

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

COLOMBIA

**CONDITIONAL CREDIT LINE FOR INVESTMENT PROJECTS (CCLIP) FOR THE
FIRST LINE OF THE BOGOTA METRO—SECTION 1**

(CO-00003)

**FIRST INDIVIDUAL OPERATION UNDER THE CCLIP FOR THE FIRST LINE OF
THE BOGOTA METRO—SECTION 1**

(CO-L1234)

LOAN PROPOSAL

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ABBREVIATIONS

BRT	Bus rapid transit
CCLIP	Conditional credit line for investment projects
Col\$	Colombian pesos
CONPES	Consejo Nacional de Política Económica y Social [National Economic and Social Policy Council]
DNP	Departamento Nacional de Planeación [National Planning Department]
EIB	European Investment Bank
EMB	Empresa Metro de Bogotá S.A.
ENT	Entropy index
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
ESMR	Environmental and Social Management Report
FAR	Floor area ratio
FDN	Financiera de Desarrollo Nacional
FFF	Flexible Financing Facility
GHG	Greenhouse gas
IBRD	International Bank for Reconstruction and Development
ICB	International competitive bidding
IPTS	Integrated public transportation system
LIBOR	London interbank offered rate
MDB	Multilateral development bank
NCB	National competitive bidding
PEFA	Public Expenditure and Financial Accountability
PMO	Project Management Office
POT	Plan de Ordenamiento Territorial [Land Use Management Plan]
PREDIS	Sistema de Información del Presupuesto Distrital [District Budget Information System]
SDM	Secretaría Distrital de Movilidad [District Mobility Department]
SDP	Secretaría Distrital de Planeación [District Planning Department]
US\$	U.S. dollars

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Terms and Financial Conditions				
Borrower: Empresa Metro de Bogotá S.A. (EMB) Guarantors: Republic of Colombia and Bogota Capital District			Flexible Financing Facility^(a)	
			Amortization period:	At 15 September 2038
Executing agency: EMB			Disbursement period:	5.5 years
			Grace period:	5.5 years ^(b)
Source	CCLIP (US\$)	First operation (US\$)	Interest rate:	LIBOR-based
IDB (Ordinary Capital):	600,000,000	70,000,000	Credit fee:	(c)
Parallel financing:^(d)	1,080,000,000	126,000,000	Inspection and supervision fee:	(c)
Additional resources:	2,720,000,000	0	Weighted average life (WAL):	14.02 years ^(e)
Total:	4,400,000,000 ^(f)	196,000,000	Currency of approval:	U.S. dollars from the Ordinary Capital
Project at a glance				
<p>The CCLIP's objective: to contribute to the Capital District's economic growth and productivity, improving public transportation and the district's urban environment by developing and implementing the First Line of the Bogota Metro—Section 1. Its specific objective is to improve mobility and quality of life for Bogota's population through the First Line of the Bogota Metro, which will increase the capacity and improve the quality of transportation service and of the air—including a reduction in greenhouse gases along the metro corridor—as well as mobility and urban development integration by means of an efficient land use pattern that is more intense and diverse along the corridor.</p>				
<p>The objective of the first individual operation under the CCLIP: to support financing the startup of works and technical assistance for the First Line of the Bogota Metro—Section 1.</p>				
<p>Special contractual conditions precedent to the first disbursement of the loan: (i) approval of the Project Operations Manual, which is to include, among other things, the environmental and social requirements and the Environmental and Social Management Plan as an annex, under the terms and conditions previously agreed with the Bank (paragraph 3.8); (ii) see other special contractual condition precedent to the first disbursement in Annex III (Fiduciary Agreements and Requirements); and (iii) see Annex B of the Environmental and Social Management Report (ESMR).</p>				
<p>Special contractual conditions of execution: EMB will present, before the contract is awarded: (i) evidence of having contracted the Project Management Office, bearing in mind the recommendations previously agreed on with the Bank (see paragraph 3.9); and (ii) see Annex B of the ESMR.</p>				
<p>Exceptions to Bank policies: The following waivers are requested: (i) a waiver of the Policies for the Procurement of Goods and Works Financed by the Inter-American Development Bank (document GN-2349-9), with regard to two aspects: (a) eligibility of firms and individuals, so firms from any country may participate in the bidding processes; and (b) recognition of International Bank for Reconstruction and Development and European Investment Bank sanctions imposed on firms and individuals that are not included on the IDB's list of parties sanctioned for engaging in prohibited practices (see paragraph 3.11); and (ii) a partial waiver of the eligibility criteria for the CCLIP established in the proposed modifications to the CCLIP (document GN-2246-9) regarding EMB's prior experience, specifically Section 1.19, inasmuch as EMB has not previously executed a similar project because it was recently created to manage and execute construction of the First Line of the Bogota Metro (paragraph 2.2).</p>				

Strategic Alignment			
Challenges: ^(g)	SI <input type="checkbox"/>	PI <input checked="" type="checkbox"/>	EI <input type="checkbox"/>
Crosscutting themes: ^(h)	GD <input checked="" type="checkbox"/>	CC <input checked="" type="checkbox"/>	IC <input type="checkbox"/>

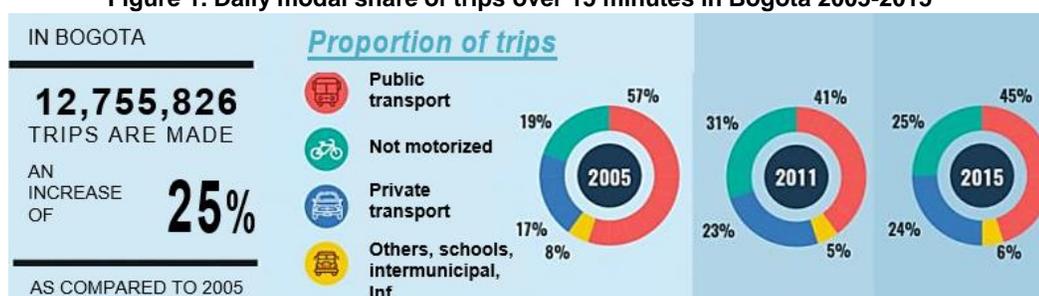
- (a) Under the Flexible Financing Facility (document FN-655-1), the borrower has the option of requesting changes to the amortization schedule, and currency and interest rate conversions. When considering such requests, the Bank will take into account operational and risk management considerations.
- (b) Under the flexible repayment options of the Flexible Financing Facility, changes to the grace period are permitted provided they do not entail any extension of the original weighted average life of the loan or the last payment date as documented in the loan contract.
- (c) The credit fee and inspection and supervision fee will be established periodically by the Board of Executive Directors during its review of the Bank's lending charges, in accordance with the relevant policies.
- (d) The parallel financing will complement the IDB's resources and will be provided by the International Bank for Reconstruction and Development (US\$70 million) and the European Investment Bank (US\$56 million) directly to EMB, which will be responsible for use and administration of the funds, in keeping with the terms and conditions provided for in the respective loan contracts.
- (e) The weighted average life (WAL) is calculated using the loan contract signature date (1 August 2018) and may be shorter if the actual signature date of the loan contract is later.
- (f) The reference price for the First Line of the Bogota Metro—Section 1, set forth in document CONPES 3900 (in pesos of December 2017) is Col\$12,945,270,024,403. The exchange rate used is Col\$2,954.59:US\$1. The amount in pesos has been rounded to US\$4.4 billion throughout the document, annexes, and links.
- (g) SI (Social Inclusion and Equality); PI (Productivity and Innovation); and EI (Economic Integration).
- (h) GD (General Equality and Diversity); CC (Climate Change and Environmental Sustainability); and IC (Institutional Capacity and Rule of Law).

I. DESCRIPTION AND RESULTS MONITORING

A. Background, problem to be addressed, and rationale

- 1.1 In the last 20 years, the population of Bogota has increased 40%, and by 2020 the city will have 10 million inhabitants. In the next decade this demographic growth and related economic activities will make it the fourth fastest-growing city in Latin America. Bogota alone accounts for 25% of Colombia's GDP, and its transportation system—a decisive factor in economic development and quality of life—faces significant challenges due to population growth, a high motorization rate, and urbanization.
- 1.2 **Mobility and urban development background.** Bogota was one of the first Latin American cities to propose an integrated public transportation system (IPTS). In 1998, it proposed a metro system and high-capacity bus trunk line corridors. Given the country's fiscal situation at the time, the choice was made to implement only high-capacity buses, specifically through the Transmilenio project, which is based on bus rapid transit (BRT), as a low-cost, high-impact solution.¹ Infrastructure investment was significantly less than the cost of a metro. Phase I of Transmilenio gave rise to a first-class BRT system, which became a benchmark for several cities around the world (Institute for Transportation and Development Policy, 2014). However, its initial design focused almost exclusively on mobility. Indeed, with the exception of the El Dorado Airport line, it did not adequately consider broader urban development goals, thus missing out on the opportunity to introduce a comprehensive public-transportation oriented urban development strategy (Suzuki, Hiroaki, R. Cervero, and K. Luchi, 2013).
- 1.3 District authorities' other mobility-related measures—namely, increasing the gas tax, restrictions on the use of private automobiles, vehicle emissions controls, and improved pedestrian walkways and bicycle lanes—made public transit the main mode of transportation in Bogota. In 2015, of the nearly 12.5 million daily trips, 5 million (45%) were made using public transportation. Meanwhile, trips by motorcycle or automobile accounted for 24% of the daily total (Figure 1).

Figure 1. Daily modal share of trips over 15 minutes in Bogota 2005-2015

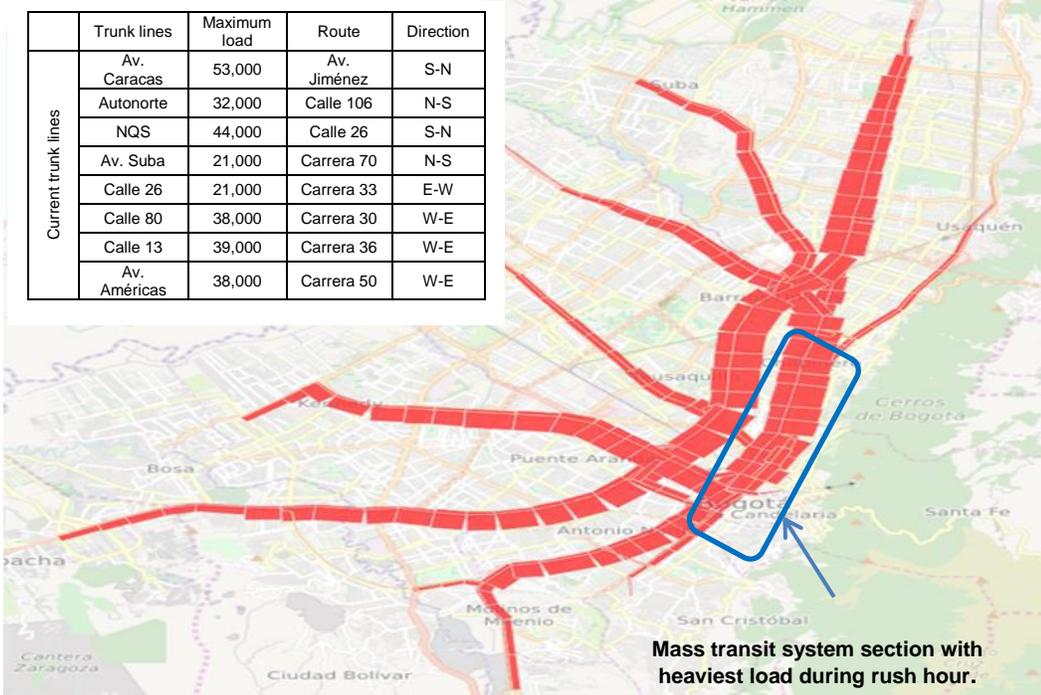


Source: Observatorio de Movilidad [Mobility observatory], 2016.

