and protection measures included in the Project plans.	Construction phase	Some parts of the railway route pass through areas with steep slopes, soft or fractured ground, or unstable soil, making them more sensitive to construction activities. The most sensitive areas are located around the future tunnel near Đunis and at several locations where deep cuts or high embankments are planned. These areas have been categorized based on how likely the ground is to shift or erode, with very sensitive areas mostly concentrated between km 193 and km 200. During construction, the main concerns are the possibility of rockfalls, soil erosion and small-scale ground movement, especially around tunnel portals and steep slopes. Activities such as excavation, vegetation removal and machinery vibration may disturb the ground, especially in hilly terrain. However, these risks are temporary and are expected to remain confined to the construction zone. Design measures such as slope stabilization, protective coverings and reinforced tunnel entrances have already been included in the Project to reduce these risks. Gully erosion is another concern during construction, especially near the Đunis tunnel where rainfall and slope disturbance could lead to deeper channels	▪ Special attention will be paid to sensitive geological areas where slopes are steep, soils are unstable, or gullies already exist. Around the tunnel portals and cuttings, protective walls and nets will be installed to stop falling rocks. Before starting work, unstable rocks will be removed, and steep slopes reshaped. Slopes will also be covered with materials such as mesh or sprayed concrete to help keep the soil in place. To avoid water weakening the slopes, drains will be installed to guide surface water safely away. Construction will be carefully timed to avoid heavy rain, which could increase the risk of rockfalls or erosion. ▪ In the area around the tunnel portals, where steep slopes and loose soil make gully erosion more likely, water drainage systems will be put in place and vegetation will be protected or replanted using native plants, grasses, or hydroseeding techniques. On exposed ground, erosion control mats will help keep soil in place until plants grow back. Inclinometers will be installed near tunnel slopes to monitor any ground movement during excavation. ▪ To reduce the risk of terrain instability at the tunnel portals, excavated materials will not be stored on slopes and any signs of ground

		forming in the soil. Still, this risk is considered low due to protective measures and careful excavation methods. Similarly, the risk of terrain instability at tunnel entrances is low, with the most likely impacts being minor shifts in soil or rock that are expected to be controlled by planned stabilization works.	movement will trigger further safety steps. Only the vegetation necessary for construction will be cleared, to preserve natural slope protection.
	Operation phase	In the operational phase, the only remaining concern is possible gully erosion near the tunnel area. If vegetation is not properly maintained or drainage systems become blocked, rainwater could start to erode the soil. However, since the area will be monitored and maintained regularly, this impact is of low likelihood and very localized.	▪ Once the railway is in use, SRI will take over the responsibility for ongoing protection. ▪ Drainage systems will be cleaned regularly to prevent clogging, especially around the tunnel. ▪ Native vegetation will be maintained and restored as needed, since plant roots help keep the soil stable. ▪ If erosion control mats were used during construction, they will be left in place until vegetation is fully restored. After major storms or heavy rainfall, inspection teams will check for erosion or damage to slopes and act quickly to repair any problems. ▪ All railway staff in charge of maintenance will be trained to recognise early signs of erosion or slope failure and ensure protective measures are functioning as planned.

4.5 Surface Water

*For detailed information, please see **ESIA Chapter 9: Surface Waters**.*

Baseline summary	Phase	Potential impact(s)	Mitigation measures
The railway route crosses through a region rich in rivers, streams and small watercourses. Most of the railway lies in the flat river valleys of the Južna and	Construction phase	During the construction phase of the railway, surface water in the Južna Morava and Crnica rivers may be negatively affected due to the proximity of works to	▪ During the construction phase, a range of mitigation measures will be implemented to prevent pollution of the Južna Morava and Crnica

Velika Morava rivers, which are known for having many water channels and fertile soils. These rivers and their smaller branches, including both permanent and occasional streams, run close to or directly beneath the railway. The existing railway crosses over 20 different watercourses using bridges or culverts and the new design includes repairs to existing crossings and the construction of new ones. The area between Paraćin and Stalać follows the Velika Morava River and crosses streams such as Crnica, Tekijski, Bacijski and Burdeljski. Between Đunis and Trupale, the railway follows the Južna Morava and crosses more streams such as Simin, Jankov, Radevačka and Grejač. In many places, the railway runs close to water used by local farmers for irrigation, although there are no formal irrigation systems in place. Official measurements from 2014 to 2023 show that water levels and flow vary throughout the year—highest in spring due to rainfall and snowmelt and lowest in late summer and autumn. Surface water in this area is not used for public drinking water. However, a separate reservoir (Bovan) located over 20 km from the railway line supplies drinking water to parts of Aleksinac municipality. In terms of quality, most rivers have been found to have moderate ecological status and are suitable for recreation and for raising fish and can be used for		the rivers, vegetation clearance, soil disturbance, and possible discharge of polluted water. The most sensitive areas are where the railway crosses or runs near these rivers, especially around km 155–157 and km 192–224. In these areas, pollution from construction site runoff, accidental spills and water discharge from the tunnel could lead to a decline in water quality if not properly mitigated. This may temporarily affect aquatic ecosystems, increase sediment levels, and cause changes in the riverbed. Human communities who use water for farming or livestock, especially near Aleksinac and Paraćin, may also be affected if water becomes unsuitable for irrigation or animal use.	rivers and minimise disturbance to sensitive aquatic ecosystems. ▪ The Contractor is required to prepare and follow several management plans, including those for water, soil, waste and river works. ▪ Key measures to prevent surface water pollution include locating fuel storage and vehicle maintenance areas away from watercourses, installing drainage systems to manage runoff, treating tunnel water before discharge, and scheduling in-river works during periods of low flow and outside fish spawning seasons. ▪ Protective barriers and erosion control mats will be used to stabilise exposed soils, while native vegetation will be replanted to restore riverbanks. ▪ Bridge foundations will be designed to reduce flow disruption, and access of machinery to water bodies will be strictly limited.
	Operation phase	The main concerns in the operational phase are polluted runoff from railway tracks and stations, accidental leaks of fuel or chemicals and the long-term impact of bridges and other structures on water flow. If not properly mitigated, these issues can cause local but lasting changes in water quality and river shape, particularly near Paraćin station and Tešica stop, where maintenance activities are planned. In these sensitive areas, the impacts may continue for many years unless proper drainage and control measures are implemented.	▪ SRI will be responsible for implementing measures to prevent surface water contamination. This includes proper storage and handling of hazardous materials, maintenance of drainage systems and treatment of runoff from stations and tracks. Herbicides will be applied in a controlled manner, avoiding sensitive areas near watercourses and only under suitable weather conditions. Infrastructure such as bridges will be regularly inspected to ensure structural integrity and water quality will be monitored near critical points to detect and respond to any pollution risks. An emergency

drinking water after treatment. Some pollution from natural minerals such as iron and manganese has been noted in larger rivers, but generally, no highly dangerous substances were found in amounts that would raise major concern. Farmers sometimes draw water from these rivers manually to irrigate nearby fields. While the rivers themselves are not directly used for water supply, their health remains important for local agriculture and biodiversity. Existing railway drainage is poor, often causing water to collect and flood in flat areas. In the new design, improved drainage channels will be built to guide rainwater away safely, reducing the risk of flooding and helping to protect nearby rivers and streams.			response plan will be in place to address accidental spills and safeguard downstream users.

