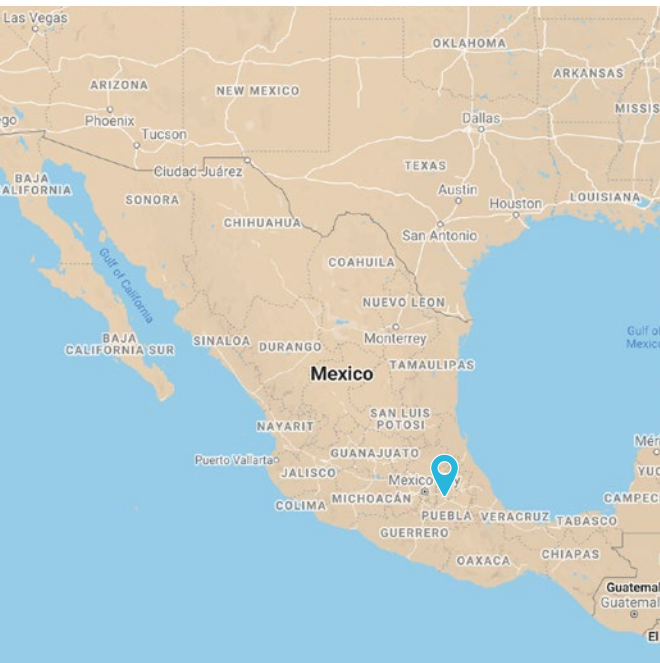


Puebla, Mexico

Partner city

Status of the project: Ongoing pilot project / technical assistance



Basic Information

Urban area: 563.4 km²

Population: 3,250,000 | Growth rate: 1.59%

Type of city: Regional 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)

Context

Located in the Valley of Puebla also known as the Valley of Cuertlaxcoapan, Puebla has a current population of 3,250,000 people, making it the fourth largest city and also the fourth largest metropolitan area in Mexico. The territory of Puebla consists of 563.4 km², with an urbanised area corresponding to 43.1%. In the last four decades, the urban area of the municipality of Puebla has grown by more than 500%, while the urban population barely doubled in the same period. Since 1960, the city of Puebla has become a national reference for important public investments and the attraction of external capital and foreign direct investment. As a consequence, a mono-centric and compact urbanisation process was transformed into an extensive and low-density city, initiating developments further and further away from the city centre near its municipal boundaries.

In 2015, Puebla registered a vehicle fleet of 578,784 motorised vehicles in circulation, composed of 75.5% cars, 1.1% public or private passenger transport, 18.2% freight transport and 5.2% motorbikes. In this sense, for 2015 the motorisation rate of the municipality was 277 vehicles per 1,000 inhabitants. According to the statistics, the number of private cars in the municipality of Puebla grew five times more than the municipal population in a period of twenty years (1995-2015), this situation represents a disproportionate increase in private motorised transport that reproduces unsustainable patterns of mobility and urban development.

The city's BRT public transport does not guarantee an intermodal scheme, as there is no integrated system facilitating the transfer from one mode of transport to another.

The local counterpart has the mandate and responsibility to finance public transport infrastructure. It does not have authority to borrow from international finance sources. Systems are partially in place to monitor, evaluate and report on urban mobility.

A large percentage of cyclists come from neighbourhoods located in the south of the city, where the Margaritas terminal from Line 2 is located. The pilot project's goal is to connect this population with the BRT system through the installation of safe and accessible bicycle parking spaces at the terminal. It seeks to facilitate conditions for BRT users to use bicycles as a complementary alternative in their travel chain, as well as to encourage active modes of transport over motorised private vehicles. This pilot project is part of the national sustainable urban mobility strategy and the sustainable mobility program of the municipality of Puebla, approved in 2017.

Support from the Partnership

Technical assistance: Pilot Project development

Funded by: European Commission

Funding amount: EUR 500,000

Implemented by: AFD through the EUROCLIMA+ Program

Local counterpart: Secretary of Mobility Puebla

Supported activities:

Implementation of the pilot project of the BRT's Margaritas terminal: implementing bicycle parking infrastructure and equipment, new bike lanes, 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 implementation

Project start: 2021 Q1

Expected project completion: 2024 Q2

Completed outputs:

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

Next expected outputs:

- Construction of the Project
- Foundation system
- Steel structure
- Floor system
- Roof system
- Structural system of the façade
- Electrical installations
- Hydraulic-Sanitary-Pluvial System

Insights from practice: key pilot project takeaways

The Municipality of Puebla, especially the southern area, has been marked by urban sprawl caused by prioritising the use of motor vehicles. The consequences of this urban expansion had caused problems of congestion, inequality and high polluting emissions. To counteract these consequences, it is necessary to implement sustainable urban mobility systems that allow people to access the activities, services and destinations of the City in conditions of equity, security, sustainability and efficiency. Hereby, in line with the Municipal Development Plan, the Sustainable Intramodality Project was developed. The project is expected to reverse the current system focused on the use of motorised vehicles and start building cities that improve the quality of life of its inhabitants, prioritising and promoting sustainable-intermodal mobility.

One of the lessons learned by the process of the intramodality project, was the important role that regulations and normativity play at establishing the guidelines for the development of a Sustainable Mobility System in the Municipality of Puebla. Currently, the legal framework is mostly lacking and vague, which sometimes poses a challenge to Mobility Systems in the application and generation of new and better transportation pathways. However, for this reason, it is expected that the municipality and its partners will work and review these rules and regulations that allow for the generation and protection of the plans, programs and works that exist and promote Sustainable Mobility.

Results and perspectives for scaling

The execution of the Massive Bicycle Parking Project will be carried out in two stages. The first one consists of the installation of 200 anchorage ports (bicycle parking) located in a 2-story building. The structure will be planned for future expansion at two higher levels, the foregoing has allowed the progress and feasibility of the Project, according to the allocated and available resources, but does not limit its operation and, above all, its potential development. In this way, it becomes a feasible and replicable project to use as a model inside and outside the state and country.

Highlights in the past year

Active modes can provide better connectivity with mass transit systems through replicable models

Due to the high volume of cyclists in the Margaritas area terminal, it is important that users have intermodal systems that allow them to travel comfortably and safely throughout Puebla. Therefore, the pilot project is expected to encourage the use of bicycles, increase the use of the BRT and reduce GHG emissions.

The pilot project can be replicated in other Latin American cities that have a BRT system, as it is a project that allows for the connectivity of public transport with other modes of transport, in this case, bicycles, a mode of transport that is growing in the region and that reduces GHG emissions.

As of November 2023, the project works are still in progress. The main advances to date are as follows:

- The foundation work for the main building was completed.
- The placement of the structural steel for the columns was carried out.
- The IPR beams of main girders began to be placed.
- The 10m³ cister was built to store drinking water.