

CITY FEATURES



The city of Palembang is the capital and the center of economic activity in South Sumatra Province. This city was founded in 663 as the center of the government of the Srivijaya kingdom which is located on the Musi river. The Musi River divides the city into two major areas: the downstream bank in the north where the central business district can be found, and the upstream bank in the south where the Jakabaring Sports Center, one of the venues of the 2018 Asian Games, and some government offices are located. For the last 30 years, the construction of connecting roads with other areas, as well as the development of major economic activities in the manufacturing, construction, trade, wholesale and retail services sectors, made the city of Palembang as a main destination of urbanization.



Population
1,668,848
 (2022)



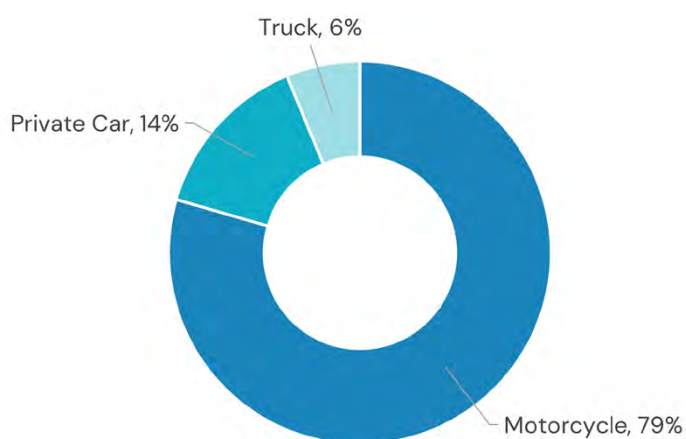
Land area
400.61 km²



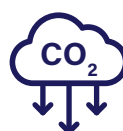
Average temperature
34.6°C

TRANSPORT FEATURES

Modal Split



GHG Emission Levels¹



Total GHG emissions
5,292,591 tCO_{2eq} (2020)

From road transport
1,814,205 tCO_{2eq} (2020)

Air Pollutant Levels



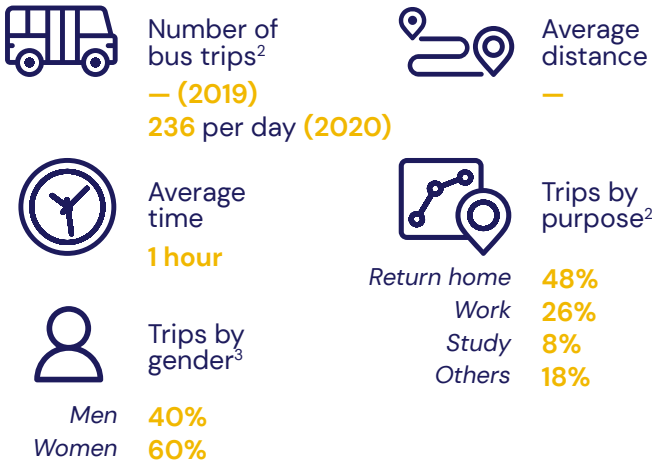
PM 2.5	NO ₂
41.83	11.14
PM 10	SO ₂
18.39	30.14

Since 2019, Palembang City has had public transportation mode, called Light Rail Transit (LRT). In 2022, it has been integrated with Bus Rapid Transit (BRT), and minibuses (Angkot). However, this facility has not been useful for residents as it has very limited routes. Because of this reason, most residents of Palembang City still use private motor vehicles and private cars for daily commute. The number of motorized vehicles in the city of Palembang in 2020 is 1,256,928, of which 79.06% were motorcycles. Meanwhile, private cars accounted for almost 14.2%, and the rest were public transportations such as buses and regular minibuses. This condition has resulted in high GHG emissions from the transportation sector, with 1,814,205 tons of CO_{2e} of the total GHG emissions in Palembang, out of 5,292,591 CO_{2eq} in 2020. .

