

TC Document

I. Basic Information for TC

▪ Country/Region:	COLOMBIA
▪ TC Name:	Sustainable Urban Transport in Colombian Cities
▪ TC Number:	CO-T1558
▪ Team Leader/Members:	Camos Daurella, Gibet (INE/TSP) Team Leader; Lefevre, Benoit Jean Marie (CSD/CCS) Alternate Team Leader; Alonso Martin, Tania (INE/TSP); Baladi Rodriguez, Aziz (INE/TSP); Beaujon Marin, Amanda (INE/INE); Cabrera Botero, Maria Margarita (CSD/CCS); Crausaz Sarzosa, Ernesto Patricio (VPC/FMP); Cruz Moreno, Paula (INE/TSP); Greco, Maria Sofia (LEG/SGO); Hillman, Eugenio F. (VPC/FMP); Monter Flores, Ernesto (INE/TSP); Montes Calero, Laureen Elieth (INE/TSP); Pereyra Da Luz, Andres (INE/TSP); Sandoval Pedroza, Jose Manuel (CSD/CCS)
▪ Taxonomy:	Client Support
▪ Operation Supported by the TC:	N/A
▪ Date of TC Abstract authorization:	16 Dec 2019
▪ Beneficiary:	Colombian cities with Strategic or Integrated Public Transport Systems (SITP / SETP) with more than 300,000 inhabitants
▪ Executing Agency and contact name:	Inter-American Development Bank
▪ Donors providing funding:	United Kingdom Sustainable Infrastructure Program(SIP)
▪ IDB Funding Requested:	US\$500,000.00
▪ Local counterpart funding, if any:	US\$0
▪ Disbursement period (which includes Execution period):	36 months
▪ Required start date:	March, 2020
▪ Types of consultants:	Firms and individuals
▪ Prepared by Unit:	INE/TSP-Transport
▪ Unit of Disbursement Responsibility (UDR):	CAN/CCO-Country Office Colombia
▪ TC included in Country Strategy (y/n):	Yes
▪ TC included in CPD (y/n):	No
▪ Alignment to the Update to the Institutional Strategy 2010-2020:	Social inclusion and equality; Productivity and innovation; Environmental sustainability

II. Objectives and Justification of the TC

- 2.1 **Objective.** The objective of this Technical Cooperation (TC) is to mitigate the climate change impacts of the transport sector in Colombia and improve sustainable urban transport by accelerating the deployment of electric buses in Colombian cities. This TC will help strengthen the necessary technical knowledge and knowledge management of urban stakeholders in Colombian cities.
- 2.2 **General context.** In the past years in Colombia, under the conceptualization of the national urban transport policy, the urban transport systems have been structured and implemented in order to counteract the externalities generated by the growth of the motorization rate and the operation of traditional public transport, such as the “penny

war”, the high accident rate, the low service quality, the oversupply or the generation of greenhouse gases, among other aspects.

