

Environmental and Social Data Sheet

Overview

Project Name:	ISTANBUL UNDERGROUND RAIL NETWORK
Project Number:	2015-0294
Country:	Turkey
Project Description:	Construction of a new 23 km long underground metro line in Istanbul, on the European side of the city and between Mahmutbey and Kabatas and acquisition of rolling stock (300 cars)
EIA required:	no
Project included in Carbon Footprint Exercise ¹ :	yes

Summary of Environmental and Social Assessment, including key issues and overall conclusion and recommendation

If situated within the EU, the project would fall under Annex II of EIA Directive 2011/92/EU and therefore be subject to a screening decision of the Competent Authority. In this case, the competent authority (the Ministry of the Environment and Urbanisation) screened out the project in 2009, taking into consideration the results of an environmental study prepared by the Promoter in 2007. The study included the mitigation measures that the Promoter proposed to implement (Environmental Management Plan). The Competent Authority concluded that the mitigation measures envisaged were adequate and stipulated that implementation of the project must be in compliance with the provisions of the Environmental Study and its annexes. Bank finance will be subject to the Promoter undertaking to implement the project in accordance to the environmental approval.

The alignment runs mostly underground in the urban area of Istanbul. It does not cross any major green area in the city. The environmental study confirmed that the project does not affect any Natural Conservation Areas. The project has been subject to public consultation, prior to approval of the project design by the municipality.

Involuntary resettlement and land acquisition has been avoided where feasible, or minimized by exploring all viable alternatives. Limited land acquisition was unavoidable and has been completed. The Bank will make its loan conditional on receipt of a satisfactory Resettlement and Land Acquisition Completion Report.

Despite some limited adverse environmental impacts during construction, the project is expected to have an overall positive impact on the environment as a result of the increase in public transport service and quality. The estimated reduction of traffic related CO₂ emissions, mainly due to the shift from private cars to public transport, is in the range of 42 800 tonnes per year.

Subject to abovementioned conditions, the project is considered acceptable for Bank financing from an environmental and social perspective.

¹ Only projects that meet the scope of the Pilot Exercise, as defined in the EIB draft Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: above 100,000 tons CO₂e/year absolute (gross) or 20,000 tons CO₂e/year relative (net) – both increases and savings.

Environmental and Social Assessment

Environmental Assessment

This project concerns the construction of a new 23 km long underground metro line (M7) between the stations of Mahmutbey and Kabatas in Istanbul. The line will run predominately underground. The stations are mostly built within existing road corridors or other public areas. The construction of 18 stations is foreseen to improve connectivity in the European side of the city including links to metro Lines M2 and M3 and tramway T1 and T4. Works started in 2014.

The project is part of the Istanbul Metropolitan Area Urban Transportation Master Plan (IUAP) approved in May 2011 which included a Strategic Environmental Impact Assessment.

The project is part of Annex-II of the Turkish Environmental Impact Assessment Regulation which became effective through its publication in Official Gazette nr. 25318 on 16.12.2003. As such, the competent authority (the Ministry of the Environment and Urbanisation) needs to assess whether a full EIA is required. In this case, the Competent Authority screened out the project in 2009, taking into consideration the results of an Environmental Study prepared in 2007, and in line with Article 17 of the Environmental Impact Assessment Regulation. The Bank received a copy of the screening out decision. The study covers the selection criteria mentioned in Annex III of the EU EIA Directive. The aspects analysed include: project location, use of natural resources, waste, pollution and nuisances, risk of accidents, fauna and flora and cultural heritage. The study included the mitigation measures that the Promoter proposed to implement. The Competent Authority concluded that the mitigation measures envisaged were adequate and stipulated that implementation of the project must be in compliance with the provisions of the Environmental Study and its annexes. In addition, the Competent Authority requested preliminary, implementation and post-implementation reports.

The main impacts identified during construction concern the disposal of waste water, the potential pollution of underground water and of soil and subsoil, emissions of air pollutants and high levels of noise and vibration due to construction activities. These impacts will be mitigated through the use of best construction practices and appropriate technologies.