4.6 Groundwater

*For detailed information, please see **ESIA Chapter 10: Groundwaters**.*

Baseline summary	Phase	Potential impact(s)	Mitigation measures
The area along the proposed railway line contains important groundwater resources, particularly in the valleys of the Južna and Velika Morava rivers. The most significant groundwater is found in alluvial sediments, which are loose layers of sand, gravel and clay that can easily store and move water. These areas are highly permeable and in direct contact with nearby rivers, which means that groundwater levels rise and	Construction phase	During construction, groundwater could be affected in several ways, especially in areas where the water table is high and the soil allows water to move easily. The main risks come from accidental spills of fuel, oil, or other substances used on construction sites. These pollutants could seep into the ground and reach underground water reserves, especially in sensitive locations such as the areas around the	▪ During construction, the Contractor will prepare a Water and Soil Management Plan and an Emergency Preparedness and Response Plan. These plans will include safe storage and handling of fuel and chemicals, use of spill kits, regular checks on machinery for leaks and proper wastewater collection and disposal. Special care will be taken to keep construction activities away from groundwater sources.

fall depending on rainfall and river levels. This close connection also means any pollution in the area could spread quickly through the groundwater. Tests in the planned tunnel near Đunis showed no groundwater present in the boreholes, though occasional water might appear during heavy rain. As a precaution, tunnel works will be done during dry seasons to limit any interaction with groundwater. Much of the land surrounding the railway is agricultural and relies on groundwater for soil moisture. Although there are no public records of private wells, it's assumed that they may exist and are used for non-drinking purposes, such as irrigation or livestock. The Project crosses through two large groundwater bodies, both of which are monitored by Serbia's national hydrological institute. These monitoring stations track seasonal water level changes and help detect any potential problems. The groundwater here generally remains stable throughout the year but does fluctuate during wetter months. Some parts of the railway route pass through zones where water sources for public supply or bottled water production are protected by law. This includes the wider protection zones for the Gorunje and Bahus sources. These deeper sources are well-protected by thick layers of clay, which prevent surface		Gorunje, Striža and Bahus water sources. While these sources are naturally protected by thick layers of clay, their proximity to the railway route makes them vulnerable if leaks happen nearby. Another concern is indirect pollution, where harmful materials first contaminate soil or surface water and later reach groundwater. This can happen if hazardous waste is not properly handled, or if heavy rains wash chemicals from construction areas into nearby soil. While this type of pollution is expected to be limited to small areas and would take time to reach groundwater, it could still cause problems, particularly in farming areas where groundwater is used for irrigation. The physical disturbance of soil, especially through excavation and tunnelling, can also impact groundwater. This is because construction can stir up fine particles that enter underground water sources and reduce water clarity or slow down natural flow. This kind of impact is not chemical, but it can still make the water harder to use. In some cases, construction may require pumping water out of the ground to keep work areas dry, especially for underpasses and bridge foundations. These activities can temporarily lower the local groundwater level, though it is expected that the water table will recover after construction is complete.	▪ Drainage systems, oil-water separators and erosion control methods such as silt fences and sediment traps will be used to prevent polluted water from seeping into the ground. ▪ Dewatering will be carefully managed using flow controls and monitoring equipment, especially in places where groundwater is close to the surface. ▪ Where groundwater is used by local people, baseline measurements will be taken before construction begins and any deep excavations will be sealed to prevent unwanted water flow.

contamination from reaching the aquifers. Water sampling in these areas confirmed that the quality of groundwater currently meets national safety standards. To safeguard these sensitive water sources, protective drainage systems have been included in the railway design. These systems are built to collect rainwater, treat it and prevent any pollutants from reaching the ground or seeping into nearby aquifers.	Operation phase	During the operational phase of the railway, the risk to groundwater comes mainly from accidental spills of fuel or maintenance chemicals. If these substances are not handled carefully, they could eventually make their way into underground water. However, because of protective geological layers and built-in drainage systems, this risk is considered low. Chemicals used for track maintenance, such as herbicides, may also pose a small risk, but their use is typically limited and controlled. Overall, impacts during operation are expected to be minor and highly localized.	▪ SRI will implement similar plans sized to the degree of impact to manage soil and water risks. ▪ Dangerous goods passing near protected water sources will be subject to speed limits and strict safety rules. Maintenance materials such as fuels and herbicides will be safely stored and applied carefully to prevent seepage into the ground. Regular checks and cleaning of drainage systems, treatment units and septic tanks will be conducted to ensure nothing leaks into the soil. ▪ At station parking areas, drainage will be collected, treated and safely discharged into nearby streams or rivers, ensuring that the surrounding land and water are not affected.

4.7 Climate Risk and Vulnerability

*For detailed information, please see **ESIA Chapter 11: Climate Risk and Vulnerability Assessment**.*

Baseline summary	Phase	Potential impact(s)	Mitigation measures
Climate characteristics. The climate along the railway route ranges from continental to temperate continental, with moderate annual precipitation (500–600 mm), cold winters and moderately warm summers. Data from Ćuprija, Kruševac and Niš show extreme temperatures from 44.6°C (Ćuprija, 2007) to -30.0°C (Niš and Kruševac, 1947). The area averages 28–43 tropical days and 90–95 frost days annually, with snow cover lasting 30–45 days. Fog and hail are occasional, while wind (though generally weak) affects local temperature and humidity.	Construction phase	During the construction phase, the most relevant climate-related risks are associated with high temperatures, including heat stress and heat waves, as well as extreme wind events and heavy rainfall. These hazards may affect the well-being of workers, as well as disrupt site activities and transport of materials and personnel. However, overall impacts during construction are expected to be manageable and no significant long-term disruptions are anticipated.	▪ A robust surface water drainage system is envisaged in the Project design, aligned with the railway route and will include concrete channels, culverts and longitudinal drains to manage rainfall and reduce the risk of flooding and landslides. The Contractor will develop a Construction Water and Soil Management Plan, which will include measures such as erosion control, sustainable drainage, avoidance of material stockpiling near watercourses and scheduling of earthworks to avoid high-flow periods.

Baseline summary	Phase	Potential impact(s)	Mitigation measures
Climate change projections. Serbia's climate is expected to become significantly warmer and drier over the coming decades. By the end of the 21st century, average annual temperatures could rise by up to 4.3°C compared to the 1986–2005 baseline, with the summer season potentially lasting up to two months longer. Precipitation is projected to decrease, especially in southern regions, with reductions of up to 40%. At the same time, rainfall is expected to become more intense and concentrated, increasing the risks of flooding and prolonged dry spells. **Climate hazards.** According to wildfire risk maps and the Fire Weather Index, the Project area is exposed to moderate to high wildfire risk. The railway mainly traverses agricultural and urban areas, but small vegetated patches near the tracks could enable fire spread. Although no major wildfires have occurred along the alignment to date, rising temperatures and drier conditions are expected to increase future vulnerability. Flood risk along the alignment is highly location-specific, with certain river crossings presenting particular concern. Sections near Ćićevac and Mezgraja have been identified as having low flood risk, with floodwater depths ranging from under 0.5 m to up to 4 m in localised areas. While fluvial flooding (due to river overflow) remains the primary concern, pluvial			▪ To enhance emergency preparedness, a Construction Emergency Preparedness and Response Plan will also be developed. Additionally, a River Crossing Plan will ensure that bridge structures minimise resistance to water flow and maintain the stability of riverbanks. Construction compounds will be carefully selected and managed by the Contractor to avoid sensitive areas, with appropriate drainage installed to prevent localised flooding. Landscape restoration and enhancement will be guided by the Construction Planting Management Plan, which will outline actions to rehabilitate disturbed areas with native vegetation and reduce erosion.
	Operation phase	In the operational phase, the Project is expected to face increasing climate-related risks over time. The most significant threats include heat stress, heat waves and extreme winds, which are projected to become more frequent and intense. These hazards may pose serious risks to railway infrastructure, operations and safety. In addition, fluvial floods may increasingly affect areas near rivers, potentially disrupting services and damaging assets. Other hazards, such as pluvial flooding, landslides and wildfires, could also affect rail operations, although to a lesser extent.	▪ To address heat-related risks such as rail bulging, the design incorporates continuously welded rails with elastic fastenings, optimised ballast profiles and an adjusted stress-free temperature that reflects future climate projections. The current stress-free temperature used is 25.5±3°C, based on historic values, but will be updated as needed to account for climate change impacts. Wind resilience is ensured through the structural design of all above-ground elements, which considered considers local terrain topography, low surface roughness, and the channelling effect of the Velika Morava valley.. Regular vegetation maintenance along the tracks is also planned to prevent wind-related

Baseline summary	Phase	Potential impact(s)	Mitigation measures
flooding from intense rainfall events is also a possibility. Landslide risk is generally assessed as low to medium. The northern portion of the alignment traverses the relatively flat Velika Morava valley, while the southern section runs through the Južna Morava valley. Although European landslide susceptibility maps indicate medium risk in certain areas, local topographic features and vegetative cover suggest that these estimates may be overstated.			damage from falling objects. Flood risks are mitigated through the strategic placement of culverts and elevated bridge structures designed to accommodate high flood events. The overall drainage system is designed to safely handle Q1000 flood flows, including the regulation of the Jovanovačka River to reduce flooding risk downstream. At Mezgraja, flood modelling identified a flood-vulnerable section with low risk; accordingly, culverts of adequate cross-section have been included. Bridge structures are elevated and dimensioned to ensure unimpeded watercourse flow during flood conditions predicted under future climate scenarios. Temperature and wind effects on bridges have also been analysed in line with Eurocodes and national annexes applicable in Serbia. Scaled-up vegetation restoration measures, which go beyond basic rehabilitation, are also proposed to strengthen ecosystem services, reduce erosion and enhance climate adaptation. ▪ In addition, an Operational Emergency Preparedness and Response Plan will be implemented to ensure that climate risks are systematically assessed and managed during railway operations, supporting overall safety and service continuity.

