

CITY FEATURES



Dar es Salaam, the largest city in Tanzania, is not only the financial hub of the country, but also serves as an important administrative, industrial, fishing, and commercial center. The city has a natural harbor on the coast of East Africa with beautiful sandy beaches. Three quarters of the city's population live in informal settlements. Dar es Salaam has a monocentric structure, with a dense city center that radiates westward to less dense and informal neighborhoods. The eastern border of the city center is the Indian Ocean. The city center houses government offices, businesses, and a variety of services. Dar es Salaam is a vibrant and dynamic city with a diverse population that contributes to Tanzania's economic development. Its strategic location on the coast of East Africa makes it a gateway to the region, with potential for further growth and development. The four main road corridors connecting the city center to the periphery facilitate the transportation of people from their homes to work and other services in the city center.



Population
5,383,728
(2022)



Land area
1,391 km²



Average temperature
24.4°C (July)
28.6°C (February)

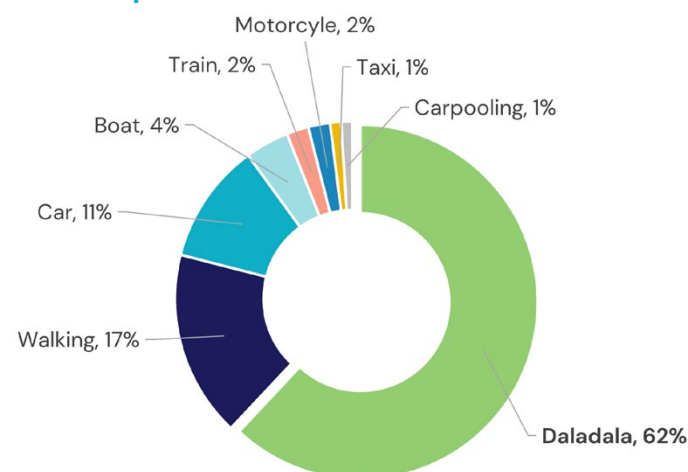
TRANSPORT FEATURES

Dar Rapid Transit (DART) is an executive agency mandated to establish and operate a high-quality and high-capacity Bus Rapid Transit (BRT) system in Dar es Salaam. With its first phase of 20.9km operating 210 BRT buses, and more phases already under construction, DART is expanding its BRT services to meet the growing demand for efficient public transport in the city.

The BRT corridor is exclusive to the BRT system, and smaller public transport (Daladala) operators were incorporated into the network to streamline its operations. Some private car users have switched to BRT services since its launch in 2016, and park-and-ride services have been established near major BRT stations. Nevertheless, smaller private public transport services still operate in areas without BRT services, serving as feeder systems to the BRT network.

As the BRT network continues to expand, these smaller public transport modes will eventually be phased out. The success of the BRT system demonstrates the viability of high-quality public transport in the region and can serve as a model for other cities in Africa looking to improve their public transport infrastructure.

Modal Split¹



¹ Dar es Salaam city temporal growth and its influence on transportation, 2014

BUS SYSTEMS OUTLOOK

Bus Trips Features



Number of annual bus trips

2019 **4,730,779**
2021 **4,169,846**



Average time **33 min**
(BRT trunk routes)



Average distance **11.4 km**
(BRT trunk routes)
24 km
(BRT crosscutting lines)



Trips by purpose

Work **72%**
Social trips **16%**
Errands **7%**
Education **6%**



Trips by gender

Men **63%**
Women **37%**

BRT buses have a fully dedicated right of way bus system that has center road alignment and where needed intersections have been redesigned to give buses right of way. The bus stations have off-board fare collection and level platforms. This system has been operational since 2016 with 140 buses and currently, has 210 buses, Euro III & IV engines, with the remaining 177 BRTs being procured. The BRTs start service at 04h30 and end service at midnight. During peak periods along the trunk routes, the longest time between buses is 5 minutes, whereas the off-peak waiting period between buses can be between 10 -15 minutes. For the feeder services, off-peak waiting periods are about 20 minutes. The express and local services have a 3 minute waiting period. The BRTs are usual full during peak periods.

Fleet and Infrastructure



Number of buses **210** (BRT)

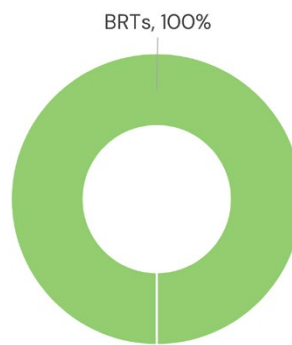


Number of routes **9**

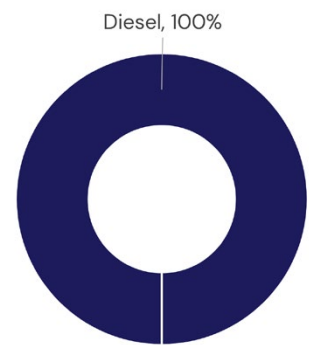


Number of bus stops **27**

Buses by fleet type



Buses by fuel type



Quality of Service

The DART BRT system faces several challenges that affects its efficiency. During peak hours, the system is often overcrowded, and even off-peak hours can be busy when bus headways increase from the planned schedule. Although the Intelligent Transportation System (ITS) technologies are not fully installed, DART has made strides in improving its services. For example, passengers can purchase tickets using a mobile app, the Mwendokasi App. However, prepaid fare cards are not yet available. Additionally, the DART system caters for the needs of individuals with disabilities, including provisions in buses, priority boarding, as well as, special buses for students. There are also free first aid services and free in-station wheelchair services available. Despite these measures, limited BRT buses and mode choices remain a concern. DART is currently procuring additional buses to address the growing demand in parallel with the procurement of an ITS that includes Real Time Passenger Information System, Automated Fare Collection System and Bus Operation Management System.



Existing Business Model²

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

A

BRT system: Owned and managed by DART. The fares are controlled by a different regulatory body (Land Transport Regulatory Authority (LATRA)), formally known as SUMATRA. The bus operators are private corporations (under PPPs). These operators procure, operate and maintain buses. DART provides the specifications for the buses and master timetable for bus operations.

C-D

Daladals (large but informal model): Daladals operate as part of various associations (like unions). Daladala are owned by individuals who join an association. Daladala operate along fixed routes as they are licensed by LATRA. There is a transaction advisor responsible for organizing them so that they may form a company and run one of the BRT phase. Daladals are also not allowed to operate along BRT routes. Daladals are operating in all where BRT are not yet in operation..



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² 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

- To facilitate transition to a clean urban environment and reduce negative environmental and health impacts.
- Improving public transport services.
- Technology transition, policy for development and importation of cleaner vehicles.
- In-country awareness on soot-free technology options.



Challenges

- Lack of skills & infrastructure.
- No national e-bus implementation plan, operating standards or guidelines.



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Publisher

ICLEI – Local Governments for Sustainability. e.V. © 2023
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The publication should be cited in full as: "ICLEI – Local Governments for Sustainability (2023). TUMI E-bus Mission City Network – Profile: Dar es Salaam, Tanzania. 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/>