

CITY FEATURES



Villavicencio is a Colombian municipality, the capital of the department of Meta. It is situated in the Eastern Andes Mountains and located approximately 109 km southeast of Bogotá, Colombia’s capital. Villavicencio expects to become a Metropolitan Area along with the municipalities of Acacías, Cumaral and Restrepo. Villavicencio’s economic sectors comprise construction, agriculture, industry, and tourism. It is worth mentioning that the city is also a significant oil and gas producer. The municipality aims to have a polycentric city that emphasizes developing different activities in other parts of the city beyond its city center. The city has a notable number of informal settlements in precarious conditions situated on the the city’s outskirts, close to water bodies. These settlements show significant socio-spatial segregation.

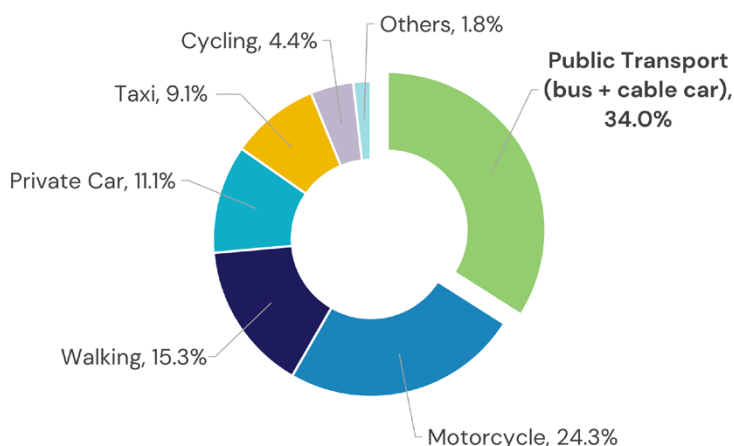
Population
451,212
 (2018)

Land area
1,328 km²

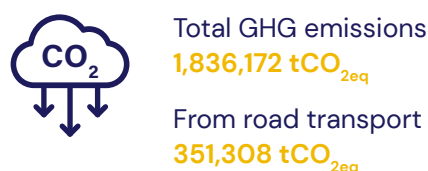
Average temperature
28°C

TRANSPORT FEATURES

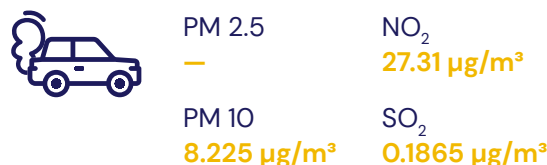
Modal Split¹



GHG Emission Levels²



Air Pollutant Levels



The city has implemented a sustainable mobility initiative by introducing Villabici, a free public bicycle system. The system currently boasts eight stations, 100 conventional bicycles, and 20 electro-assisted bicycles. The aim is to expand the system further to promote eco-friendly transportation options with a projection of three new stations and ten more electro-assisted bicycles by the end of 2023.

In 2022, the municipality registered 35,175 cars, accounting for 28% of the total, and 81,391 motorcycles, making up 64%. These two represent 92% of the registered vehicle fleet in the city. The Mobility Master Plan has already completed its update process and was delivered in February 2023. In addition, the structuring of the Strategic Public Transport System (SETP) is being reviewed to improve the service and prioritize the electricity use.

1 Mobility Master Plan of Villavicencio.

2 Base Study of Sustainable and Competitive Cities program, Villavicencio.

BUS SYSTEMS OUTLOOK

Bus Trips Features



Number of daily trips³
229,135 (2017)
128,489 (2022)



Trips by purpose

- Work **55%**
- Errands **12%**
- Return home **9%**
- Study **9%**
- Shopping **3%**
- Others **12%**

The Municipality of Villavicencio has 58 transportation routes assigned to a Temporary Union (UNIRUTAS) by Decree 256 of 2014, which has seven companies. Over 50% of trips performed on these routes are for work purposes. Women comprise more than 60% of public transport users, with the remainder being men. The main mobility problem in Villavicencio is a lack of a quality public transport system. The majority of the vehicles in the fleet are old and lack the necessary accessibility provisions that are required for some population groups. The oversupply of services on some corridors leads to operational inefficiency, causing congestion and pollution in the city.



