Report No:

Project Information Document (PID)

Concept Stage | Date Prepared/Updated: 06-Sep-2024 | Report No: 193456-BR

BASIC INFORMATION

A. Basic Project Data OPS TABLE

Country	Project ID	Parent Project ID (if any)	Project Name
Brazil	P181767		Hybrid PPP – São Paulo Commuter Rail Lines 11, 12 and 13
Region	**Estimated Appraisal Date**	**Estimated Board Date**	**Practice Area (Lead)**
LAC	27-Nov-2024	06-Mar-2025	ILCT1
Financing Instrument	**Borrower(s)**	**Implementing Agency**	
Guarantee	Government of State of Sao Paulo	Companhia Paulista de Parcerias - CPP	

Proposed Development Objective(s)

Financing (in USD Million)

Financing Source	Amount
Total Project Cost	**2,370.00**

Environmental Assessment Category	Concept Review Decision
Category A	Authorized to proceed with due diligence and negotiation

Have the Safeguards oversight and clearance functions been transferred to the Practice Manager? (Will not be disclosed)
No

Other Decisions (as needed)

B. Introduction and Context

Country Context

1. Brazil's economy continues to recover after negative growth experienced in 2020 due to the COVID-19 pandemic. Brazil's economic growth reached 5 percent in 2021 and 2.9 percent in 2022 and 2023[1], propelled by a robust fiscal stimulus, a successful vaccination campaign, a favorable recovery of the commodity market, and expansion in the

[1] Brazilian economy grew 2.9% in 2023 | Agência Brasil (ebc.com.br)

agricultural sector, industry, and services. In 2024, Brazil's growth trajectory remains solid and is expected to reach 2.2 percent[2], driven by exports and boosted consumption from families and the Government. CPI inflation slowed to 3.93 percent in May 2024, demonstrating a low trend since September 2023, after a peak of 12.1 percent in April 2022[3]. The 12-month primary deficit of the public sector is at 2.53 percent of GDP (as of May 2024), down from 9.24 percent registered in December 2020, when the Government was taking countercyclical measures to deal with COVID-19[4].

2. After peaking at 28.4 percent in 2021 amid the COVID-19 pandemic, poverty rates in Brazil are stabilizing. The poverty rate in Brazil was estimated at 21.5 percent in 2023[5] due to an actual increase in minimum wages, a significant overhaul of the *Bolsa Família* cash transfer program to low-income families, and the introduction of additional benefits for poorer households. Still, Brazil remains one of the most unequal countries in the world, with a Gini coefficient of 0.52 in 2022[6] and striking inequalities across regions, cities, and rural and urban areas. Female-headed households, Afro-Brazilians, and indigenous populations are overrepresented among the poorest, as they face worse labor market conditions, enduring wage gaps, and a lack of better economic opportunities. Additionally, Brazil faces significant climate challenges due to deforestation and land degradation, which can push another 800,000 to 3 million Brazilians into extreme poverty as soon as 2030[7]. Maintaining and restoring forests is critical to mitigate climate change by balancing carbon cycles and reducing greenhouse gas (GHG) concentrations in the atmosphere caused, among other sources, by the transportation sector.

Sectoral and Institutional Context

3. Brazil's transport sector is the third largest source of GHG emissions, accounting for 13 percent of CO_2 releases in 2020. In most of the country, insufficient public transit services coupled with urban sprawl have contributed to increased dependence on private vehicles, with significant economic and welfare costs. Cars, buses, and motorcycles are the primary sources of air pollution in urban areas, accounting for nearly 70 percent of all emissions in the transportation sector[8]. Meanwhile, in the past 10 years, the motorization rate in Brazil has increased by over 50 percent[9]. In São Paulo, between 2018 and 2022, gasoline-fueled cars emitted 101g CO_2 equivalent per passenger kilometer (gCO_2e/km), 15 times more emissions than electric metro transport during the same period[10]. In 2016 alone, air pollution, primarily attributed to fossil-fueled vehicles, was responsible for approximately 44,000 deaths in Brazil[11]. Investments in expanding public transport can directly reduce carbon emissions and enhance air quality by facilitating a modal shift from private vehicles (such as cars and motorcycles) to electrified rail network systems.

4. The transport sector has been the most affected by Brazil's underinvestment in sustainable infrastructure. Total investment in infrastructure has averaged less than 2 percent of GDP per year in the past 20 years, far less than the estimated investment needed - US$778 billion (or 3.7 percent of GDP per year) - to close the infrastructure gap towards the Sustainable Development Goals by 2030[12]. The majority of Brazil's investment gap (53 percent) is related to the transport sector, with historical levels of investment being insufficient to offset the depreciation of existing assets. At the same time, Brazil's low-carbon energy infrastructure offers a unique opportunity to decarbonize the segment through

[2] Brazil and the IMF. International Monetary Fund (2024). URL: https://www.imf.org/en/Countries/BRA
[3] Banco Central do Brasil. Detalhamento do Gráfico (bcb.gov.br)
[4] Banco Central do Brasil. URL: https://www.bcb.gov.br/estatisticas/detalhamentoGrafico/graficosestatisticas/resultados
[5] Macro Poverty Outlook for Brazil: April 2024 Datasheet, World Bank. URL: https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099846104052419558/idu14379a0b8153b01469b1844c1b7c07fb82e37
[6] Gini index | Data (worldbank.org)
[7] World Bank: Brazil Country Climate and Development Report (CCDR), 2023.
[8] World Bank: Brazil Country Climate and Development Report (CCDR), 2023.
[9] World Bank. URL: https://www.worldbank.org/pt/news/opinion/2022/05/16/brasil-novo-marco-legal-da-mobilidade-urbana-sustentavel
[10] Companhia do Metropolitano de São Paulo (2023). URL: https://www.metro.sp.gov.br/wp-content/uploads/2024/03/Relatorio-integrado-2023.pdf
[11] Ministério da Saúde. 2019. "Saúde Brasil 2018: Uma Análise da Situação de Saúde e das Doenças e Agravos Crônicos: Desafios e Perspectivas." Brasilia: Health Surveillance Secretariat, Ministry of Health.
[12] World Bank (2022) Brazil Infrastructure Assessment: Developing a Resilient, Sustainable, and Inclusive Response to Brazil's Recovery Process.

