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Environmental and Social Data Sheet

Overview

Project Name:	BOGOTA SUSTAINABLE TRANSPORT FL - METRO LINE 1
Project Number:	2022-0741
Country:	Colombia
Project Description:	This is a major allocation under the BOGOTA SUSTAINABLE TRANSPORT FL (20170904) for the construction of Bogotá's first automated metro line. The project includes a 24 km long elevated metro with 16 stations, a depot, and the supply of 30 trains. Additionally, it encompasses electrical installations, control systems, telecommunications, ticketing, and fare collection systems. The project also covers preliminary works, the restructuring of some existing Bus Rapid Transit (BRT) lines and associated stations, and the upgrading of public spaces, including the construction of bicycle lanes.
EIA required:	yes
Project included in Carbon Footprint Exercise ¹ :	yes

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

Environmental and Social Assessment

Environmental Assessment

Context

The Project is being implemented under a concession agreement for the Design, Finance, Build, Operation and Maintenance (DFBOM). The Bank is supporting the Promoter jointly with other multilateral development banks (MDBs) including the Inter-American Development Bank (IDB) and the World Bank (WB).

Construction started in 2021 with the first phase of implementation, which included utility diversion works and other preliminary works at the depot, the road interchange at Calle 72, and the dismantling of existing bridges and construction of new ones on Avenida 68.

The Promoter, Empresa Metro de Bogotá (EMB), was established in 2016 and has since then been committed to building a robust environmental and social management system.

The competent Environmental Authority has issued an opinion indicating that the project does not fall within the scope of the relevant EIA legislation¹ but specific approvals are necessary for activities with environmental impacts, such as tree felling or works in the vicinity of riverbanks.

Nevertheless, an Environmental and Social Impact Assessment (ESIA) was conducted to assess the feasibility of the project, which was published for public consultation in 2018 and subsequently updated and approved by the MDBs in June 2019. It is now available on the EMB's website.

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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Based on the requirements of the concession contract, the ESIA and ESMP were updated by the Concessionaire following the development of the final construction designs.

To comply with the environmental and social safeguards and standards required by the MDBs, some site specific Environmental and Social Management Plans (ESMPs) were developed for the construction works of the first phase of the project implementation. Additionally, the ESIA and some additional ESMPs were updated for the second phase of project implementation encompassing the construction of the viaduct, the stations and the depot building. A consolidated version of the ESIA and all the ESMPs developed for the existing work fronts was finalised in November 2024 and published in the Promoter's website.

The project involves land acquisition and will generate temporary and permanent socio-economic impacts. Therefore, a Resettlement Policy Framework (RPF) and Resettlement Action Plan (RAP) have been prepared and are being implemented in line with EIB Standard 6 (Involuntary Resettlement) and other MDBs standards.

Expected Environmental impacts

The analysis of the ESIA shows that there are some potential temporary negative impacts associated with the project. The ESIA includes an ESMP integrating 38 specific plans for the prevention and mitigation of the environmental and social impacts, covering the implementation and operation phases of the Project. Specific measures to minimize the identified impacts during construction include, but are not limited to: monitoring noise levels and applying relevant measures to avoid exceeding noise level thresholds, elaboration and implementation of specific mitigation measures, including a water irrigation plan to limit dust levels; monitoring of any potential ground settlements applying specific soil treatments where required; soil decontamination and remediation plan, development of traffic management plans, adequate mitigation measures for the transport of excavated materials; waste management plan, development of management plan for cultural heritage including archaeological investigation campaigns, monitoring, mitigation and management of vibration impacts; as well as occupational and community health and safety management measures.

The most significant potential impact in the operation and maintenance phase of the project is related to disturbance to the residents of the buildings located along the line due to noise and vibration. To mitigate this potential impact, a noise and vibration study has been performed, which includes modelling to determine appropriate mitigation measures to be embedded in the project design, such as rubber buffers on the rails, use of a U-beam for the elevated sections of the alignment that acts in part as an acoustic barrier and noise screens where required.

The concessionaire has the contractual obligation to comply with the ESIA, the ESMP and the MDBs standards during the implementation of the contract.

Overall, the project is expected to have significant positive impacts, most notably the improved mobility in the city, reduction of emissions (improved air quality and decreased greenhouse gas emissions) and noise from road traffic. Furthermore, there are other measures to boost positive impacts, such as investments into bicycle paths and green areas which will improve the liveability of the city.

The project is expected to contribute to climate action and environmental sustainability (CA&ES) objectives, in particular to climate mitigation, and pollution prevention and control.



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Cultural heritage

The project has required the relocation of a national monument (the Heroes Monument) that was located under the last section of the viaduct (Avenida Caracas past station at Calle 76). The proposed plan to relocate the monument was developed based upon consultations with stakeholders and was approved by the relevant authorities at local and national level.

