Ahmedabad, India

Partner city

Status of the project: Completed technical assistance

Basic Information

Urban area: 1,866 km^2

Population: 7,800,000 | Growth rate: 2.54%

Region capital city

GDP per capita: USD 2,771

Modal Share:

(Source: Metro DPR)

- Formal public transport: 11.4%
- Informal public transport: 6.1%
- Walking: 37.2%
- Cycling: 9.1%
- Private cars: 3.9%
- Private motorbikes or 2-wheelers: 25.9%
- Other: 6.3%

National GHG emissions per capita: 2.41 (tCO_2eq)

Exposure to climate change: MEDIUM

Context

Ahmedabad is one of the oldest and most densely populated cities in Gujarat, India. As a hub to industries, including manufacturing, services, textiles, etc., Ahmedabad is experiencing rapid growth. The Greater Ahmedabad (GA) region is expected to grow from 8.1 million in 2011 to about 12.5 million in 2031. Major industrial developments in the city are being planned in areas like Viramgam, Changodar and Bechraji Special Investment Regions (SIRs) in western and southwest parts of the Greater Ahmedabad area. To strengthen the growth in the city, another major employment node, GIFT city, is being planned between Ahmedabad and Gandhinagar as a major financial centre. While some industrial investments are also being envisaged in Kadi, Kalol, and Mehmedabad; Sanand, Dehgam, Kheda and Bavla, which are being developed as residential towns.[1]

All these planned developments will add another 1.75 million trips in the SUMP study area by 2031, a 15% increase from the current levels. Today, about 21% of the population is covered by the public transport system in Ahmedabad, whereby the mode share for public transport is about 11% with about 0.9 million passengers boarding on AMTS (Ahmedabad Municipal Transport Service) buses and 0.15 million on BRTS. Ahmedabad has a compact city structure with poly centric nodes and mixed land use throughout the city, along major roads. Trip patterns are dispersed, so the average trip lengths (5.5km) are shorter than comparable size cities in India.

1 Integrated Mobility Plan for Greater Ahmedabad Region, Vol. 1

Until 2007, urban transport was a state function and had systematically been taken care of in the city of Ahmedabad, especially in the old heritage city. Ahmedabad Municipal Transport Services (AMTS) comprises 201 routes covering 549 km of road. AMTS has a coverage area spread over 88% of the developed AMC area. The AMTS data 2012, it caters to 11% of trips within the city i.e. 0.9 million passengers per day. The first closed system BRT in India was deployed in Ahmedabad in 2009 and is operated by Ahmedabad Janmarg Limited (AJL), a special purpose vehicle (SPV) formulated by Ahmedabad Municipal Corporation, Ahmedabad Urban Development Authority and Government of Gujarat. The BRT system operates on 13 routes with a network length of 82 km and a daily ridership of 130,000 passengers with peak headways of 2.5 to 3 minutes.

Ahmedabad Municipal Corporation, the local counterpart, has the mandate and responsibility to finance bus transport infrastructure, whereby it can possibly borrow from international finance sources too. The performance of bus services is monitored and evaluated periodically by Municipal Corporation.

The local authority is willing to strengthen integrated land-use transport planning, aiming at addressing the lack of land for public spaces, public transport utilities or depots and the absence of walking and cycling infrastructure. Other important challenges are the promotion of fare integration of public transport, the last mile connectivity, the reduction of the travel distance and time and the adoption of on-street design, management, and integration in Local Area Plans.

AFD, through the MobiliseYourCity India Program, supported Ahmedabad in developing a Sustainable Urban Mobility Plan and establishing an Urban Mobility Observatory. Technical assistance will contribute to institutional strengthening by building the capacity of local urban bodies on mobility issues and sustainable urban development.

Support from the Partnership

Technical assistance: Sustainable Urban Mobility Plan (SUMP) and establishment of Urban Mobility Observatory in Nagpur, Kochi, and Ahmedabad

Funded by: European Union

Funding amount: EUR 900,000

Implemented by: AFD through the MobiliseYourCity India Project and supported by UMTC as Project Implementation Unit

Local counterpart: Ahmedabad Municipal Corporation

Supported activities:

1. Preparation of SUMP & creation of mobility observatory
2. Preparation of Handbook for Physical Planning of Transit Interchanges
3. Capacity Building activities for stakeholders in the city

Status of implementation

Project start: 2018 Q4

Expected project completion: 2023 Q1

Completed outputs:

- MobiliseDays (Feb. 2019)
- Inception phase and inception report delivered (Dec. 2021)
- Publication of the *General guidelines and Concept Plan for Transit Interchanges in Ahmedabad*

- Mobility diagnosis report, SUMP Vision and Goal Setting, Construction of Scenarios, Measures prioritisation, SUMP Action Plan and synthesis of SUMP action Plan
- Capacity building: in-person workshops and online webinars
- Meetings of the local steering committee, SUMP task force, and other related instance
- Draft Mobility Observatory (online platform)
- Participatory process
- Finalised Mobility Observatory and MRV systems for Nagpur, Kochi, and Ahmedabad

Core impact indicators baselines and projected impacts

Indicator	Baseline – 2020	Projected 2030 (BAU)	Projected 2030 (SUMP scenario)	Impact 2030 (SUMP vs BAU)
Total annual GHG emissions (Mt CO_2eq)	1569.4	Data not yet available	Data not yet available	Data not yet available
Annual transport related GHG emissions per capita (kg CO_2eq)	180 kg CO_2eq / capita	Data not yet available	Data not yet available	Data not yet available
Modal share Increase of the modal shares of trips by public transport and active modes (% of total trips)	Public Transport: 10.3%	Public Transport: 22.6%	Public Transport: 27.9%	Public Transport3: +5,3%
Access to public transport Proportion of the population living 500 meters or less of a public transport stop	21% (IMP 2031)	Data not yet available	Data not yet available	Data not yet available
Air pollution Mean urban air pollution of particulate matter (in µg PM2.5) at road-based monitoring stations	33 µg/m³ of PM2.5[2] As on Date 13-02-2021	Data not yet available	Data not yet available	Data not yet available
Road safety Annual traffic fatalities in the urban area, per 100,000 inhabitants	Five fatalities / 100,000 hab (2019)	Data not yet available	Data not yet available	Data not yet available

2 https://aqicn.org/station/

Key measures and cost estimates

The following table highlights the most significant measures identified in the technical assistance.

Measure
Strategic axis A: Assign clear responsibilities and funding for urban mobility
Strategic axis B: Plan for urban forms and land use that minimise travel distances
Strategic axis C: Mitigate growth of private vehicles use and encourage modal shift from private vehicles to public transport
Strategic axis D: Develop an integrated public transport system
Strategic axis E: Develop complete streets and facilitate access to the integrated transport system
Strategic axis F: Improve efficiency and reduce externalities of the freight system
Strategic axis G: Promote energy efficiency and GHG emissions mitigation
Total cost of measures: Rs. 450.8 billion (EUR 5.02 billion) for investment and Rs. 1.58 billion (EUR 20 million) for operation until 2041