- 2.3 This policy proposed the development of two strategies to improve urban transport in Colombian cities. The first strategy was applied to cities or metropolitan areas with a population greater than 600,000 inhabitants, for which the development of mass transport systems (SITM, by its initials in Spanish), was contemplated. To date, there are seven SITM implemented: Bogota-Soacha, Medellín (Aburra Valley), Cali, Cartagena, Pereira, Barranquilla and Bucaramanga. On the other hand, the strategy for cities with a population between 250,000 and 600,000 inhabitants was to reorganize the operation of public transport and implement traffic management measures. Eight Strategic Public Transport Systems (SETP by its initials in Spanish) are in the process of being implemented: Santa Marta, Pasto, Armenia, Popayan, Sincelejo, Monteria, Valledupar and Neiva.
- 2.4 **Justification of the need for the project.** Although the national urban transport policy and its updates have given a clear north to Colombian cities, there have been several challenges along the way for cities in the implementation of transport. In recent years, the use of public transport has decreased, due to the low rates of service quality and the emergence and strengthening of informal/illegal transport alternatives. For this reason, urban transport systems in Colombian cities are identifying and implementing measures that improve the quality of their service to attract and recover users. Among these measures, the following stand out: (i) incursion of low emission buses in public transport; and (ii) identification of transport-oriented development projects (TOD), with potential for capturing value and mixing land uses.
- 2.5 The initiative to incur low emission buses in public transport is stated as a key action in most LAC countries' Nationally Designed Contributions (NDCs) to the Climate Paris Agreement, partly because of the many co-benefits this technology-shift will generate. Clean buses are already deployed at scale in the USA, Europe, and China; and in Latin America, the transition is already underway. For example, Santiago de Chile has more than 200 electric buses operating while Medellín started the incursion with 64 buses and Cali with 28 buses. In addition, it is estimated that Bogotá will be operating 379 buses by the end of 2020. The technologies are now mature and alternative business models have been successfully mobilized. Despite political support for decarbonizing bus systems, the uptake of clean bus options is still limited in LAC. The potential market volume is large, but adoption is slow, despite good experiences worldwide. As many LAC cities are renewing their fleet within the next three to five years, the window-of-opportunity is open and the failure to embed clean bus technologies could lock-in long-lived and high-emission buses.
- 2.6 In this context, this TC will add value by continuing to build the knowledge and capacity of public and private stakeholders, addressing institutional coordination and capacity barriers, and supporting the high transaction cost of new bus technologies. The overall purpose of this value added is to improve urban transport systems while considering best practices and lessons learned in the region and internationally. In addition, this TC will be specifically referring to the lessons learned from the Regional Clean buses Program (ATN/AC-16601-RG,ATN/OC-16602-RG,ATN/OC-16603-RG)¹ on how to

¹ Some cities already supported are Asuncion, Paraguay; Santiago de Chile, Chile; Lima, Peru and Buenos Aires, Argentina among others.

address coordination and capacity barriers to improve public transportation in LAC cities in order to accelerate its deployment and replicability.

- 2.7 The project is aligned with [Colombia's NDC](#) that, by year 2030, a 20% reduction of economy-wide Greenhouse Gas (GHG) emissions is envisioned, as compared to the projected Business as Usual (BaU) scenario.
- 2.8 Transport emissions have grown by 51.4% between 1990 and 2012 and contributed about 11% of the country's GHG emissions (28 MtonCO₂e) in 2012². Reducing GHG emissions from the transport sectors is one of the key pillars identified by the Colombian government to mitigate climate change and the promotion and improvement of public transport plays a key role in the government's mitigation strategy. One of the goals spelled out in Colombia's NAMA is the [promotion of transit-oriented development](#), while the [climate change mitigation actions](#) identified in Colombia's 3rd national communication on climate change, include the goals of reducing emissions in public transport and of promoting electric vehicles. The project would contribute to these goals and is consistent with [law 1964 of 2019](#), which aims to promote the use of electric vehicles in Colombia.
- 2.9 The [Sectoral Mitigation Plan for the Transport Sector](#), developed by the Ministry of Transport, estimates that, by year 2040, over 22 million tCO₂e in GHG emission reductions could be achieved through electrification measures in the transport sector, as highlighted below.

Table 1. Electrification measures in the transport sector

Action	Description (year 2040)	GHG emission reductions (Million tCO ₂ e)	Cost (US\$/tCO ₂ e)
Electric buses in BRT fleet in major cities	75% of the articulated buses are replaced with electric vehicles in Bogota, Medellin, Barranquilla, Cali, Cartagena, Bucaramanga, Pereira and metropolitan areas	7	52
Electric buses in the fleet of urban buses used in major cities	50% of buses used for public urban transport are replaced with electric buses in Bogota, Medellin, Barranquilla, Cali, Cartagena, Bucaramanga, Pereira and metropolitan areas	1.6	105
Electric buses in the fleet of urban buses outside major cities	30% of buses used for public urban transport are replaced with electric buses outside major cities	14	128.8
Total		22.6	

- 2.10 **Strategic alignment.** This TC is aligned with the following priorities of the Update to the Institutional Strategy of the Inter-American Development Bank Group 2020-2023 (AB-3190-2): (i) social inclusion and inequality, through the promotion of accessible public transport systems to all people; (ii) gender, by working with the Transport Gender Lab (TGL) to incorporate a gender perspective in the components, which will ensure that the needs of female users are addressed; (iii) productivity and innovation, by promoting the implementation of lightweight and low-cost technology developed locally to improve the operating conditions of public transport systems; (iv) climate

