



Concept Environmental and Social Review Summary

Concept Stage

(ESRS Concept Stage)

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**I. BASIC INFORMATION****A. Basic Operation Data**

Operation ID	Product	Operation Acronym	Approval Fiscal Year
P509952	Investment Project Financing (IPF)	INRAIL	2026
Operation Name	Istanbul North Rail Crossing Project		
Country/Region Code	Beneficiary country/countries (borrower, recipient)	Region	Practice Area (Lead)
Türkiye	Türkiye	EUROPE AND CENTRAL ASIA	Transport
Borrower(s)	Implementing Agency(ies)	Estimated Appraisal Date	Estimated Board Date
Republic of Türkiye	Ministry of Transport and Infrastructure	02-Feb-2026	26-Mar-2026
Estimated Concept Review Date	Total Project Cost		
31-Jul-2025	8,119,000,000.00		

Proposed Development Objective

To improve the cross-Bosphorus railway connectivity of Türkiye's main national and intercontinental transport corridors.

B. Is the operation being prepared in a Situation of Urgent Need of Assistance or Capacity Constraints, as per Bank IPF Policy, para. 12?

No

C. Summary Description of Proposed Project Activities

The Operation will finance the construction of the Istanbul North Rail Crossing (INRAIL), an approximately 122-km greenfield railway that will serve as a bypass for the Istanbul Metropolitan Area and provide for an overland crossing over the Bosphorus. INRAIL is being prepared and managed by the Directorate of General of Infrastructure Investments (AYGM) within the Ministry of Transport and Infrastructure (MoTI), which will serve as Implementing Agency. The proposed railway bypass would start at or near the Çayirova station on the Asian side and end at the Çatalca station on the European side, crossing the Bosphorus Strait using the existing track space allocated on the Yavuz Sultan Selim (YSS) Bridge, also known as the Third Bridge, at the Bosphorus' northern end. The bypass is proposed as an electrified, fully signalized, mixed-used line to carry passengers and freight. It will be connected to the Turkish national high-speed rail



network, with the intended capacity of moving passenger trains at a top design speed of 160 km. per hour. Freight trains will move at up to 80-120 Km. per hour. The line will connect Istanbul Airport (IST) on the European side to the urban and inter-city railway network, as well as Sabiha Gökçen Airport (SAW) on the Asian side, thus facilitating (i) domestic and international air and rail passenger connectivity, and (ii) urban mobility within the Istanbul Metropolitan Area. The two airports will be the bypass line's only two stations, with capacity to mobilize passenger flows and support multimodal logistics, including rail freight to air freight transfers. By completing a new high capacity crossing over the Bosphorus, INRAIL will complete the uninterrupted overland length of the rail-based Middle Corridor across Türkiye, further positioning the country as a transit hub and logistics base of the Middle Corridor. This would boost trade, attract revenue-generating transit traffic, and position Türkiye as a facilitator of global commerce. In addition to the Middle Corridor, the crossing would serve other intercontinental, import-export, and purely domestic trade corridors that pass through Istanbul, most notably (a) the proposed Iraq Development Road intercontinental link, and (b) Türkiye's sizable volumes of exports to the European Union, a significant portion of which originate at points west of Istanbul. The crossing would also generate significant benefits to urban mobility and livability in Istanbul, by helping take heavy truck traffic off the roads that traverse the metropolitan area and incentivizing public transit adoption, thus reducing congestion and associated emissions of greenhouse gases and local pollutants from road vehicles, reducing wear-and-tear of local roads and motorways, and improving road safety.

D. Environmental and Social Overview

D.1 Overview of Environmental and Social Project Settings

The project is planned in Istanbul, Türkiye's largest city with a population of 16 million, expected to exceed 20 million by the 2030s. The city's railway infrastructure includes the Marmaray, metro lines, tramway, and light rail systems. The city contains a number of high-value and/or unique cultural protected heritage sites, including some under UNESCO protection, as well as a number of nature protected areas. The city experiences rapid urban expansion, and vulnerability to natural hazards. It has seen significant demographic shifts, particularly with the influx of Syrian refugees under Temporary Protection (SuTPs) due to its economic opportunities. Despite economic challenges, Istanbul remains a key destination for migrants and citizens, contributing to its diverse socioeconomic landscape. Integration of these populations include providing access to education, healthcare, and employment resulted in challenges to infrastructure and social cohesion. Istanbul also faces environmental challenges, including climate change impacts, biodiversity threats, and natural disasters like earthquakes, floods, and heatwaves. However, the RoW of the Project is alongside existing motorway with very limited settlements and thus will not likely to bring significant environmental and social risks except the ones related to standard construction impacts, that are manageable and reversible. INRAIL's current alignment does not encroach nor is adjacent to any legally protected areas and minimizes the need for land expropriation (not required for 81 percent of the alignment) by using land already within the RoW of the existing motorway corridor (27 percent of alignment) and public land (22 percent of alignment) and making use of tunnels and viaducts (32 percent of the alignment). The Client already applied mitigation hierarchy in development of technical design options and alternatives, including selection of the alignment in a manner to minimize impacts on the environment and people.