1. Transmilenio was developed by Bogota and the State and allowed private-sector participation through public bidding, concentrating management activities in the hands of a technically solid entity capable of covering its own costs from fares or associated operating sources.

- 1.4 **Mobility challenges.** Despite the district’s public transportation policies, public transportation’s modal share fell 12% from 2005 to 2015.² Failure to expand the supply of public transportation contributed to mass transit trips being replaced by non-motorized or private transport trips. Bogota’s economic and population growth led to an increase of 81% in private vehicles and 308% in motorcycles from 2007 to 2016, which deteriorated mobility conditions and public transportation service, creating heavy saturation and increasing travel time for users.
- 1.5 Bogota’s District Mobility Department (SDM) determined that the destination of most trips on mass transit during rush hour was greater downtown. Some Transmilenio corridors report 9% growth in annual average demand (2010-2015), which has created bottlenecks in capacity to meet demand in corridors and has reduced service quality.³ The Avenida Caracas corridor between Avenida Jiménez and Calle 72 has a load of 53,000 passengers/hour/direction and is the most heavily used BRT route in Latin America, with levels comparable to different metros around the world.⁴

Figure 2. The mass transit system’s maximum loads, by direction, during rush hour (2016)



Source: SDM, 2016.

- 1.6 The deterioration in mobility creates heavy saturation that impacts public transportation rider satisfaction, which has fallen from a level of 4 to 2.6. An analysis of the opinion module of the 2015 Bogota mobility survey suggests that public

² Mobility survey, 2015.

³ Bogota Capital District (2014) and Steer Davies (2012).

⁴ http://pdf.wri.org/modernizing_public_transportation_es.pdf.

- transportation riders' main problem is citizen security. Robbery is the most common crime reported, as well as physical and sexual assaults. Although district authorities have implemented different initiatives and campaigns to address the gender issue ([optional link 4](#)), a survey by the Department for Women found that 48.3% of women stated they feel afraid when using Transmilenio—53.3% higher than men, for whom the rate was just over 30%. Additionally, 34.8% of women surveyed would prefer not to use Transmilenio for fear of some kind of sexual violence, compared to only 18.5% of men.
- 1.7 In terms of accessibility, the mobility survey found that the rate of trips for persons with disabilities⁵ remained unchanged from 2011. This may partially be due to the deterioration and loss of capacity of the public transportation system. Although Bogota's IPTS has adapted 135 routes, equivalent to 83 buses, with spaces to place wheelchairs, this remains an ongoing challenge.
- 1.8 The higher motorization rate also further deteriorates air quality. In 2015, more than 2,400 deaths due to respiratory and cardiovascular causes in Bogota were associated with urban air pollution from particulate matter.⁶ The emissions inventory⁷ reports that vehicles emit 99.9% of CO emissions, 96% of NO_x, and 84% of SO₂. Furthermore, Bogota emits 10.6 million tons of CO₂, equivalent to 6% of the country's total emissions, of which the transportation sector accounts for 60%.⁸
- 1.9 **Identification of the problem and its main determinants.** Bogota's rapid urbanization (see paragraph 1.4) has adversely affected mobility, in particular for public transportation riders, whose average travel speed went from 19.2 to 16.6 km/h in 2010-2015. The resulting increase in travel times on mass transit represents a loss of productivity for the city of 172,000 hours/day.
- 1.10 **Mobility strategy.** The 2016-2019 District Development Plan "Bogota Mejor para Todos" ["Better Bogota for All"], includes the program "Mejor Movilidad para Todos" ["Better Mobility for All"], the backbone for which is the IPTS, consisting of Transmilenio and the First Line of the Bogota Metro (the "metro line" or the "first metro line"). For this reason, the National Economic and Social Policy Council (CONPES), in document CONPES 3900, declared the first metro line, which is aimed at achieving a comprehensive solution for Bogota's transportation system, to be of strategic importance.
- 1.11 **Urban development strategy.** The first metro line offers an opportunity to introduce a strategy of sustainable transit-oriented development that leverages the project's benefits by seizing upon this key moment when the line's planning and design converges with the review and reformulation of the Land Use Management Plan. This will make it possible to harmonize the two and to update spatial development rules, particularly occupancy rates and the land use permitted in each zone, which is critical for making increased population density around the stations viable and fostering mixed use. The SDM is working with the District Planning Department

⁵ The household survey confirms that nearly 260,000 individuals with some kind of physical limitation make a total of 295,594 trips.

⁶ National Planning Department (DNP), 2017.

⁷ Rodríguez and Behrentz, 2009; Fandiño and Beherentz, 2009; and Rojas and Peñaloza, 2010.

⁸ [CONPES 3900](#). DNP, 2017.

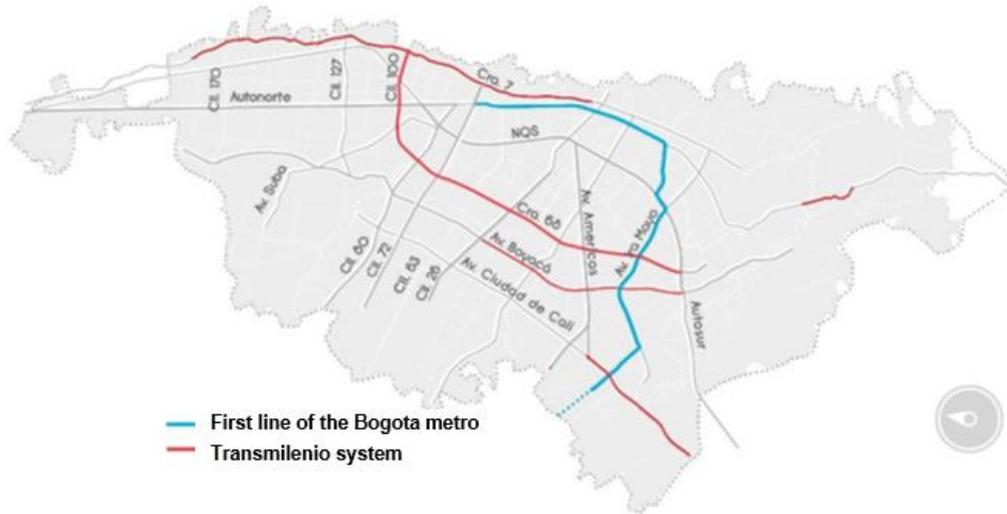
(SDP) to ensure that the new Land Use Management Plan incentivizes development of dense, compact areas in a radius of 800 m around metro stations ([optional link 7](#)).

- 1.12 **Proposed intervention.** To support the authorities in consolidating a high-quality public transportation system for Bogota that provides for the first metro line and three new Transmilenio trunk lines. The district established this intervention to address the mismatch between transportation supply and demand in priority areas.
- 1.13 **Analysis of options.** Several studies assessed a series of alternatives, typologies, and costs, considering construction, financial, environmental, urban, and other issues, comparing eight track length options, with both elevated and underground tracks. The analysis found that an elevated metro generates investment savings of US\$61 million/km, has operating costs 28% lower than an underground metro (as it does not require mechanized ventilation or pumping out of water, and lighting is only needed at night), has fewer construction risks, and the works can be executed more quickly. The route selected has the metro run over a viaduct following the path of strategic road axes in southwest Bogota, connecting with Transmilenio's route on Avenida Caracas between Calles 1 and 72,⁹ which is the corridor with the heaviest demand in the city (see paragraph 1.5), where a large part of services and jobs are concentrated.¹⁰ On this corridor, the metro will serve as a higher-capacity line with greater regularity, while the Transmilenio trunk line will complement the metro for short trips and/or trips to a final destination. This option will also enable Transmilenio to recover its level of service. The metro design also includes redesign of the urban space along the corridor and around the stations that is consistent with the strategy of sustainable transit-oriented development, which will prevent the deterioration of public spaces under the viaduct or in surrounding areas ([optional link 7](#)).
- 1.14 The first metro line will also feed existing Transmilenio trunk lines, as well as three new ones: (i) Avenida Boyacá; (ii) Avenida Ciudad Cali; and (iii) Avenida Carrera 68. These new trunk lines, together with the Carrera Séptima trunk line and the Avenida Caracas trunk line extension from Molinos to Portal de Usme, will facilitate passengers' access to the first line (Figure 3).

⁹ This section will have a shunting yard to Calle 78.

¹⁰ [SDP](#).

Figure 3. First metro line with feeder and complementary trunk lines

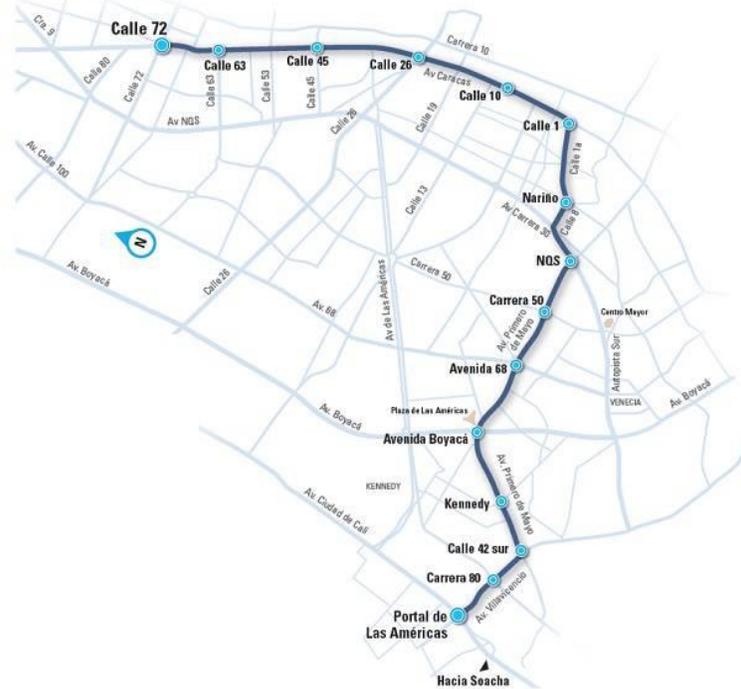


Source: SDM, 2017.