electrification and promoting sustainable transportation options. Corresponding investments are projected to require an additional 1.7 percent of GDP per year over 2022-2050[13], most of which to be allocated for transport. This highlights the necessity for increased Public-Private Partnership (PPP) initiatives to bridge this gap.

5. Brazil has extensive experience with PPPs at the subnational level, with up to 1,197 contracts signed until October 2023[14]. Brazil ranks as the third-largest recipient of Foreign Direct Investment (FDI) among developing countries globally, preceded by China and Singapore[15]. For years, Brazil has also ranked among the top low- and mid-income countries with Private Participation in Infrastructure (PPI) Projects, preceded only by China and accounting for 9.5 percent of global total investments in 2023[16]. In Brazil, concessions and PPPs operate under different legal frameworks, with the primary distinction being their funding sources: concessions depend only on user fees, whereas PPPs may incorporate both user fees and government contributions to ensure project viability. The term "PPP" for this document includes concessions and Public-Private Partnerships.

6. Despite the strong inflow of private investment, creditworthiness is still a critical concern. In Brazil, the need for guarantees is amplified by several factors, including worries about the fiscal capacity of national or subnational entities to fulfill long-term commitments, especially in long-term PPP Contracts. The budgeting framework, which secures commitments for only four years under the Plano Plurianual (PPA), adds to this uncertainty, compounded by the risk of political changes that can significantly impact a project's financial stability. Additionally, legal constraints, such as the inalienability of public property and the mandatory chronological order for paying unappealable judgments (*precatórios*[17]) further diminish confidence in public payments. In this context, the Brazilian Government has recently announced new measures to scale up the number of PPPs, including a specific action targeting the use of payment guarantees from International Financial Institutions (IFIs) to minimize the perceived risk of payment delays from private investors and lenders for infrastructure projects[18].

7. The State of São Paulo (SSP) envisions expanding the role of PPPs in its Mass Transit System. With over 44 million inhabitants, the SSP contributes 30 percent of Brazil's GDP (around US$ 643 billion as of 2023). Meanwhile, the Government of the State of São Paulo (GSSP) estimates infrastructure investment needs of USD 951 billion[19] from 2025 to 2040[20] to increase productivity and reduce inequalities (PDE, 2022-2024). However, given its limited budget space and the need to leverage private sector efficiencies, GSSP has ramped up its strategy of transferring commercially viable assets to the private sector through PPPs. In 2006, GSSP signed Brazil's first PPP for Metro Line 4, supported by the IBRD. Now, with the support of IFC, GSSP is expanding its PPP portfolio in various infrastructure sectors such as water, sanitation, and transport. Within the transport sector, IFC is advising the Government in structuring the transaction for Lines 11, 12, and 13, among others[21].

[13] World Bank: Brazil Country Climate and Development Report (CCDR), 2023.
[14] These contracts cover many infrastructure sectors, notably transport (roads and metros), energy, and sanitation.
[15] International Monetary Fund (2024). Foreign direct investment, net inflows (BoP, current US$). URL: https://data.worldbank.org/indicator/BX.KLT.DINV.CD.WD?most_recent_value_desc=false
[16] The World Bank Group (2023). Private Participation in Infrastructure (PPI): 2023 Annual Report. URL: https://ppi.worldbank.org/content/dam/PPI/documents/PPI-2023-Annual-Report-Final.pdf
[17] *Precatórios* are court-ordered payments owed by the Government to individuals or companies resulting from legal claims, typically for damages or debts. These payments can be substantial and often face delays, as they are subject to long processing times and Government budget constraints
[18] Due to accounting and fiscal limitations, International Financial Institutions (IFIs) payment guarantees have never been permitted in Brazil. The National Treasury Secretariat (STN) recently introduced such instruments at sub-national levels, equating payment guarantees to contingent credit operations.
[19] This result is based on the cumulative years 2025 to 2040, using the assumptions of the Transformational Scenario outlined in the PDE (Plano de Desenvolvimento Econômico do Estado de São Paulo 2022-2040), which includes an annual GDP growth rate of 4.01 percent and investment levels at 6.26 percent of GDP.
[20] Calculated based on estimates from the "transformational scenario" in https://www.desenvolvimentoeconomico.sp.gov.br/wp-content/uploads/2022/10/pde-plano-de-desenvolvimento-economico-2022-2040.pdf
[21] Commuter Rail Lines (IFC-607931), Metro Lines (IFC-607928), and Intercity Trains (IFC-607929).

8. The São Paulo Metropolitan Region (SPMR), consisting of five sub-regions and 39 municipalities, is one of the most populated areas in Brazil. With half of the SSP's population, over 20 million people, SPMR is responsible for 50 percent of the state's urbanized area and approximately 20 percent of Brazil's GDP[22]. At the heart of this vast urban conglomeration lies the Municipality of São Paulo, with 11.5 million residents[23], where diverse services, educational institutions, and employment opportunities are concentrated, although these opportunities are not equally accessible. In São Paulo, low-income populations in peripheral areas, such as the Eastern Zone, are the most disadvantaged groups. Expanding commuter rail lines and services, especially towards these underserved regions, can significantly improve mobility and promote better access to jobs, education, and other essential services while also contributing to reducing emissions from the transport sector, responsible for over 80 percent[24] of local pollution in SPMR.