4.8 Noise and Vibration

*For detailed information, please see **ESIA Chapter 12: Noise and Vibration**.*

Baseline summary	Phase	Potential impact(s)	Mitigation measures
NOISE			
The existing railway already generates moderate to high noise levels, particularly from older diesel trains and poor track conditions. Noise levels in many locations, including residential areas, exceed national and EU limit values. Sensitive receptors along the line include homes, schools, healthcare facilities and public buildings. Field measurements and modelling confirm that without action, exposure to high noise levels will continue and likely worsen with increased rail traffic.	Construction phase	▪ Construction will involve use of heavy machinery, demolition, piling, material transport and other activities that generate high noise levels. These activities may cause disturbance to nearby residents, especially during early morning or late evening hours. ▪ Sensitive receptors such as schools and hospitals may be particularly affected by prolonged or repeated noise exposure.	Contractor will prepare Construction Noise Management Plan, with the following measures: ▪ Construction will mainly occur between 06:00–22:00, with efforts made to limit simultaneous use of loud equipment to reduce exposure to noisy activities. In case where noisy works need to be performed at night (only in exceptional cases) or during a longer period than one day in the vicinity of the sensitive areas, a temporary noise barrier shall be used around the working area. ▪ All machinery must meet EU noise standards (CE marking), be well-maintained equipped with mufflers or broadband alarms and placed away from sensitive receptors. ▪ Temporary noise barriers will be installed near sensitive buildings, especially for night or prolonged noisy works. ▪ Noise levels will comply with Serbian regulations; monitoring will follow clear procedures for measurement and complaint response. ▪ Residents will be informed in advance; a grievance mechanism will be available and workers trained in noise control and good environmental practices.

	Operation phase	▪ After reconstruction, train speeds will increase and train frequency may rise, leading to higher noise emissions. ▪ Although electric trains are quieter than diesel ones, overall noise levels may still exceed limits due to increased traffic and track geometry (e.g. curves, switches). ▪ Night-time operations may disturb sleep and affect health in nearby homes.	▪ Install permanent noise barriers in locations where exceedances are predicted (and transparent ones, where possible). ▪ Upgrade infrastructure (tracks, joints) to reduce noise at the source. ▪ Promote the use of low noise rolling stock. ▪ Implement a facade insulation program (e.g. better windows) for homes in critical zones. ▪ Establish a noise monitoring system to assess real performance.
			  *(An example of the design of the noise barriers - solid and transparent variants)*
VIBRATIONS			

The existing railway causes ground-borne vibration, particularly from freight trains, track defects and at locations with poor soil conditions or proximity to buildings. Sensitive receptors include residential buildings, public institutions and cultural heritage structures. Long-term exposure may cause annoyance or concern among residents, although measured levels are generally within limits.	Construction phase	▪ Excavation, piling, compaction and use of heavy machinery may cause short-term vibrations. ▪ These vibrations could be felt in nearby buildings and may raise concerns among residents about potential damage. ▪ Sensitive structures (historic buildings, hospitals) may be at risk if vibration levels are not controlled.	The Contractor will implement a Construction Vibration Management Plan, which will include: ▪ Vibration works will be limited to 06:00–22:00; low-vibration methods will be used where possible. ▪ Pre-construction surveys will identify sensitive sites; follow-up surveys will check for damage, which the Contractor will repair. ▪ Vibration will be monitored with defined methods, thresholds and complaint procedures. ▪ Equipment will comply with EU standards, be well-maintained and placed away from sensitive buildings. Simultaneous use of high-vibration machines will be avoided, and access roads planned to limit impacts near homes.
	Operation phase	▪ Increased train frequency and speed could raise vibration levels in nearby buildings, especially at switches and curves. ▪ In some areas, vibration may become noticeable and cause discomfort or interfere with daily activities.	▪ Continuous welded rail and resilient fasteners will be used to minimise vibration. ▪ Tracks and vehicles will be regularly maintained to prevent defects. ▪ Anti-vibration mats or under-sleeper pads will be installed in high-risk areas. ▪ Vibration levels will be monitored and corrective actions taken if thresholds are exceeded.

4.9 Landscape and Visual Assessment

*For detailed information, please see **ESIA Chapter 13: Land and Visual Impact Assessment**.*

Baseline summary	Phase	Potential impact(s)	Mitigation measures
Landscape assessment			
The railway route crosses predominantly low-sensitivity landscapes including: ▪ Semi-urban (surrounded by agricultural areas, meadows and higher vegetation): Striža, Sikirica, Drenovac, Đunis, Donji Ljubeš, Trnjani, Tešica, Grejač and Supovac ▪ Urban: Paraćin, Ćićevac, Aleksinac Medium to high sensitivity landscapes include the Južna Morava River valley near Vitkovac and the Dobrić–Nišava IBA near Supovac and Vrtište.	Construction phase	▪ Localised and temporary degradation from earthworks and installation of railway infrastructure in settlements Parićin, Striža, Sikirica, Drenovac, Đunis, Donji Ljubeš, Trnjani, Tešica, Grejač and Supovac Trnjani, Grejač, Žitkovac ▪ Landscape fragmentation and vegetation removal in protected zones such as Dobrić–Nišava IBA (km 221–229.6) ▪ Alteration of riverbank character in Južna Morava valley near Vitkovac (km ~193) and at the Velika Morava bridge near Supovac (km ~229)	▪ Restore construction zones to original condition post-works ▪ Implement native planting along affected areas, especially near sensitive receptors ▪ Erosion control near river crossings
	Operation phase	▪ Permanent presence of infrastructure altering landscape structure and connectivity in Vitkovac, Moravac, Vrtište, Striža, Sikirica, Drenovac, Đunis, Donji Ljubeš, Trnjani, Tešica, Grejač and Supovac. ▪ Long-term disturbance of habitat and ecological landscape quality in the Dobrić–Nišava IBA due to fencing and train operation (Vrtište–Supovac section) ▪ Visual and spatial reconfiguration in Žitkovac, where new roads and underpasses replace residential areas	

Visual assessment			
The study area covers settlements including Paraćin, Ćićevac, Aleksinac, Drenovac, Đunis, Donji Ljubeš, Trnjani, Tešica, Grejač and Supovac, where residents' visual of the Project varies based on proximity and orientation. Most homes are low-rise single-family houses facing local roads, with natural vegetation often screening views, except in Paraćin and Ćićevac, which have some low-rise apartment buildings. In smaller villages such as Drenovac, Korman and Trnjani, the railway cuts through the centre, with houses directly adjacent to the tracks, making residents more accustomed to the railway presence. Workers in nearby industrial zones and agricultural fields, especially between smaller settlements, will have clear views of the Project, while tourists visiting cultural heritage sites are expected to have limited visual interaction due to screening. Travellers on roads running close to the railway, such as state roads 158 and 217 between Žitkovac and Tešica, will also experience views of the railway corridor, though most long-distance traffic uses the nearby Belgrade-Niš highway.	Construction phase	▪ Visually dominant machinery, stockpiles, lighting and fencing during demolition and underpass construction in Drenovac, Trnjani and Žitkovac ▪ Large construction presence in Moravac and Vrtište, affecting open views and daily activities (e.g., near sports ground) ▪ Disruption of established visual continuity and increased urban fragmentation in settlements such as Ćićevac and Vitkovac	▪ Rehabilitate embankments and cuttings using native plant species to ensure visual integration with the surrounding landscape. ▪ Incorporate architectural elements that harmonise with the surroundings, where feasible, such as new station and technical buildings, overpasses, or cuts and embankments. ▪ Limit stockpile heights to 5 m during construction to mitigate visual impacts. ▪ Use muted, natural colours for railway infrastructure to blend with the landscape and incorporate artistic or architectural treatments on structures such as noise barriers and bridges. ▪ Integrate landscaping and climbing plants on the overpass to blend with the surroundings. Match materials and colours with local structures. ▪ In dense urban areas with no space for planting and planned noise barriers, residents to be consulted on design. If maintaining views is important, transparent barriers or acoustic panels may be preferred despite slightly lower noise insulation. ▪ In semi-urban or mixed areas with space along the railway or where the new alignment is offset, dense native vegetation to be planted.