² IDEAM, PNUD, MADS, and DNP, Third National Communication of Colombia, Bogota, Colombia, 2017.

change and environmental sustainability, by fostering the use of more efficient technologies in public transport; and (v) environmental sustainability, by supporting the incursion of zero-emission or low emission buses to transport systems and the development of transport-oriented development projects. It also aligns with the IDB Group Country Strategy for Colombia 2019-2022 (GN-2972), in the strategic area of increasing the productivity of the economy by raising the use of urban transport and the quality of infrastructure and urban development and reducing transaction cost in the economy. In addition, this TC is aligned with the objectives of the United Kingdom Sustainable Infrastructure Program through the strengthening of institutions to improve planning and execution capacities, the development of sound regulatory frameworks and the depoliticization of investment decisions, and the enablement of activities conducive to boosting low-carbon markets.

- 2.11 Likewise, the TC is aligned with the Transportation Sectoral Framework Document (SFD) (GN-2740-7) and its focus on “sustainable urban transportation” and the “institutional development in the transportation sector”, and with the Climate Change SFD (GN-2835-8), as it will contribute to “make climate change considerations more central to sector actions”.

III. Description of activities/components and budget

- 3.1 To achieve the proposed objectives, the TC will finance the component:
- 3.2 **Component 1: Accelerating electric buses deployment in Colombian cities (US\$455.000).** This component will support the pre-investment activities required to ensure that bus-fleet-renewal investment is climate-friendly, sustainable, and gender sensitive, advancing the implementation of the countries’ NDCs, through: (i) project preparation to ensure technical and financial feasibility; (ii) market assessment of technological alternatives; (iii) bid preparation; and (iv) for deployment and programming of operation.
- 3.3 The expected result of this component will be to increase the use of urban transport in Colombian cities by providing a higher quality service for passengers and improvements for the environment.
- 3.4 **Component 2: Institutional strengthening and knowledge dissemination (US\$45.000).** This component will support the strengthening of urban stakeholders in Colombian cities and the dissemination of knowledge generated in Component 1 through different means: (i) a publication on public policy reinforcement of urban transport; (ii) capacity-building workshops focused on electromobility projects; (iii) a technical note on the implementation of electromobility projects in Colombian cities; and (iv) seminars on mechanisms to promote electromobility in Colombia. The activities under this component will incorporate a gender perspective by ensuring that the different travel needs and patterns of women and men in the use of public transport are considered in the development of the publications and events organized.
- 3.5 The indicative budget of this TC is US\$500.000. There is no local counterpart. The table below shows a breakdown of the total budget:

Table 2. Indicative Budget

Activity/Component	Description	IDB/Fund Funding (US\$)	Total Funding (US\$)
Component 1	Accelerating electric buses deployment in Colombian cities	455.000	455.000

Activity/Component	Description	IDB/Fund Funding (US\$)	Total Funding (US\$)
	Consultancy for diagnostic studies of the planning and implementation of electric mobility in the public transport system of Santiago de Cali	50.000	50.000
	Support the structuring, design and implementation of urban electromobility projects for different cities in Colombia	350.000	350.000
	Supporting the technical and operational follow-up of the electromobility policy in public transport for Colombian cities	30.000	30.000
	Support during the approval, review and feedback of products derived from the implementation of electromobility projects in public transport in Colombian cities	25.000	25.000
Component 2	Institutional strengthening and knowledge dissemination	45.000	45.000
	Publication	15.000	15.000
	Workshops	10.000	10.000
	Technical note	15.000	15.000
	Seminars	5.000	5.000
Total		500.000	500.000