Average time
47.7 min



Trips by gender
 Men **38%** Women **62%**

Fleet and Infrastructure



Number of buses
968⁴

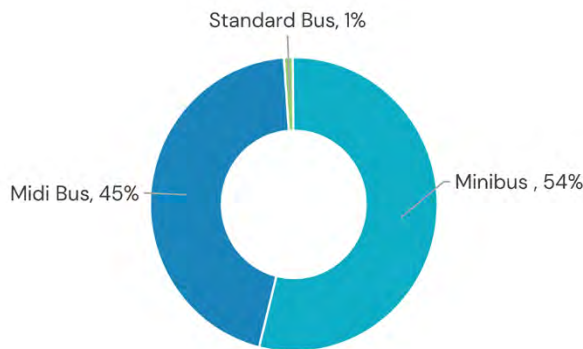


Number of routes
58

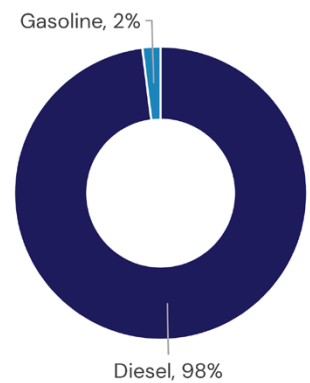


101 bus stops
4 bus depots

Buses by fleet type



Buses by fuel type



Quality of Service

There is mainly a high overlapping of public bus transport routes in the city center. The city's road infrastructure often operates at full capacity, resulting in jamming conditions. Certain areas in the city lack coverage of public transport buses. The city lacks safe multimodality options or accessible transportation, which increases social inequalities. This also leads to discomfort and the risk of accidents for users. The The Municipal Transport (Transporte Público Colectivo, TPC) service has been rated 3.1 by the users, with 1 being very bad and 5 being very good. The survey has analyzed various aspects, including service availability, coverage, vehicle comfort, vehicle condition, schedule compliance, vehicle safety, state of bus stops, accident rate, passenger cost, trip duration, and vehicle speed. However, Villavicencio, through its Mobility Master Plan updated in 2023, aims to have safe, accessible, and sustainable mobility.



© Villavicencio Municipality

3 PRODUCT 3 - Vol 1 - Transport Diagnosis and Baseline. Note: The studies carried out do not have a projection of the trips per year, only daily information is recorded.

4 Note: According to the studies on the structuring of the SETP, it was identified that after the pandemic, only 460 public transport vehicles operated.

Existing Business Model⁵

A

Model A: Vertically integrated, private operator in BRT/integrated system

B

Model B: Divided responsibilities in BRT/integrated system

C

Model C: Large, more formal, private operator in traditional service

D

Model D: Small, informal, private operator in traditional service

E

Model E: Government-run system

D

TPC system is operated by eight companies that are authorized to provide public transport services in the city. A Temporary Union, "Unirutas," is the systematized dispatches and fleet control administrator through a contract with the company LOGIRASTREO. Although Unirutas owns some of the dispatch terminals, the owners take care of the vehicle maintenance. The Villavicencio Mayor's Office is responsible for maintaining the road network, the traffic light network, and the passenger pick-up and drop-off stops. The driver collects the fare, and the city bus transport has no integrated fare collection system.



© Juan Esteban

⁵ Based on Accelerating a market transition in Latin America: New business models for electric bus deployment, P4G, Zebra and Dalberg, 2020.

OPPORTUNITIES AND CHALLENGES FOR ADOPTION OF E-BUS FLEETS



Opportunities

- The Strategic Public Transport System project and the Master Mobility Plan are the road map for sustainable mobility and adopting e-buses. The project was structured with the British Fund for Prosperity.
- The city has set up targets to have a minimum of 10% of the e-bus vehicles purchased by 2026 and achieve 100% by 2036.
- In accordance with the Law 1955 of 2019, the Nation can participate in the co-financing of mass public transport systems, with a minimum of 40% and up to 70%.



Challenges

- To achieve the co-financing of the National Government and the Municipality for the implementation of the electric bus project in the city.
- One of the challenges is associated with cultural attitudes towards motorcycle usage. The offering of quality public service must be an essential element for success to prioritize users for using sustainable modes of transportation.
- The construction of the mobility vision of the city with the participation of different actors.



© Villavicencio Mobility Secretariat

Acknowledgements

Authors: Carolina Mesa, Leticia Borges (ICLEI South America)
Contributors: Angela Machado (Mobility Secretariat Villavicencio), Juan Esteban Martínez (JEMR consultores), Shivam Arora (ICLEI World Secretariat)
Editor: Barbara Riedemann (ICLEI World Secretariat)
Design: Olga Tokareva, Laura López (ICLEI World Secretariat)

Publisher

ICLEI – Local Governments for Sustainability. e.V. © 2023
Kaiser-Friedrich-Straße 7, 53113 Bonn, Germany
All rights reserved

Disclaimer

ICLEI developed this profile in consultation with project cities but cannot guarantee the accuracy of the information and therefore cannot be held responsible for any consequences of its use.

The publication should be cited in full as: "ICLEI – Local Governments for Sustainability (2023). TUMI E-bus Mission City Network – Profile: Villavicencio, Colombia. Bonn, Germany".

About the TUMI E-Bus Mission

Funded by the German Ministry for Economic Cooperation and Development (BMZ), a core group of organizations supports cities in their transition toward electric bus deployment. For more information please contact: tumi-network@iclei.org or visit <https://sustainablemobility.iclei.org/tumi/>