9. SPMR is served by 275 km of commuter rail lines, including public and private operators. Within SPMR's Transport Network, a State-Owned Enterprise (SOE), *Companhia Paulista de Trens Metropolitanos* (CPTM - São Paulo Metropolitan Train Company), operational since 1992, currently oversees the commuter rail lines 7, 10, 11, 12, and 13, covering 196 km in length[25] and transports around 1.6 million passengers daily. Until 2021, CPTM also operated commuter rail lines 8 and 9, with 78.9 km[26]. These lines were subsequently transferred to a private concessionaire (ViaMobilidade, mainly owned by CCR[27]) through a 30-year-PPP contract, structured and advised by IFC, making it the first PPP involving commuter rail lines in São Paulo[28]. Since then, Via Mobilidade's investments (around US$530 million) in Lines 8 and 9 have been deemed paramount for their modernization. This includes improvements to existing stations to comply with universal accessibility standards, fleet renewal, and enhancement of platforms and services.

10. CPTM inherited an old and degraded freight railway in the early 1990s that required massive public investments to reach the current operating standards for passenger transportation. The tracks of today's commuter rail lines 11 and 12 were used for freight transport and operated in the 1980s by the former national company *Central do Brasil.* Since then, GSSP, via CPTM, has made massive investments to modernize, expand, and promote physical integration of the system to the bus and metro transport networks, bringing it to the current operating standard of passenger transport[29]. Supported by the World Bank (WB)[30], these successive public investment programs, coupled with a tariff integration reform, resulted in a significant increase in daily ridership (800,000 in 1994, 1 million in 2001, 1.6 million in 2007, and 2.4 million in 2010).

11. CPTM Lines 11, 12, and 13, with a combined ridership of over 800,000 passengers daily, play a critical role in São Paulo's public transportation network, especially in the Eastern Zone, which concentrates low-income residents. Today, CPTM Line 11-Coral spans 50.5 kilometers, with 16 stations from Luz to Estudantes, and connects SPMR's Central and Eastern Zones across 5 municipalities, with an average daily ridership of 533,580 passengers[31]; CPTM Line 12-Saphire spans 39 kilometers, with 13 stations from Brás to Calmon Viana, connects SPMR's Central and Eastern Zones across 3 municipalities, with an average daily ridership of 256,202 passengers[32]. Finally, CPTM Line 13-Jade spans 12.2 kilometers, with 3 stations from Eng. Goulart to Aeroporto Guarulhos, connects SPMR's Eastern Zone to Guarulhos International

[22] The Government of the State of São Paulo (2024). URL: https://rmsp.pdui.sp.gov.br/?page_id=127
[23] CENSO (2022). URL: https://censo2022.ibge.gov.br/panorama/
[24] Companhia Ambiental Do Estado De São Paulo (CETESB). Relatório anual de qualidade do ar no estado de São Paulo. São Paulo, 2007.
[25] CPTM (2024). URL: https://www.cptm.sp.gov.br
[26] ViaMobilidade (2024). URL: https://www.viamobilidade.com.br/nos/investimentos
[27] CCR (2024). URL: https://www.grupoccr.com.br/en/
[28] Before 2021, only metro lines had been transferred to the private sector.
[29] In the early 1990s, passengers jumping on the rails and trains circulating with open doors and completely vandalized were common.
[30] Sao Paulo Trains and Signaling (P106038); Sao Paulo Trains and Signaling Additional Financing (P117122)
[31] CPTM (2023). *Movimentação de Passageiros.* URL: https://www.cptm.sp.gov.br/negocios/Pages/Movimentacao-de-Passageiros.aspx
[32] Government of the State of São Paulo (2024). *Linha 12-Safira da CPTM volta a operar normalmente após entrega de obras*. URL: https://www.saopaulo.sp.gov.br/spnoticias/ultimas-noticias

Airport across 2 municipalities, with an average daily ridership of 21,657 passengers[33].

12. The lines serving SPMR's Eastern Zone are overcrowded and operate at maximum capacity, insufficient to meet the growing demand. São Paulo's Eastern Zone is currently served by CPTM Lines 11 and 12, SP Metro Line 3, and buses, transporting altogether 3.28 million passengers daily[34]. In 2005, an agreement was reached to integrate CPTM and Metro lines into the São Paulo Municipality bus system through *Bilhete Único*, a unified payment card used by passengers on both models irrespectively. As a result, CPTM reached 2.7 million daily passengers in 2019, before the COVID-19 pandemic[35]. The commuter rail system currently transports around 2.4 million passengers daily (including private-operated Lines 8 and 9). Meanwhile, the lines serving SPMR's Eastern Zone are constantly overcrowded, with peak occupancy in trains exceeding 6 passengers per square meter. To address this challenge, ongoing reinvestment is crucial to enhance capacity, reduce train intervals (headway), and improve asset maintenance.

13. In response to the increasing demand and the need to improve service levels, Lines 11, 12, and 13 require further investments in modernization and expansion. Lines 11 and 12 require investments in system upgrades, track restoration, and adaptation of stations to comply with universal accessibility standards. The extension of Line 13 toward Guarulhos[36] has been planned for a long time but remains unimplemented due to budgetary constraints. With the advisory services of IFC, GSSP is proposing a PPP operation that will integrate these three lines, capitalizing on operational synergies and economies of scale, as they all serve the Eastern Zone within SPMR. The consistent ridership on Lines 11 and 12 allows the PPP to stabilize its cash flow during the early years of heavy investment in expansion and modernization.

