

Paraguay

National Urban Mobility Policies and Investment Programme

Completed

Basic information

Population	→	6,109,903
Growth rate	→	3.7% (projection 2022)
Percentage of urban population	→	68.98% (2022)
GDP per capita	→	USD 4,949 (2020)
Percentage of the population living below the national poverty line	→	23.5%
Annual average infrastructure expenditures as a percent of GDP	→	2.25%
Nationally Determined Contribution (NDC)	→	No mobility/transport-related NDC
National GHG emissions per capita	→	8.77 (tCO ₂ eq) (2019) ¹
Proportion of transport-related GHG emissions	→	20% (2019) ²
Exposure to climate change	→	LOW



Context

Paraguay is a landlocked country in South America, bordered by Brazil to the east, Argentina to the south and west, and Bolivia to the north. Paraguay has 6.1 million inhabitants; Asunción is the capital and largest city with 522,000 inhabitants. The official languages are Guaraní and Spanish. A large informal sector characterises Paraguay's economy. Since the beginning of 2000, Paraguay has experienced a substantial poverty reduction and shared prosperity. Paraguay is the fifth-largest soybean producer in the world. Since 2014, the Paraguayan economy has grown at an average annual rate of 4% due to strong soybean production and high global prices, while other countries in the region have contracted. The country faces essential challenges to sustain and expand its social achievements. Most of the rural population depends on family farming, which places them at a higher risk of poverty. There has been a migration process from rural areas to the country's urban centres in search of better education and employment opportunities.

As a landlocked state, Paraguay depends on its transport and logistics infrastructure to connect it to regional markets and international seaports. River transport is concentrated on the Paraguay

¹ MADES-DNCC/PNUD-FMAM. 2024. Informe del Inventario Nacional de Gases de Efecto Invernadero de Paraguay, serie 1990-2019. Proyecto CCNeIBA3. Asunción, Py. 645. https://unfccc.int/sites/default/files/resource/IIIN_INGEI1990-2019_PARAGUAY_vf%5B1%5D.pdf

² MADES-DNCC/PNUD-FMAM. 2024. Informe del Inventario Nacional de Gases de Efecto Invernadero de Paraguay, serie 1990-2019. Proyecto CCNeIBA3. Asunción, Py. 645.

River, where 60% of the country's foreign trade transits. Paraguay's railway system consisted mainly of a 376 km standard-gauge main line. All rail traffic has been suspended, except for weekly tourist steam trains and short cross-border freight trains with Argentina. The bus network serves public passenger transport. The urban transport network is extensive and has relatively good population coverage. Cargo transportation is covered by trucks, trailers, and other diesel-fueled modes.

Regarding the vehicle fleet size, data from the Directorate of the Registry of Motor Vehicles shows that the fleet has increased by more than 30% over 5 years, to 2,684,358 in 2021, resulting in a motorisation rate of 439 cars per 1,000 inhabitants. This vehicle fleet growth is related to increased GDP per capita, urbanisation and population growth. Another characteristic of the Paraguayan automotive sector is the role of second-hand vehicle imports in the automotive fleet. The transportation sector is the largest consumer of petroleum products in Paraguay. Sectoral consumption doubled between 2007 and 2017.

Regarding the fuel used, about 71% is Diesel. Both gasoline and diesel fuels must be mixed; the first is ethanol, and the second is biofuels. Gasoline prices are among the highest in Latin America.

Paraguay is the world's largest per capita generator of hydroelectric power, and 20% of its electricity is consumed domestically. Electricity fares are among the lowest in the region. Almost 100% of oil products are imported, explaining the high costs. For these reasons, Paraguay has significant potential for electric mobility. Public transport has a strategic potential to spearhead electric mobility through electric buses. This project prioritises electric mobility in multimodal urban public transport on the Paraguayan political agenda. The project's main product was the consolidation of a Master Plan for Urban, Electric and Multimodal Public Transport that incorporates all actions related to electromobility in the transport sector, including public passengers and cargo transport. Training activities will strengthen the development of the plan, the involvement of non-state actors, regional exchange, and the identification and management of appropriate financial resources for its implementation.

In March 2025, the first batch of 30 electric buses arrived from Taiwan, marking the start of public transport electrification in Paraguay and a public tender for their operation in the Asunción metropolitan area was issued in May 2025. Fleet electrification is also expanding beyond the capital. Via the Korea-supported TASK Centre, electric buses began operating in Hernandarias in 2025 under pilot conditions, and new charging infrastructure is being rolled out³.

