Deep Dive City
Chennai
India

General information about the city

- Average temperature: 28 °C
- Number of car ownership: 127 cars per 1,000 people
- Renewable energy share (in MW) (MOSPI): 4.9%
- Annual rainfall: 1,400 mm (annual), 162 mm (highest)
- City area: 426 km²
- GDP (US Dollars): 78.6 billion
- Climate risks:
  - Drought
  - Summer water crisis
  - Monsoon floods
  - Air Quality Index - Satisfactory

Urban Mobility System

- Modal split:
  - Daily trips: 15,700,000
  - Rail (6%)
  - Public transport (23%)
  - Walking (25%)
  - Biking (3%)
  - 2-Wheelers (29%)
  - IPT (7%)
  - Car (7%)

- Public transport modes:
  - Inter and intra city buses operated by Metropolitan Transport Corporation Limited (MTC)
  - Intermediate Public Transport (IPT) (auto-rickshaws and taxis)
  - Railways
  - Chennai Metro Rail Limited (CMRL)

- Avg distance travelled per day by bus: 278 km
- Fleet utilisation: 85%
- Avg. fleet age: 6 years

- Carried passengers:
  - Avg daily bus ridership: 2.43 million
- Total no. of routes: 598

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Climate and Urban Mobility Policies

Vision for net zero urban mobility
The city aims to build a robust roadmap for electric mobility in the state to reduce transport emissions.

Procurement and planned projects
- No e-buses are currently operational

Planned projects
- SWITCH Mobility (an arm of Ashok Leyland) is planning to a lot of 500 e-buses by 2022 among a total of 2,000 e-buses to be financed by KfW;
- State Government has purchased 500 e-buses with the financial support of KfW; 100 e-buses (of the total 500) have been allotted to MTC.

Political commitments
- 2018: the state government and the department of Environment, Climate Change and Forest department of Government of Tamil Nadu signed an MoU with C40;
- C40 Cities Finance Facility supports Chennai to prepare and deliver climate change projects related to e-buses;
- Electrifying its bus transportation system.

Electric Buses

Targets for electric bus adoption
1. 2022: KFW finances 500 e-buses in Chennai, Madurai and Coimbatore as part of a larger financial support.
2. Full electrification by 2025.

Experiences
- 2019: Chennai attempted a second trial run (after 2017) of e-buses deployed by Ashok Leyland for three months;
- Under climate friendly bus modernization project of bus services in the state of Tamil Nadu, KfW is supporting the procurement of 2,500 buses, of which 500 will be electric. These buses will be shared between Chennai, Coimbatore and Madurai.

Bus technology share

<table>
<thead>
<tr>
<th>Type</th>
<th>Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-Buses</td>
<td>3,460</td>
</tr>
<tr>
<td>Hybrid-Buses</td>
<td>0</td>
</tr>
<tr>
<td>ICE – Buses</td>
<td>0</td>
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</tbody>
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References:
1. Tamil Nadu launches first electric bus in Chennai on trial https://www.saharenergy.com/ev-storage/tamil-nadu-launches-1st-electric-bus-chennai-trial