D.2 Overview of Borrower's Institutional Capacity for Managing Environmental and Social Risks and Impacts

The project will be implemented by the General Directorate of Infrastructure Investments (AYGM) within the Ministry of Transport and Infrastructure (MoTI). AYGM has gained significant experience with large infrastructure projects in railways and other transport subsectors, both under IFI-funded and nationally-funded projects. At present, AYGM is implementing two World Bank financed projects: Railway Logistic Improvement Project (P170532) and Eastern Türkiye



Middle Corridor Railway Development Project (P179128) - both applying the World Bank's Environmental and Social Framework (ESF). In addition, MoTI has and/or is also working with JICA, EBRD and EIB in very large scale public transport projects in Istanbul, and is familiar with working with IFIs and applying their E&S risk management procedures. The overall E&S management performance of AYGM at present has been satisfactory, with respective PIUs staffed with environmental and social specialists that will continue to be engaged by AYGM on implementation of IFI-funded projects. The new PIU for the Project will draw upon existing in-house experience, but will be strengthened with the additional staff if necessary. Arrangements for assigning E&S counterparts are in place.

The Project will include several IFIs requiring implementation of the comprehensive environmental and social (E&S) risk assessment and management system. The E&S assessment and management implementation arrangements will be finalized during the Project preparation. AYGM has already recruited an independent consultancy firm to conduct the initial environmental and social assessment (ESIA) of the Project which will frame the future institutional arrangements. The ESCP will detail the comprehensive approach and institutional arrangement to manage E&S risks and impacts.

II. SCREENING OF POTENTIAL ENVIRONMENTAL AND SOCIAL RISKS AND IMPACTS

A. Environmental and Social Risk Classification (ESRC)

Substantial

A.1 Environmental Risk Rating

Substantial

The new railway line and associated construction are mostly within the existing transport corridor, with an operational motorway. During the construction activities, the infrastructure and superstructure works for the construction of the railway may cause negative environmental impacts related to land use; soil disturbance during earth-moving activity; loss of vegetation; temporary habitat disruption; impacts related to improper waste management and improper construction camp management; health and safety risks; and potential chance finds. These risks relate to standard physical impacts, and are mostly temporary, predictable and reversible, medium magnitude in spatial context and with limited cumulative impacts. Respective mitigation measures are well known and widely applied in Türkiye. AYGM has demonstrated a positive track record of applying these measures in other WB-funded projects. The activities will be undertaken in already anthropogenically modified environment within the existing transport corridor. There will be no negative impacts on Bosphorus as the line will be laid on the already existing bridge, within the designated "rail section" of the bridge. There will be no negative impacts on known cultural sites, nor on the existing nature protected areas. The project would not cause further habitat fragmentation, as it will run in parallel to already existing motorway. During the operational phase key environmental risks will include air pollution, noise and vibration, and waste generation. As the project is planned to be implemented in the Istanbul Metropolitan area and within the RoW of the existing motorway corridor, potential cumulative impacts and associated facilities will be assessed as a part of ESIA, to be aligned with WBG ESH Guidelines. The Client capacity in management of environmental risks is adequate and track record is positive. The risk level will be reviewed and modified if necessary at the Appraisal stage.