Archaeological investigation campaigns were carried out as part of the ESIA, and the plots of land affected by the project were classified depending on the nature and type of the impact and the potential archaeological findings. As part of the ESMP, an Archaeological Management Plan (AMP) consistent with the above was prepared and approved by the relevant authorities at local and national level.

To date, at the project level, only during the works in the 72nd Street site, archaeological remains, not foreseen in the initial ESIA, have been identified. The chance finding procedures included in the ESMP and approved by the competent authority were followed in compliance with applicable regulations.

Biodiversity due diligence

The project will run through existing road corridors in an urbanized area except for the depot (32 hectare) that is located in an Environmental Management and Preservation Zone (ZMPA). The competent authority has issued a permit allowing the construction of the depot. The existing habitat consisting of basically grasses (low lying vegetation) and some 42 trees is not considered to be of high biodiversity value as stated in the permit. The works will thus not have significant impacts on biodiversity.

The project requires felling of around 1750 trees. Contractually, the concessionaire is required to plant a minimum of 5000 trees along the PLMB project to compensate for the loss of the felled trees.

Climate risks:

The Promoter has conducted a climate risk and vulnerability assessment (CRVA) as part of the ESIA. The CRVA identifies measures embedded in project's design. For instance, flooding is mainly related to the depot area, due to its location in relation to the Cundinamarca canal and the Bogotá River. The following measures were included: (i) definition of the construction elevation of the depot area for a flood return period of 1,000 years, and (ii) improvement of the embankments and (iii) the implementation of an emergency response plan for the construction and operation stage.

Alignment with Paris Agreement:

The project supports investments in sustainable urban public transport by financing an underground metro line extension and zero direct emissions metro trains, being aligned with the Paris Agreement, according to Annex 2 the EIB's Climate Bank Roadmap.

EIB Carbon Footprint Exercise

The annual emissions stemming from project's operation, in a standard year of operation, were estimated at 13.6 kT CO₂ equivalent per year (absolute emissions). The change in annual emissions, for all other modes, stemming from the reduction of mileage of competing road modes resulting from the shift in demand to the project, were estimated at 34.6 kT equivalent per year (baseline emissions). Therefore, the net change of emissions across the transport



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network due to the project operation, in a standard year of operation, were estimated to be approximately (-) 21 kT of CO₂ equivalent per year (relative emissions), a reduction of 61%.

These calculations are based on the current country grid as defined in the EIB Carbon Footprint Methodologies.

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.

EIB Paris Alignment for Counterparties (PATH) Framework

The counterparty, Empresa Metro de Bogotá, is in scope and screened out of the PATH framework, because it is not considered high emitting or high vulnerability.

Social Assessment, where applicable

The project is expected to generate long-term benefits by improving public transit in Bogota. It will improve access to employment and services by generating travel time and travel cost savings thus contributing to the reduction of socio-economic inequalities. It will also improve safety.

The project is also expected to generate temporary and permanent negative social impacts (described below) that will be managed through the implementation of 17 thematic social management and monitoring plans as defined in the ESMP which ensure compliance with MDBs' social standards. The promoter has established a robust grievance management procedure that provides direct and accessible communication channels for all citizens in Bogotá and, in particular, for those affected by the project.

Resettlement and Livelihood Restoration

The construction of L1 involves an important surface intervention requiring the acquisition of approximately 1500 land plots. As per Bank's and other MDBs' standards, a Resettlement Policy Framework (RPF) and a Resettlement Action Plan (RAP) have been developed in consultation with project-affected persons and key institutional stakeholders, to ensure acceptance of the proposed mitigation measures and facilitate the involuntary resettlement process. The RPF was approved by the MDBs in July 2017 and the RAP in 2018. As of April 2024, almost all the land plots identified with the initial design (1429) have been acquired resulting in the permanent physical and/or economic displacement of approximately 3,319 social units. The remaining land acquisition (82 new plots) will impact additional 185 social units.

As part of the RAP, nine livelihood restoration and engagement/communication support programs that underpin the resettlement process are being implemented. These address the specific needs of formal businesses and informal businesses/vendors in public spaces in addition to the social units mentioned above. Regarding the issue of street vendors, the EMB has signed an agreement with the Instituto para la Economía Social (IPES) to carry out the Street Vendors Relocation Plan. The IPES is a District entity specialized in offering alternative income generation for the population of the informal economy that is active in the public space, focusing on training, entrepreneurship, business skills and management of largely informal commercial activities.

The Promoter, EMB, and the other city agencies responsible for project resettlement are working closely on the implementation of the RAP for which specific resources have been already allocated. Since 2018, the implementation of the RAP has been guided and monitored



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by a dedicated committee (Comité de Gestión Predial) chaired by EMB, the Promoter, and supported by social experts from MDB's involved in the Project.

The RAP as updated is in line with the safeguards of the multilateral banks involved: the World Bank, the IADB and the EIB. Any upcoming updates required for the needs of the implementation of the project, shall be submitted to the satisfaction of the Bank.