14. PPP projects in Brazil require liquid, predictable, and reliable guarantee structures due, among other reasons, to budget instability and the risk of delayed payment by the Granting Authority. Despite São Paulo's solid economic record in honoring PPP contracts, political and financial instability can still influence investors' risk perception, dampening their interest in long-term PPP agreements—especially in the transportation sector, which demands significant upfront investments and substantial subsidies to cover CAPEX. Hence, a concessionaire may require liquidity support to meet its operation, maintenance, and debt obligations. The current practice of guarantee provision in São Paulo, although considered adequate for existing PPPs, is insufficient in supporting the state's growing pipeline of new projects.

15. Companhia Paulista de Parcerias – CPP is a publicly owned company created by GSSP to guarantee PPPs. CPP was created by state law n. 11.688 in 2004 and was linked to GSSP's Treasury Secretariat until January 2023. After that, it was relocated to the Investment Partnership Secretariat (SPI). CPP's mission includes supporting GSSP in prospecting, designing, structuring, modeling, implementing, and monitoring concessions and PPP operations. CPP's primary responsibility is to provide guarantees to PPPs, for which GSSP (through SPI) represents the Granting Authority, thus mitigating risks for private investors and improving São Paulo's overall business environment. CPP underwrites unconditional and irrevocable guarantees to backstop public payments and government liabilities tied to PPPs.

16. GSSP intends to boost private participation and stimulate foreign investment in the transportation sector by introducing an IFI-issued guarantee through CPP. This new mechanism provides enhanced assurance to private investors, especially international ones, significantly reducing their risk perception. Brazil's PPP Law (no 11.079)[37] has always allowed for the use of IFI's guarantees, but this provision has never been utilized. By implementing this novel approach, GSSP will introduce a groundbreaking modality that can serve as a model for other less-developed states in Brazil once the AAA

[33] CPTM (2023). *Movimentação de Passageiros.* URL: https://www.cptm.sp.gov.br/negocios/Pages/Movimentacao-de-Passageiros.aspx
[34] Average 2019 - SP Metro Line 3: 1.3 million passengers daily; Buses: 1.2 million passengers daily; CPTM Line 11: 533,580 passengers daily; CPTM Line 12: 256,202 passengers daily.
[35] CPTM (2024). *Nossa História.* URL: https://www.cptm.sp.gov.br/a-companhia/Pages/Nossa-Historia.aspx
[36] Guarulhos is the second-largest municipality within SPMR, still unserved by Metro or Rail systems.
[37] Article 8, section IV

ratings (Triple-A) of institutions like the World Bank attract private investments on more favorable terms. The introduction of IBRD Guarantees is further supported by IFC's involvement as the primary advisor in the PPP of Lines 11, 12, and 13, leveraging synergies and reinforcing the One World Bank approach.

17. The PPP for the modernization and expansion of commuter rail Lines 11, 12, and 13 is a priority for GSSP. It includes the extension of i) Line 13 towards Guarulhos, the second-largest city in the State of São Paulo, not yet served by any metro or rail network, ii) Line 12 from Calmon Viana to Suzano Station, and iii) Line 11 from Estudantes to Cesar de Souza Station, in Mogi das Cruzes. These are consistent with SSP's program to expand the mass transit network as envisioned in the Integrated Urban Transport Masterplan (PITU 2040)[38]. The first phase of the Line 11, 12, and 13 PPP structuring led by IFC has been concluded, and the Project underwent public consultation between June and July 2024. As of today, IFC and GSSP are refining the Project, and the disclosure of tender documents is expected to occur by mid-October 2024.

18. The proposed Project is the third in a Series of Projects (SoP) to improve mobility and job accessibility in the SPMR. The SoP includes SP Metro's Line 2 extension (SoP-1/ P504276) and the extension of Metro Line 4 (SoP-2/P506329), also operating under an existing PPP agreement. IBRD is providing USD 650 million to support these projects, USD 250 million allocated to SoP1, USD 300 million to SoP2, and the proposed USD 100 million Payment Guarantee to SoP3.

Relationship to CPF

19. The Project is highly relevant to three High-Level Outcomes (HLOs) of the Country Partnership Framework (CPF) for Brazil (FY24-FY28)[39]. Transforming Brazil's urban areas into less polluting environments with reduced vulnerability to climate shocks (HLO3) is central to the CPF, emphasizing the importance of safe, reliable, green transport solutions connecting people and economic opportunities (HLOs 1 and 2). The Project directly supports these objectives by mitigating risks and facilitating private sector entry while enhancing access to jobs and minimizing commuting time for residents in the catchment areas of Lines 11, 12, and 13, especially in SPMR's Eastern Zone, while also reducing GHG emissions.

20. SoP3 is consistent with Brazil's Nationally Determined Contribution (NDC, adopted and updated in 2023) and National Adaptation Plan (NAP, adopted in 2021). In the latest NDC submitted to the United Nations Framework Convention on Climate Change (UNFCCC) in October 2023, Brazil commits to reducing net GHG emissions by 53.1 percent until 2030 compared with 2005 levels[40], preparing a new Climate Change Plan composed of a National Mitigation Strategy, and updating its National Adaptation Plan (NAP) with 11 different sectoral/thematic adaptation initiatives, including topics such as Cities and Infrastructure[41]. The Project contributes to the NDC by reducing GHG emissions by expanding electrified transport rail systems, leveraging Brazil's predominantly renewable energy grid[42], and following the National Long-Term Strategy, which envisages a carbon-neutral economy by 2050. The Project is also consistent with Brazil's updated NAP, adopted in 2021, by incentivizing a modal shift to rail transportation instead of roads, the latter being more vulnerable to

[38] The PITU 2040 identifies the importance of extending Line 13 into Guarulhos by 2030 but does not explicitly outline the alignment and intermediate stations.