	Operational phase	▪ Railway fence and frequent trains visually dominate in residential areas of Drenovac, Trnjani, Žitkovac and Vrtište ▪ Overpasses at Moravac and Vrtište disrupt flat landscape and alter local character ▪ Visual fragmentation in settlements where barriers limit visibility across railway (e.g., Ćićevac, Trnjani) ▪ In Vrtište, long-term impact on visual experience of sports field and residential area due to prominent overpass	 *(Top figures: existing condition (before Project); bottom figures: projected condition after installation of noise barriers (after Project))*

4.10 Biodiversity

*For detailed information, please see **ESIA Chapter 14: Biodiversity**.*

Baseline summary	Phase	Potential impact(s)	Mitigation measures
The Project area is characterised by the presence of farmland and villages, with scattered patches of natural habitats such as grasslands, forests, streams and wetlands. Much of the landscape is already impacted by farming and settlements. Remaining natural habitats (forests and wetlands) are still valuable and under pressure from pollution, land clearing and spread of invasive species. The Project intersects the Dobrić-Nišava protected area, an important area hosting populations of the Grey Partridge and Black-headed Bunting.	Pre-construction	▪ Mistakes in planning could lead to the loss of important habitats for species, destruction of ponds, wetlands or breeding areas, as well as an increase in mortality of species. ▪ There is a risk of destroying sensitive habitats if not outlined in advance ▪ Lack of up-to-date information on the local flora and fauna could lead to unintentional planning of works in unidentified sensitive areas.	▪ Mark and map all important natural areas (wet or seasonally wet grasslands, broadleaved deciduous forests) as avoidance zones. ▪ Maintain movement corridors of animals between important habitats by planning crossings for small mammals and amphibians and reptiles. To prevent fatalities of small fauna, along sections where these crossings are planned, implement protection fences. ▪ Conduct additional research on aquatic habitats around the Južna Morava to map their exact

Forests in the area are fragmented and degraded due to long-term human activity but still provide shelter to several sensitive species. Wetlands and small water bodies support rich aquatic life, including fish, mussels, snails, frogs and turtles. Some of these species are rare or declining and require careful protection. Invasive alien species are present throughout the Project area, spreading where natural vegetation is disturbed. The spread of these species may further impact patches of natural habitats, altering their flora composition and structure.			locations and boundaries and include them as avoidance zones. ▪ Relocate pond turtles at Vrtište where ponds will be destroyed by construction and operation of the railway, following best-practice protocols
	Construction	▪ Parts of forests, wetlands and grasslands will be permanently or temporarily cleared or disturbed, which are home to sensitive species and habitats. Alluvial forests and wet grasslands are especially vulnerable. ▪ Construction will generate noise and vibrations, disturbing birds, mammals and amphibians during nesting or breeding seasons. Light pollution at night affects nocturnal species such as bats and owls. ▪ Construction near rivers and wetlands may alter local water levels and flow patterns; runoff, dust, or spilled materials could pollute ponds, streams and rivers, affecting aquatic life (fish, frogs, mussels, snails). ▪ Construction activities and exposed soil increase the risk of fast-growing invasive species taking over natural areas, making it harder for native plants to re-establish, reducing food or shelter for wildlife.	▪ Engage an Ecological Clerk of Works (ECoW) to monitor construction and ensure all actions and procedures are carried out in accordance with legislative requirements. The ECoW will check areas before any vegetation is cleared. Prepare the Ecological Chance Finds Procedure to ensure works come to a stop in case sensitive animals or plants are found on-site during construction. Works will proceed once an ecologist confirms it is safe to do so. ▪ Develop a Habitat Restoration Plan for the re-establishment of all habitats, especially sensitive habitats affected. Native trees will be planted in cleared forest zones in coordination with the *Public Enterprise "Srbijašume"*, Where possible, damaged grasslands and wetlands will be replanted using seeds from nearby natural areas. Where wetlands and ponds are disturbed, shallow areas will be created to hold water and allow natural plants such as reeds and irises to regrow. Native aquatic plants will be replanted if needed.

			▪ For any important natural habitats that cannot be avoided, additional measures will be taken to make up for the loss (offsetting). ▪ The Invasive Alien Plant Species Management Plan must be developed and implemented to prevent the spread of invasive plant species during and after construction. ▪ Limit construction works to approved areas only, respecting avoidance zones and reducing losses to sensitive habitats. Construction traffic will use existing roads to reduce new damage to land. Parking and material storage areas will be clearly marked. ▪ Avoid construction works near rivers, around ponds, streams and grasslands during sensitive periods (April–June). ▪ Vegetation clearance will be avoided during key bird periods (wintering: Dec–Feb; nesting: Mar–Jul/Aug). An ecologist (ECoW) will first survey nesting or sensitive bird zones and works near these areas will be delayed until safe to proceed. If vegetation clearance is to take place during the bird nesting season, then an expert ecologist will first survey the target vegetation for nesting birds. ▪ Avoid dawn, dusk and night-time construction work, as these periods are when bats, carnivores and other nocturnal animals are most active. Lighting should be minimised and directed away from rivers and forests.

			▪ Dust will be controlled by spraying water on roads and materials. All waste and runoff will be safely managed to prevent pollution of rivers and soil.
	Operation	▪ Birds and small ground-dwelling species are susceptible to train collisions, especially near forested or riparian (riverside) habitats and on bridges and low viaducts. ▪ Wires and poles can be dangerous for larger birds and bats if not properly insulated. ▪ The railway corridor may divide animal habitats and create barriers for wildlife movement, affecting small mammals, amphibians and reptiles. ▪ Noise, vibration and lighting, although to a lesser extent, may affect sensitive species near critical habitats, potentially causing stress and animals to avoid the area. ▪ Runoff from the railway including oils, fuel residues and sediment can pollute nearby streams and ponds. Poorly maintained drainage systems may increase the risk of contamination and sedimentation over time. ▪ Disturbed areas remain vulnerable to invasive plants. Invasive plants may continue spreading along the track, especially if maintenance does not include removal. ▪ Periodic track or infrastructure repairs can cause additional habitat disturbance if not well managed.	▪ Track and record any animal collisions (especially birds, bats and small mammals). If numbers rise, improve fencing or use safe relocation methods. ▪ Check wildlife fences and animal underpasses/bridges every year. Repair damage promptly to keep animals off the tracks. ▪ To prevent casualties of birds and bats from electrocution, install insulator covers and good insulation of conductors on catenary and electrical infrastructure.Use downward-facing lights and avoid lighting near rivers or forests to protect bats and other nocturnal species. ▪ Maintain drainage systems and avoid using harmful chemicals near rivers. Action should be taken immediately if spills or leaks occur. ▪ Check for invasive plants twice a year. Use mechanical removal methods over herbicide use to stop their spread. ▪ Monitor reforested areas, wetlands and grasslands. Replant or adjust as needed to support healthy recovery. ▪ Regularly monitor impacts on protected fish, mussel and snail species. Act if any decline in water quality or species population is recorded. ▪ During the first year of operation, bird collisions will be checked every month. In case recorded

			bird collisions exceed thresholds, the company will work with the *Institute for nature conservation of Serbia* to make improvements. The success of tree planting (used to guide bird flight paths safely over the railway) will also be monitored. If necessary, planting will be adjusted to reduce the risk of birds hitting overhead wires. ▪ The first year of operation will include monitoring for bats killed by the railway. If an increase in mortality is recorded, changes to fencing or vegetation planting will be introduced to reduce risk.