¹ Environmental Agency of Palembang city, 2021

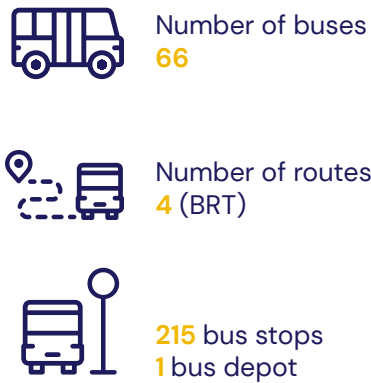
BUS SYSTEMS OUTLOOK

Bus Trips Features

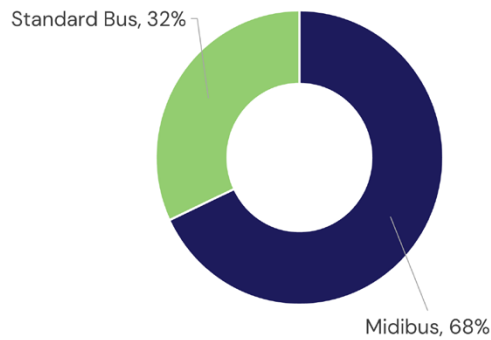


In 2020, the Trans-Musi public bus has provided services of 239 trips per day. Most of the city's residents in vulnerable categories such as the poor and low-income residents make public buses the main choice in supporting their daily commute, such as work, school and the market. Compared to women, men use this bus more often, accounting for 60%, while women account for only 40%. The average time needed to reach the destination with this mode is less than 60 minutes. The majority of users of this service are captive users. Meanwhile, in terms of the age range of public bus users, it is dominated by ages between 26–40 years, reaching 43%.

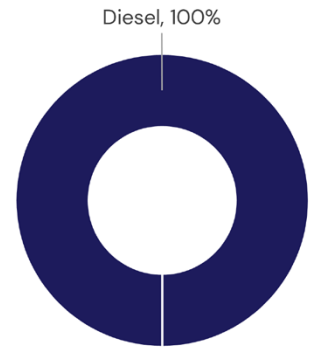
Fleet and Infrastructure⁴



Buses by fleet type



Buses by fuel type



Quality of Service

There are 9 Trans-Musi BRT Service corridors on the city's main roads. This bus service is quite comfortable and safe for passengers, especially women, children, and the elderly. The supporting infrastructure is quite good: the schedule is on time, and at some points, it operates in suburban areas and has operating times that suit the needs of residents. However, currently, the operational costs are still subsidized 100% by the city government. This cannot be a reference point that the service will be the first choice of transportation for citizens in the future. On the other hand, there are still many routes that have not been served and have not been integrated with one another, so most residents would still use private vehicles such as motorbikes and private cars.



2 Transportation Agency of Palembang, 2021
 3 Transportation Agency of Palembang, 2020
 4 Transportation Agency of Palembang, 2022

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

E

Local companies have the authority to operate, maintain and dispose of buses. Meanwhile, the city government has the authority to operate and maintain supporting infrastructure such as bus stops, special bus lanes and others, as well as collect fares. On the other hand, the national government (the ministry of transportation) has the authority to determine routes, fares, schedules and specifications for bus types as well as to supervise and control the bus operating system. The arrangement of cooperation between stakeholders in this bus operation uses a contract system between the city government and local companies. The national government provides subsidies for the procurement of buses and supporting infrastructure, while the city government provides subsidies in the form of bus operating costs.



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 national government will prepare a road map, supporting regulations and assistance in providing public transportation for the city of Palembang. This policy can be an opportunity for the city of Palembang to start preparing supporting local policies and compiling a road map as well as exploring the potential for cooperation with various parties, especially in financing.
- Palembang city is the capital of South Sumatra Province, with a population of more than 1 million, which is a potential demand (passengers) to support the implementation of e-buses in the future.



Challenges

- Currently, there is no subsidy from the national government for electric buses for the city of Palembang because nationally there is no regulation that requires subsidies for cities/districts that want to develop electric buses.
- Nationally, the implementation of e-buses does not yet have a detailed policy umbrella as a reference for local governments. There are also other priority activities because of which the city of Palembang has not made the agenda for the procurement of electric buses a priority.
- The city of Palembang does not yet have human resources in the city of Palembang who understand the functionality of e-buses, especially related to their technical operation and maintenance.



Acknowledgements

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Publisher

ICLEI - Local Governments for Sustainability. e.V. © 2022
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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-e-bus-mission-2/>