



Deep Dive City Ahmedabad India

General information about the city¹

Population
5.7 million (2011)
8.2 million (2021)

City area
505 km²

Average temperature
27 °C

Annual rainfall
800 mm/annual

Number of car ownership
350 vehicles (including two-wheelers) per 1000 people (2018)

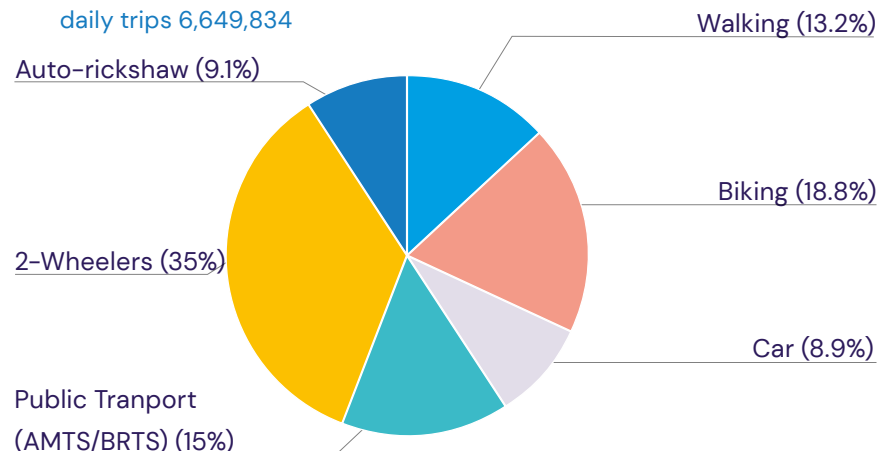
GDP (US Dollars)
68 billion (2021)



Climate risks
- Heat waves
- Air Quality Index - Satisfactory

Urban Mobility System²

Modal split
daily trips 6,649,834



Public transport modes

- City Buses operated by Ahmedabad Municipal Transport System (AMTS)
- Bus Rapid Transit System (BRTS) operated by Ahmedabad Janmarg Limited (AJL)
- Regional/ intercity buses operated by Gujarat State Road Transport Corporation (GSRTC)
- Regional connectivity by railways
- IPT modes
- Auto-rickshaws (single journey & shared), E-rickshaws (feeder service for BRTS), online ride-hailing services

Avg distance travelled per day by bus



200 km

Fleet utilisation

88%

Avg. fleet age

5 years

Carried passengers (Avg. daily ridership)

AMTS: 575,000

BRTS: 160,000

Total no. of routes

AMTS operates 204

BRTS operates 18

Climate and Urban Mobility Policies



Vision for net zero urban mobility

The electric buses in Ahmedabad are in line with the vision to provide green and sustainable transport solutions. The city aims to become the first Indian city to convert its entire fleet of public transport buses into e-vehicles. It also has plans to increase its share of public transport and active mobility in the coming years.

Procurement and planned projects

FAME I

– 52 AC e-buses of which 40 buses procured under FAME-I and 10 buses from Additional State VGF (18 are swappable) by Ashok Leyland (Aug, 2019);

FAME II

– 50 AC e-buses by JBM Auto (May, 2021);
– 40 AC e-buses by JBM Auto (Aug, 2021);
– 60 AC e-buses by TATA Motors (Dec, 2021);

Planned projects

– 300 (9 m) AC e-buses to be procured under FAME-II by 2023.

Electrification Model

GCC contractual model consists of the AJL taking the major role to manage the bus network and the operator consortium (OEM + bus operators + energy service providers) carrying out the operation and maintenance of the e-buses. The operator consortium receives payment from AJL on passenger km travelled by e-buses.

References:

1. About Ahmedabad : Ahmedabad Municipal Corporation (ahmedabadcity.gov.in)
<http://www.walkthroughindia.com/cities/top-10-richest-cities-india-based-gdp/>
India: registered number of private cars in Delhi 1988-2019 | Statista » Top 10 Richest Cities of India Based on GDP ([walkthroughindia.com](http://www.walkthroughindia.com))
Ahmedabad roads clogged by too many vehicles, <https://rb.gy/vikzkk>
Ahmedabad - GDP \$68 Billion
<https://www.indiatimes.com/trending/social-relevance/top-10-richest-cities-in-india-2021-552132.html?picid=2181885>
Public Transport System in the City – GIDB, GoG

2. SLBUT (utbenchmark.in)
<http://utbenchmark.in/UsersidePages/CityProfile.aspx?City=1>
AMTS, AJL, 2019

3. AMTS Vision Plan – 2035, May 2021

Electric Buses

Targets for electric bus adaption

- 1 AJL will add 90 e-buses more to the existing fleet by the end of this year, moving towards 100% fleet in the near future.
- 2 AMTS is looking forward to its first 50 e-buses this year, and procuring more in the coming time. AMTS is also planning to depot their largest depot – Jamalpur depot – as a hub for e-buses. This depot can accommodate approx. 300 – 400 e-buses.

Bus technology share³



1067
ICE – Buses

0

Hybrid-Buses

202
E-Buses

Political commitments

- Clean and Green Public Transport initiatives by Government of India through DHI under FAME I and FAME II schemes;
- The Chief Minister Urban Bus Scheme (CMUBS): The Gujarat state government and the city authorities each offer a viability gap funding (VGF) of Rs. 12.50/ km towards operations expenditure of every new city bus (electric or ICE).

Experiences

AJL undertook a pilot of battery swapping technology of 18 e-buses in partnership with Ashok Leyland as Bus OEM and Sun mobility as energy service provider.



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