4.11 Cultural Heritage

*For detailed information, please see **ESIA Chapter 15: Cultural Heritage**.*

Baseline summary	Phase	Potential impact(s)	Mitigation measures
Three cultural assets fall within the 500 m area of influence: ▪ One protected immovable asset – a cultural monument at Branka Krsmanovića 47 in Paraćin, approx. 490 m from the railway. ▪ Two unprotected but locally valued sites – the Supovac tower (near km 223+000) and the Memorial to Fallen Soldiers (1912–1918) in Drenovac (km 166+670). No archaeological sites are registered in this area.	Construction phase	▪ No adverse impacts on known cultural heritage assets expected ▪ Potential for discovery of unknown archaeological or cultural remains (chance finds)	▪ The Construction Contractor will develop a Cultural Heritage Management Plan prior to works in coordination with the relevant authorities. ▪ The Plan will include a Chance Finds Procedure, requiring immediate work stoppage and notification of the relevant Institute in the event of discovery. ▪ Construction-related facilities (e.g. camps, roads, borrow pits) will not be placed near known cultural heritage sites.
	Operation phase	▪ Chance finds during underground repair works	▪ SRI to maintain an Operational Heritage Management Plan and the Chance Finds Procedure will remain in place during operation.

4.12 Waste and Materials

*For detailed information, please see **ESIA Chapter 16: Waste and Materials**.*

Baseline summary	Phase	Potential impact(s)	Mitigation measures
SRI already has a system for managing waste and materials, including the separation, storage and transfer of both hazardous and non-hazardous waste to licensed operators. Its 2018 Waste Management Plan outlines procedures for sorting, storage, transport and safety, but will need updating for this project. Waste warehouses in Lapovo, Paraćin, Zaječar and other locations are available for temporary storage during (re)construction. The project will generate large quantities of waste, mostly non-hazardous materials such as soil, gravel, ballast, concrete, wood and metal parts. Smaller volumes of hazardous waste are also expected, including oils, batteries, paints, treated wooden sleepers and possibly asbestos. Some of the old materials, such as rails and sleepers, may be reused if not contaminated. Sleepers that cannot be reused will be treated at the Elixir Prahovo facility, which is also preparing a new waste-to-energy plant scheduled to start operations in 2026. A significant amount of earth will be excavated, with a portion reused for embankments and landscaping. Remaining spoil will be placed in temporary spoil disposal areas approved by local authorities. Topsoil	Construction phase	During construction, the project will generate large volumes of waste, mostly non-hazardous, including excavated soil, stones, old ballast, concrete and vegetation. A smaller but important portion will be hazardous, including used oils, greases, paint residues and potentially harmful wooden sleepers. If poorly managed, this waste could lead to soil and water pollution, especially near sensitive areas. Storage and disposal sites have not yet been confirmed, so a worst-case scenario has been considered. The use of old sleepers by local people for personal use could also pose risks due to potential contamination. The impacts on people include odour, dust, pests and visual disturbance from loosely stored or improperly disposed waste. These issues are especially relevant near worker camps and construction areas. Although most of the material is inert and much will be reused, the large volumes involved mean that nuisance impacts are likely without proper controls. The use of construction materials such as gravel, sand, concrete and steel is not expected to cause resource depletion, as these are readily available in	▪ The Contractor will be required to develop a Construction Waste Management Plan that covers all waste types, including hazardous and non-hazardous materials. The plan will aim to minimise waste, encourage reuse and recycling and ensure safe storage, transport and disposal. ▪ Waste will be separated at the source, stored in designated areas and removed by licensed operators. Special attention will be given to old wooden railway sleepers, which will be treated at the Elixir Prahovo facility. The Contractor will confirm that this facility can handle the expected volumes. All hazardous materials, such as oils or contaminated soils, will be stored in leak-proof containers with extra protection to prevent spills. Security measures will be in place to stop locals from removing potentially harmful materials like sleepers. ▪ Waste will not be stored or disposed of near homes, schools, rivers or protected nature areas. Open burning of waste will be strictly prohibited. Spoil piles will be managed to prevent dust, erosion and water pollution and fenced off to protect the public. ▪ To reduce overuse of materials, the Contractor will source materials locally where possible and

will be stripped and stored for reuse. Waste from worker facilities will be handled through public waste services. Although SRI has experience reusing railway components, the scale of this project means that over half a million tonnes of waste will be generated. Most of it will be inert, but hazardous waste will require careful handling. Specific waste procedures will be detailed in the Contractor's Construction Waste Management Plan, to be prepared before construction begins.		Serbia. However, their large-scale consumption highlights the need for good supply chain management and waste minimisation during procurement, delivery and use.	use efficient construction techniques, including pre-fabricated parts. Workers will be trained in how to reduce waste and handle materials carefully.
	Operational phase	During operation, smaller amounts of waste will continue to be produced, including packaging, oily rags and some hazardous waste from rail maintenance. These impacts are considered low, as SRI will continue to follow its established waste management procedures, which are aligned with national law. Waste from stations and along the track will be removed promptly and managed in line with the SRI Waste Management Plan.	▪ During operation, no new mitigation measures are needed beyond those already in place. SRI will continue managing waste under its updated Operational Waste Management Plan, in line with national laws.

4.13 Risk of Major Accidents and Disasters

*For detailed information, please see **ESIA Chapter 17: Major Accidents and Disasters**.*

Baseline summary	Phase	Potential impact(s)	Mitigation measures
The railway route passes through areas with certain risks, including underground gas pipelines, flood zones, slopes that could collapse, forested areas where fires could occur and a tunnel section.	Construction phase	▪ Mistakes in planning could lead to works near gas pipelines or unstable ground. ▪ If natural hazard risks are not fully considered during design, safety issues may arise later. ▪ Hitting a gas pipeline or power cable could cause explosions or injury. ▪ Heavy rain or unstable ground could lead to slope collapse. ▪ Wildfires or severe weather could endanger workers and equipment. ▪ Tunnel construction carries safety risks.	▪ Confirm locations of all underground utilities before works begin. ▪ Integrated geotechnical and flood risk data into final designs. ▪ Avoid placing construction sites in areas prone to landslides or floods. ▪ Prepare emergency plans for gas, fire, tunnel and weather-related incidents. ▪ Mark and protect all gas and electrical infrastructure. ▪ Train workers on utility safety. ▪ Stabilise slopes and monitor ground movement. ▪ Install drainage systems and reduce fire risks by clearing vegetation. ▪ Apply safe tunnelling methods and monitor tunnel integrity. ▪ Conduct emergency drills.
	Operation phase	▪ Train derailment could result in damage, pollution or injuries if not properly managed. ▪ Tunnel failures or fires present potential hazards to passengers and staff in the absence of appropriate safety measures. ▪ Natural hazards such as floods, fires or landslides could disrupt railway operations if not anticipated and mitigated.	▪ Use modern safety systems (such as train control and signalling) to reduce risks. ▪ Maintain and inspect tracks, tunnels and drainage systems regularly. ▪ Keep tunnels equipped with emergency exits, lights, communication and fire protection. ▪ Train staff in emergency response and update the railway company's incident plans regularly.

4.14 Occupational Health and Safety

*For detailed information, please see **ESIA Chapter 18: Occupational Health and Safety.***

Baseline summary	Phase	Potential impact(s)	Mitigation measures
At this stage, details of needed workforce are unknown, but construction will be phased and may peak at around 3,000 workers.	Construction phase	▪ Risk for construction workers due to various hazards during construction, including working at heights, operating heavy machinery, exposure to hazardous materials, electrical hazards, confined spaces, extreme weather, noise and vibration exposure, etc. Without adequate controls, these could lead to accidents, injuries or long-term health effects for workers.	▪ The Contractor will develop a Construction Occupational Health and Safety Management Plan with specific measures to protect workers, minimise risks and ensure compliance with applicable safety standards.
	Operation phase	▪ Risk for operation and maintenance workers due to potential collisions involving railway vehicles, electrical hazards from overhead catenary systems, exposure to harmful substances, fire and explosion hazards, etc. These hazards require continuous safety management and appropriate mitigation.	▪ SRI will develop an Operational Occupational Health and Safety Management Plan with targeted measures to mitigate the identified impacts and risks for workers during the operation phase.