[39] The overarching goal of the current CPF is to help Brazil build a more productive, inclusive, and greener economy during the FY24-FY28 period and beyond. Objective 1.2: "Promotion of greater and greener competitiveness," and Objective 1.4: "Expansion and modernization of infrastructure," both conform to HLO 1, which focuses on greater productivity and employment. Objective 2.1: "Improvement of access to essential services and products" under HLO 2 focuses on greater inclusion of the poor and underserved populations. Lastly, Objective 3.3: "Promotion of green and resilient cities and communities" under HLO 3, focuses on a greener economy with reduced vulnerability to climate shocks.

[40] Federative Republic of Brazil Nationally Determined Contribution (NDC) to the Paris Agreement under the UNFCCC (2023). URL: https://unfccc.int/sites/default/files/NDC/2023-11/Brazil%20First%20NDC%202023%20adjustment.pdf

[41] The Brazilian NDC is one of the most ambitious in the world. Besides its targets, Brazil is one of the few countries that have adopted a commitment for 2025 and 2030, which will provide better monitoring of mitigation efforts throughout the decade.

[42] In 2020, renewable sources accounted for 48.4 percent of Brazil's total energy demand, three times the world average. The share of renewables in the electricity demand mix was 84.8 percent. As for the transport mix, it represents 25 percent of the sources.

extreme weather events such as intense rainfalls, floods (especially in urban areas), and landslides[43]. It aligns with NAP by embracing adaptation strategies to mitigate climate-related risks, expanding non-road/non-motorized mass-transit systems, potentially reducing traffic congestion on public tracks, and facilitating daily commutes. Simultaneously, the Project benefits underserved populations in SPMR's Eastern Zone and adjacent regions, promoting sustainable economic development and urban mobility. Finally, this SoP follows Brazil's latest Country Climate and Development Report (CCDR) recommendations by recognizing the importance of improving public transit services in densely populated urban areas to reduce GHG emissions and local air pollution[44].

21. The Project strongly contributes to the increase in Private Capital Mobilization (PCM). WB-issued guarantees can bring more efficiency to PPP transactions in Brazil due to the institution's credit rating (AAA), minimizing risk perception, increasing the participation of private capital in the transportation sector, and unlocking new sources of financing for similar projects. The presence of the WB in the Project aims to generate healthy competition between local and international players, encouraging the participation of a broader range of private investors who, due to various barriers, have yet to access the Brazilian market. Moreover, the inaugural character of the IBRD Payment Guarantee modality in structuring PPPs in Brazil will serve as a blueprint for future projects involving the public and private sectors. The Project will require a total investment of BRL 12.5 billion (approximately USD 2.27 billion, based on an exchange rate of USD 1 = BRL 5.5), with most of the expenditure concentrated in the initial 8 years of the PPP contract. The current expectation is that GSSP will contribute 50 percent of the total investment, resulting in an anticipated PCM amount for the World Bank Group of USD 1.13 billion[45].

C. Proposed Development Objective(s)

The Project Development Objectives are to (i) improve low-carbon mobility and (ii) increase job accessibility in the catchment area of Lines 11, 12, and 13 by mobilizing private capital.

Key Results (From PCN)

Low-Carbon Mobility	• Daily passengers transported by Commuter Lines 11, 12 and 13 (Number) • Annual reduction of GHG emissions promoted by the Project (tons of CO_2eq/year).

Accessibility	• Share of jobs accessible by public transportation within 60 minutes for residents in a 2km radius of the new stations;
	• People benefiting from improved access to sustainable transport infrastructure and services (Number of people)[CRI]
	  ○ Sub-indicator – Female (Number of people)[CRI]
	  ○ Sub-indicator – Youth (Number of people)[CRI]
	  ○ Sub-indicator – Low-income individuals (Number of people)

Mobilization of Private Financing	• PCM Amount at Board Approval

[CRI] = Corporate Scorecard Results Indicator

D. Concept Description

[43] National Adaptation Plan of Brazil (2021). United Nations Climate Change. URL: https://unfccc.int/documents/302142?gad_source=1&gclid=CjwKCAjw1920BhA3EiwAJT3lSa8MW1tISAVdJXr7jCglzxKlOcCV1Cpzz1stuncFxjimKtZkzBMdRxoChbgQAvD_BwE
[44] CCDR also underscores the necessity of transitioning to low-carbon transport modes, as exemplified by electrified railway systems.
[45] The IBRD may claim the PCM amount of USD [440.55] million, which consists of USD [340.55] million in private equity and USD [100.00] million from the Payment Guarantee itself.

The component described below represents the investment plan stipulated in the PPP agreement, which the private concessionaire will fully implement, with GSSP (as the Granting Authority and represented by SPI) partially financing it.