Support from the Partnership

Technical Assistance: National Urban Mobility Policy or Program (NUMP)

Type of NUMP: Policy NUMP

Funded by: European Commission

Funding amount: EUR 300,000

Implemented by: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) through the EUROCLIMA+ Program

Local counterpart: Ministerio de Obras Públicas y Comunicaciones – Viceministerio de Transporte (MOPC VMT); Ministerio del Ambiente y Desarrollo Sostenible (MADES).

Final NUMP report: [Plan maestro de movilidad eléctrica para el transporte público urbano y logístico de Paraguay | MobiliseYourCity](#)

The main purpose of the NUMP:

- Promoting electric mobility in multimodal urban public transport in Paraguay to reduce GHG and achieve Nationally Determined Contributions (NDCs).
- Prioritisation of electric mobility in multimodal urban public transport in the Paraguayan political agenda.

³ <https://www.itaipu.gov.py/noticias/tecnologia/avanza-la-implementacion-del-centro-task-para-la-consolidacion-de-la-movilidad-electrica-en-paraguay>

Supported activities:

- Develop a Master Plan for Urban, Electric and Multimodal Public Transport and a Monitoring, Reporting and Verification (MRV) scheme.
- Strengthen public sector capacities for implementing electric transport systems and establish regional cooperation.
- Involve non-state actors in implementing electric transport systems promoted by the Master Plan.
- Identify strategic electric mobility pilot projects and potential funding sources.

Status of project implementation

Project start date: 2021 Q3

NUMP completion date: 2023 Q4

Completed outputs:

- Development and validation of the EC+ project concept
- Pre-study in preparation for the NUMP
- Recruitment of a consultancy for the elaboration of the NUMP
- Master Plan for Urban, Electric and Multimodal Public Transport and Logistics
- Monitoring, Reporting and Verification Scheme (MRV)
- Capacity development and training courses with local counterparts
- Information and awareness campaign on sustainable urban mobility and electrification of transport, including implementation of a website platform
- Roadmap for the implementation of strategic pilot projects

NUMP key measures and cost estimates

The following table highlights the most significant measures identified in the NUMP.

Measure type	Measure	Implementation year	Proposed source of financing	Cost estimate (EUR) ⁴
Governance	Establish & operationalize CEME	By 2025	National public resources	N/A
	Public-private coordination mechanisms	By 2025	Public-private partnerships	N/A
	Financial & cooperation alliances	By 2025	National & international finance	N/A
	MRV system for monitoring & reporting	Ongoing	Institutional budgets	N/A
Financing instruments	EV Promotion Fund (10% fuel tax allocation)	Active	Fuel tax revenue	N/A
	Transport fideicomiso (MOPC/VMT)	Under structuring	Public financing mechanism	N/A
	Fiscal incentives for EV importation	By 2025	Ministry of Finance	N/A

⁴ Exchange rate (USD→EUR): 1 USD = 0.85 EUR

Measure type	Measure	Implementation year	Proposed source of financing	Cost estimate (EUR) ⁴
Infrastructure	Charging infrastructure deployment coordination	By 2025	Public + private investment	> 425,423.30 for 6 fast chargers (~70,620.27/unit proxy); ~ 8,508,465.92 for 500 chargers (~17,016.93/unit proxy); 30 ultra-fast 150kW chargers acquired (cost undisclosed) ⁵
	Electricity generation & grid capacity strengthening	By 2030	National energy investment	N/A
	Technical standards for chargers & vehicles	By 2030	Regulatory institutions	N/A
	Charging hubs in strategic urban areas	By 2025 / 2030	Public-private investment	N/A
Public Transport Fleet Electrification	Pilot electric routes	By 2025	EV Fund + public financing	N/A
	Fleet renewal through public procurement: ~350 e-buses ~1,831 e-buses ~6,292 e-buses	By 2025 / 2030 / 2040 by 2025 by 2030 by 2040	EV Fund; fiduciary mechanisms	N/A
	Electric corridors & low-emission zones	By 2030	National & partner financing	N/A
	Redesign trunk systems for electrification	By 2030	National transport planning funds	N/A
Logistics Electrification	Urban logistics EV rollout	By 2025 / 2030	EV Fund + private logistics investment	N/A
	Last-mile charging infrastructure	By 2025 / 2030	Public-private investment	N/A
Environmental & Social Measures	Battery lifecycle regulation	By 2030	Environmental institutions	N/A
	Communication campaigns	By 2025	Public institutional budgets	N/A
	Operator formalization for incentive access	By 2025	National incentive schemes	N/A
Macroeconomic Impact (Result of Measures)	Reduction in fuel imports	Through 2040	N/A	~ 2,127,116,481 cumulative fuel import savings by 2040