A.2 Social Risk Rating

Substantial

The key social risks include issues related to the conditions of labor and labor influx; risks to the health and safety of the local communities due to the construction activities including traffic safety; land acquisition and restriction of land use; physical relocation and livelihood impacts; potential damage to tangible cultural heritage; sexual exploitation,



abuse and sexual harassment (SEA/SH) of workers and community members and; inadequate stakeholder engagement. Influx of labor may lead to issues such as inadequate labor conditions, conflicts with local communities, and strain on local resources and infrastructure. Construction activities, including earth-moving and the establishment of construction camps, increased volume of traffic, and improper waste management may pose risks to the health and safety of nearby communities. Although the project minimizes the need for land expropriation, there will be land acquisition for 19 percent of the alignment causing physical and economic displacement and adverse livelihood impacts. However, these impacts are expected to be limited given the low presence of population settlements along the proposed alignment. The site visits along the RoW did not identify any specific vulnerable groups nearby (e.g. SuTPs). The use of tunnels and viaducts will also help in reducing the adverse impacts, but the extent of potential economic displacement remains uncertain. There are also risks regarding inadequate stakeholder engagement and grievance management. Finally, there will be potential for sexual exploitation, abuse, and harassment during construction—particularly depending on the size and sourcing of the workforce and labor influx. Overall, these impacts are “mostly temporary, predictable and/or reversible, and the nature of the Project does not preclude the possibility of avoiding or reversing them. These risks and impacts may be mitigated with effective risk management strategies, resources and stakeholder engagement.

B. Relevance of Standards and Policies at Concept Stage

B.1 Relevance of Environmental and Social Standards

ESS1 - Assessment and Management of Environmental and Social Risks and Impacts

Relevant

Due to Project characteristics including implementation modality of the project—a phased approach will be employed to develop comprehensive Environmental and Social (E&S) instruments, including E&S assessments and operational/management practices, that align with the requirements of ESF. Initial assessments and E&S instruments, among others ESIA with ESMP, will be prepared by AYGM during Project preparation, with final ESIA, C-ESMP and other instruments finalized during implementation by the D+B contractor(s). The ESIA will include, to the extent known, potential cumulative impacts and associated facilities. ESIA will be aligned with WBG ESH Guidelines for General issues and for Railways, and the Code of Good Industry Practice. The Project will not involve rolling stock. AYGM recruited independent consultancy firm for preparation, public consultation and disclosure of baseline assessments, draft ESIA, draft ESMP and drafts of other E&S instruments by the Project Appraisal.

ESS10 - Stakeholder Engagement and Information Disclosure

Relevant

The main stakeholders include relevant Ministries and other public institutions at national and local level; local residents or associated businesses who may be directly impacted, and who may be indirectly affected. Those that may be disproportionately impacted potentially include elderly and disabled people, truck drivers etc. Though according to secondary information, no other vulnerable groups including SuTP populations are living within the affected areas, this information will be updated through the ESIA and SEP preparation and they will be consulted as stakeholders if relevant. The SEP will establish a systematic approach to stakeholder engagement activities to be conducted throughout the project. The SEP will include a Grievance Mechanism (GM), including procedures for handling SEA/SH complaints.



ESS2 - Labor and Working Conditions

Relevant

The project will involve direct, contracted, and primary supply workers, with a focus on employing local residents for civil works. AYGM will prepare an Labor Management Plan (LMP) compliant with national laws and ESS2 by appraisal. Labor related risks, including OHS risks, will be assessed as part of the ESIA/ESMP and will inform the preparation of the Contactor ESMP. Risk management measures will include no child or forced labor, a grievance mechanism for workers, SEA/SH risks management, provision of PPE, site safety, work hour limits, rest periods, hygiene, medical care, and safety in high-risk operations. Worker accommodation will meet basic hygiene, safety, and comfort standards.

ESS3 - Resource Efficiency and Pollution Prevention and Management

Relevant

Construction activities will produce excavated material and various types of construction waste, including hazardous waste – mostly lubricants and solvents. Potential negative impacts will be managed through standard operation practices, with final disposal at designated sites or facilities in line with ESS requirements. There will be no rock blasting. Water, electricity, sand, aggregate, cement, concrete, and steel material will be used in large quantities. To minimize potential impacts, sourcing of materials from close suppliers, optimizing earthworks, use of excavated materials for backfill, disposal of excavated material in designated landfills, use of construction equipment in line with WBG EHS Guidelines and Good International Industry Practice, and effective scheduling of construction activities will be mandated in ESIA and ESMP. Project will utilize borrow and disposal areas already used for construction of the existing motorway, while applying the E&S mitigation hierarchy.

ESS4 - Community Health and Safety

Relevant

The community health and safety risks include traffic safety, noise, dust, health hazards and SEA/SH risks. Based on the existing project information, around 27% of the 122 km railway alignment passes through the right of way of the existing motorway corridor, which will require careful scheduling of activities and detailed traffic safety arrangements during construction. SEA/SH risks may arise from worker community interactions as well as risks associated with labor influx. The ESMP will outline the form of the transport management plan, site security and safety measures, mitigation measures to ensure community safety during the civil works and operation phase activities along with relevant monitoring and reporting requirements and training needs. The project GM will be adapted to receive confidential complaints related to workplace harassment and SEA/SH as relevant.

