



Luxembourg, 29. January 2024

Environmental and Social Data Sheet

Overview

Project Name:	CLUJ-NAPOCA -EPISCOPIA BIHOR RRF CO-FINANCING
Project Number:	2023-0135
Country:	Romania
Project Description:	The project involves the electrification and rehabilitation of the railway line Cluj Napoca-Oradea-Episcopia Bihor to the border with Hungary.
EIA required:	yes
Project included in Carbon Footprint Exercise ¹ :	yes
(details for projects included are provided in section: "EIB Carbon Footprint Exercise")	

Environmental and Social Assessment

Strategic Environmental Assessment (SEA)

The project is included in the Romanian General Transport Masterplan (GTMP) approved by HG no. 666/14.09.2016. The GTMP was subject to a strategic environmental assessment (SEA) and the procedure was completed with environmental permit no. 33 / 11.12.2015. The project has also been included in Romania's Large Infrastructure Operational Programme (2014-2020), National Resilience and Recovery Plan (2020) and is expected to be included in Romania's Operational Programme 2021-2027 covering transport.

Environmental Impact Assessment

The project entails the rehabilitation and upgrading to higher speed, including electrification, of an existing 166km railway line connecting Cluj-Napoca, Oradea, Episcopia-Bihor to the border with Hungary. The project forms part of the comprehensive trans-European transport network (TEN-T). The majority of the works is located on the existing single and double track railway line including stations and stops.

The project falls within the scope of Annex I of the environmental impact assessment (EIA) Directive (2011/92/EC as amended by 2014/52/EU) and was subject to EIA.

An EIA was conducted in 2021, analysing the main impacts connected to the project implementation as well as to railway operations, including impacts on animals, plants, habitats,

¹ Only projects that meet the scope of the Carbon Footprint Exercise, as defined in the EIB Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: 20,000 tonnes CO₂e/year absolute (gross) or 20,000 tonnes CO₂e/year relative (net) – both increases and savings.



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water, soil, air, landscape and cultural heritage. An Environmental Permit was issued by the competent authority, the Ministry of Environment's National Agency for Environmental Protection (ANPM), with Decision No. 2 of 18.06.2021.

Environmental Impacts:

The main impact factors concerned air pollution, noise and vibration, water and waste. Mitigation measures were designed for the foreseen impact factors. Construction activities are expected to cause some impacts, e.g. air pollution, that are monitored and, in any case, will be limited in time. It is expected that hazardous and non-hazardous waste generated during the line upgrading and its operation is collected in compliance with legal requirements.

As part of the EIA, a Water Body Impact Assessment Study (SEICA) was conducted, identifying the potentially affected water bodies. For each identified impact, a series of measures were proposed within SEICA intended to ensure the least possible damage and reduction of risk of contamination of the water bodies in the project area.

Overall, the project is expected to contribute to reduced journey times and vehicle operating costs, improved reliability, increased railway capacity and improvement of the quality and reliability of railway services for both passengers and freight. The project will enable increased modal shift from road to rail with corresponding reduction of congestion on the road network as well as reduction of car accidents, emissions of pollutants and CO₂. The project, despite some local negative impacts, is expected to contribute to an overall improvement of the environment.

Natura 2000:

An Appropriate Assessment (AA) on the impact of project components on Special Areas of Conservation and Special Protection Areas, in accordance with the Habitats Directive (92/43/EEC), was undertaken at EIA stage.

The project crosses three Natura 2000 sites: ROSPA0115 Crişului Repede river - Ladului valley, ROSCI0050 Crisul Repede upstream from Oradea, and ROSCI0062 Crişului Repede gorge - Craiului Forest, and the Natural Reserve RONPA0182 Crişului Repede Gorge.

The AA was completed in 2021 and concluded that the project components will not adversely affect the integrity of Natura 2000 sites in terms of their conservation objectives, although some measure for environmental protection (mitigation measures) shall be implemented. Measures for environmental protection included in the project generally consist in the provision of anticollision panels, animal crossing structures and underpasses for amphibians and reptiles, level crossings with fauna tracks, audible warning systems, arrangement of green spaces, hydrocarbon separators and protective fences.

The EIA decision of 18.06.2021 included the result of the AA, stating that with the implementation of the designed solutions and the proposed mitigation measures, the project will not generate significant impacts on Natura 2000 sites at any stage, including construction, operation and decommissioning of the project.

EIB Carbon Footprint Exercise

The project is included on the following basis:

Estimated annual emissions of project in a standard year of operation:

- Estimated absolute (gross) emissions are 9.9 kT of CO₂ equivalent/year;
- Estimated emissions savings are 26,900 tonnes of CO₂ equivalent/year.

