

Luxembourg, 20.06.2024

Environmental and Social Data Sheet

Overview

Project Name:	HIGH SPEED RAIL LINE PORTO-LISBOA PHASE 1	
Project Number:	20230799	
Country:	PORTUGAL	
Project Description:	Construction of Phase 1 of the High-Speed Line Porto-Lisbon, namely the 143 km section between Porto-Campanhã station and Soure (Coimbra). The project also includes five single-track connections with the conventional network (47 km in total), to ensure full interoperability with the conventional railway system, as well as interventions on the conventional network to address capacity issues.	
EIA required:	yes	
Invest EU sustainability proofing required ¹	yes	
Project included in Carbon Footprint Exercise ² :	yes	
(details for projects included are provided in section: “EIB Carbon Footprint Exercise”)		

Environmental and Social Assessment

Environmental Assessment

Compliance with Applicable Environmental Legislation

The project is part of the National Investment Plan 2030 (“*Programa Nacional de Investimentos 2030*”), which has been subject to a Strategic Environmental Assessment (SEA), in accordance with Directive 2001/42/EC.

The main part of the project, namely the construction of the high-speed line, is within the scope of Annex I of the EIA Directive (Directive 2011/92/EU as amended by Directive 2014/52/EU). Its development is split in two sections of approximately 70 km each, Section Porto (Campanhã) - Aveiro (Oiã) (Lot A) and Section Aveiro (Oiã) - Soure (Lot B), each of them has been subject to an EIA. For allowing the connection to the Coimbra B station, the EIA for Lot B also includes the upgrading of the conventional line between Taveiro and Coimbra and the construction of two additional tracks spanning over, approx. 8 km, on this section. Other connections to the existing network included in the two lots are located in Canelas, Soure, Adémia and Oiã.

The EIAs were carried out between 2022 and 2023 and the first stage environmental consents (“*Título Único Ambiental*” (TUA)) were issued by the Competent Authority (Agência Portuguesa do Ambiente, I.P. (APA)) in August and November 2023, respectively.

In accordance with the Portuguese environmental legislation, the development consent will be issued by APA after the review of the Report of Environmental Compliance of the Execution Design (“*Relatório de Conformidade Ambiental do Projeto de Execução*” (RECAPE)) that will

¹ The information contained in the document reflects the requirement related to the environmental, social and climate information to be provided to Investment Committee as required by the Invest EU Regulation and it represents the equivalent of the information required in the template of the InvestEU sustainability proofing summary.

² 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.



Luxembourg, 20.06.2024

be undertaken after the award of each lot. After the analysis of this report, and subject to its conformity with the TUA, APA will issue a Decision on the Environmental Compliance of the Execution Project (*“Decisão sobre a Conformidade Ambiental do Projeto de Execução” (DCAPE)*), which will constitute the final environmental consent.

The modernisation and capacity upgrades on the access to Lisbon, as well as other works on the conventional network, which are required to materialise the high-speed operational model, will include a scheme within the scope of Annex I of the EIA Directive, namely the construction of two additional tracks in the section Castanheira – Azambuja, and several schemes within the scope of Annex II of the EIA Directive, namely, the modernisation of the sections Alverca – Castanheira, Braço de Prata – Sacavém, modernisation of the stations of Aveiro and Lisboa-Oriente and the construction of a technical terminal in Lisboa-Oriente. The EIAs and screening for these components are pending.

The project will include two new traction substations, one in Estarreja and one in Coimbra, which will be connected to the grid of the national utility company, Redes Energéticas Nacionais (REN) by means of 220 kV or 400 kV lines. The construction of these electric lines is within the scope of Annex I of the EIA Directive, if their extension is more than 15 km, or within the scope of Annex II otherwise. The EIA and/or screening for these high voltage lines is pending.