Worker health and Safety and Labour standards

In accordance with national law on labour standards and International Labor Organization (ILO) obligations ratified by Colombia (Colombia ratified all ILO fundamental conventions), the works contracts will comply with ILO core labour standards. Contractors shall ensure occupational and community health & safety as part of their works contracts.

In addition, the Promoter and the concessionaire are currently reviewing the project's Occupational Health and Safety Management System (OHSMS) to meet both national and international standards. The OHSMS includes clear institutional structure, policies, methodologies, measures, instruments, and indicators to monitor the hiring of workers, health management, hazard management, and occupational risks. The system has specific protocols for hazardous work and handling of hazardous substances as well as a code of conduct and a dedicated worker grievance mechanism and procedure. The Environmental and Social Management Plan (ESMP) includes guidelines for the contractors to develop their own occupational health and safety management plans. The project requires the construction of a worker camp which will be managed through a dedicated Worker Camp Management Plan in line with MDB's standards.

Gender Equality

Following the City's women and gender equity policies², strategies³ and regulations, the Promoter intends to include a gender lens in the Project design, implementation, and operation. Some of the specific actions and measures include: (i) having a dedicated gender committee (ii) planning and design features that would enhance inclusion and security for women, (iii) foster women participation in construction works (currently at 11%), including minimum employment thresholds⁴ (the concession contract foresees at least 20% of women employed for the operation), gender friendly workplace measures (such as lactation rooms) and policies and mechanisms that address and prevent gender-based violence & harassment⁵.

The percentage of women in leadership positions already accounts for 57% of the Promoter's staff and 60% of the Concessionaire staff.

Thus, the project will foster women's access to employment. It is also expected to overall have a significant positive impact on women's mobility and reverse their disproportional disadvantage on affordable, safe, and secure access to services and employment opportunities.

Public Consultation and Stakeholder Engagement

The project has undergone a two-step consultation process. The first consultation involved several meetings between May and September 2017 in different locations along the corridor of the project, with up to 2,800 participants, with the purpose of disseminating information about the project. Later on, when the first version of the ESIA was published in March 2018, a second

² updated Women and Gender Equity Policy 2020-2030:-

[Bogotá has a new Public Policy for Women and Gender Equity for the next 10 years | Bogota.gov.co](#)
[resolucion_325_de_2015_plan_sectorial_genero.pdf \(metrodebogota.gov.co\)](#)
[Información para mujeres | Metro de Bogotá \(metrodebogota.gov.co\)](#)

³ [Secretaría Distrital de la Mujer \(sdmujer.gov.co\)](#)

⁴ [f. decreto_332_de_2020.pdf \(sdp.gov.co\)](#)

⁵ [primer protocolo contra acoso a las mujeres | Bogota.gov.co](#)



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round of public consultation started in April 2018. The results of the public consultation were incorporated into the ESIA. The Bank considers the public consultation process so far to be adequate.

With respect to stakeholder engagement undertaken as part of the resettlement process, the RAP shows that both those economically and physical displaced as well as the broader communities were satisfactorily informed and consulted on key aspects of the Project and of the land acquisition and resettlement process.

A Stakeholder Engagement Plan (SEP) (Plan de Participación de Partes Interesadas - PPPI) is in place and sets out which external parties are involved in the implementation and when, and which approaches for engaging on the Project and associated activities are foreseen including those defined in the ESIA and ESMP. Since the start of the construction, the EMB has deployed a team to inform about project activities and work with local business and organisations.

The Grievance Management Procedure for the Project in line with good practices is already in place and operational.

Conclusions and Recommendations

The assessment of the ESIA identifies the major impacts of the project from an environmental and social point of view and foresees relevant mitigation measures. The ESIA includes an ESMP that is part of the concession contract. The Promoter has been reinforcing the E&S team and has demonstrated so far a good capacity to manage the environmental and social components of this metro project.

As foreseen in the framework loan agreement, the Promoter will undertake to:

- Submit any updated versions of the ESIA, the SEP, the RAP and the Environmental and Social Management Plan (ESMP) including any other specific management plans as listed in the ESIA, to the satisfaction of the Bank;
- Implement the project in accordance with the latest agreed version of the ESMP, RPF and RAP(s);
- Implement the project in accordance with agreed Stakeholder Engagement Plan;
- Report (yearly, as part of the Project Progress Report) on the status of RAP and ESMP implementation;
- Maintain the PIU and the E&S unit, and inform us of any changes during project implementation;

In addition to those, the Promoter will commit to:

- Ensure that the supervision consultancy firm maintains highest levels of expertise to monitor the implementation of the ESMP;
- Submit a Labour Management Plan and ensure that all the contracts under this project will comply with ILO core labour standards. Contractors shall also ensure occupational and community health & safety as part of their works contracts.
- Submit the Community Health, Safety and Security Plan.
- Implement the recommendations of any labour audits requested by EIB or the other MDBs to ensure compliance with labour standards.
- Submit the ESMP relative to the operation phase, at least six months before the start of operation of L1.