The project assessment boundaries are:

- In the absolute case: the upgraded and modernised railway line Cluj-Napoca, Oradea, Episcopia-Bihor to the border with Hungary, of approximately 166 km;



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- In the baseline case: the existing railway line Cluj-Napoca, Oradea, Episcopia-Bihor to the border with Hungary, and relevant road corridor of approximately the same length.

The forecasts in the baseline and absolute cases are based on Bank Services' project specific assumptions about the workload of rail services (freight and passenger trains) and energy efficiency of rail operations. In the baseline case, a portion of emissions from cars, buses and trucks is included using project specific emission factors, equivalent to those passenger or freight trips expected to shift from road to rail in the "with project" case.

For the annual accounting purposes of the EIB Carbon Footprint, the project emissions will be prorated according to the EIB lending amount signed in that year, as a proportion of project cost.

These forecasts may differ from those of the implementing agency due to different assumptions, boundaries and baselines.

Paris alignment

The project has been assessed for Paris alignment in accordance with the policies set out in the EIB Climate Bank Roadmap. The project consists of upgrading of infrastructure for zero direct emission transport, therefore, it is considered to be aligned with the low carbon goal. The climate risk of the project is assessed as low and, therefore, it is considered to be in line with the resilience goal.

Climate Change Adaptation

A Climate Change Risk and Vulnerability Assessment was produced for the project in 2021 in the context of the EIA. The results showed that the project is sensitive to climate change, particularly to the risk of increase of temperature, wind speed, heavy rainfall, and floods. The project includes adaptation measures in the design to address these vulnerabilities, such as river diversions, protection works against landslides and water erosion, improved clearance under bridges and raised rail levels.

Social Assessment

Land acquisition and resettlement

The implementation of the project includes the acquisition of approximately 232 hectares of additional land while some 705 hectares of land that will be required for the project is already the property of CFR. On private land, approximately 2,000 properties are owned by private individuals and some 280 properties are owned by private legal entities. Compensation measures are foreseen for resettlement of affected people and business.

Of the total area occupied by the project, approximately 30 hectares represent land located in protected natural areas.

The procedures for land acquisition, resettlement and compensation of people and businesses are under execution and are carried out in compliance with national legislation.

Transport safety

The project will significantly improve transport safety by improving the safety of level crossings with the installation of barriers or removing and replacing with grade separated crossings. Approximately 74 level crossings will be upgraded, 1 new level crossing will be added and 9 will be removed.

The installation of electric rail traffic management system (ERTMS) will result in improvement of safety of the railway network. Moreover, the project is expected to enable modal shift from



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road to rail transport and therefore contribute to an overall improvement of safety of the transport system.

Accessibility

The project will improve the accessibility of the railway transport for passengers.

The project comprises the upgrading and modernisation of approximately 22 stations and 22 stopping points. In particular, passenger buildings and platforms at stations and stops as well as the underpasses will be renovated in accordance with the current EU requirements, including for accessibility for persons with reduced mobility and/or disabilities.

Public Consultation and Stakeholder Engagement

During the stages of the procedure for issuing the environmental permit in 2021, the public was informed through publications on national newspapers, public announcement at the offices and on the website of the ANPM and CFR, as well as in the offices of local public administrations located on the project route.

Public consultations were held in 2021 in the main municipalities and localities affected by the project.

As an outcome from the consultation process, some proposals/observations of the interested public were incorporated in the project.

Conclusions and Recommendations

The project is part of an infrastructure plan and programme, which was subject to SEA. The project was subject to an EIA procedure, including public consultation. An Appropriate Assessment of the potential impacts on Natura 2000 sites was carried out as well as Water Body Impact Assessment Study.

At the end of the EIA procedure, the competent authority issued an environmental decision for the project, identifying appropriate mitigation measures for environmental impacts during construction and operations. The competent authority stated that the project does not have significant impacts on any Natura 2000 sites if mitigation measures are implemented.

The residual negative impacts of the project during construction and operations, considering the planned mitigation measures, are acceptable. The impacts during the operation phase are partly offset by the expected modal shift facilitated by the investment.

Development consent and building permit procedure is currently in execution. Building permits are expected by the end of 2023. CFR undertakes to provide the development consents (building permits according to Romanian legislation) for all construction lots as soon as they become available. CFR shall also provide information to the EIB, as part of yearly updates or earlier as necessary, on the status of land acquisition necessary for the implementation of the project.

Under the circumstances indicated above, the project is acceptable for EIB financing from an environmental and social perspective.