4.15 Community Health and Safety

*For detailed information, please see **ESIA Chapter 19: Social Impact Assessment.***

Baseline summary	Phase	Potential impact(s)	Mitigation measures
The railway corridor passes through a mix of urban, rural and semi-urban settlements. The area is characterised by diverse land uses, including residential neighborhoods, agricultural areas and small industrial zones. The most sensitive receptors within proximity to the railway include schools and kindergartens, sports facilities, cemeteries etc.	Construction phase	▪ Risk of accidents involving community members, especially children near schools located close to the railway corridor, due to increased construction activity. ▪ Noise disturbances to nearby residents, particularly within 100 m works (and 500 m during impact piling works) and vibrations which may cause discomfort for residents up to 78 m from the works and potential structural impacts within 25 m – *see section 0 of this NTS for more details* ▪ Interaction between workers and locals may increase risks of gender-based harassment or violence	▪ Contractor will prepare and implement a Construction Traffic Management Plan to minimise congestion and reduce safety risks. Sensitive locations (such as schools and pedestrian-heavy areas) will be identified. Specific measures (e.g. reduced speed limits near schools, awareness-raising campaigns) will be integrated into the Plan. ▪ Contractor will consult communities on camp locations to avoid sensitive sites; appoint liaison staff and ensure a clear grievance mechanism; enforce a Code of Conduct and provide gender-based harassment training and protocols. ▪ For noise and vibration measures, see section 0 of this NTS.
	Operation phase	▪ Elevated operational noise and vibrations may affect local residents, particularly those living close to the railway. Common impacts include sleep disturbance, reduced quality of life and increased stress. ▪ Flooding and drainage-related hazards may arise in case of inadequate or poorly maintained drainage infrastructure along the railway corridor. ▪ If not properly managed, railway operations could be affected by various risks such as derailments, tunnel incidents or natural hazards such as floods	▪ For noise and vibration measures, see section 0 of this NTS. ▪ For drainage and flooding related measures, please see section 4.5 of this NTS. ▪ To reduce operational risks of railway operation, modern safety systems will be used, infrastructure will be regularly maintained and inspected, tunnels will be equipped with emergency features, and staff will be trained in emergency response with updated incident plans. Please also see section 0 of this NTS.

		and landslides, potentially leading to service disruption, injuries or environmental damage.	

4.16 Closure of Railway Stops and Stations

*For detailed information, please see **ESIA Chapter 19: Social Impact Assessment**.*

Baseline summary	Phase	Potential impact(s)	Mitigation measures
There are currently 20 railway stations/stops along Section 3, of which 11 are planned for closure: Drenovac, Lučina, Vitkovac, Donji Ljubeš, Gornji Ljubeš, Trnjane, Nozrina, Grejač, Supovački Most, Mezgraja and Vrtište. Several of the planned closures involve locations that have recorded only minimal activity in recent years. However, a few of the locations scheduled for closure have shown a more consistent pattern of use, particularly: Grejač, Nozrina, Trnjane, Drenovac.	Operational phase	▪ Permanent loss of stops/stations in 11 settlements, with increased travel distances to the nearest operational station. ▪ Vulnerable groups (including the elderly, low-income households, women, children, single parents and persons with disabilities) may face disproportionate impacts due to longer travel distances, severance and reduced accessibility.	▪ SRI will lead a coordination group with representatives from local self-governments, Serbia Voz and the Ministry of Communication, Transport and Infrastructure (MCTI) to align local transport services with train schedules. The group will meet quarterly during construction to assess transport needs, municipal capacities and possible cooperation between neighbouring municipalities. ▪ Draft transport plans will be shared with local communities for feedback, which will be considered in finalising services. Where needed, SRI will seek support from MCTI or other ministries to assist municipalities lacking capacity. Transport information (such as how local bus and train schedules align) will be made available in communities. ▪ SRI will also coordinate with Serbia Voz and municipalities to handle grievances. During operation, SRI will continue working with stakeholders to assess service adequacy and raise any issues needing attention.

4.17 Land Acquisition

For detailed information, please see ***ESIA Chapter 19: Social Impact Assessment*** and ***RPF***.

Baseline summary	Phase	Potential impact(s)	Mitigation measures
In line with the Spatial Plan, the land designated for public use in the construction of Section 3 facilities spans approximately 370 hectares. Although specific land use data for this specific area is not available, the broader framework indicates that the surrounding region is primarily agricultural, making up around 61% of total land use. This is followed by construction land (29%), forested areas (9%) and a minimal share of water surfaces (less than 1%). Based on these proportions, it is estimated that roughly half of the designated 370 hectares - around 185 hectares - may be agricultural land.	Pre-construction	▪ Physical and economic displacement due to land acquisition: the Project will affect a total of 4,457 land plots, with the majority only partially affected and approximately 14% fully acquired. Impacts may include 180 residential structures, 119 auxiliary buildings and 16 business premises. In addition, residents of 34 railway-owned apartments will require relocation. (further details provided in the RPF)	▪ SRI will prepare and implement a RAP for Section 3, aligned with the Section 3 RPF. ▪ Affected individuals will be consulted throughout RAP development and implementation. A socio-economic survey and census will identify all affected people, including those without legal title. ▪ Compensation for all affected assets will be provided at full replacement cost. ▪ All owners of crops, trees and plants (regardless of whether such owners also own the land itself) will be entitled to harvest their crops/fruit or receive cash compensation at full replacement cost. ▪ Moving allowance or assistance will be provided to all relocated households or businesses. ▪ Livelihoods and living standards will be restored or improved compared to pre-displacement conditions. Individually tailored livelihood restoration or improvement assistance will be provided to all those losing income or livelihood (whether formal or informal). ▪ Adequate housing with secure tenure will be provided for all households physically displaced from railway apartments.

			▪ Farmers facing long-term access disruptions may be eligible for livelihood restoration support, in line with RPF and RAP principles. ▪ Vulnerable groups will receive special attention to restore or improve living and livelihood conditions. ▪ A grievance mechanism will be implemented through which all affected people will be able to submit their complaints and grievances in relation to compensation and resettlement and expect a timely answer. ▪ RAP implementation will be regularly monitored and reported to the Lenders. A more detailed explanation of measures and entitlements is provided in the RPF. ▪
	Construction	▪ Temporary land occupation (short-term use of land needed for construction)	▪ Where temporary land occupation is unavoidable, affected landowners/users will be compensated, as to be defined in the RAP, for the duration of use and any damages, with full restoration of land following construction.

4.18 Risk of Damage to Private Property, Infrastructure and Utilities

*For detailed information, please see **ESIA Chapter 19: Social Impact Assessment**.*

Baseline summary	Phase	Potential impact(s)	Mitigation measures
The Project corridor passes through both urban and rural settlements where residential buildings, community infrastructure and local utilities are often located in close proximity to the railway.	Construction phase	▪ Risk of accidental damage to private properties located near construction zones, particularly in densely settled areas ▪ Risk of damage to local utilities such as water and electricity networks, potentially leading to temporary service disruptions for the local population along the corridor ▪ Risk of damage to local roads used for construction traffic	▪ Contractor will strictly respect right-of-way boundaries and instruct workers accordingly. ▪ Compensation will be provided for damages. ▪ Utilities to be relocated as needed, with prior notice and timely restoration; accidental damage to be promptly repaired with clear communication to users. ▪ All access roads to be surveyed before construction starts, with regular maintenance and timely repairs carried out by the Contractor. ▪ Pre- and post-condition surveys of nearby structures and roads to be conducted, especially in vibration-sensitive areas.