- 1.15 By 2050, the IPTS is expected to include the first metro line and any extensions to the north and 248 additional kilometers of Transmilenio trunk lines, which will extend along the city's main road corridors.
- 1.16 The metro line and Transmilenio's expansion will make the system more efficient through its physical and fare integration. Once the city's entire mass transit system has been implemented, nearly 80% of its inhabitants will be less than one kilometer from a mass transit line, which will help mitigate growth in the motorization rate and the use of private transportation. In addition to this strategy, improvement of public spaces and bicycle lanes along the metro's route—which complement the District Development Plan's goals to increase the proportion of bicycle trips—aim to mitigate the increase in average travel time and improve the perception of public transportation quality.¹¹
- 1.17 The first metro line will have 16 stations over its 24-kilometer route, 10 of which will allow interconnection with Transmilenio. The placement of stations was determined jointly with SDP, SDM, and Transmilenio to magnify the urban renewal. The trains are 140 meters long, 2.9 meters wide and will have six or seven cars, with a capacity of 1,800 people, and will operate at estimated intervals of 180 seconds during rush hour at the start of operations.

¹¹ <http://www.sdp.gov.co/portal/page/portal/PortalSDP/PlanDistritalDesarrollo/Documentos>.

Figure 4. First metro line stations



Source: Financiera de Desarrollo Nacional (FDN), 2017.

- 1.18 The metro line's electric train technology¹² will reduce approximately 36,000 tons of CO₂—a major greenhouse gas (GHG)—and local pollutants by approximately 4,400 tons of CO, 1,150 tons of NO_x, 71 tons of PM₁₀, and 70 tons of PM_{2.5}. This will improve the population's well-being and health. According to empirical evidence, Transmilenio achieved 82,128 tons of CO₂-equivalent emission reductions after two years of operation (CO₂-equivalent vehicle/km).
- 1.19 **Technology innovation.** The use of Building Information Modeling¹³ in the design of the first metro line will enable close and efficient follow-up during construction. The first metro line will have unattended train operation with grade of automation 4 (GoA4), platform screen doors, and a communications-based train control system, ensuring users' safety and putting the metro line at the cutting-edge of metro system technology. Because of the automation, trains and stations will put in place greater coverage and redundancies in the control and surveillance systems, which will have a communications link to the central control center where operations will be managed. For fare collection, there will be scanning devices using technology that allows for different means of payment (contactless smart cards, bank cards, mobile devices, etc.). The use of big data based on the demand data will facilitate the management of supply during operation. The metro line is expected to establish

¹² [National Mining and Energy Planning Unit](#), 2013.

¹³ This is a collaborative project management methodology used to centralize in a digital model geometric data, and data on timeframes, costs, and activities, among other things.

a crowdsourcing¹⁴ pilot that uses rider information to identify elements the operator needs to adjust (frequency adjustments, adjustments to the signaling system, enabling ramps and elevators, etc.).

- 1.20 Mass transit interventions correlate to productivity, as they enhance access to factors of production.¹⁵ Agglomeration, together with planned development of transit systems, has important positive effects on businesses' productivity. Graham (2007) estimated that in London increases of 1% in agglomeration boost the productivity of certain industries by nearly 0.2%. Tyndall (2017) finds a negative impact of 1.4% in the likelihood of being employed around the New York subway's R Line, which is closed due to damage from Hurricane Sandy. This suggests the subway has positive effects on employment. Baum-Snow and Kahn (2005) and González-Navarro and Turner (2016) find that the cities that have taken greatest advantage of the benefits of metros have been the densest and most populated. In these cities, the metro has made it possible to reorganize activities in a more compact fashion, and, in some cases, switch from cars to the metro (due to lower costs and shorter travel times). Evidence shows that carbon monoxide concentration drops as well; Chen and Whalley (2012) found reductions of between 5% and 15% after the metro began to operate in Taipei (China), while Goel and Gupta (2013) observed significant reductions after the Delhi (India) metro expansion. Furthermore, there is evidence regarding land values and use, where improvement in the London metro system and in five other large cities in the United States raised property values near the metro (Baum-Snow and Kahn, 2000; Gibbons and Machin, 2005). Meanwhile, the construction of a light rail in Charlotte and the electrification of a suburban line in Buenos Aires show a positive impact on housing prices in the stations' areas of influence (Billings, 2011; Dorna and Ruffo, 2017).
- 1.21 **Universal mobility.** The First Line of the Bogota Metro will further enhance security for women and users with reduced mobility by including measures to discourage gender violence and raise comfort levels. These include better lighting, visibility, closed circuit cameras, ramps, and pictorial signs at stations and in surrounding areas. The gender issue is essential in urban transportation design, as it determines travel and behavior patterns¹⁶ and influences safety issues. Overcrowding in public transportation has a significant impact on riders' perception of the trip. Passengers feel 2.3 to 2.5 times more uncomfortable¹⁷ when they travel with 5-6 passengers/m² as compared to densities of 1-2 passengers/m². Most sexual harassment cases on public transportation occur when there is overcrowding, normally during rush hour (Gekoski, et al., 2015) (Gardner, Cui, and Coiacetto, 2017). Reducing the public transportation load has been documented as a measure preferred by women to decrease harassment (Astrop, 1996). The metro line will collect disaggregated information by gender regarding service quality, reflected in general satisfaction and security (Annex II). This will make it possible to improve services based on travel patterns. Bogota is part of the Transport Gender Lab public good ([optional link 4](#)) and will have access to regional best practices.

¹⁴ Crowdsourcing apps are an important tool to close information asymmetries in public service provision.

¹⁵ IDB, 2015; Fan, Y., Guthrie, A., & Levinson, D. (2012). Impact of light-rail implementation on labor market accessibility: A transportation equity perspective. *Journal of Transport and Land Use*, 5(3), 28-29.

¹⁶ Wachs, 1966.

¹⁷ IDB, *The Relationship between Gender and Transport*. 2015.

- 1.22 **Estimated investment in the proposed intervention.** The total cost of the first metro line and the trunk lines is approximately US\$6.62 billion, of which the trunk lines are estimated to cost US\$2.22 billion. The District Development Plan includes these trunk lines, the design of which is underway. The Bogota Capital District and Transmilenio are currently determining their financing structure.
- 1.23 **Estimated investment in the First Line of the Bogota Metro.** The total cost, according to technical structuring estimates, comes to US\$4.4 billion.
- 1.24 **Development of the first metro line.** District authorities created Empresa de Metro de Bogotá S.A. (EMB), a stock corporation with 100% public equity. In 2014, the Institute for Urban Development and FDN entered into Inter-administrative Agreement 1880 of 2014, aimed at “joining forces to carry out activities related to comprehensive structuring of the First Metro Line of Bogota project. In 2016, the Institute for Urban Development ceded to EMB its contractual position under said agreement.
- 1.25 **Rationale for the credit line.** The Government of Colombia has requested the Bank’s support to finance the first metro line. The proposal is to use a conditional credit line for investment projects (CCLIP), which is a frame of reference for medium and long-term resources. The CCLIP will be for US\$600 million, with an execution period of 10 years. The CCLIP will make it possible for the Bank’s financing to be divided into several operations, streamlining the approval of subsequent operations. It will also send a positive message to the market about the Bank’s strategic support through the entire credit line to finance a considerable amount of this investment, which will help attract and leverage private-sector financing. Additionally, it will enable the Ministry of Finance and EMB to program and plan the execution of the CCLIP proceeds to reduce transaction costs and better align the Bank’s programming agreements with the country (see [optional link 3](#)).
- 1.26 **The Bank’s sector knowledge and lessons learned.** The IDB has ample experience in metro projects, with successful experiences and lessons learned in projects such as the [Quito Metro](#), [Lines 4 and 5 of São Paulo](#), [the Lima Metro lines](#), and the Panama City and Buenos Aires projects, which enable the Bank to provide specialized technical support that speeds up the learning curve.¹⁸ Indeed, a 2015 evaluation conducted by the Bank’s Office of Evaluation and Oversight on three urban transportation projects recommended that future projects promote integration of transportation systems with land use planning through sustainable transit-oriented development.¹⁹ That was the only recommendation from the evaluation applicable to the first metro line outlined in this operation.
- 1.27 The Bank analyzed the project’s technical, legal, environmental, and procurement issues in close collaboration with the International Bank for Reconstruction and Development (IBRD) and the European Investment Bank (EIB), enabling the three multilaterals to present their loan proposals to their respective boards around the same dates. EMB has requested that the IDB coordinate the multilaterals and

¹⁸ For the Quito metro, IDB procurement policies were adopted by government decision. The IDB also coordinates the group of three multilateral financing institutions (IDB, EIB, and IBRD), enabling consensus-building, advancing solutions, and simplifying the multilateral institutions’ relationship with the executing agency.

¹⁹ [Comparative Case Studies of Three IDB-supported Urban Transport Projects](#). IDB, 2014.

- that IDB procurement policies apply. To make requirements and procedures compatible, the group of financing institutions is preparing an Alternative Procurement Agreement between the IBRD and the IDB to allow the IBRD to use IDB procurement policies; that agreement will be signed once the loans have been approved by their respective boards. Under this agreement, the IDB will represent the IBRD in procurement-related decisions and follow-up. Additionally, the principles of collaboration are being prepared to lay out coordination between the multilaterals (IDB, IBRD, and EIB), to make execution efficient and harmonize communication with EMB.
- 1.28 **Government strategy.** The 2014-2018 National Development Plan, “Todos por un Nuevo País” [“Everyone for a new country”] incorporates the mobility strategy as a driver of regional development, with the aim of enhancing the competitiveness and connectivity of the regions, as well as balanced development of cities, including the capital region. The government committed to supporting the policy to implement Bogota’s integrated mass transit system and to defining strategies to make the execution of the First Line of the Bogota Metro a reality, declaring the project to be of strategic national interest.²⁰ The first metro line is also aligned with the Green Growth strategy in the National Development Plan and will contribute to the mitigation target proposed under the Nationally Determined Contribution for Colombia to reduce GHG emissions by 20% from the projected business as usual scenario.
- 1.29 The 2016-2019 District Development Plan, “Bogota Mejor para Todos” [“Better Bogota for All”], aims to achieve safe, equitable, sustainable, and competitive mobility, prioritizing a public transportation subsystem, in which the first lines of the metro integrated with the IPTS are developed. At the same time, the city’s mobility master plan seeks to maintain public transportation’s share of daily trips through a quality IPTS based on the mass transit system. The system will consist of complementary modes of transportation that will address corridors with high-demand for travel in public transportation, i.e. the first metro line and additional Transmilenio trunk lines, which will extend along the main road corridors of the city.²¹
- 1.30 **Bank country strategy.** The operation is aligned with the Bank’s country strategy with Colombia 2015-2018 (document GN-2832) in the strategic area of economic productivity by raising the quality of infrastructure and urban development. Additionally, the strategy provides for actions in its crosscutting areas, such as gender and diversity and climate change. The operation is included in the 2018 Operational Program Report (document GN-2915).
- 1.31 **Strategic alignment.** This operation is consistent with the Update to the Institutional Strategy 2010-2020 (document AB-3008), aligning with the following development challenges: (i) productivity and innovation, under the criterion on investments in infrastructure and transportation services that boost productivity; as well as the crosscutting issues of: (ii) climate change and environmental sustainability by making public transportation more efficient and reducing GHGs; and (iii) gender equality and diversity by promoting inclusive transportation infrastructure and services. In all, 100% of the operation’s proceeds are for investment in activities that

²⁰ [2014-2018 National Development Plan](#). DNP, 2015.

