

## Environmental and Social Data Sheet

### Overview

Project Name:	METRO DE QUITO
Project Number:	20110297
Country:	Ecuador
Project Description:	The Project consists of the construction of the first metro line in Quito, the capital city of Ecuador, 22.5 Km long, with 15 stations. The Project foresees also the construction of a depot and the acquisition of 18 new 6-cars trains to operate on the line, which should grow up to 20 trains in 2020.
EIA required:	Yes
Project included in Carbon Footprint Exercise <sup>1</sup> :	YES
(Details are provided in section: "Carbon Footprint")	

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

An environmental and social impact assessment (ESIA), including Non-Technical Summary, has been carried out during project preparation which addressed the EIB's environmental and social requirements and standards and the legal framework at national and local levels. Based on the socio-environmental assessment, the environmental and social impacts will be by and large limited to the construction stage, and will be limited, localised, temporary and reversible. The mitigation measures form an integral part of the environmental and social management plan. The actions to be taken during project construction and operation will be carried forward into the Environmental and Social Action Plan (ESAP). Extensive consultation has already taken place and the promoter is in the process of updating the stakeholder engagement plan for the construction and operation phases. According to the environmental, social and technical studies as well as field visits, the Project is not expected to significantly affect individuals nor any economic activities. However in keeping with EIB requirements, a resettlement and livelihood compensation action plan (RLCAP) will be developed for the expropriation of land and disruption of economic activities as well as loss of green spaces. Given the urban nature of the project, no areas of high biodiversity value will be significantly impacted upon.

With the appropriate mitigation measures in place and the Environmental and Social contractual conditions placed on the project, the project is acceptable for Bank financing.

### Environmental and Social Assessment

#### Environmental Assessment

Under the Ecuadorian institutional and regulatory framework for the management of environmental assessments (EAs), all linear projects, such as the proposed Project, are subject to a full environmental impact assessment that must be reviewed by an Inter-Ministerial Committee on the Environment, subject to public consultation, and resulting in a

<sup>1</sup> 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 CO<sub>2</sub>e/year absolute (gross) or 20,000 tons CO<sub>2</sub>e/year relative (net) – both increases and savings.

license of compliance by the Ministry of the Environment. The environmental licence is expected to be issued following completion of the administrative process.

Since 2011, the Promoter, with support from the EIB and subsequently from the Inter-American Development Bank (IaDB) has been preparing a comprehensive set of environmental and social studies for the Project. These include:

- An Environmental and Social Impact Assessment (ESIA) report, the Environmental and Social Management Plan (ESMP), and accompanying annexes covering for instance, archaeological resource management and chance find procedure, design change management procedure, public health and safety management, waste (hazardous and soil) management and disposal, and the construction ESMP;
- Additional environmental and social studies, including a cumulative impact assessment, seismic risk assessment, detailed archaeological and traffic management during construction;
- the Resettlement and Livelihood Compensation Action Plan (RLCAP) for the Project, and
- A Stakeholder Engagement Plan including the establishment of a grievance mechanism .

The environmental and social assessments and related documents have been produced by reputable international consultants. All these documents have been through a comprehensive review process by experts from the EIB and IaDB. The E&S documentation possesses all the relevant measures to limit the environmental and social risks related to this project. The documents are accessible on the Promoter's website.

**Environmental and Social Management:** An ESMP has been developed which details the environmental and social management organisation and responsibilities, mitigation measures, monitoring plan of the ESMP implementation. These responsibilities will be carried forward into the Environmental and Social Action Plan (ESAP). ESMP measures related to construction and operation will be incorporated into contractors and sub-contractors contracts in order to ensure effective implementation. The environmental and social management responsibility will be built into the relevant divisions of the overall project management structure, with dedicated management staff.

**Analysis of Alternatives:** The ESIA initiated early enough and in coordination with the feasibility study phase such that alternatives (twelve alternatives) in the alignment and changes in the design recommended in the ESIA were taken into account to avoid the most serious impacts and to lessen some that could not be avoided. Adequate engineering measures have been designed to mitigate the expected impacts, including noise barriers. Recognising that during detailed design changes to the scheme may give rise to unforeseen effects, a 'Design Change Management Procedure' will be implemented to allow for the environmental and social implications of any changes to be understood and considered. The process will allow for appropriate mitigation to be designed and implemented to ensure that changes not give rise to any new significant effects.