ESS5 - Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

Relevant

The alignment prioritizes using land within the existing motorway corridor (27%), public land (22%), and tunnels/viaducts (32%) to minimize impacts. One-third of the alignment is urban, with the rest in peri-urban and rural areas. Potential impacts include permanent and temporary loss of agricultural land, crop and tree loss, disruption to grazing, and restricted access due to construction. The details on land requirements for new stations, construction along the corridors, borrow areas, estimated number of PAPs will be known through the ESIA as well as final design under preparation and will be presented in A-ESRS. AYGM will prepare a Resettlement Framework to guide Resettlement Plans in line with national law and ESS5.



ESS6 - Biodiversity Conservation and Sustainable Management of Living Natural Resources

Relevant

Risks to biodiversity are moderate, as construction will occur beside a motorway that has already fragmented the habitat. No protected areas are within the project's footprint and rail lines will be laid on an existing bridge, avoiding impacts on water body Bosphorus. ESIA will pinpoint protected areas, critical habitats, threatened or endangered species, and ecologically sensitive regions as required by ESS6. The screening will inform design of appropriate avoidance, minimization, and mitigation measures. The ESIA will incorporate seasonal ecological data, species migration patterns, and potential interactions with nearby protected areas within the Project's area of influence. The ESIA/ESMP will include strategies to mitigate impacts and preserve biodiversity, including construction of wildlife crossing points if found relevant. The outline of Biodiversity Management Plan (BMP) will be presented in ESIA, with specific BMP(s) prepared at the later stage, if found relevant.

ESS7 - Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities

Not Currently Relevant

This ESS is not relevant for Türkiye.

ESS8 - Cultural Heritage

Relevant

Construction of the new railway line within the existing transport corridor, including infrastructure and superstructure works, may pose risks of unforeseen impacts on cultural heritage. Although the existing information did not reveal any recorded and/or protected cultural heritage along the railway alignment and area of influence, there is a possibility for chance finds during the excavation works under the Project. Both tangible and intangible cultural heritage in the right of way will be identified in scope of the ESIA and measures to avoid, minimize and manage potential adverse impacts will be included in the SEP, ESIA and ESMP. A chance finds procedure, as per the requirements of the national legislation and requirements of ESS8 will be included in the ESIA, ESMP and other project-specific E&S instruments.

ESS9 - Financial Intermediaries

Not Currently Relevant

Option to use FI is not be considered during the Project implementation.

B.2 Legal Operational Policies that Apply

OP 7.50 Operations on International Waterways

No

OP 7.60 Operations in Disputed Areas

No

B.3 Other Salient Features

Use of Borrower Framework

No

The Project will apply the World Bank ESF.



Use of Common Approach

No

The Common Approach will not be used. There will be potentially other financing partners including ADB, AIIB, EBRD and IsDB. During the concept stage all potential financing partners have expressed their preference to follow the World Bank's ESF for E&S risks assessment and management.

C. Overview of Required Environmental and Social Risk Management Activities

C.1 What Borrower environmental and social analyses, instruments, plans and/or frameworks are planned or required by Appraisal?

- Environmental and Social Commitment Plan (ESCP): The WB and AYGM will agree on an ESCP, which will set out the material measures and actions required for the Project to meet the ESSs over a specified timeframe. Draft will be prepared by Appraisal, and finalized by Negotiation.
- Draft Environmental and Social Impact Assessment (ESIA) will be prepared by Appraisal, acceptable to the Bank that includes relevant Environment and Social Standards requirements. The document will be disclosed, consulted and cleared by the WB prior to Appraisal.
- Draft Environmental and Social Management Plan (ESMP) will be prepared by Appraisal, acceptable to the Bank that includes relevant Environment and Social Standards requirements, along with the potential project impacts, as well as rules and procedures for site specific project activities. The document will be disclosed, consulted and cleared by the WB prior to Appraisal.
- Stakeholder Engagement Plan (SEP) will be prepared, and disclosed by appraisal and updated throughout the Project implementation as required
- Resettlement Framework (RF) will be prepared by appraisal followed by Resettlement Plans based on the final design and implemented prior to commencement of construction work.
- Labor Management Procedures (LMP) will be prepared and disclosed prior to Appraisal.

III. CONTACT POINT

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