

Public

Environmental and Social Data Sheet

Overview

Project Name: CFR ARAD-SIGHISOARA RAIL UPGRADE
Project Number: 2019-0587
Country: ROMANIA
Project Description: The project entails the upgrading of 308 km of double track railway line between Arad (km 614) and Sighisoara, part of the HU/RO border-Bucharest-Constanta railway, which is located on the Rhine-Danube TEN-T Corridor. The upgrading of the mixed traffic (passenger and freight) railway line includes an increase of maximum design speed, axle load and maximum permissible train length, as well as installation of ERTMS level 2.

EIA required: yes

Project included in Carbon Footprint Exercise¹: yes

(details for projects included are provided in section: "EIB Carbon Footprint Exercise")

Environmental and Social Assessment

Strategic Environmental Assessment (SEA)

The Project is part of The Romanian General Transport Master Plan (GTMP), which was subject to a SEA procedure in 2014. The environmental report, including the non-technical summary, was published on the Romanian Ministry of Transport (MoT) website. The SEA Decision was issued by the Ministry of Environment (MoE) in December 2015 and was published on the MoE's website.

Environmental Impact Assessment (EIA)

The works to be financed regard 308 km of existing double track railway line, which will be upgraded to higher technical standards. The new double track railway line will lay for 65% of its length on the existing alignment and for the remaining 35% on a new alignment. The project falls within the scope of Annex I of the Environmental Impact Assessment (EIA) Directive (2011/92/EU as amended by 2014/52/EU). The project was split in three consecutive sections, which were subject to three different EIA procedures as detailed in the table below.

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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Section	EIA scope	Date of publication of Development Consent (building permits)
Km 614 – Simeria	Upgrading of 76 km of double track railway on existing alignment and construction of 65 km of double track railway on a new alignment. Construction of 4 tunnels (total length 1.4 km). Upgrading of 14 stations and 4 stops, construction of 1 new station and 6 new stops, upgrading of 4 substations and installation of new electrification and signalling systems.	17/07/2017 for works on existing alignment, 22/05/2018 for works on new alignment, 25/10/2018 for maintenance buildings, 23/04/2019 for passenger stations, 19/03/2021 for traffic control building in Deva, 24/03/2021 for passenger station in Deva.
Simeria – Coslariu	Upgrading of 58 km of double track railway on existing alignment and construction of 17 km of double track railway on a new alignment. Construction of 1 tunnel (length 0.78 km). Upgrading of 9 stations and 6 stops, construction of 1 new stop, upgrading of 4 substations and installation of new electrification and signalling systems.	03/07/2013 for works in Hunedoara County
Coslariu - Sighisoara	Upgrading of 66 km of double track railway on existing alignment and construction of 26 km of double track railway on a new alignment. Construction of 2 tunnels (total length 1.4 km). Upgrading of 7 stations and 4 stops, construction of 6 new stops, upgrading of 2 substations and installation of new electrification and signalling systems.	24/01/2012 for works in Mures County and 10/02/2012 for works in Sibiu County

The Promoter has not applied for the development consent of a small area yet (i.e. 300m between railway km 547+325 and km 547+625), because this area in the territory of Varadia is now occupied by an archaeological site. The design includes a temporary route variant for this area, which will be used until the move of archaeological findings will be completed. Following the end of archaeological activities, a building permit will be requested by the Promoter for this limited area.

The EIAs for the three project sections analysed the main impacts connected to the project implementation as well as to railway operations, including impacts on animals, plants, habitats, water, soil, air, landscape and cultural heritage. Construction activities cause some disruptions that are monitored and, in any case, limited in time.

The main impact factors concern water, soil and noise. Mitigation measures for impacts on water include adequate arrangements of building sites for the construction phase and dedicated measures for works and structures developed in riverbed areas (e.g. retaining walls, slope protections etc.). Mitigation measures for soil during construction include specific building site organisation and planning of special storage of excavation material as well as soil consolidation activities. Mitigation measures for impacts on noise include planning of building site locations and construction traffic arrangements for the construction phase, as well as the use of elastic fastening and continuous welded rails and installation of noise barriers in residential areas.

The competent authorities, in compliance with art 4.7 of the EU Water Framework Directive 2000/60/EC, issued water declarations for the three project sections Sighisoara-Coslariu, Coslariu-Simeria and Simeria-km 614. The conclusions are that the project does not modify the physical characteristics of surface water and the level of groundwater bodies.