The project will affect existing trees and bushes along the project corridor, which will be replanted. There are some listed buildings along the project route and archaeological sites but they are not expected to be adversely impacted by the project. Temporary traffic disruption due to construction in the street right-of-way will be mitigated by a traffic management plan. There will also be some impacts in the operational phase (noise and vibration) and visual impact in the viaduct sections. The study suggests mitigation measures where necessary and concludes that residual impacts are mostly minor.

The civil works contracts include detailed obligations for contractors with regard to environmental management identifying main impacts, risks and establishing their corresponding mitigation measures that have to be implemented as well as a plan for the monitoring of their implementation during the construction and operation phases. The contractors are also obliged to closely monitor ground settlement, and the buildings above the tunnelling works. In case buildings are affected, experts from a local University will determine the cause and size of the impacts. Contractors are obliged to take third party insurance to cover any damage caused by the project implementation.

The project is constructed in the urban environment, and stations are mostly built inside existing street corridors. The new depot is to be built on a former military site, and the arrangements governing the hand-over of this land were still under discussion at the time of appraisal. The Promoter will to inform the Bank once the land required for the depot is available for the project.

The environmental study concludes that no impact is foreseen in any National Parks, Natural Parks, Natural Monuments or Natural Conservation Areas as defined in Article 2 of Law on National Parks 2873. Also no Wildlife Protection Areas or Wild Animal Breeding Areas are present or affected by the project site.

The construction of the new train sets will take place in the manufacturer's plants and does not fall within the scope of Directive 2011/92/EU (as amended). Therefore no EIA would be required for this component in the EU.

The project is expected to have an overall positive impact on the environment as a result of the increase in public transport service and quality.

Social Assessment

Land acquisition was carried out prior to EIB's involvement in the project but in accordance to the Turkish Expropriation Law (No 2942), which stipulates compensation at full replacement costs. Involuntary resettlement and land acquisition has been avoided where feasible, or minimized by exploring all viable alternatives. Limited land acquisition was however unavoidable, in total 100 plots were expropriated from which two thirds were privately owned. Finance will be subject to receipt of a for the Bank satisfactory Resettlement and Land Acquisition Completion Report.

The fundamental ILO conventions were ratified by the Turkish Government and Turkish Labour Law and other relevant H&S regulations are in line with the Conventions. According to local labour law, all employees must be covered by health insurance and receive copies of their contracts upon being hired. Contracts have to detail the rights and obligations of employees and employer. The contractors are contractually required to comply with local labour laws.

It is understood that procedures for systematic management of Occupational Health and Safety have been established and necessary trainings will be given in line with OHSAS 18001 and Turkish legislation.

No significant risks or impacts on community health and safety are expected as a result of project activities, and those that were identified are being mitigated through the different management plans in place. The primary risk to community health and safety could be associated with traffic safety by an increased volume of truck traffic during the construction phase. The Promoter will have a traffic management plan that requires close coordination with local traffic authorities and traffic signs around the street level construction sites.

EIB Carbon Footprint Exercise

The project is included on the following basis:

- Forecast absolute (gross) third party emissions are 32 700 tonnes of CO₂ equivalent per average operating year; and
- Forecast emissions savings are 42 800 tonnes of CO₂ equivalent per average operating year.

The project boundaries are:

- In the absolute case, metro line 7 between Mahmutbey and Kabatas, totalling 22.7 km;
- In the baseline case, both (i) the buses and minibuses between Mahmutbey and Kabatas; and (ii) the road network between Mahmutbey and Kabatas.

The forecasts in the baseline and absolute cases are based on Services' assumptions about the workload of rail services, energy consumption per train x km and the national grid emission factor. In the baseline case, a portion of emissions from cars and buses is included, equivalent to those 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.

Public Consultation and Stakeholder Engagement

During the site visit the Promoter confirmed that the project followed appropriate public consultation in compliance with Turkish law. In 2010, prior to approval of the project design by the municipality, the project design was disclosed to the public for a period of 40 days, inviting comments or objections from the public. In addition, before start of works, more than 10,000 households, for the most part in the areas around the stations, were visited by city administration staff to inform them about the works. According to the Promoter, there have been no major complaints against the project other than some related to the compensation paid for expropriations. The Promoter has a grievance mechanism in place including a hotline for the project.