General information about the city

- **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 System

- **Modal split**
  - Daily trips: 6,649,834
  - Walking (13.2%)
  - Biking (18.8%)
  - Auto-rickshaw (9.1%)
  - Car (8.9%)
  - 2-Wheelers (35%)
  - Public Transport (AMTS/BRTS) (15%)

- **Carried passengers (Avg. daily ridership)**
  - AMTS: 575,000
  - BRTS: 160,000

- **Total no. of routes**
  - AMTS operates 204
  - BRTS operates 18

- **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. fleet age**: 5 years
- **Fleet utilisation**: 88%
- **Avg. distance travelled per day by bus**: 200 km
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);
- 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.

Electric Buses

Targets for electric bus adaption

<table>
<thead>
<tr>
<th>Bus technology share</th>
<th>1067</th>
<th>202</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICE – Buses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hybrid-Buses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E-Buses</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.

Published by TUMI Management

Deutsche Gesellschaft für internationale Zusammenarbeit (GIZ) GmbH
Bonn und Eschborn
E info@giz.de
I www.giz.de
Friedrich-Ebert-Allee 36 + 40
53113 Bonn
T +49 228 44 60–0
F +49 228 4460–17 66
Dag-Hammarskjöld-Weg 1 – 5
65760 Eschborn
T +49 6196 79–0
F +49 6196 79–11 15
Status
June 2022

References:
1. About Ahmedabad: Ahmedabad Municipal Corporation (ahmedabadcity.gov.in)
Ahmedabad - GDP $68 Billion
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