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Overall, the project will contribute to journey time savings, railway capacity increase and improvement of quality and reliability of railway services for both passengers and freight. This project will generate some modal shift from road to rail with reduction of congestion on the road network as well as reduction of car accidents and emissions of pollutants and CO₂. The “with project Scenario”, despite some local negative impacts, will bring an overall improvement to the environment if compared with the “without project scenario”.

Natura 2000 sites

An Appropriate Assessment (AA) was carried out for the project section Sighisoara-Coslariu. Impacts were assessed for three Natura 2000 sites, i.e. Sighisoara-Tarnava Mare (ROSCI 0227), which is crossed by the project for about 450m, Podisul Hartibaciului (ROSPA 0099), which is almost tangent to the project for about 9 km and Dealurile Tarnavelor si Valea Nirajului (ROSPA 0028), which is about 3 km away from the project. Other six Natura 2000 sites were identified around the project alignment, but all of them are more than 8 km away from the project. The AA report concludes that the technical solution adopted for the crossing of the first site minimise the project impact on the site, whilst the other two sites do not have significant impacts with the implementation of the proposed mitigation measures.

The project section Coslariu-Simeria has five Natura 2000 sites in its vicinity, i.e. Pajistea Suci (ROSCI 0187), about 3.5 km away, Rapa Rosie (ROSCI 0211), about 5 km away, Tufurile Clacaroase (ROSCI 0254), about 6.4 km away, Trascau (ROSCI 0253) - Muntii Trascaului (ROSPA 0087), about 10 km away and Cheile Glodului, Cibului and Mazii (ROSCI 0029), about 16 km away. The competent authority issued a declaration of non-significant impacts of the project on Natura 2000 sites.

An Appropriate Assessment (AA) was carried out for the project section Simeria-km 614. Impacts were assessed for five Natura 2000 sites which are crossed by the project, i.e. Defileul Muresului (ROSCI 0064), Raul Mures intre Branisca si Ilia (ROSCI 0373), Raul Mures intre Lipova si Paulis (ROSCI 0370), Zarandul de Vest (ROSCI 0407) and Defileul Muresului Inferior-Dealurile Lipovei (ROSPA 0029). Moreover, the project is close to the Natura 2000 site Podisul Lipovei–Poiana Rusca (ROSCI 0355) and in the vicinity of two natural areas of national importance, i.e. Padurea Pojoga and Balta Soimus. The conclusion of the AA is that with the solutions proposed by the design and the proposed mitigation measures, the project will not generate significant impacts on Natura 2000 sites and other natural areas.

EIB Carbon Footprint Exercise

Based on Promoter’s forecast of passenger and freight volumes, the Bank Services estimated that the project will produce about 80 ktonnes CO₂e/year. Project emissions savings are estimated to be about 81 ktonnes CO₂e/year. The estimated values refer to an average year of the 30-year appraisal period.

The absolute emissions calculation assumes the effects generated by the project on the transport network. The baseline (without project scenario) considers emissions from existing rail and the road network of both passenger and freight traffic. Relative emissions are calculated considering modal shift from the road network to the upgraded railway and the overall savings at network level. The calculation of emissions may be different from the Promoter’s estimate because of different

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assumptions and boundaries. 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.

Public Consultation and Stakeholder Engagement

The public was regularly informed about the planning stages related to this project through community forums, advertising material and publications on competent authorities' websites. In the context of the EIA process, public consultations were carried out for each individual section at different times.

Other aspects

The implementation of the project includes 616 hectares of land acquisition and the demolition of 147 buildings. The procedures for land acquisition, resettlement and compensation of people and businesses are finalised or well advanced and are carried out in compliance with the national legislation.

Conclusions and Recommendations

The project is part of an infrastructure programme, which was subject to SEA. Each of the three project sections, object of EIB financing, was subject to an EIA procedure, including public consultation. An Appropriate Assessment of the potential impacts on Natura 2000 sites was carried out for two of the three sections. The competent authority issued an environmental decision for the three sections, i.e. km 614-Simeria, Simeria-Coslariu and Coslariu-Sighiosoara.

The environmental decisions identify appropriate mitigation measures for environmental impacts during construction and operations and the competent authority stated that the project does not have significant impacts on any Natura 2000 sites.

The project's residual negative impacts 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 consents (building permits according to Romanian legislation) were issued for all types of works on the alignment, excluding a small section of 300m in the territory of Varadia. When archaeological activities in the area are completed, the Promoter will request the building permit for this restricted area and, once obtained it, will send a copy to the Bank.

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