²¹ Bogota Capital District, 2006.

mitigate climate change, according to the [Joint Methodology for Tracking Climate Mitigation Finance](#). These resources contribute to the IDB Group's goal of increasing financing for climate change-related projects to 30% of all operations approved by 2020. Furthermore, it contributes to the Corporate Results Framework 2016-2019 (document GN-2727-6), through the main indicator for GHG emissions reductions (millions of annual tons of CO₂ equivalent) and the indicator for rail mass transit systems built. The operation is consistent with the strategy Sustainable Infrastructure for Competitiveness and Inclusive Growth (document GN-2710-5) by: (i) promoting access to infrastructure services; and (ii) improving infrastructure governance to make service delivery more efficient. The program is also consistent with the Transportation Sector Framework (document GN-2740-7) by contributing to sustainable and safe urban transportation. The Bank is supporting EMB in preparing a concept note to be presented to the Secretariat of the Green Climate Fund for potential financing of the First Line of the Bogota Metro.

B. Objectives, components, and cost

- 1.32 **The CCLIP's general objective.** Contribute to the Capital District's economic growth and productivity, improving public transportation and the district's urban environment by developing and implementing the First Line of the Bogota Metro— Section 1.
- 1.33 **The CCLIP's specific objective.** Improve mobility and quality of life for Bogota's population through the metro line, which will increase the capacity and improve the quality of transportation service and of the air—including a reduction in GHGs along the metro's corridor—as well as mobility and urban development integration by means of an efficient land use pattern that is more intense and diverse along the corridor.
- 1.34 **The objective of the first individual operation under the CCLIP.** Support financing the startup of works and technical assistance for the First Line of the Bogota Metro—Section 1. The program will finance the following components:
- 1.35 **Component 1. Preparatory activities, civil works, and inspections (US\$67 million).** This component will finance the designs for the First Line of the Bogota Metro—Section 1, train yard construction, works for the viaduct, transfer of utility networks, demolition, traffic management plans, activities to temporarily or permanently reconfigure roadways along the metro's route,²² procurement and management of land, and inspections.
- 1.36 **Component 2. Technical assistance (US\$3 million).** Component 2 will finance technical assistance during development of the First Line of the Bogota Metro—Section 1, such as supporting and strengthening EMB during the execution phase of this first individual operation, including a study of the metro's fare collection system and identification of the most appropriate system to ensure fare integration among the different modes of the transportation system in the Bogota-Cundinamarca capital region.

²² In parallel to the preparatory activities, FDN is concluding the technical specifications for bidding information, based on Phase 2 designs (advanced basic engineering-feasibility). The comprehensive concession contract will include the final design for the works (detailed engineering), which will be financed with subsequent operations under the CCLIP.

- 1.37 **Administration and management.** EMB will cover auditing, monitoring, and evaluation costs not related to inspections for the First Line of the Bogota Metro–Section 1.
- 1.38 **Cost and financing.** The total estimated cost of the first individual operation, which includes parallel financing, is US\$196 million, to be executed over 10 years. Of this, the Bank will contribute US\$70 million from the Ordinary Capital resources. Table 1, [required link 1](#), and [required link 4](#) show the itemized budget and disbursement schedule, by year. The IBRD and EIB are expected to finance similar amounts. Were financing from other organizations not to materialize, EMB would handle securing alternative sources of financing.

Table 1. Cost of the first operation of the program (US\$ million)

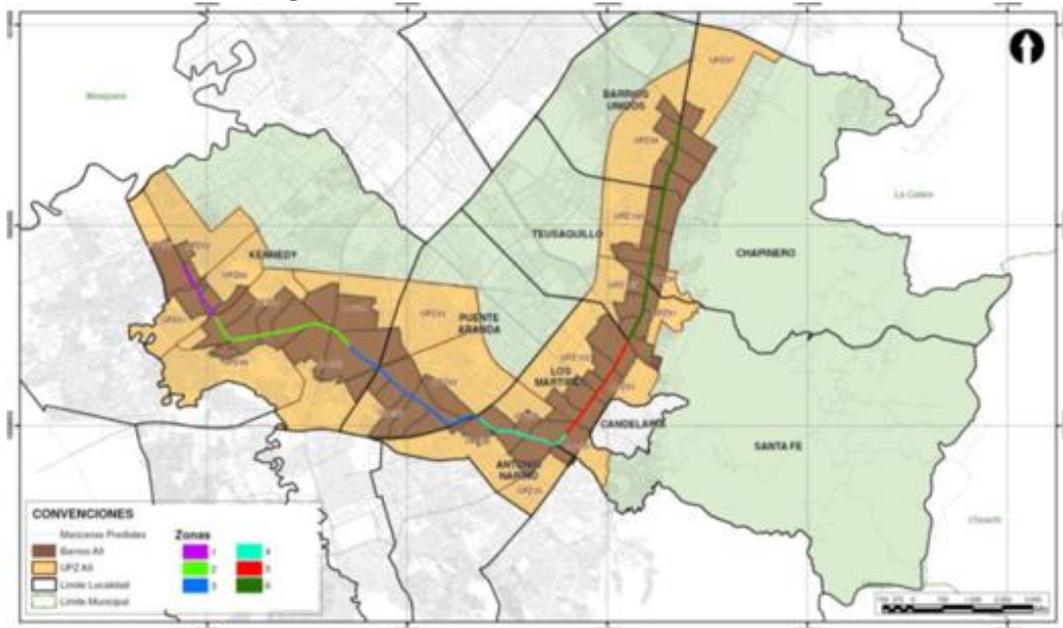
First operation	IDB	Other MDBs	TOTAL
Component 1. Preparatory activities, civil works, and inspections	67	123	190
Component 2. Technical assistance	3	3	6
TOTAL	70	126	196

- 1.39 **Beneficiaries.** The first metro line will be the backbone of Bogota’s public transportation system that, together with investments in and integration of new trunk lines with existing ones, will increase and diversify supply, reducing travel time on public transportation. This integration of routes and the first metro line will benefit more than 3.6 million inhabitants of the communities of Soacha and southern Bogota who currently have an insufficient supply of transportation.²³ The entire project will move an estimated 990,000 passengers a day: 656,000 on the first metro line and 334,000 on trunk lines.²⁴
- 1.40 Close to 2.92 million inhabitants, mostly low- and middle-income, will benefit in the metro line’s area of influence in the communities of Kennedy (with high population density), Puente Aranda, and Antonio Nariño (western section). The population in the eastern corridor will be connected to greater downtown, where there are services, job opportunities, and a considerable number of government agencies, including the Office of the Mayor and Palacio de Nariño (the presidential palace). The first metro line will make it possible to travel at more than 40 km/h (more than double the current average speed). The stations will accommodate special pedestrian and bicycle paths that, according to estimates, approximately 180,700 people will use.

²³ CONPES 3900.

²⁴ www.metrodebogota.gov.co.

Figure 5. The corridor's area of influence



Source: MetroBog consortium, Technical structuring, 2017.

C. Key results indicators

- 1.41 Annex II presents the results indicators and project targets. The indicators are: (i) boost user demand in the mass transit system; (ii) lower the total costs of the public transportation system; (iii) improve the quality of public transportation service; (iv) reduce transportation's environmental impact, both globally and locally; and (v) encourage denser, compact, and mixed use in land zoning.
- 1.42 **Technical feasibility.** EMB commissioned a series of technical, financial, and legal studies for the construction, operation, and maintenance of the First Line of the Bogota Metro (see paragraph 1.24), including the phase 2 engineering designs (advanced basic engineering - feasibility). The demand model used was built and updated by the SDM; it is a four-step (generation, distribution, modal split, and allocation) Emme4-based model created in 2011 based on the household transportation survey. Its results have been used to estimate demand for the metro and for dimensioning the system's operation.
- 1.43 **Economic feasibility.** The avoided cost method was used to calculate losses that would be incurred by economic agents absent any investment. The baseline scenario took into account the current system without any intervention whatsoever compared to the first metro line and three new trunk lines. The value of time was estimated based on stated-preference surveys. According to the economic assessment, taking into account a social discount rate of 12%, the project delivers a net present value of Col\$2,475,206, a cost-benefit ratio of 1.39, and an internal rate of return of 15.26% ([optional link 1](#)). Sensitivity analyses reveal that the project remains viable from an economic and social standpoint, even allowing for higher investment costs and lower demand, inasmuch as it attains positive values in most of the assumptions considered.

- 1.44 **Financial feasibility.** The financial model prepared by EMB relies on the availability of future public resources to support the cash needed to build the First Line of the Bogota Metro. This model optimizes the use of these contributions to EMB over time, maximizing its long-term borrowing capacity at a quasi-sovereign cost since all government debt has a sovereign guarantee. The financial model is robust, with standards of coverage for servicing the debt taken on by EMB that are adequate for EMB to meet its investment obligations and its commitments under the comprehensive concession contract, with sufficient margins to address contingencies without affecting EMB's credit rating.
- 1.45 **Institutional feasibility.** The institutional capacity assessment found that EMB has satisfactory institutional capacity. To enhance execution capacity, an institutional strengthening plan was developed, focused on developing guidelines and instruments, strengthening and training, as well as coordination with the Project Management Office and the trust entity ([optional link 10](#)).

II. FINANCING STRUCTURE AND MAIN RISKS

A. Financing instruments

- 2.1 **Modality.** The Bank's financing modality will be a conditional credit line for investment projects (CCLIP) for US\$600 million. The first operation, for US\$70 million, will finance the startup of the civil works, inspections, and technical assistance.
- 2.2 **CCLIP eligibility.** The CCLIP meets the eligibility criteria set forth in the proposed modifications to the CCLIP (document GN-2246-9) inasmuch as: (i) the objective of the CCLIP and the areas to be financed figure among the priorities spelled out in the Bank's country strategy with Colombia; (ii) the executing agency is an integral and sustainable part of the institution responsible for managing the sector; and (iii) the institutional assessment of Empresa Metro de Bogotá S.A. (EMB) shows that EMB is expected to continue performing satisfactorily in the areas covered by the credit line. A partial waiver is being requested for the CCLIP eligibility criteria established in the Proposed Modifications to the Conditional Credit Line for Investment Projects (document GN-2246-9) with respect to EMB's prior experience—specifically Section 1.19—since EMB has not previously executed a similar project because it was recently created to manage and execute construction of the First Line of the Bogota Metro. While EMB does lack experience in project execution, the Bogota Capital District, of which it is an integral part, has indeed executed projects with the Bank and other multilateral institutions through the following associated bodies: Transmilenio, S.A., the Institute for Urban Development, and the Urban Development and Renewal Corporation ([optional link 5](#)), which are EMB shareholders. EMB's positive track record in roadway and urban development operations previously financed by the Bank with the Bogota Capital District will lend continuity to the investment program and enable it to serve as a means for the Bank to provide efficient, ongoing support with an active presence in the sector.
- 2.3 **Eligibility of the first operation.** The first operation meets the eligibility criteria set forth in the Bank's policies (document GN-2246-9) inasmuch as it: (i) falls under the CCLIP's objective and the priorities set forth in the Bank's country strategy with Colombia and is included in the 2018 Operational Program Report for the country

(see paragraph 1.30); and (ii) EMB, as the executing agency, is an integral and sustainable part of the institution that manages the sector as it is tied to the District Mobility Department.