IV. Executing agency and execution structure

- 4.1 At the request of the cities of Cali, Medellin, and Bogotá, and the Ministry of Transportation and DNP, and in accordance with Point D of Annex 10 of GN-2629-1 and Point D of Annex 10 of OP-1155-2, the TC will be executed by the IDB in coordination with the mentioned entities.
- 4.2 In compliance with the Operational Guidelines for Technical Cooperation Products-Revised version (GN-2629-1), this TC is classified as Client Support. The technical responsibility belongs to the Transport Division (INE/TSP) and Climate Change Division (CSD/CCS). The Transport Division (INE/TSP) staff at the IDB Country Office in Colombia (CAN/CCO) and the CSD/CCS staff in Headquarters will be responsible for its execution; both the Senior Climate Change Specialist in Headquarters and the Senior Transport Specialist of the IDB based in Bogota, Colombia, will oversee the supervision of the project.
- 4.3 The Bank will contract individual consultants, consulting firms, and non-consulting services in accordance with the Bank's current procurement policies and procedures: (i) the individual consultants will be hired in accordance with the guidelines set out in the AM-650; (ii) the procurement process for consulting firms will follow the Bank Policy for the Selection and Contracting of Consulting Firms for Bank-executed Operational Work (GN-2765-4) and the related Operational Guidelines (OP-1155-4); and (iii) the procurement of non-consultant services will follow the Bank Corporate Procurement Policy (GN-2303-28). Consulting firms will be hired through simplified competitive

selection for the design of electromobility implementation projects in three Colombian cities of more than 300,000 inhabitants. These consultancies will last 20 months. This project also plans for a consultancy for the continuation of planning work for the implementation of electric mobility in Cali, which will last three months. Individual consultants will be hired for: (i) the technical and operational monitoring of the electromobility policy in urban public transport; (ii) the revision of the products derived from the electromobility projects in the three cities; and (iii) the strengthening of the National Electromobility Policy. Corporate purchases (GN-2308-28) are contemplated for the structuring of institutional strengthening workshops, for the design of a knowledge product on Electromobility in Public Transport in Colombian cities, as well as for the development of mechanisms to promote electromobility in the country. See Annex IV for more detail.

- 4.4 Given the multisectoral scope of the activities in this TC and the different cities and stakeholders involved (the municipality, the transport authority, mobility regulator and/or bus operator associations leading the fleet renewal projects), the IDB will execute this TC. Bank-execution will: (i) avoid lengthy internal budgeting procedures that can jeopardize the achievement of the project's objectives through delays in start dates and in consultants' payments (since the TC is not included in the DNP 2019-2020 budget), and (ii) facilitate coordination between the different public-sector entities. The IDB staff is expected to provide specialized technical knowledge on the activities that will be implemented. Therefore, the Bank will supervise the execution and delivery of consulting services, and will be responsible, in compliance with the monitoring and reporting requirements established in the Agreement establishing the UK-SIP, for project monitoring and tracking goals in all projects including: (i) tracking of indicators and targets for the Fund and approved operations; (ii) monitoring individual operations; and (iii) monitoring progress against the Results Framework indicators. In this regard, missions are foreseen in the terms of reference of the different consultancies to support the execution of the proposed activities.
- 4.5 The execution period and the disbursement period will be 36 months. CAN/CCO will act as the Unit of Disbursement Responsibility (UDR) of these contracts.

V. Major issues

- 5.1 No major risks are anticipated for the development of the TC. A couple of modest risks have been anticipated, including eventual delays in the development of the studies due to potential difficulties in coordinating the different counterparts involved: operators and local governments. This risk can be mitigated by involving the counterparts from the beginning of the execution of the TC. The execution from INE/TSP and CSD/CCS, with the support of specialized consultants, will help to mitigate these potential risks. The draft of Terms of Reference (ToR) of the key studies to be financed under the TC are under preparation by the Government Counterparts and will be ready before funds become available.

VI. Exceptions to Bank policy

- 6.1 There are no exceptions to Bank policy.

VII. Environmental and Social Strategy

- 7.1 Given the nature of this TC, negative environmental and social impacts are not foreseen. To the contrary, it is expected to have a positive impact on sustainable and low-carbon development as well as on social inclusion and climate change.

Consequently, it is expected that this TC will be classified as Category "C" according to the Environment and Safeguards Compliance Policy (OP-703).

Required Annexes:

[Request from the Client - CO-T1558](#)

[Results Matrix - CO-T1558](#)

[Terms of Reference - CO-T1558](#)

[Procurement Plan - CO-T1558](#)