22. Component 1. PPP's Investment Plan (USD 100 million). The USD 100 million IBRD Payment Guarantee will support a range of investments under the PPP Contract, estimated at USD 2.27 billion. This includes the extension of 22.6 kilometers of rail lines, the addition of eight new stations across Lines 11, 12, and 13, the reconstruction and expansion of nine existing stations to meet universal accessibility standards, revitalization of track infrastructure by replacing wooden sleepers with concrete, drainage improvements, and upgrading rails and switchers. Further investments include modernizing maintenance facilities, acquiring new track maintenance machines, and installing advanced train washing equipment with effluent treatment. The investment plan also includes electrical power and signaling systems using the European ERTMS[46] standard with ETCS Level 2[47] and allocates USD 290 million for environmental and social aspects.

23. Project Cost and Role of Partners. The Project's total cost (in terms of CAPEX) is estimated at **USD 2.27 billion**, mainly concentrated over years 1 to 8 of the PPP Contract. The future concessionaire will be reimbursed by two revenue streams provided by SPI (acting on the Granting Authority's behalf), namely 1) **Bullet Payments During the Construction Phase,** based on progress milestones and equivalent to 50 percent of the total CAPEX, with the last payment expected by year 8; and 2) **Gross Availability Payments** (*Contraprestacao Pecuniaria*), annual recurring payments from years 2 to 31 of the PPP Contract. The latter comprises two installments: i) variable, performance-based installments, covering the operating costs, and ii) fixed installments, covering the remaining 50 percent of CAPEX[48]. The annual Gross Availability Payment averages BRL 2,115 million (equivalent to USD 392 million). The Gross Availability Payment is primarily the responsibility of SPI and will be backstopped by the IBRD Guarantee offered through CPP[49]. The IBRD Guarantee will be incorporated into the PPP bidding documents, allowing bidders to assess their risk mitigation needs and potentially include them in their proposals. In addition, MIGA Political Risk Guarantees could be made available to international equity sponsors and commercial lenders to cover termination payments, subject to investors' interest.

[46] ERTMS (European Rail Traffic Management System) is a standardized framework designed to enhance safety, efficiency, and interoperability in rail transport across Europe. It integrates advanced train control and signaling systems, such as ETCS (European Train Control System). Additionally, ERTMS employs open, non-proprietary technologies, reducing reliance on specific vendors and fostering competition, which lowers costs and supports ongoing technological advancements.

[47] ETCS Level 2 (European Train Control System Level 2) is an advanced train control system that uses continuous, real-time data transmission via digital radio to manage train movements. It eliminates traditional trackside signals, relying on in-cab signaling for real-time train location and speed information, thus enhancing safety and efficiency while supporting interoperability across different rail networks.

[48] Payment will commence in the second year of the PPP Contract, following the pre-operational period—a transitional phase between public and private operation. Given that this brownfield project involves three already operational lines, the availability payment starting in year two will initially cover operational costs only (through variable, performance-based installments). The strategy of bundling brownfield lines with greenfield sections is designed to ensure sufficient cash flow for the concessionaire to secure financing for CAPEX implementation. Consequently, the IBRD Guarantee must be effective from year two, when the availability payment begins, as it is critical for enabling the concessionaire to undertake the investments necessary to achieve the PDO.

[49] The PPP Contract will reflect CPP obligations towards SPI and the Project.

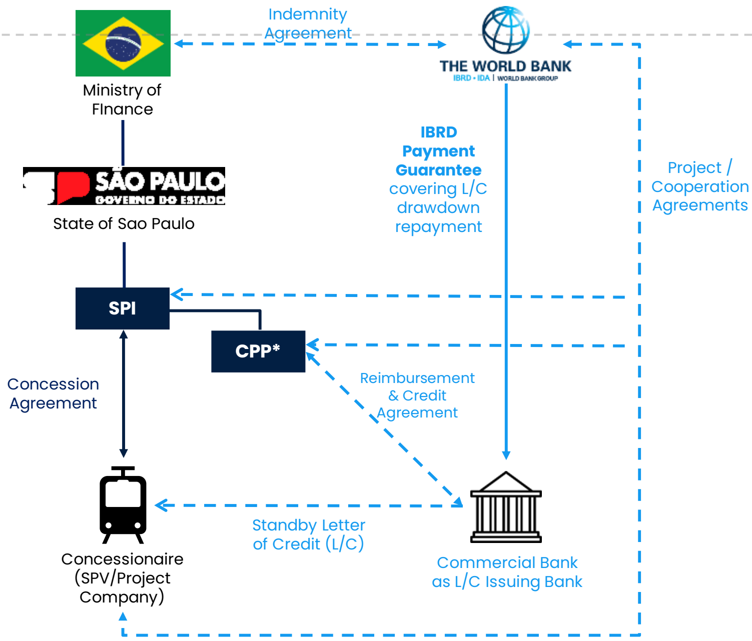

Figure 1 - IBRD Payment Guarantee with L/C Structure

In dark blue: relates to the PPP Contract
In light blue: relates to the IBRD Guarantee with L/C structure
** Obligations of CPP towards SPI and the Project under the PPP Contract will be reflected in the PPP Contract*