B. Environmental and social considerations

- 2.4 This was classified as a category “A” operation under the Environment and Safeguards Compliance Policy (OP-703). The project also involves potential environmental and social impacts characteristic of this type of large public works (specifically: effects on heritage; disruptions to pedestrian and vehicle mobility; impacts on business due to decreased access; alteration of the landscape; and changes in environmental noise levels). These impacts have been considered in the environmental and social impact assessment (ESIA) and its environmental and social management plans (ESMP), which includes management plans for waste and hazardous materials, traffic, noise, and vibration and a social participation strategy that describes the socialization and consultations done since 2017. The resettlement plan describes engagement activities and consultations conducted with the social units directly affected by the procurement of the first properties/buildings as well as the second round of consultations planned with the remaining affected social units.
- 2.5 For compliance with OP-703, engagement activities were conducted, and consultations were held on: (i) the scope of the ESIA and project impacts; (ii) documenting outcomes in the ESIA; and (iii) the development of the final resettlement plan, including the census. The second round of consultations on the resettlement plan began on 30 May and concluded on 23 June. The project meets the consultation requirements set forth in operational policy OP-703 and in the Involuntary Resettlement Policy (OP-710). The ESIA and the resettlement plan include the consultations and extensions requested by the Bank.
- 2.6 **Environmental and social risks.** The project involves physical and/or economic displacement of approximately 2,895 units (1,474 properties/buildings to be acquired). Accordingly, community opposition has been identified as a “high” risk. To mitigate the risk, there is a strategy in place for ongoing communication with stakeholders and affected parties, together with a resettlement plan in accordance with operational policy OP-710. To mitigate these risks, strategies for ongoing communication and resettlement plans that include fair recognition factors have been developed; the environmental and social management plans will be effectively implemented and monitored; and the minimum selection criteria and profiles to be considered during contracting will be developed, as will channels of communication and synergies among the project’s institutional actors.
- 2.7 Two other “medium” risks are: (i) natural disasters; and (ii) environmental and social contingencies. To mitigate the former, actions, such as monitoring of the contract insurance program, the contingency plan, and the disaster risk management plan, will be undertaken. Seismic events and thousand-year floods were taken into account in the project’s design. Environmental and social contingencies will be mitigated through environmental liability studies and remediation of such liabilities, with monitoring of the occupational health and safety management system, and through the archeological management plan within the ESMP.

C. Fiduciary risks

2.8 The following medium fiduciary risks have been identified: (i) inadequate fiduciary capacity for conducting procurement processes in accordance with Bank policies; and (ii) lack of effective accounting and financial control of the execution of program resources and delays in disbursement requests. To mitigate these risks, the following actions are being proposed: (i) bringing in advisors with experience in comparable transactions; (ii) providing training on IDB procurement and financial management policies; (iii) contracting external support to evaluate bids; (iv) standardizing the process for receiving observations and responses; (v) engaging with the community and oversight entities early on about the project; (vi) developing a Project Operations Manual; and (vii) maximizing project integration management via the EMB management committee to ensure coordination among agencies (Annex III). The Bank is also supporting EMB with proceeds from operations ATN/OC-15167-CO and ATN/OC-16798-CO for fiduciary, technical, environmental, and social matters.

D. Other risks

2.9 Other “medium” and “high” risks are listed in the table below alongside their mitigation measures.

Table 2. Other risks

Type	Risk	Classification	Mitigation action
Sustainability	Public financing resources are not secured	Medium	<ul style="list-style-type: none"> - Finance Ministry and District Finance Department participation on the EMB Board of Directors, which ensures direct oversight of compliance with the Cofinancing Agreement - Designation of Financiera de Desarrollo Nacional (FDN) as the project structuring body, which ensures the best design and ongoing monitoring conditions for the project during phase one - Transact, through the Consejo Superior de Política Fiscal [National Fiscal Council], forward allocations [vigencias futuras] for taking on project commitments that may affect future fiscal year budgets and authorize the forward allocations to be allocated to project financing for the long term - Strict compliance with schedules for design and loan contract negotiations with international organizations to access the financing required, in accordance with the project’s financial planning and timeline

Development	Variations in the quantities or prices of project components, not including the geological component	Medium	<ul style="list-style-type: none"> - Review of the contractor's final designs and timeline - Effective allocation of risks in the contract - Dialogue with bidders during the contracting process (expressions of interest and competitive dialogue)
	Variations in the quantities or prices associated with meeting the geological component's specifications	High	<ul style="list-style-type: none"> - Effective allocation of risks in the contract - Load tests on piles - Design in phase 3 (detailed) in the loading and preloading in the train yard
	Variations in the quantities or prices of components for grids, access buildings, and detours	High	<ul style="list-style-type: none"> - Agreements with public utility companies to identify interference with grids and plan their relocation (already done in advance) - Fine-tuning of designs - Interaction with authorities to properly plan detours and coordinate adjustments
Governance	Substantial modification of the project's scope	Medium	<ul style="list-style-type: none"> - Engaging the community in the project - Initiation of the process for pre-qualifying bids

III. IMPLEMENTATION AND MANAGEMENT PLAN

A. Summary of implementation arrangements

3.1 **Borrower, guarantors, and executing agency.** Empresa Metro de Bogotá S.A. (EMB) will be both the borrower and executing agency. Pursuant to operational policy OP-303, "Guarantees required from the Borrower," paragraph 3.4.2, this operation's guarantors will be: (i) the Republic of Colombia for loan payment obligations; and (ii) the Bogota Capital District, with respect to obligations other than payments. Even though EMB was created recently, it has the capacity to manage this project ([optional link 5](#)).

3.2 **Execution mechanism.** The executing agency will be responsible for: (i) commissioning technical studies; (ii) the tender process, contracting, execution management, and works oversight; (iii) institutional strengthening and socioenvironmental feasibility; and (iv) management, follow-up, and monitoring, for which it will have the support of a Project Management Office for advice regarding technical management and direction of the First Metro Line of Bogota—Section 1. In addition, the executing agency will enjoy the support of a trust entity that will be: responsible for treasury management; authorized to receive loan disbursements; and accountable for such disbursements according to the provisions of document

OP-273-6. Social and property-related matters will be handled jointly with district entities, and donors will be coordinated by means of protocols from the Principles of Collaboration, which are currently being drafted.

- 3.3 **Public and private financing structure.** The financing structure consists of a public portion covered by the debt taken on by EMB, and a private portion under a concession contract. The public portion includes: (i) EMB's ordinary resources (US\$700 million); (ii) funds raised through other EMB sources of financing (US\$800 million); and (iii) loans from multilateral organizations (US\$1.7 billion). The private portion includes financing from the concessionaire in the amount of US\$1.1 billion.

Table 3. Total cost of financing

Financing under the Comprehensive Concession Model	US\$ million	%
Preinvestment costs (property, relocation of grids, PMO, inspections, and train yard)	800	16
Public financing for progress payments	2,500	58
Private financing with repayment – Cofinancing agreement	1,100	26
Total	4,400	100

Source: Compiled using information from the EMB financial model.

- 3.4 EMB will use its own funds to cover most of the expenditures required to initiate the First Line of the Bogota Metro. These resources primarily derive from the district's forward allocations. EMB's financial model seeks to maximize its long-term borrowing at a quasi-sovereign cost since all government debt has a sovereign guarantee.
- 3.5 In all, 100% of EMB's debt is backed by forward allocations in Colombian pesos put up by the district and the country.²⁵ Colombia is therefore expected to ask the Bank to convert loan balances into local currency via the Flexible Financing Facility (FFF).²⁶ Forward allocation contributions are enough to cover the metro line investment, including financing costs.
- 3.6 **Contract.** The project will unfold under a single comprehensive contract that will include investments for the construction and operation of the First Line of the Bogota Metro via a comprehensive concession model: one portion consisting of progress payments (traditional public work without advances), and another portion consisting of operation performance-based payments (concession contract) to cover investments in rolling stock and ticketing. The contract includes investments related to urban works in road patterns, such as improvements to pedestrian areas, bicycle lanes, bike racks, and station design to reduce visual impacts. Payments to the contractor will be made when civil works execution units are in place for the civil

²⁵ By means of the Cofinancing Agreement, signed on 9 November 2017.

²⁶ The FFF offers borrowers financial solutions for managing risk and debt. The local currency financing option helps to mitigate the exchange risk and makes it possible to more efficiently manage project cash flows. In Colombia, outstanding balances were recently converted to pesos with similar terms to those in this operation.

works (approximately US\$2.5 billion); the rest (rolling stock, systems, and operation) will come through the concession. Accordingly, the structure of payments to the concessionaire has two components: (i) payments for progress milestones in the civil works projects between 2020 and 2025; and (ii) per operation annual payments between 2025 and 2047.

- 3.7 The executing agency is currently moving forward with coordination arrangements with other institutions to: (i) relocate grids, for which EMB has signed agreements with six public utilities—and that work is already underway; (ii) procurement of property, for which EMB signed an agreement in 2017 with the Institute for Urban Development for the social-property management of 460 properties; and (iii) project coordination and monitoring, for which a project working group comprised of EMB, the District Mobility Department, Transmilenio, and the Bogota Capital District has been created.
- 3.8 **Special contractual condition precedent to the first disbursement of the loan: approval of the Project Operations Manual, which is to include, among other things, the environmental and social requirements and the Environmental and Social Management Plan as an annex, under the terms and conditions previously agreed with the Bank.** This condition has been included to ensure that detailed operating guidelines are in place.
- 3.9 **Special contractual conditions for execution.** As a special contractual condition for execution, EMB will present evidence, before the contract is awarded, of having contracted the Project Management Office, bearing in mind the recommendations previously agreed on with the Bank. This condition is fundamental for supporting EMB in ensuring effective management of the project.
- 3.10 **Procurement.** Works and goods will be procured and consulting services selected subject to the “Policies for the Procurement of Works and Goods Financed by the Inter-American Development Bank” (document GN-2349-9) and the “Policies for the Selection and Contracting of Consultants Financed by the Inter-American Development Bank” (document GN-2350-9), both approved in March 2011.
- 3.11 **Exceptions to Bank policy.** Given the involvement of the International Bank for Reconstruction and Development (IBRD) and the European Investment Bank (EIB) in financing the project, the need to request the following has been identified: (i) a waiver of the provisions of the Policies for the Procurement of Works and Goods Financed by the Inter-American Development Bank (document GN-2349-9) with regard to two aspects: (a) eligibility of firms and individuals, so firms from any country may participate in the bidding processes; and (b) recognition of the IBRD and EIB sanctions imposed on firms and individuals that are not included on the IDB’s list of parties sanctioned for engaging in prohibited practices. A similar waiver has already been approved by the Bank’s Board of Executive Directors in the context of the First Line of the Quito Metro operation (loan [2882/OC-EC](#)).
- 3.12 **Fiduciary agreements and requirements.** The fiduciary agreements and requirements (Annex III) reflect the financial management and procurement guidelines to be applied during program execution. They were developed based on an analysis of Colombia’s and the executing agency’s fiduciary context, an institutional assessment of the executing agency, a risk workshop conducted with

employees of all the participating entities, and meetings held with the executing agency's staff and with the project team and key staff from the participating entities.