Impacts during construction

For both sections of the high-speed line (Lots 1 and 2) the main impacts during the construction phase are noise and vibrations, generation of excess material and construction waste, impacts on vegetation, mobility disturbance within the project area. In addition, the works on the section Porto (Campanhã) - Aveiro (Oiã) include the construction of 12 km of tunnels with the consequent generation of significant amount of surplus material, as well as use of explosives.

The first stage environmental consents set out mitigation measures to be implemented prior to and during construction, such as planning the construction activities in a way that reduces noise and vibration, establishing the works bases preferably in areas that are already degraded and in any case avoiding sensitive areas, limiting the use of explosives to daytime, limiting dust and mud, analysis of excavated soil for contamination and proper disposal of contaminated soils, use of excavation material for restoration of quarries, establishment of waste management plans, protection of vegetation and restoration of the affected areas.

For the complementary schemes relating to the modernisation and capacity upgrades of the existing network, the impacts and the related mitigation measures will be defined during the EIA and screening process. They are expected to be those typically related to the works on existing infrastructure, such as noise and vibrations, generation of construction waste, mobility disturbance within the project area and impact on the railway operation. Without prejudice to the conclusions of the competent authority, this kind of impacts can usually be mitigated by applying good engineering practices and some additional appropriate measures.

Impacts during operation

The main impacts during operation will be noise and vibrations generated by rail operations, risk of collision with animals, permanent land take, severance and visual impacts. The environmental consents set out mitigation measures, in particular, installation of noise screens, use of vibration absorption mats under the rails, as well as noise and vibration monitoring during operation. The design includes measures for integration of the new infrastructure in its surroundings, as well as creation of over and underpasses for mitigating the severance impacts.

Natura 2000 sites

The project intersects the following two Natura 2000 sites:

- Ria de Aveiro (PTCON0061 and PTZPE0004) is intersected in three places, namely where the high-speed line crosses the rivers Largo and Vouga, intersecting these sites over, approx., 2 km and 1 km, respectively, and in the connection to the existing conventional line;



Luxembourg, 20.06.2024

- Paul de Arzila Nature Reserve (PTCON0005 and PTZPE0005) is intersected over, approx., 600 m.

An appropriate assessment, as per Article 6(3) of Directive 92/43/EEC (the Habitats Directive), was carried out as part of the EIAs, to assess the potential impacts on these sites, and mitigation measures have been established, such as designing an alignment that minimises, to the extent possible, the intersection of these two sites, crossing the sites mostly on viaduct, avoiding works during the reproductive and nesting season, ensuring passages for the fauna, fences and transparent barriers with strips on the viaducts. The competent authority concluded that the project will not have significant impact on these sites.

The management plans for these two sites should be revised in 2024, including the definition of the conservation objectives and the corresponding measures for achieving them.

The schemes for modernisation and capacity upgrades on the access to Lisbon will be carried out in the immediate vicinity of the Natura 2000 site Estuário do Tejo (PTCON0009 and PTZPE0010). The potential impacts on this site and the necessary mitigation measures will be analysed during the EIA and/or screening procedures for these schemes.

Overall impact of the project

Overall, the project will contribute to improve the quality and the capacity of the railway infrastructure on the Lisbon - Porto corridor, allowing for more and faster rail services, triggering a modal shift from road and air to rail with the consequent reduction of energy consumption, noise, and emissions of pollutants (GHG) and CO₂.

The project will enable GHG savings due to modal shift from road and air along the corridor as well as on the entire Portuguese transport network.

Vulnerability to the climate change

The project is sensitive to the climate change, in particular to the risk of increase of precipitations and floods, temperature increase and risk of fire. The Promoter carried out an analysis of vulnerability to the climate change and the adaptation measures that came out of that analysis have been included in the design.

Paris alignment

The project has been assessed by the Bank's services for Paris alignment in accordance with the policies set out in the Climate Bank Roadmap. The project consists of construction of infrastructure for zero direct emissions transport; therefore, it is considered to be aligned with the low carbon goal. The residual climate risk of the project is assessed as low and, therefore, it is considered to be aligned with the resilience goal.