SAFEGUARDS

A. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

The proposed Project will contribute to the implementation of the São Paulo Urban Mobility Program, initiated in 2023 by the Government of the State of São Paulo (GSSP) that includes the objective of mobilizing private capital in partnership with public investments to promote the expansion and modernization of the state's rail transport systems. The Project will support a Payment Guarantee to backstop the financial obligations assumed by GSSP in a sponsored concession of Commuter Rail Line 11-Coral, Line 12-Saphire, and Line 13-Jade (currently operated by the State-Owned Enterprise São Paulo Metropolitan Train Company - CPTM). Together, these commuter rail lines span 107.7 kilometers, comprising 32 stations, with an average daily ridership of over 800,000 passengers, of which 81 percent use the system to work, and 58 percent are low-income workers (earning from 1 to 3 minimum wages per month). They cross the Eastern Zone of the city of São Paulo and areas of the municipalities of Ferraz de Vasconcelos, Guarulhos, Itaquaquecetuba, Mogi das Cruzes, Poá and Suzano within São Paulo's Metropolitan Region (SPMR) – also known as the Alto Tietê Region. The activities foreseen in the sponsored concession of lines 11, 12, and 13 to the private sector respond to long-standing requests from the population of the Alto Tietê Region, especially concerning the expansion of the railway network, the improvement of comfort and accessibility conditions at stations and the reduction of travel time to São Paulo's Central areas. They will also allow shorter intervals between trains and serve more than 1.26 million people per day by 2040.
GSSP has already transferred the operation of CPTM Lines 7, 8, and 9 (28.7 percent of the system) to the private sector. In 2021, the International Finance Corporation (IFC) advised the State Government to structure the PPP transaction of lines 8 and 9 (78.9 km in length). IFC is working on the structuration of the additional PPP transaction of commuter rail lines 11, 12, and 13 (currently operated by SOE CPTM). Their operation and maintenance will be transferred to the private sector, which will also become responsible for their modernization and revitalization. The preparation of the concession

contracting documents incorporated provisions related to ESG and the forecast of socio-environmental investments by IFC Performance Standards, including, *among other things*, the implementation of an environmental and occupational health and safety management system; correcting environmental liabilities and obtaining environmental licenses; geotechnical and noise and vibration modeling studies; climate risk studies and emissions inventory; preparation of emergency response plans and risk management programs; the funding of measures for acquiring areas and expenses for resettlement and for the protection of biodiversity. It also included adopting guidelines related to the prevention of gender-based violence, the establishment of codes of conduct, and complaint mechanisms. Furthermore, it improved the transition phases of operation from CPTM to the private sector concessionaire, including a pre-operational period and an operation period assisted by CPTM (each lasting 12 months).

The sponsored concession for Lines 11, 12, and 13, operated by CPTM, will have a term of 31 years. During years 1 to 8, interventions will be implemented to recover, modernize, and expand existing infrastructure. Between the ninth and last year of the concession, the optimized operation of the modernized and expanded lines will occur, serving 1.26 million people per day. With this sponsored concession, GSSP expects private participation to promote the expansion of low-carbon mobility and bring more efficiency, availability, innovation, and direct access to public – and sustainable – transport options for underserved areas within SPMR.

B. Borrower's Institutional Capacity for Safeguard Policies

There are some entities involved in the Project. The implementing agency – the Paulista Partnership Company (CPP) – is an independent entity linked to the Government of the State of São Paulo (GSSP), entrusted with facilitating and structuring local PPPs. Its creation was authorized by State Law 11,688/2004, and currently, CPP is linked to the São Paulo State Secretariat of Investment Partnerships - SPI (Decree 67,435/2023). Its primary mandate is to guarantee PPP projects, thus mitigating associated risks and attracting private investment on more favorable terms. CPP underwrites unconditional and irrevocable guarantees to backstop public payments and government liabilities tied to PPPs. Furthermore, CPP's mission includes support to the GSSP in prospecting, designing, structuring, modeling, implementing, and monitoring business arrangements. By December 2022, CPP had underwritten BRL 1 billion guarantees for six PPP transactions, including Metro Lines 4 and 6. CPP is responsible for subscribing fixed-income securities in favor of concessionaires as a guarantee against default by the Granting Authority.

Created in January 2023, SPI focuses on attracting investments and generating opportunities for employment and income for the State of São Paulo. Its main program is The São Paulo State Investment Partnership Program (PPI-SP) – ruled by Decree 67,443/2023. The current portfolio includes 24 projects and an estimated investment of over R$470 billion for the State in the coming years, among which nine related to passenger and cargo transportation by rail have already been qualified. SPI is preparing another operation with the World Bank: The Private-Delivered Metro Sao Paulo Line 4 Phase III Extension (P506329). Although SPI does not have any previous experience with Safeguard Policies or the ESF, it has staff dedicated to environmental and social management covering several projects. All the PPPs managed by SPI are carried out according to São Paulo's ecological licensing agency, CETESB, a reference in Brazil for environmental management and enforcement. Also, regarding its rail PPPs, SPI follows the robust SP Metro's guidelines and policies for implementing expansion works and E&S management.

The São Paulo State legislation on Public-Private Partnerships requires that the signature of a Sponsored Concession Contract should be based on and preceded by a) feasibility studies demonstrating that the concessioned services will be optimized with the participation of the private sector, b) authorization and public disclosure of the concession proposal for the provision of services; c) conduction of publicly disclosed market survey meetings; d) project presentation to society in a Public Hearing duly publicized and recorded; e) submission of the draft Call of Proposals, the draft Minutes of Contract and other Annexes to public consultations; f) authorization by the Granting Authority to carry out an international competition in strict compliance with the current legislation; and g) proof that the winning concessionaire is a Specific Purpose Company (SPE), established by the terms and conditions contained in the Call of Proposals and the Contract.

