EcoMobility

ICLEI Local Governments for Sustainability

PRIORITY FOR ECOMOBILITY IN OUR CITIES. A SERIES OF LOCAL STORIES

Ahmedabad, India

India's first full Bus Rapid Transit (BRT) System

Summary: In the last 10 years, Ahmedabad's economy has grown significantly due to substantial progress in the transportation and communication industries. With this growth, vehicles registered in Ahmedabad have increased 13% per year. In order to reduce traffic and pollution, Ahmedabad introduced India's first BRT system.

Reducing pollution with public transit

The Central Pollution Control Board ranks 85 cities in India in terms of their pollution levels. In 2001, Ahmedabad was ranked the most polluted city in India. The local government saw this as a wakeup call and began creating a plan to reduce pollution emitted from transportation. The number of buses in the public transit system was doubled. Rickshaws and buses were converted to run on compressed natural gas. In 2005, the city decided that a BRT system would be the best development to continue reducing pollution. The Centre for Environmental Planning and Technology (CEPT) worked with the Ahmedabad Municipal Corporation (AMC) on this project. In 2009, the BRT system was opened and within a few months drew a ridership of 35,000 passengers per day. At the end of 2009, Ahmedabad was achieved a good ranking as only the 51st most polluted city in India.

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Quick boarding and alighting at prepaid entrance bus stations, Ahmedabad.

The benefits of a BRT system

The BRT system of Ahmedabad modernized the city's existing public transit. Ahmedabad aimed to create a network of routes that would link main origins and main destinations. Travel routes of passengers were taken into account when the routes were selected. Low-income neighborhoods were revived by increasing mobility of the residents with the establishment of bus routes through these areas. Also, measures were taken by the city to ensure a simple and efficient system. Tickets are purchased before entering the stations in order to reduce dwell times due to cash payments on buses. Also, buses were given priority at intersections. In order to facilitate this, retired servicemen monitor intersections and manually allow buses priority. This allows for an increase in average bus speed and greater reliability of the system. Traffic lanes are segregated to allow for BRT-only lanes. Non-BRT buses, even the original public city bus, cannot enter these lanes, but the BRT buses can exit the lanes as necessary.

In 2010, only one year after its introduction, Ahmedabad's BRT system was awarded the International Sustainable Transport Award by the Institute for Transport and Development Policy (ITDP). regarding their route to school. The goal of all this is to quintuple the total distance covered by pedestrian and cycling lanes over the next five years.

Use of technology to increase information and efficiency

The success of the BRT system is due in part to the technological advancement of these buses compared to the other transport modes in Ahmedabad. Smart cards were introduced that reduce the cost of riding the bus for smart card holders and reduces wait time to pay at the station by reducing cash transactions.

Improvements in the bus management system include GPS units on each bus that constantly monitor the location and speed of the bus and transmit this information to a central command center. This allows the system performance to be evaluated in real time and passengers to receive accurate information such as the arrival time of the next bus. These are incentives for passengers to choose the BRT system, since the regular city buses currently do not use any of this technology.

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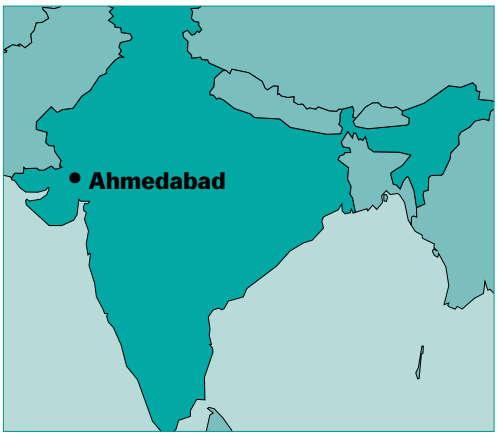
Bus only lanes allow for quick travel, through otherwise congested roads.

Current statistics and goals

When the BRT began, there were only 12.5km of routes in the system. There are now 40km as well as construction to complete 58km by the end of 2011 and 88km by the end of 2014. There are currently 783 buses and 61 stations that see a daily ridership of approximately 785,000 boardings by 110,000 people. There are about 1003 passengers per bus per day. The average trip for each passenger is nearly 6km, an ideal distance for traveling by bus. Twenty-two percent of all trips in Ahmedabad are made using public transit, 16% of which with the BRT. The city hopes to increase both of these percentages by continuing the construction of new routes and honoring customer survey response suggestions.

"Towards a safe, accessible and efficient transport system."
– Honourable Chief Minister Shri Narendra Modi, 2009



Ahmedabad, India

The City of Ahmedabad is the largest city and former capital of the state of Gujarat. It is the seventh largest city in India. Ahmedabad has a population of approximately four million people and the metropolitan area has a population of 5.6 million people. The city has a density of 22,473 people per km². The biggest industry of Ahmedabad is textiles. The city is also an important financial city, contributing approximately 14% of the investments in India's stock exchange market. Ahmedabad is an ICLEI member since December 2008.

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