- 3.13 **Disbursements.** The loan will be disbursed under the advance-of-funds modality, in accordance with the financial plan that will cover up to 180 days, as per the disbursement schedule and the annual work plan previously approved by the parties. To request advances, at least 60% of the total cumulative balance pending justification must be justified, bearing in mind that the execution mechanism is complex, since the concession process includes: (i) construction of the works, procurement of rolling stock, and operation of the metro, which will require fluid cash flow to ensure the pace of execution; (ii) participation by various stakeholders (EMB, the trust entity, PMO, and the Sustainable Urban Mobility Unit [UMUS]); and (iii) cofinancing from various sources. Colombia is expected to ask the Bank to convert the outstanding balances into local currency via the Local Currency Facility.

Table 4. Projected disbursements 2018-2021 (US\$ million)

	IDB	Other MDBs	Additional resources	TOTAL	%
2018	0	0	335	335	38.77
2019	2	2	241	245	28.36
2020	68	124	92	284	32.87
TOTAL	70	126	668	864	100

- 3.14 **External audit.** Annually, during the loan disbursement period, the program's and entity's consolidated audited financial statements will be submitted to the Bank within 120 days following the close of the executing agency's fiscal year. The audit will be conducted by independent auditors acceptable to the Bank. Determination of the scope and other related aspects will be governed by the Financial Management Policy for IDB-financed Projects (document OP-273-6). Auditing services will be procured and paid for by EMB (Annex III).

B. Summary of results monitoring arrangements

- 3.15 **Monitoring.** The Monitoring and Evaluation Plan ([required link 2](#)) will cover execution of the operation pursuant to the indicators and objectives contained in the Results Matrix. To that end, the following means of verification, which correspond to EMB administrative and contractual documents, have been used: (i) works certificates; and (ii) reports on execution of the inspections and technical assistance. In addition, the Bank, via the project team, will conduct inspection visits to monitor program activities. Administration missions will also be conducted to examine program progress and address specific issues identified.
- 3.16 **Evaluation.** A quasi-experimental impact assessment will be done, combining matching and difference-in-difference methods. This assessment will focus on three key dimensions: (i) urban development impacts; (ii) impact of contaminant (suspended particles) reduction; and (iii) impacts on the users of mass transit. In the case of the first two, an evaluation will be done as to how specific indicators in the area of influence of the stations and the viaduct have evolved compared to control areas with similar characteristics located further out from the area of influence. In

the case of the third dimension, the idea is to compare users of the section where interventions were done to similar users in other sections of the system where no work was done. The impact assessment will compare the situation before and after the project and hence baseline data need to be collected before work begins, as explained in the monitoring and evaluation annex ([required link 2](#)).

Development Effectiveness Matrix		
Summary		
I. Corporate and Country Priorities		
1. IDB Development Objectives	Yes	
Development Challenges & Cross-cutting Themes	-Productivity and Innovation -Gender Equality and Diversity -Climate Change and Environmental Sustainability	
Country Development Results Indicators	-Reduction of emissions with support of IDBG financing (annual million tons CO2 e)* -Urban rail and bus mass transit systems built or upgraded (km)*	
2. Country Development Objectives	Yes	
Country Strategy Results Matrix	GN-2832	Raise the quality of infrastructure and urban development and reduce transactions costs in the economy.
Country Program Results Matrix	GN-2915	The intervention is included in the 2018 Operational Program.
Relevance of this project to country development challenges (If not aligned to country strategy or country program)		Paragraph 1.29 y 1.30
II. Development Outcomes - Evaluability		
		Evaluable
3. Evidence-based Assessment & Solution	10.0	
3.1 Program Diagnosis	3.0	
3.2 Proposed Interventions or Solutions	4.0	
3.3 Results Matrix Quality	3.0	
4. Ex ante Economic Analysis	10.0	
4.1 Program has an ERR/NPV, or key outcomes identified for CEA	3.0	
4.2 Identified and Quantified Benefits and Costs	3.0	
4.3 Reasonable Assumptions	1.0	
4.4 Sensitivity Analysis	2.0	
4.5 Consistency with results matrix	1.0	
5. Monitoring and Evaluation	9.3	
5.1 Monitoring Mechanisms	1.8	
5.2 Evaluation Plan	7.5	
III. Risks & Mitigation Monitoring Matrix		
Overall risks rate = magnitude of risks*likelihood	Medium	
Identified risks have been rated for magnitude and likelihood	Yes	
Mitigation measures have been identified for major risks	Yes	
Mitigation measures have indicators for tracking their implementation	Yes	
Environmental & social risk classification	A	
IV. IDB's Role - Additionality		
The project relies on the use of country systems		
Fiduciary (VPC/FMP Criteria)	Yes	Financial Management: Budget, Treasury, Accounting and Reporting, External Control, Internal Audit. Procurement: Price Comparison.
Non-Fiduciary		
The IDB's involvement promotes additional improvements of the intended beneficiaries and/or public sector entity in the following dimensions:		
Additional (to project preparation) technical assistance was provided to the public sector entity prior to approval to increase the likelihood of success of the project		

Note: (*) Indicates contribution to the corresponding CRF's Country Development Results Indicator.

Evaluability Assessment Note

This Conditional Credit Line for Investment Projects (CCLIP) has the objective of financing the construction of the First Metro Line of Bogotá (PLMB). Although public transport is the main means of mobility in Bogotá, its share of trips has fallen 12 percentage points from 57% in 2005 to 45% in 2015. These trips have been replaced by non-motorized trips and by private transport (private vehicles and motorcycles, which tripled in a period of 10 years). Additionally, existing public transport shows high levels of saturation and increased travel times. This has generated a decrease in the level of satisfaction of the users of Transmilenio (Bogotá's BRT system) to 2.6 (in a scale of 4), and satisfaction with the level of safety of only 14% for men and 9% for women. The project includes the construction of a 24km long elevated metro (electric train), plus three new Transmilenio trunk lines, integrated with the PLMB. The CCLIP will only finance the PLMB portion of this project. The first operation of the CCLIP will finance the start of civil works and the establishment of the project management unit. The project has a clear diagnosis and vertical logic, and its expected results are in three areas: improvement of mobility (capacity increase, vehicular operation costs decrease and travel times reduction) and the quality of the public transport service; decrease in the global and local environmental impact levels; and urban changes (density and type of land use). These results will not materialize with the first operation of the CCLIP, but until the end of construction of the PLMB.

The economic analysis of the entire project (the PLMB and the three trunk lines of Transmilenio) is adequate, with reasonable assumptions, and an adequate sensitivity analysis. The internal rate of return of the project is 15.26%.

There is little evidence on the impacts of metro projects in the world, and it is practically non-existent in Latin America and the Caribbean. This operation proposes to carry out an impact evaluation combining quasi-experimental and non-experimental methods, which should be very important to help close those knowledge gaps. Additionally, it proposes to carry out an ex-post economic evaluation that should provide information on the actual economic efficiency of the project. These evaluations can only be completed after one year of project completion.

□

RESULTS MATRIX

Project's objective	<p>The general objective of the CCLIP is to contribute to the Bogota Capital District's economic growth and productivity, improving public transportation and the district's urban environment by developing and implementing the First Line of the Bogota Metro – Section 1.</p> <p>Its specific objective is to improve mobility and quality of life for Bogota's population through the First Line of the Bogota Metro, which will increase the capacity and improve the quality of the transportation service and of the air—including a reduction in greenhouse gases (GHGs) along the metro corridor—as well as mobility and urban development integration by means of an efficient land use pattern that is more intense and diverse along the corridor.</p>
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THE CCLIP'S EXPECTED IMPACT

Indicators	Unit of measurement	2015 baseline	2025 target	Means of verification	Comments
Impact: Help maintain public transportation's modal share of motorized trips in Bogota					
Public transportation's modal share of motorized trips	% of trips in public transportation	45	45	Mobility survey	Motorized trips are made in: public trunk and branch line vehicles and private vehicles

THE CCLIP'S EXPECTED OUTCOMES

Indicators	Unit of measurement	Baseline	2025 target	Means of verification	Comments
Outcome 1: Boost user demand in the mass transit system					
Indicator 1: Passengers transported in mass transit	Number of passengers per day	2,452,199	3,442,199	Reports from the fare collection system	Responsible party: EMB and Transmilenio
Outcome 2: Lower the total costs of public transportation					
Indicator 1: Average travel time per km. on public transportation in the project zone ¹	Minutes/km at rush hour	2.61	2.46	Ex post economic assessment	The ex post economic assessment will use demand during the first year of operation and will update the information on travel times and transportation costs
Indicator 2: Annual operating costs of transportation vehicles in the project zone ¹	Annual operating costs (US\$ million)	1,144.02 ²	1,148.86		The annual operating costs of public transportation in 2025 in the scenario without the project equivalent to US\$1,273.99 million Exchange rate of Col\$ to US\$ taken in January 2017 of US\$1=Col\$2,942.59

¹ The project zone includes the trunk and feeder lines that involve: Autonorte to Calle 193; Extension of Calle 80; Extension Caracas to Yomasa; Soacha Phase 2 and 3; Avenida/Carrera 68 (Autosur - Carrera 7); Boyacá (Autosur - Calle 26); Ciudad de Cali (Límites de Bosa - Portal Américas) and Portal de las Américas – Calle 72 via Caracas.

² Baseline calculated for the year metro operations begin (2022).

Indicators	Unit of measurement	Baseline	2025 target	Means of verification	Comments
Outcome 3: improve the quality of public transportation service ³					
Indicator 1: General satisfaction level of users in the first metro line corridor - Men - Women	Satisfaction level (Scale of 1 to 4)	Men 2.2 Women 2.4	Men 2.4 ⁴ Women 2.6	Satisfaction survey conducted by Transmilenio S.A.	Responsible party: EMB
Indicator 2: Satisfaction level of users in the first metro line corridor regarding safety - Men - Women	% of satisfaction (Scale of 0% a 100%)	Men: 14.4 Women: 9.9	Men: 29 Women: 25		

³ The baseline established in the [Encuesta de Satisfacción del Usuario de Transmilenio \[Transmilenio user satisfaction survey\]](#) (December 2017) is not disaggregated by gender. Nevertheless, the next satisfaction survey Transmilenio S.A. conducts will disaggregate results by gender.