All these requirements have already been fulfilled about the sponsored concession of the Alto Tietê commuter rail lines 11, 12, and 13 and are publicly available through the website https://www.parceriaseminvestimentos.sp.gov.br/projeto-qualificado/lote-alto-tiete/. The feasibility studies (IFC commissioned) were completed in the first quarter 2024. Three Public Hearings – widely publicized – were held in the cities of São Paulo, Guarulhos, and Mogi das Cruzes in June 2024 and were virtually transmitted through the web. The relevant information has been disclosed before the hearings through SPI's website https://www.parceriaseminvestimentos.sp.gov.br/transparencia/participacao-social/ and a *data room*. Furthermore, SPI organized a virtual public consultation to gather contributions and suggestions to improve the project of sponsored concession of Lines 11, 12, and 13. The Public Consultation Ruling Regulation and the presentation made at the Public Hearings were all disseminated. The public consultation was advertised through official and mass media vehicles. The virtual public consultation ended on July 18th, 2024; around 1,200 contributions have been received, and the Public Consultation Ruling Regulation requires publishing an abridged report. The draft minutes of the Call of Proposals and the Contract of Sponsored Concession are publicly available through the first website mentioned in this paragraph. The publicly available documents of the sponsored concession process include, among other things, the Terms of Reference for Environmental and Social Impact Assessments, Stakeholder Engagement Plans, Resettlement Action Plans, Risk Management Plans, Emergence Response Plans, and Operational Safety Plans. The selected concessionaire will implement and oversee them with an Independent Auditor and the State Government of São Paulo.

The State-Owned Enterprise São Paulo Metropolitan Train Company (CPTM) created a corporate environmental policy in 2020 and 2022, expanded it to an ESG Strategy, created a dedicated Environmental Management Unit (previously Territorial and Environment Unit), and updated its Environmental Management System. Its policy aims to guide all company employees on existing environmental legislation, especially regarding environmental responsibility in their activities, outlines environmental guidelines, indicating the legal requirements necessary for the practical environmental sustainability of CPTM, and is implemented in strict compliance with current legislation. The core attributions of the Environmental Management Unit are a) to disseminate the Environmental Policy in the company, b) to promote institutional coordination with environmental bodies and other stakeholders and the culture of environmental responsibility, and c) to guide other areas of the company on related issues of environmental management. CPTM initially committed itself to ensuring environmental regularity with licensing bodies and controlling actions under current legislation, implementing corporate environmental programs, developing its control and management tools, and establishing environmental indicators and targets. The Environmental Management System covers ten Corporate Environmental Programs, addressing issues related to historical and cultural heritage, solid waste and hazardous products, irregular disposal of waste and effluents; management of effluents and emissions; water management and treatment of interference with water resources, management of contaminated areas, vegetation management and specially protected areas, fauna monitoring, morpho-dynamic processes, and noise and vibration. CPTM has previous experience with the World Bank's safeguard policies as implementing agency of the Sao Paulo Trains and Signaling (P106308) and Sao Paulo Trains and Signaling Additional Financing (P117122), which catalyzed a series of institutional transformations such as the creation of the territorial and environmental management unit, the preparation of an Environmental and Territorial Management Plan and the establishment of a corporate georeferenced information system (ICR Report).

SP Metro was established by the Municipal Law 6,988/1968. It is controlled by the Government of the State of São Paulo under the management of the State Secretariat for Metropolitan Transport (STM). It is responsible for the operation and expansion of the metro network and planning metropolitan passenger transport in SPRM. SP Metro has acquired extensive experience working with the World Bank's safeguard policies through two early operations: the Sao Paulo Metro Line 5 Project (P116170), Sao Paulo Metro Line 4 Phase 2 (P106390), and the Sao Paulo Metro Line 4 Additional Financing (P105959). SP Metro is also preparing another operation under the ESF: the Green and Resilient SP Metro Line 2 Extension (P504276). Its environmental and social risk management capacity has been assessed and rated high. It has adopted (and made its contractors adopt) relevant policies on a) equal opportunity, non-discrimination, freedom of organization, and worker's protection (including the establishment of a Code of Ethics and Conduct and an Ethics Committee that is responsible for receiving reports, evaluating and judging violations to the Code of Conduct and Integrity) and a channel for reporting on internal irregularities, such as moral and sexual harassment in the workplace; b) environmental sustainability and social responsibility; c) information disclosure and engagement with stakeholders and communities (including a two-tier grievance mechanism to address concerns and complaints raised by users, citizens and stakeholders); and, d) involuntary resettlement of vulnerable families and businessmen.

Brazil has a robust regulatory framework in four key areas: environmental risk management; labor relations and workers' protection and safety; transparency, citizen participation, and grievance redressing; and the rights of vulnerable/culturally distinct social groups. On environmental issues, the control, inspection, monitoring, and licensing of activities that generate pollution in the state of São Paulo is responsible for the Environmental Company of the State of São Paulo (CETESB). Created in 1968 (Decree 50,079/1968), CETESB has become internationally recognized. CETESB has also evolved into one of the 16 United Nations reference centers for environmental matters; concerning hazardous waste issues, CETESB also serves as an advisor for the United Nations Development Program in Latin America and is one of the five global institutions of the World Health Organization (WHO) for water supply and sanitation issues.

The World Bank team will review the institutional capacity of the involved governmental agencies to manage environmental and social risks. Once the private concessionaire is selected, the World Bank team will assess its Environmental and Social Management System (ESMS), and the ESIA, SEP, and RAP will prepare to ensure these instruments adequately answer the requirements of the bidding documents.

C. Environmental and Social Safeguards Specialists on the Team

ADM Environmental Specialist:	Eric Shayer
ADM Social Specialist:	Alberto Coelho Gomes Costa/ Gabriela Lima de Paula

D. Policies that might apply

Safeguard Policies	Triggered?	Explanation (Optional)
	No	Performance Standards and ESF

E. Safeguard Preparation Plan

Tentative target date for preparing the Appraisal Stage PID/ISDS

20-nov-2024

Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing should be specified in the Appraisal Stage PID/ISDS

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APPROVAL

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