4.19 Impacts on Railway Traffic Operators

*For detailed information, please see **ESIA Chapter 19: Social Impact Assessment**.*

Baseline summary	Phase	Potential impact(s)	Mitigation measures
Passenger and freight railway services along the alignment are currently operated by Srbija Voz, Srbija Kargo and other freight operators, respectively. The	Construction phase	▪ Construction will require temporary closures of railway sections, timetable changes/rerouting, disrupting passenger and freight operations.	▪ SRI to establish formal coordination mechanisms with Srbija Voz, Srbija Kargo and other freight operators early in the planning phase to anticipate

route is a key transport corridor with daily services. Operations are generally stable, though capacity constraints and infrastructure limitations occasionally affect punctuality and service quality.		▪ Srbija Voz may face delays and reduced service quality, while Srbija Kargo and other freight operators may experience scheduling issues, detours and cost increases.	disruptions and integrate their input into the construction schedule.

4.20 Community Severance

*For detailed information, please see **ESIA Chapter 19: Social Impact Assessment**.*

Baseline summary	Phase	Potential impact(s)	Mitigation measures
The existing railway has long been integrated into daily life, with open access and numerous at-grade level crossings. As part of the modernisation, the line will be fully fenced and 48 existing at-grade road crossings will be replaced by 30 grade-separated crossings, including a combination of underpasses and overpasses.	Construction phase	▪ Closure of at-grade crossings before new underpasses or overpasses are in place may lead to longer and less safe travel routes for local residents	▪ The Contractor to keep every at grade crossing open until the underpasses and overpasses intended to replace it are constructed and open for traffic. No crossing shall be closed before a functioning alternative is made available to the local population.
	Operation phase	▪ Increased travel distances due to traffic diversions to new or existing underpasses/overpasses, especially where urban centres or clustered villages are served by only one key crossing ▪ Disruption of daily routines, particularly for vulnerable groups such as the elderly, schoolchildren, persons with reduced mobility and low-income pedestrians ▪ Potential safety concerns, especially for pedestrians and schoolchildren navigating longer or unfamiliar routes.	▪ SRI will organise technical information sessions and public consultations in all affected municipalities within the first 60 days of the ESIA disclosure phase. Clear maps will be shared, showing planned overpasses, underpasses, remaining crossings, closed roads and diversion routes for vehicles and pedestrians. Based on community feedback, SRI will ensure additional crossings are included where feasible, in cooperation with local authorities. ▪ SRI will coordinate with the Municipality of Paraćin and establish a joint working group within 60 days of ESIA disclosure to explore ways to accelerate the planning of bypass road which, if built, can significantly reduce the severance impact in

			Paraćin by shortening travel distance. Final ESIA will reflect any updates post-disclosure.

4.21 Restrictions in Access to Agricultural Land

*For detailed information, please see **ESIA Chapter 19: Social Impact Assessment**.*

Baseline summary	Phase	Potential impact(s)	Mitigation measures
Agricultural land is present along almost the entire Section 3. Communities such as Striža, Sikirica, Drenovac, Ratare, Vitkovac, Trnjane, Prćilovci and Grejač are among those especially reliant on agriculture and have cultivated land plots located on both sides of the planned railway.	Construction phase	▪ Temporary loss of access to agricultural plots due to excavation, machinery, fencing and safety zones ▪ Disruption of roads and footpaths may hinder landowners' ability to reach their land ▪ Potential delays in planting or harvesting cycles	▪ Contractor will prepare a Construction Traffic Management Plan ensuring that access to agricultural land, with agricultural machines, is always available. Where uninterrupted access cannot be maintained in specific cases, compensation will be provided in line with the principles set out in the RPF and RAP (see section 4.17 above). ▪ Contractor will consult local communities during the development of the Plan and to make it publicly available.
	Operation phase	▪ Permanent closure of existing at-grade railway crossings may result in longer travel distances for farmers accessing their agricultural land, particularly with machinery ▪ Potential long-term impacts on agricultural productivity and livelihoods	▪ During the ESIA disclosure phase, SRI will organise technical information sessions and public consultation meetings in all affected municipalities to gather feedback on proposed solutions. Clear visual materials will be provided to show future overpasses, underpasses, closed roads and traffic diversions. Information will include vehicle size limits for each crossing and details on planned access/service roads. ▪ Based on consultation outcomes, SRI (with MCTI support) will adjust designs as possible to include additional crossings or culverts to ensure continued access for agricultural machinery or to

			increase the dimensions of proposed crossings to accommodate large agricultural machines. ▪ Where access routes are significantly lengthened and cause long-term disruption to agricultural livelihoods, affected farmers may be considered eligible for livelihood restoration measures in line with the principles of RPF and RAP (see section 4.17 above).

4.22 Labour and Employment

*For detailed information, please see **ESIA Chapter 19: Social Impact Assessment**.*

Baseline summary	Phase	Potential impact(s)	Mitigation measures
The exact workforce requirements are not yet known; however, construction will be carried out in phases and may reach a peak of approximately 3,000 workers. The frequency at which workers will be employed and the duration of their engagement will depend on the contractors' organisation of work.	Construction phase	▪ Possibility of non-compliance with labour standards for working conditions if monitoring is insufficient ▪ Risk of inadequate worker accommodation and living conditions, especially if temporary camps are established without proper oversight ▪ Potential for local job creation and economic benefits through hiring of unskilled workers, local procurement of materials and increased demand for services	▪ Contractor will develop a Construction Labour and Employment Plan; enforce a Worker's Code of Conduct; establish a grievance mechanism accessible to all workers; provide training for workers on human resources policies, grievance procedures and the Code of Conduct. The Plan will include provisions to enhance local employment and procurement opportunities (by prioritising the hiring of workers from local communities, outlining mechanisms for advertising vacancies locally, collaborating with the National Employment Service and municipal offices to reach unemployed residents, etc.) ▪ Contractor will implement a Workers' Accommodation Management Plan aligned with international standards. ▪ SRI will conduct an independent labour audit after contractor mobilisation and regularly during construction to verify compliance with national and international standards.

4.23 Cumulative Impacts

*For detailed information, please see **ESIA Chapter 20: Cumulative Impacts**.*

Baseline summary	Phase	Potential impact(s)	Mitigation measures
This assessment looks at how the railway project might interact with other developments in the area, either because they are happening at the same time or in the same location and what effects this could have on people and the environment. The Project route passes through areas where other five infrastructure projects are already in place or are planned[2]. These include other railway sections, roads and urban developments. In locations such as Paraćin, Stalać and Žitkovac–Moravac, construction works from different projects may happen at the same time and place. These projects could increase construction traffic, dust, noise, or pressure on local waste systems in places like Paraćin, Stalać, Aleksinac and Niš. Currently identified sensitive receptors include local communities, residential properties, agricultural land and land users, biodiversity, surface water bodies, construction and maintenance workers, road users and public transport passengers.	Construction phase	▪ Emissions from construction activities may increase where this Project overlaps with other nearby construction works. ▪ There is a risk of water pollution from runoff and spills when construction happens at the same time as other nearby projects. ▪ Construction could disturb or fragment habitats in areas sensitive to biodiversity where multiple projects are active. ▪ Noise and vibration from construction could increase in areas where work is happening at the same time on several nearby projects, possibly affecting residents and public transport users. ▪ Waste from this project, combined with waste from other nearby projects, could overwhelm local waste management systems. ▪ Increased demand for labour and services may create positive economic effects for local workers and businesses. ▪ Simultaneous projects could limit the movement of local people and access to certain areas.	▪ Coordinate timing of noisy or dusty works with other developers; use dust suppression, emission controls and maintain machinery; build noise barriers and limit loud works to daytime. ▪ Protect water bodies with spill control and drainage. ▪ Restore disturbed land and create safe wildlife crossings. ▪ Coordinate waste collection with municipalities and other projects; include these plans in site-specific Waste Management Plans. ▪ Share environmental monitoring data with other project teams. ▪ Use traffic management plans and inform local people about works.; Engage with stakeholders to reduce confusion and improve planning

[2] Planned developments in the observed area include: 1) Modernisation of the Belgrade – Niš Railway Line, Section 2 (Velika Plana – Paraćin); 2) Modernisation of Belgrade – Niš Railway Line, Section Stalać – Đunis;3) „Clean Serbia“ project; 4) Development of regional water supply systems and 5) Niš Bypass Project

Baseline summary	Phase	Potential impact(s)	Mitigation measures
Areas most likely to be affected lie within 500 metres of the railway, though some issues (like biodiversity or landscape changes) may extend further.		▪ More construction traffic could increase safety risks for local communities.	
	Operation phase	▪ Minor air emissions may occur during maintenance in areas where railway operations overlap with other infrastructure projects. ▪ There is a risk of water pollution from spills or leaks during maintenance in areas shared with other developments. ▪ Fenced railway sections may block wildlife movement where they overlap with other infrastructure. ▪ Combined noise and vibration may result from simultaneous railway operations in shared segments. ▪ Maintenance waste, along with local municipal and infrastructure waste, may create cumulative pressure on waste systems.	▪ Monitor noise near sensitive areas and coordinate operations with other projects. ▪ Install wildlife crossings and consult other project teams to avoid barriers. ▪ Include spill prevention and emergency plans in maintenance protocols. ▪ Keep long-term coordination with other infrastructure operators to avoid overlap of heavy maintenance works.