Projected impacts

Indicator	Baseline - 2019
Total annual GHG emissions (Mt CO2eq)	713 Mt CO2eq
Annual transport-related GHG emissions per capita (kg CO2eq)	1,166 kg CO2eq / capita
Access to public transport in urban areas The proportion of the population living 500 meters or less from a public transport stop	11,9% ⁶
Air pollution Mean urban air pollution of particulate matter (in µg PM2.5) at road-based monitoring stations	10 µg/m ³ of PM2.5
Road safety Annual traffic fatalities in the urban area per 100,000 inhabitants	21 fatalities/ 100,000 hab
Affordability of public transport Percentage of disposable household income spent on public transport for the second quintile household income group.	N/A

⁵ <https://www.abc.com.py/brandlab/2023/02/07/supercargadores-de-automotor-para-vehiculos-electricos-donde-estaran-y-como-funcionan/>

⁶ <https://ourworldindata.org/grapher/share-with-convenient-access-to-public-transport>

Insights from practice: lessons learned from the NUMP process

Paraguay has a unique opportunity to lead electric mobility in the region.

The NUMP is an unprecedented national effort developed through participatory workshops with high-level representatives and technical experts from key institutions, ensuring comprehensive feedback and validation of its commitments.

With abundant renewable energy from its major hydropower plants, Itaipú and Yacyretá, Paraguay has a unique opportunity to lead the region in electric mobility, aiming to become a benchmark in Latin America by 2040.

Finance leverage

Leveraged financing (resulting from or enabled by the NUMP preparation process)

Description	Source of financing	Type	Status	Amount (EUR)
Grant TASK Centre ⁷	South Korea ODA	Grant	Secured	15,000,000
Planned factory for manufacturing/assembling electric buses in Paraguay ⁸	Master Bus (Taiwanese company)	Private investment	In process	25,253,100
Asunción Metropolitan Area – pilot deployment of 30 electric buses donated by Taiwan + concessioned operations (routes Asunción–San Lorenzo / Asunción–Luque) ⁹	Government of Taiwan	Donation (in-kind grant)	Secured	N/A

⁷ https://odakorea.go.kr/eng/cont/ContShow?cont_seq=29

⁸ <https://www.mic.gov.py/proyectan-inversion-de-alrededor-de-usd-30-millones-en-paraguay-para-fabricacion-de-buses-electricos/>

⁹ <https://mopc.gov.py/buses-electricos-estan-rumbo-a-paraguay/>

Highlights in the past year

Operationalisation of electric buses in the Asunción metropolitan area¹⁰

Paraguay formalised the incorporation of 30 electric buses into the public transport fleet in the Asunción metropolitan area, marking a first concrete step from planning to implementation of low-emission public transport vehicles. Commercial operations are projected to begin by late August 2025, with routes connecting Asunción to San Lorenzo and Luque, and charging infrastructure being developed to support operations.

Public and private actors advance strategic planning and early deployment of electric mobility systems.

Throughout 2025, Paraguay made meaningful progress in strengthening the policy and institutional environment for electric mobility, laying an enabling foundation for NUMP implementation. A major milestone was the enactment of Law 7.617, which, for the first time, formally integrates zero-emission vehicles and charging stations into the metropolitan transport system and enables tenders, pilots, and financing mechanisms for the deployment of electric transport¹¹. At the same time, government authorities and energy institutions advanced strategic planning and early infrastructure initiatives: Paraguay developed its National Electromobility Strategy and complementary planning instruments, while state entities such as ANDE introduced new electric vehicle fleets and announced plans for ultra-fast charging stations along key national routes¹². These developments reflect growing multi-stakeholder engagement and concrete institutional steps toward Paraguay's transition to electrified urban and public transport.

Last updated December 2025

¹⁰ <https://asunciontimes.com/paraguay-news/local-news/electric-buses-to-join-asuncions-public-transport-system/>

¹¹ <https://www.mobilityportal.eu/en/notes/paraguay-marco-legal>

¹² <https://paraguayprofis.com/en/electromobility-in-paraguay-progress-report>