

Puebla, Mexico

Pilot Project

Completed

Basic information

Urban area → 563,4 km²

Population → 3,250,000

Growth rate → 1.59%

Region capital city

GDP per capita → USD 12,184

Modal share

Formal public transport → 0.7%

Private cars → 75.5%

Private motorbikes or 2-wheelers → 5.2%

Taxis → 1.1%

Freight vehicles → 18.2%

National GHG emissions per capita → 5.39 (tCO₂eq)

Exposure to climate change → MEDIUM



Context

Situated in the Valley of Puebla, also referred to as the Valley of Cuertlaxcoapan, Puebla ranks as both the fourth-largest city and metropolitan area in Mexico. The municipality encompasses 563.4 km², of which 43.1% is urbanised. Over the past four decades, Puebla's urban area has expanded by more than 500%, while the urban population has only doubled. Since 1960, Puebla has served as a national benchmark for significant public investment and for attracting external capital and foreign direct investment. Consequently, the city has shifted from a monocentric, compact urbanisation model to an extensive, low-density urban form, with development increasingly occurring near municipal boundaries and away from the city centre.

In 2015, Puebla reported a vehicle fleet of 578,784 motorised vehicles, consisting of 75.5% cars, 1.1% public or private passenger transport, 18.2% freight transport, and 5.2% motorbikes. The municipality's motorisation rate in 2015 was 277 vehicles per 1,000 inhabitants. Data indicate that between 1995 and 2015, the number of private cars in Puebla increased at a rate five times greater than the municipal population. This disproportionate growth in private motorised transport has perpetuated unsustainable mobility and urban development patterns.

The city's bus rapid transit (BRT) system lacks an intermodal framework, as there is no integrated system to facilitate transfers between modes.

The local government is mandated to finance public transport infrastructure, but lacks the authority to secure loans from international financial sources. Mechanisms for monitoring, evaluating, and reporting on urban mobility are only partially established.

A significant proportion of cyclists originates from southern neighbourhoods, where the Margarita terminal on Line 2 is situated. The pilot project aimed to connect these residents to the BRT system by providing secure and accessible bicycle parking at the terminal. The initiative seeks to enable BRT users to incorporate bicycles as a complementary mode within their travel chain and to promote active transportation over private motorised vehicles. This pilot forms part of the national sustainable urban mobility strategy and the municipality of Puebla's sustainable mobility program, approved in 2017.

Support from the Partnership

Technical Assistance: Pilot Project development

Funded by: European Commission

Funding amount: EUR 500,000

Implemented by: Agence Française de Développement (AFD) through Euroclima + Program

Local counterpart: Secretary of Mobility Puebla

Supported activities:

Implementation of the pilot project of the BRT's Margarita terminal: implementing bicycle parking infrastructure and equipment, and a potential fee system. The project has three components:

- Technical, financial, environmental, and social studies
- Construction monitoring
- Communication and visibility of the project

Status of pilot project

Project start: 2021 Q1

Project completion: 2024 Q2

Completed outputs:

- Plan of participatory processes
- Report on the results of participatory processes
- Communication and awareness-raising plan
- Diagnostic document
- Implementation plan
- Monitoring, reporting and verification (MRV) plan of the project's impacts
- Project implemented and operating



Figure 1 Bicycle parking facility at Margarita BRT terminal (Puebla, Mexico) Source: AFD (LinkedIn)



Figure 2 Bicycle parking facility at Margarita BRT terminal (Puebla, Mexico) Source: AFD (LinkedIn)

Insights from practice: key pilot project takeaways

Urban sprawl resulting from car-centric planning requires implementing sustainable mobility solutions that promote accessibility and equity¹

The Municipality of Puebla, especially in the southern region, has faced significant challenges due to urban sprawl driven by car-centric development. This has led to congestion, inequality, and high pollution levels. These challenges include increased congestion, social inequality, and elevated pollution levels. Addressing these issues requires implementing sustainable urban mobility systems that provide equitable, safe, and efficient access to urban opportunities. The Sustainable Intramodality Project, in alignment with the Municipal Development Plan, seeks to reduce dependence on motorised transport and promote intermodal mobility to enhance residents' quality of life.