**Cultural Heritage:** the ESIA has identified areas of potential cultural heritage significance (e.g. Plaza San Francisco in the historic area of Quito) and mitigation and design measures have been proposed to minimise impact. Most impacts are predicted to be minor. A chance finds procedure and watching brief at areas identified by the ESIA and the subsequent archaeological studies will be established. The suggested approach to historic structure condition surveys prior to and during construction, as well as vibration monitoring, appears to be sufficiently robust to deal with the potential impacts to the structures.

**Other Environmental Issues:** potential impacts on hydrology and drainage, connectivity of communities located along the metro, traffic safety, disruptions onto the operations or accessibility to existing public services, etc. are the primary concerns during the construction phase. Other impact identified in the ESIA include (i) noise levels possibly exceeding the relevant standards at sensitive sites along the alignment, (ii) slurry wastewater produced from construction sites which could cause adverse impact on water bodies, and (iii) soil disposal. During construction noise, surface water, and ambient air monitoring will be carried out at selected sensitive sites. Concerning operation, expected impacts are minimal and within required standards, and will be the object of adequate monitoring as well.

**Nature and Biodiversity:** Some of the stations will be built in green areas/ parks which are of important recreational value. The design has been modified to minimise any impact however for any loss of green area the promoter has committed to compensate/offset for the loss of the green area.

**Risk of Natural Hazards:** The City of Quito is located in a region of high seismic activity. As a result detailed study, prior to construction is being carried in order to ensure resilience of the project to earthquakes.

### **EIB Carbon Footprint Exercise**

According to the Bank's services, the Project is estimated to contribute to reduce traffic-related CO<sub>2</sub> emissions by about 31 000 tonnes per year. This level of savings in CO<sub>2</sub> emissions is the result of an absolute level of CO<sub>2</sub> emissions deriving from the production of electricity for the operation of the new metro of about 32 000 tonnes per year, which has to be compared to the baseline reference scenario of about 63 000 tonnes per year emitted. This is an outstanding result for an urban public transport project, and is due mainly to the expected shift to public transport (mainly the new metro) from private cars, and to the reduction of conventional bus line services, run on diesel buses.

The Promoter applied to the UNFCCC for the acknowledgement of Carbon Credits from the Clean Development Mechanism (CDM).

### **Social Assessment**

**Occupational Health and Safety:** During the construction phase, contractors will be required to follow the Occupational Health and Safety Management procedure as set up by the Promoter, which addresses the continuous identification of dangerous conditions, evaluation of associated risks and implementation of control measures. Activities will be routinely monitored. In addition contractual requirements for the construction phase will include specification to protect the safety of the public potentially affected by the presence of construction sites in an urban area and by the increase in truck traffic for the delivery of construction labour and materials and removal of excavation and tunnelling spoils.

**Community Health and Safety:** 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 to 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 construction.

**Land Acquisition and Livelihood Compensation:** Although the nature of the proposed works avoids or minimises the acquisition of land and the need to resettle people or businesses, there may be some loss of livelihood as a result of temporary loss of access to business due to construction. A resettlement and livelihood compensation action plan (RLCAP) will be developed for the expropriation of land and disruption of economic activities.

### **Public Consultation and Stakeholder Engagement**

The ESIA process included meaningful and participatory consultations with potentially affected persons and communities, where these impacts and their proposed management was discussed. Extensive consultation with the businesses and people affected by the proposed project will be carried out during the preparation of the Resettlement and Livelihood Compensation Action Plan.

An initial stakeholder engagement plan was published to describe the approach and process to consultation and disclosure activities relating to the Project. The Plan is being updated to

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reflect engagement during the construction phase and the establishment of the grievance procedure to facilitate resolution of complaints regarding the project's E&S impacts.

The Promoter has disclosed all the existing E&S documentation on their dedicated project website and have set up a Facebook page as well as twitter system to allow for the public to comment.

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