⁴ The target considers annual increases of 0.2 points in the satisfaction level until reaching an increase of 0.6 points in the third year.

Indicators	Unit of measurement	Baseline ^{5,6}	2025 target ⁷	Means of verification ⁸	Comments
Outcome 4: Reduce transportation's environmental impact, both globally and locally					
Indicator 1: GHG	Tons of carbon dioxide (t CO ₂)	3,356,541 ⁹	3,320,528	Estimates based on the four-stage transportation demand model for the city	The estimated GHG reduction is 36,013 tons of CO ₂ by 2025. This reduction is estimated city-wide from startup of the first metro line.
Indicator 2: Particles less than 10 microns (PM ₁₀)	Micrograms per cubic meter (µg/m ³) a day	92.79 µg/m ³	92.79 µg/m ³	Measurements	The daily limit under Resolution 610/2010 is 100 µg/m ³
Indicator 3: Particles less than 2.5 microns (PM _{2.5})		58.99 µg/m ³	58.99 µg/m ³		The daily limit under Resolution 610/2010 is 50 µg/m ³
Indicator 4: Nitrogen dioxides (NO ₂)		60.5 µg/m ³	60.5 µg/m ³		The daily limit under Resolution 610/2010 is 150 µg/m ³
Indicator 5: Sulphur dioxide (SO ₂)		17.90 µg/m ³	17.90 µg/m ³		The daily limit under Resolution 610/2010 is 250 µg/m ³

⁵ The ACM0016 Mass Rapid Transit Systems Methodology, published by the United Nations Framework Convention on Climate Change, will be applied to quantify the GHG baseline and monitoring. This information will be updated prior to the operation's start.

⁶ [Environmental and Social Impact Assessment \(ESIA\)](#) (2018). Hospital monitoring station. The baseline (2017) will be updated prior to initiating the project's construction.

⁷ According to the [ESIA](#) (2018), in the scenario without the project, the trend is for air quality to worsen due to higher levels of atmospheric pollution in the environment as the result of activities. Thus, maintaining pollution levels is considered a positive goal as compared to the scenario without the project.

⁸ Measurements at the same sampling points a year after metro operations begin.

⁹ [Institute of Hydrology, Meteorology, and Environmental Studies \(IDEAM\), *Inventario Nacional de GEI, aporte sector transporte* \(2012\).](#)

Indicators	Unit of measurement	Baseline ¹⁰	2029 target ¹¹	Means of verification	Comments
Outcome 5: Promote denser, compact, mixed use in land zoning					
Floor area ratio (FAR) ¹² along the first metro line corridor in an area of influence of 200m around the stations	Index value	2.4	3.00	Measurements	Responsible party: EMB
Entropy index (ENT) ¹³ along the first metro line corridor in an area of influence of 100m on each side of the corridor		0.81	0.93		

¹⁰ The baseline value corresponds to the section between Portal de Las Américas station and Calle 1 with Avenida Caracas, with an approximate length of 12.6 km. As from Avenida Caracas both the FAR and the ENT reach significantly higher values due to greater density and diversity of land use characteristic of the commercial core of a capital city.

¹¹ Since the chances in FAR and ENT will occur over a longer period of time, the target is 2029, at the end of the execution of the CCLIP.

¹² FAR, or floor space index, is calculated as the gross floor area of a building, taking into account all its stories, divided by the total area of the plot where it was built. The baseline (2017) will be updated prior to starting the project's construction.

¹³ ENT measures mixed use of land considering the relative percentage of two or more kinds of land use within a specific area. Its maximum value is 1 when all its uses are balanced, and its minimum value is 0 when land use is homogenous. The equation for two kinds of use is defined as $ENT = -\frac{[P_{residential} * \ln(P_{residential}) + P_{commercial} * \ln(P_{commercial})]}{\ln(2)}$ where P represents the percentage share of each use in the total observation area (Song and Knapp, 2004). The baseline and target values only consider two uses: (i) commercial and services; and (ii) residential; it was calculated with proportions of 25/75 and 35/65 respectively. The baseline (2017) will be updated before construction begins.

OUTPUTS

The first operation's expected outputs									
Output indicators	Unit of measurement	Baseline	Year 1	Year 2	Year 3	Year 4	Cumulative target	Means of verification	Comments
Component 1: Preparatory activities, civil works, and inspections									
Civil works execution unit ¹⁴ built and validated in keeping with the construction certificates		0				1	1	Construction certificates	
Inspections	Reports	0	0	4	4	4	12	Reports delivered	
Component 2: Technical assistance									
Technical assistance	Reports	0		1		1	2	Reports delivered	

¹⁴ A civil works execution unit encompasses the entirety of works validated by one or several construction certificates. The total of all the civil works execution units makes up the ensemble of civil works to be built.

FIDUCIARY AGREEMENTS AND REQUIREMENT

Country:	Colombia
Project number:	CO-L1234
Name:	Conditional Credit Line for Investment Projects (CCLIP) for the First Line of the Bogota Metro–Section 1
Executing agency:	Empresa Metro de Bogotá (EMB)
Prepared by:	Mylenna Cárdenas and Eugenio Hillman (VPC/FMP)

I. EXECUTIVE SUMMARY

- 1.1 Empresa Metro de Bogotá (EMB) will be the borrower and executing agency and have the support of a Project Management Office (PMO)¹ and a trust entity responsible for treasury management.
- 1.2 EMB's fiduciary management capacity was assessed using Institutional Capacity Assessment System tools to analyze key processes for project execution and fiduciary risk management. The assessment mainly focused on the bodies that will take part in execution and in planning, budget, procurement, disbursement, treasury, accounting, and monitoring processes.
- 1.3 The assessment concluded that EMB has satisfactory development; however, it recommends developing management instruments that define complementary processes and procedures for execution, management protocols for the PMO and the trust entity, budget structuring by cost centers, as well as harmonization and definition of financial and monitoring reports to be presented by EMB. Once a trust entity is contracted, an assessment must take place to determine whether it has the capacity to carry out the treasury management of the First Line of the Bogota Metro–Section 1. The fiduciary risk is medium, due to the execution system, multiplicity of stakeholders, and the executing agency's lack of fiduciary experience with Bank policies.
- 1.4 In keeping with the Public Expenditure and Financial Accountability (PEFA) assessment,² Colombia's public financial management system is mature and has good performance in most areas; nevertheless, it is still not fully aligned with international standards. Additionally, the public procurement system is adequate from a normative perspective and is consistent with internationally accepted practices, but its use has yet to be accepted for Bank financing.
- 1.5 The Bank will provide US\$600 million through a CCLIP, starting with an operation for US\$70 million, to be executed in 5.5 years. Financing institutions like the

¹ Project Management Office.

² Colombia's last PEFA report is from October 2016. The PEFA is an international tool that is used as a frame of reference for assessing management of public finances.

International Bank for Reconstruction and Development (IBRD) and the European Investment Bank (EIB) are expected to participate.

II. THE EXECUTING AGENCY'S FIDUCIARY CONTEXT

- 2.1 The loan proceeds will not be part of the national budget and therefore will not use the Integrated Financial Information System (SIIF). For handling and oversight of the state budget and accounting, an enterprise resource planning information system will be used. Budget execution and control will be recorded in the District Budget Information System (PREDIS)³, or any application that replaces it. EMB will be responsible for procurement processes, budget and financial management, preparation of disbursement requests, supervision of trust management, general accounting, and financial reporting to the Bank, in addition to ensuring adequate internal control. The trust entity will carry out treasury management of the First Line of the Bogota Metro–Section 1.
- 2.2 EMB's strengths are that it has an integrated management system, an internal oversight office, and a document management process. Nevertheless, it was found that EMB does not have experience and installed fiduciary capacity to implement processes applying Bank policies.

III. FIDUCIARY RISK EVALUATION AND MITIGATION ACTIONS

- 3.1 The following medium fiduciary risks were identified⁴: (i) inadequate fiduciary capacity for conducting procurement processes in accordance with Bank policies; and (ii) lack of effective accounting and financial control of the execution of program resources for accounting and timely issuance of the financial reports required by the Bank, and delays in disbursement requests.
- 3.2 To mitigate these risks, the following actions are proposed: (i) bringing in advisors with experience in comparable transactions; (ii) providing training on IDB procurement and financial management policies; (iii) contracting external support to evaluate bids; (iv) standardizing the process for receiving observations and responses; (v) engaging with the community and oversight entities early on about the First Line of the Bogota Metro–Section 1; (vi) developing a Project Operations Manual; and (vii) maximizing integration management of the First Line of the Bogota Metro–Section 1 via the EMB management committee to ensure coordination among agencies.

³ PREDIS: At the district level, three budget processes have been established: (i) budget programming; (ii) budget execution, follow-up, and closing; and (iii) budget advisory services and technical training. This system enables entities to make entries during budget programming, execution, and closing. District institutions connect through the PREDIS Cargue SDH- extranet system, where they input information in the corresponding screens or upload the respective plain text file, by type of operation: budget availability certificates, budget entry certificates, payment orders, or overrides. The application is divided into modules: programming, execution, reporting, progress monitoring reports, oversight agencies, and accounting.

⁴ See probability factors.

IV. CONSIDERATIONS FOR THE SPECIAL PROVISIONS OF CONTRACTS

- 4.1 As a special contractual condition precedent to the first disbursement of the loan the executing agency will contract the trust entity bearing in mind the recommendations previously agreed to with the Bank, to ensure that the entity is authorized to receive loan disbursements for administration.
- 4.2 The executing agency will submit expense vouchers using the exchange rate for converting resources disbursed in U.S. dollars (US\$) to Colombian pesos (Col\$).
- 4.3 The executing agency will submit on an annual basis the consolidated audited financial statements for the First Line of the Bogota Metro–Section 1, which will include the resources for all sources of financing, in Col\$ and US\$, and the entity's audited financial statements.
- 4.4 To advance funds, at least 60% of the cumulative total funds advanced requiring justification must be accounted for, bearing in mind that the execution mechanism is complex and involves several stakeholders (see paragraph 6.3).

V. AGREEMENTS AND REQUIREMENTS FOR PROCUREMENT EXECUTION

- 5.1 Works, goods, and related nonconsulting services⁵ will be procured in accordance with the provisions set forth in document GN-2349-9. Consultants will be selected and contracted in accordance with the provisions set forth in document GN-2350-9. Audits will include this financing, as well as any financing in the process of being obtained and future financing. The exceptions to Bank policy provided for are: (i) eligibility of firms and individuals, so firms from any country may participate in the bidding processes; and (ii) recognition of International Bank for Reconstruction and Development (IBRD) and European Investment Bank (EIB) sanctions imposed on firms and individuals that are not included on the IDB's list of parties sanctioned for engaging in prohibited practices.
- 5.2 The IDB will communicate with the borrower regarding procurement, representing the other multilateral financing institutions. Additionally, coordination with the financing institutions will be undertaken through the protocols agreed to in the Principles of Collaboration. Any contract-related activity will be published in the Electronic Procurement System (SECOP).