EIB Carbon Footprint Exercise

The project is included on the following basis:

Estimated annual third-party greenhouse gas emissions (vehicular use, from existing and induced demand) from the use of the project in an average year of operation, over a 25-year assessment period:

- Forecast absolute (gross) emissions are 37,000 tonnes of CO₂ equivalent; and
- Forecast emissions savings are 85,000 tonnes of CO₂ equivalent.

The project assessment boundaries are the following:

- In the absolute case: the section Porto – Soure of the high-speed railway line Lisbon - Porto, totalling 143 km of mostly new rail infrastructure, as well as the parallel section of the existing conventional line, on which the project will release capacity that will be used by additional traffic;



Luxembourg, 20.06.2024

- In the baseline case: the existing railway infrastructure, and road network between Porto and Soure, and the corresponding share of the air traffic shifted to rail.

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

EIB Paris Alignment for Counterparties (PATH) Framework

The EIB financed part of the project will be implemented by means of public-private partnerships (PPP). The Borrower will be a special purpose vehicle (SPV). The PPP procurement process is ongoing and the shareholder structure of the SPV remains unknown at this stage. Alignment of PATH will be carried out at the subsequent stage, once the ownership structure of the SPV is known and prior to the signature of the finance contract.

Social Assessment, where applicable

Land acquisition and resettlement

The new infrastructure will require additional permanent land take of approx. 900 ha of mostly agricultural or undeveloped land, as well as additional temporary occupations during construction. The project will also require physical resettlement of around 200 households and around 30 businesses.

The acquisition or expropriation of this land will be carried out in accordance with the national legislation.

Accessibility

The new stations, the newly constructed and the reconstructed platforms, the improved access to the stations and other passenger-accessible elements included in the project will be built in conformity with the requirements concerning accessibility for persons with disabilities and persons with reduced mobility. Thus, the accessibility of the rail services will be improved.

Public Consultation and Stakeholder Engagement

For the two sections, Porto (Campanhã) - Aveiro (Oiã) and Aveiro (Oiã) - Soure, the consultation of the relevant stakeholders and public consultation took place as part of the EIA. The public consultations were carried out in May – June 2023 and June – July 2023, respectively.

An additional public consultation will take place, for each section, once the Reports of Environmental Compliance of the Execution Design is available and prior to the issue of the Decisions on the Environmental Compliance of the Execution Project.

For the schemes for which the EIA is pending, the public consultations will be undertaken as part of the respective EIA processes.

Conclusions and Recommendations



Luxembourg, 20.06.2024

The main part of the project, the construction of the high-speed line, falls within the scope of Annex I of the EIA Directive. Two separate EIA procedures have been completed for the two subsections of the project. The first stage of the environmental consent has been issued by the competent authority.

The EIAs included an appropriate assessment of potential impacts on Natura 2000 sites. The project will not have any significant impact on Natura 2000 sites.

Prior to the first disbursement of the loan for financing works for each subsection, the borrower will submit to the Bank a copy of the Report of Environmental Compliance of the Execution Project and of the final environmental consent, including evidence that the update of the management plans and establishment of the conservation measures for the Natura 2000 sites have been properly taken into account.

The Promoter will be required to provide evidence of completion of the pending screening procedures and/or, where applicable, of the EIAs, as well as evidence of conformity with the Habitats Directive, for other project components, in particular, the modernisation and capacity upgrades on the railway access to Lisbon and on the development of the high voltage lines for connecting the traction substations to the national electricity grid.

The residual negative impacts of the project during the construction and operation are limited and partly offset by the improvement of quality and increase of capacity for provision of railway services and the consequent contribution to a modal shift from air and road to rail.

Under the conditions above, the project is acceptable for EIB financing in environmental and social terms.