¹ To know more about lessons learned from the Euroclima's urban mobility component visit: <https://despacio.org/portfolio/movilidad-urbana-euroclima-resultados-y-lecciones-2018-2024/>

Strengthening and clarifying legal frameworks is essential to supporting and expanding sustainable mobility solutions

Clear, robust regulations are fundamental to the effective implementation and long-term sustainability of mobility projects. In Puebla, the current legal framework is insufficient and ambiguous, which impedes the expansion of sustainable transport infrastructure. Findings from the intramodality project underscore the need to strengthen and revise policies to integrate active transportation modes and sustainable mobility practices into urban planning. Establishing and enforcing clear legal requirements will create a solid foundation for expanding mobility solutions such as the Biciestacionamiento Masivo (bicycle parking), thereby achieving broader and more substantial impact.

Results and perspectives for scaling

Pilot projects are key to proving the feasibility of sustainable mobility solutions and driving broader adoption

The Biciestacionamiento Masivo project demonstrates the effectiveness of pilot initiatives in

The Biciestacionamiento Masivo project illustrates the effectiveness of pilot initiatives in transforming urban mobility systems. By aligning with existing urban mobility plans, this pilot improves local connectivity and serves as a model for large-scale implementation. The project's success highlights the value of pilot projects in testing, validating, and expanding sustainable mobility solutions, demonstrating that incremental progress can facilitate broader adoption across various levels of government and in other cities.

The project provides a replicable model for integrating cycling with BRT systems.

Active transportation modes, particularly cycling, offer significant opportunities to improve connectivity with mass transit systems through replicable models. At the Margaritas area terminal, the high volume of cyclists underscores the need for intermodal systems that ensure safe, convenient travel throughout Puebla. The pilot project aims to promote cycling, increase Bus Rapid Transit (BRT) usage, and reduce GHG emissions. This model is readily adaptable to other Latin American cities with BRT systems, supporting seamless integration between public transport and cycling, which is increasingly prevalent in the region and helps reduce environmental impact.

The project is designed for scalable growth and community integration, offering a model for sustainable mobility that can be replicated in other locations.

The Bicycle Parking Project is intended for scalable implementation, initially providing 200 bicycle anchorage ports within a two-story facility. The structure is engineered for vertical expansion, allowing future growth as resources permit without interrupting operations. This phased strategy increases feasibility and maintains adaptability, enabling replication across the city and at national and international levels.

In addition to bicycle parking, the facility functions as a multifunctional community hub, providing a children's play area, an adult exercise zone, a pet area, and public restrooms. To maximise its impact, the city intends to construct dedicated bicycle lanes linking the facility to nearby neighbourhoods, thereby ensuring safe and convenient cycling infrastructure. This integration is expected to encourage user adoption and establish a strong precedent for expanding similar mobility solutions in other locations.

Highlights in the past year

In 2025, the state government announced plans to build the Cablebús in Puebla. The project will include the first four lines, to be completed by 2027 and operated by the state, with the option to expand to an additional four lines, ultimately totalling eight new lines. The Cablebús is intended to become part of a broader, integrated mobility model that also includes electromobility and sustainable transport options².

Additionally, in February 2025, the government launched the "Comprehensive Program for the Reorganisation and Modernisation of Public Transportation," which aims to regularise, modernise, and improve the quality and safety of public transport. The program offers a range of incentives, including fiscal benefits for transport operators, support for fleet renewal (including diesel or electric units), concession credits, and regulatory flexibilization, such as adjusting vehicle lifespan limits for existing taxi and taxi concession holders.

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² https://www.publimetro.com.mx/puebla/2025/11/13/gobierno-operara-primeras-cuatro-lineas-del-cablebus-de-puebla-dejaran-abierta-la-opcion-de-concesion/?utm_