A. Procurement execution

- 5.3 **Procurement of goods, works, and nonconsulting services.**⁶ Contracts for goods, works, and nonconsulting services under the program subject to international competitive bidding (ICB) or national competitive bidding (NCB) will use standard bidding documents issued by the Bank. The sector specialist for the

⁵ Policies for the Procurement of Goods and Works Financed by the Inter-American Development Bank (document [GN-2349-9](#)) paragraph 1.1: Nonconsulting services will be treated similarly to goods.

⁶ Policies for the Procurement of Goods and Works Financed by the Inter-American Development Bank (document [GN-2349-9](#)) paragraph 1.16.; Policies for the Selection and Contracting of Consultants Financed by the Inter-American Development Bank (document [GN-2350-9](#)) paragraph 1.23. The borrower will prepare and, before loan negotiations, furnish to the Bank for its approval, a Procurement Plan acceptable to the Bank during an initial period of at least 18 months.

First Line of the Bogota Metro–Section 1 will review the technical specifications for procurements during the preparation of selection processes.

- 5.4 **Selection and contracting of consultants.** Consulting service contracts under the First Line of the Bogota Metro–Section 1 will use standard requests for proposals agreed to with the Bank or the standard harmonized between the World Bank and Colombia Compra Eficiente [Efficient Procurement Colombia]. The sector specialist for the First Line of the Bogota Metro–Section 1 will review the terms of reference for contracting consulting services.
- 5.5 **Selection of individual consultants.** Selection will be in keeping with the provisions of document GN-2350-9.
- 5.6 **Training.** No special measures are required for any training.
- 5.7 **Domestic preference:** Bids for goods originating in the borrower’s country may have a price preference⁷ equivalent to 15% in contracts subject to ICB.

Table 1: Threshold amounts

Works		Goods		Consulting	
International competitive bidding*	National competitive bidding (complex works)**	International competitive bidding*	National competitive bidding** (complex goods)	International advertising for consultants	Shortlist without restrictions on nationality
US\$10 million or more	US\$350,000 to US\$10 million	US\$1 million or more	US\$50,000 to US\$1 million	US\$200,000 or more	US\$500,000 or less

* Simple works and off-the-shelf goods whose value is less than the ICB threshold may be procured through shopping.

** Complex works and goods whose value is less than the NCB threshold may be procured through shopping.

B. Main procurements

- 5.8 Procurements for the first 18 months are included in the procurement plan that is a required annex to the proposal for operations development ([required link 5](#)).

C. Procurement oversight

- 5.9 Procurements under the loan will initially be subject to ex ante review; the project team will assess the use of ex post review, which will eventually be implemented after executing agency staff are adequately trained. Direct contracting, however, will always be subject to ex ante review.

⁷ See document GN-2349-9, paragraph 2.55.

Table 2: Threshold amounts

Threshold for ex post review ^{***}		
Works	Goods	Consulting services
US\$10,000,000	US\$1,000,000	US\$200,000

^{***} Ex post review is subject to the provisions of the paragraph,⁸ “Procurement oversight.”

- 5.10 Other special procedures. EMB’s capacity for procurement management in keeping with national regulations has been verified; however, inasmuch as execution of the First Line of the Bogota Metro–Section 1 provides for application of IDB procurement policies, it is necessary to: (i) strengthen the contracting management team with experienced staff who are familiar with these policies; (ii) have advisors who have experience in comparable transactions; (iii) have IDB technical support during the process; (iv) train and empower EMB in managing Bank procurement policies; and (v) employ external support for evaluating bids.

D. Records and files

- 5.11 EMB’s integrated management system includes document management as an organizational support, which aims to ensure handling, custody, conservation, and availability of internal and external documents. EMB will conserve all documents and records from the First Line of the Bogota Metro–Section 1, with a copy at the trust entity, for at least five years after the end of the original disbursement period or any extensions thereto. EMB’s administrative management is responsible for administering the document management process at the company and accounting for the activities inherent to the document cycle.

VI. FINANCIAL MANAGEMENT AGREEMENTS AND REQUIREMENTS

A. Programming and budget

- 6.1 EMB is a district-level joint-stock company whose shareholders are solely public entities, which is why it is not part of the national budget. It has its own legal status, administrative, financial, and budgetary autonomy, and equity capital. EMB’s revenue budget includes cofinancing contributions from the nation and the Capital District.⁹ Planning for the First Line of the Bogota Metro–Section 1 is aligned with the District Development Plan 2016-2020, “Bogotá Mejor para Todos” [“Better Bogota for All”]. For budget matters, budget regulations for municipally owned industrial and commercial enterprises will apply. These regulations are harmonized with the corporate nature of EMB. Data entry and subsequent monitoring will be done through the Development Plan Follow-Up System (SEGPLAN) application.

⁸ Policies for the Procurement of Goods and Works Financed by the Inter-American Development Bank (document [GN-2349-9](#)) Appendix II and the Loan Contract.

⁹ 9 November 2017.

E. Accounting and information systems

- 6.2 EMB will manage the accounting for the First Line of the Bogota Metro–Section 1¹⁰ using accrual-based accounting by source of financing and component; however, the metro line’s consolidated special-purpose financial statements will be presented using cash accounting, both in Col\$ and US\$, including execution of the proceeds of all sources of financing.

F. Disbursements and cash flow

- 6.3 To handle IDB proceeds, a special bank account will be opened in US\$ or Col\$, through the trust entity administering the resources for the First Line of the Bogota Metro–Section 1, on behalf of EMB, for treasury management. If the special account is in US\$, the trust entity will open a special account in Col\$ to manage the IDB resources in trust. The Bank will provide advance funds in US\$ based on liquidity needs for a period of up to six months and EMB, with the support of the trust entity, will prepare disbursement requests and provide accounting for these funds pursuant to document OP-273-6. With the exception of the first advance, at least 60% of the cumulative advanced funds pending justification must be accounted for.¹¹

G. Internal control and auditing

- 6.4 EMB has an internal oversight office charged with implementing the internal control system.¹² It is also responsible for independently assessing the performance of the integrated management system as regards prevention, risk assessment, and relations with external organizations. The basis for formulating process improvement plans is the procedure consisting of corrective, preventive, and improvement actions established in EMB’s integrated management system.

H. External control and reports

- 6.5 EMB is subject to oversight of its fiscal management by the Office of the Comptroller of Bogota in the framework of management of public funds or goods. EMB, in turn, has a fiscal inspector appointed by the general meeting of shareholders. The Personería de Bogotá [Ombudsman of Bogota’s Office] handles disciplinary oversight and the Veeduría Distrital [District Oversight Office] is responsible for preventive control to improve district public management.
- 6.6 The consolidated financial statement (by source of financing) and eligibility of expenditures for the First Line of the Bogota Metro–Section 1, as well as the entity’s financial statements will be audited by an independent audit firm

¹⁰ EMB applies the public accounting system issued by the General Accounting Office of the Nation under International Financial Reporting Standards – Resolution 414 of 2014, as regards businesses that are not listed on the stock exchange and do not collect or administer the public’s savings.

¹¹ The main concession process includes: (i) construction of works and procurement of the metro’s rolling stock and operating materials, which will require fluid cash flow to ensure the pace of the metro’s execution; (ii) participation of several stakeholders (EMB, trust entity, PMO, and Sustainable Urban Mobility Unit (UMUS)); and (iii) cofinancing from several sources.

¹² The detailed internal control report submitted on 12 March 2018 indicates progress in implementing Phase 2, of the four phases provided for under EMB Resolution 046 of 19 May 2017, which provides for: Establishment of the standard model of internal control in EMB and creation and regulation of the institutional work teams, definition of their roles and responsibilities in the design, implementation, and assessment of the model.

acceptable to the Bank, and submitted, at the latest, four months after the close of each fiscal year. The program's auditing services will be contracted and paid for by EMB. According to the Bank's current access to information policy, the program's audited reports will be published in Bank systems.

I. Financial oversight plan

- 6.7 The Bank's financial specialist will conduct, at a minimum, an on-site review annually, as well as desk reviews on the consolidated audited financial statements. The auditor will verify that the resources are executed in keeping with Bank policies and the conditions stipulated in the Project Operations Manual. The visits for financial management oversight will include verification of the financial and accounting agreements used for the administration of the First Line of the Bogota Metro–Section 1 in keeping with the requirements defined in this annex. Implementation of the auditor's recommendations will be monitored.

J. Execution mechanism

- 6.8 EMB will be the borrower and the executing agency. It will execute the First Line of the Bogota Metro–Section 1 through its structure, which is to be strengthened by a consulting firm that will provide PMO services to support EMB in technical, legal, and administrative management of the First Line of the Bogota Metro–Section 1, as well as by a trust entity responsible for the treasury management. This entity will be contracted under national legislation in the framework of the cofinancing agreement for the Bogota Public Urban Mass Transit Service entered into between the Nation, the Bogota Capital District, and EMB. The Sustainable Urban Mobility Unit (UMUS) will conduct monitoring and follow-up of the First Line of the Bogota Metro–Section 1 as established in the Project Operations Manual.

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-___/18

Colombia. Conditional Credit Line for Investment Projects (CCLIP) for the
First Line of the Bogotá Metro – Section 1 (CO-O0003)

The Board of Executive Directors

RESOLVES:

1. To authorize the President of the Bank, or such representative as he shall designate, to enter into such agreement or agreements as may be necessary with Empresa Metro de Bogotá S.A. to establish a Conditional Credit Line for Investment Projects (CCLIP) for the First Line of the Bogotá Metro – Section 1 (CO-O0003), for the amount of up to US\$600,000,000 chargeable to the resources of the Ordinary Capital of the Bank.

2. To determine that the resources allocated to the above-mentioned Conditional Credit Line (CCLIP) for the First Line of the Bogotá Metro – Section 1 (CO-O0003), shall be used to finance individual loan operations in accordance with: (a) the objectives and regulations of the Conditional Credit Line for Investment Projects approved by Resolution DE-58/03, as amended by Resolutions DE-10/07, DE-164/07, and DE-86/16; (b) the provisions set forth in documents GN-2246-9 and GN-2564-3; and (c) the terms and conditions included in the Loan Proposal for the corresponding individual operation.

(Adopted on ____ 2018)

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-___/18

Colombia. Loan ___/OC-CO to Empresa Metro de Bogotá S.A.. First Individual Operation under the Conditional Credit Line for Investment Projects (CCLIP) for the First Line of the Bogotá Metro – Section 1 (CO-O0003)

The Board of Executive Directors

RESOLVES:

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with Empresa Metro de Bogotá S.A., as borrower, and with the Republic of Colombia, as guarantor, for the purpose of granting the former a financing to cooperate in the execution of the First Line of the Bogotá Metro – Section 1, which constitutes the first individual loan operation under the Conditional Credit Line for Investment Projects (CCLIP) for the First Line of the Bogotá Metro – Section 1 (CO-O0003), approved on _____ 2018 by Resolution DE-___/18. Such financing will be for the amount of up to US\$70,000,000, from the resources of the Bank's Ordinary Capital, and will be subject to the Financial Terms and Conditions and the Special Contractual Conditions of the Project Summary of the Loan Proposal.

(Adopted on _____ 2018)