4.24 Greenhouse Gas Assessment

*For detailed information, please see **ESIA Annex 2: Greenhouse Gas Assessment**.*

Baseline summary	Phase	Potential impact(s)	Mitigation measures
In 2023, CO_2 emissions from fossil fuels and industry in the Republic of Serbia were estimated at 42.36 million t, representing a decrease of 0.91% compared to 2021 and 3.67% compared to 2020. Within the transport sector, which accounted for 14.83% of national emissions in 2020, emissions showed a	Construction phase	The railway reconstruction is expected to cause greenhouse gas (GHG) emissions during the construction, mainly from material removal, transport and construction machinery. Emissions from material removal and use are estimated at approx. 19,696 t of CO_2 over the four-year construction period. Additional emissions from the operation of construction	▪ GHG emissions during both construction and operation are unavoidable but can be partially mitigated through measures such as efficient machinery use, regular equipment maintenance to reduce fuel consumption, minimising material transport distances and implementing dust

Baseline summary	Phase	Potential impact(s)	Mitigation measures
growing trend, underscoring the importance of modal shift interventions such as railway modernisation.		equipment are estimated at approx. 16,300 tonnes/year.	suppression measures, as outlined in the ESIA *Air Quality* chapter.
	Operation phase	The railway will be fully electrified, meaning that direct emissions from fuel combustion will be negligible. However, there will be indirect emissions from electricity consumption. In 2024, these emissions are estimated at 4,709 tonnes/year of CO_2. Under a "no project" scenario in 2028, emissions slightly decrease to 4,254 tonnes/year. However, with Project implementation in 2028, emissions are expected to rise to 11,873 tonnes/year due to increased railway usage. By 2040, with continued electrification and a cleaner energy mix, emissions are projected to decline to 9,226 tonnes/year. Despite higher operational emissions in the early years, the Project brings long-term climate benefits by shifting transport from road to rail. This shift is expected to reduce road transport emissions by 5,735 tonnes/year in 2028 and up to 8,630 tonnes/year by 2040.	

5 DISCLOSURE AND COMMUNICATIONS

A Stakeholder Engagement Plan (SEP) has been developed for this Project. It defines the approach to stakeholder engagement, public disclosure, consultations and grievance management, in line with national requirements and those of the EBRD and EIB. A summary of the key disclosure and engagement activities is provided below. Full details are presented in the SEP.

Table 5-1. Summary of stakeholder engagement and disclosure requirements

Activity	Timing/other details
ESIA STAGE	
DISCLOSURE: The following documents will be published as part of the Disclosure Package: ▪ Non-Technical Summary (NTS) (this document) ▪ Environmental and Social Impact Assessment (ESIA) Report ▪ Environmental and Social Management Plan (ESMP) ▪ Environmental and Social Action Plan (ESAP) ▪ Biodiversity Management Plan ▪ Biodiversity Appropriate Assessment ▪ Resettlement Policy Framework (RPF) ▪ Stakeholder Engagement Plan (SEP) These documents will be made publicly available for a minimum of 120 calendar days in both Serbian and English, in accordance with Lenders' policies, and will remain available throughout the life of the Project. Disclosure platforms: ▪ MCTI: http://www.mgsi.gov.rs/ ▪ SRI: https://infrazs.rs/ ▪ EIB: www.eib.org ▪ EBRD: www.ebrd.org ▪ Municipality of Paraćin: https://www.paracin.rs ▪ Municipality of Ćićevac: https://www.cicevac.rs ▪ City of Kruševac: https://krusevac.ls.gov.rs/ ▪ Municipality of Aleksinac: http://www.aleksinac.org ▪ City of Niš: https://www.ni.rs Announcements channels: ▪ Notice boards (and other frequently visited places) and websites of all affected municipalities/cities (Paraćin, Ćićevac, Kruševac, Aleksinac and Niš) ▪ Notice boards and frequently visited places in all affected settlements/local communities ▪ All railway stations/stops currently operating as official stations/stops After the disclosure period ends, **the Disclosure Package will be reviewed in light of stakeholder feedback received during public consultations and written submissions**. If necessary, the documents will be revised to reflect relevant inputs or correct any inconsistencies. The final versions of the documents will then be re-published and will remain publicly available throughout the life of the Project to ensure continued transparency and stakeholder access.	

CONSULTATION MEETINGS DURING DISCLOSURE:

- Five public consultation meetings during September 2025 in each municipality/city
- Additional meetings in all affected local communities within the first 60 days of the disclosure phase to discuss the Project and collect feedback (p*reliminary schedule for these meetings is available in SEP)*
- Targeted consultations with other stakeholders, specifically: organising dedicated group discussions with vulnerable groups such as Roma communities and meetings with a range of non-governmental organisations (p*reliminary schedule for these meetings is available in SEP)*

SRI will inform all stakeholders about the exact date, time and venue where the meetings will be held, at least 15 days in advance, through the following channels:

- the official website of SRI,
- notice boards (and other frequently visited places) and websites of all affected municipalities/cities,
- notice boards and frequently visited places in all affected settlements/local communities,
- local radio, television, print and electronic media,
- all railway stations/stops currently operating as official stations.

COORDINATION MEETINGS WITH TRANSPORT OPERATORS:

- Monthly meetings with Srbija Kargo, Srbijavoz and other transport operators regarding project design, project timelines and responsibilities and traffic management plan.

CONSULTATIONS DURING RAP DEVELOPMENT:

- Consultations with people affected by land acquisition through the socio-economic survey and other methods during RAP development.
- The RAP and its non-technical summary will also be disclosed and consultations undertaken prior to its finalisation *(further details are available in the SEP)*

CONSTRUCTION PHASE

CONSULTATIONS AND PROJECT UPDATES:

- SRI will hold at least one public consultation meeting (and others if needed) in each affected municipality/city to present Project progress and gather feedback on impacts of construction activities
- If necessary, SRI will organise additional meetings in Local Community Offices where the need for such engagement arises, based on stakeholder requests, grievances or observations made during monitoring and site visits.

Announcements will follow the same procedure as during the ESIA phase. All comments and proposals will be documented and appropriately addressed. The PIU will publish a summary report of all relevant issues raised, including explanations for inclusion or exclusion of proposals.

GRIEVANCE MECHANISM AND CONTACT DETAILS:

To ensure transparency and accountability, a formal Grievance Mechanism has been established as part of the Project's SEP. This mechanism enables all stakeholders (including individuals, communities, organisations and other interested parties) to raise concerns, ask questions or submit complaints related to any aspect of the Project.

Grievances or questions may relate to E&S impacts, land acquisition, construction-related disturbances, worker behaviour or any other issue of concern. All grievances will be treated seriously, addressed promptly and handled in a respectful and confidential manner. The grievance mechanism is accessible to all, free of charge, and will not result in any form of retaliation.

The SRI PIU will acknowledge receipt of each submission, follow up as needed and provide a written response within a defined timeframe, as outlined in the SEP.

Grievances and enquiries can be submitted using the following contact details:

Description	Contact details
Implementing agency:	Serbia Railways Infrastructure
Main contact:	Ana Kopren PIU Environmental and Social Impact Project Manager
Address:	Nemanjina 6, Belgrade 11000, R. Serbia
E-mail:	ana.kopren@srbrail.rs infobgnis@srbrail.rs