

Problem Statement

The urban population in India is growing and so are motorisation rates. The growth in the number of registered motor vehicles from 1951-2011 was about 5 times, while the population increase was about 3.4 times during the same period. It is anticipated that the passenger travel demand would double by 2021 and triple by 2031. Energy consumption by the urban transport sector is likely to increase dramatically in the coming decades. This will impact the quality of life in cities and increase dependence on oil imports, thus threatening our energy security. Focus on large cities and high cost transport projects have not eased the growing motorisation rates. On the other hand, cities below 1 million population are anticipated to contribute more than 30% to the growth in motorisation rate, and another 30% contributed by cities in the population range greater than 1 million and less than 4 million. What should be the policy focus to arrest the negative impacts of motorisation that constrain the smooth growth of cities?

Issues

Class I (>0.1 million population) cities have tended to dominate urban population with the other city-classes diminishing in their respective shares. However, urban growth pattern within Class 1 cities indicate that the average population growth rate in the metro cities (including mega cities) is declining, whereas the fastest growth is seen in cities within the 1 – 5 million population range. The issues regarding urban transport in this context emerge as following:

Rapid motorisation rates in smaller cities: Cities with pre-existing mass transit systems, like Mumbai and Kolkata, have showed lower vehicular growth while smaller cities, which do not have mass transit systems or good public transport systems are witnessing a rapid motor vehicle growth.

Changing travel behaviour in medium size cities: Trip rates and trip lengths have been increasing in cities with less than 2 million people. Besides, share of public transit trips and non-motorised trips has been decreasing.

Increased congestion: In most of our cities, both large and small, travel speeds are comparable to average bicycling speeds (i.e. 15-16 kmph).

Safety concerns: With vehicle ownership lower than most of the developed countries, India faces safety concerns that surpass countries like USA and UK. There is a huge variation in fatality risk across cities of India, ranging from 3.2/100,000 people for Kolkata to 34.4/ 100,000 people for Vishakhapatnam in 2009.

Impact on emission, energy use: High pollution levels are not just a concern for megacities, but are fast becoming a concern for all cities. The anticipated travel demand from

smaller cities is likely to be as energy intensive as the large cities today.

Proposed Solutions:

1) Reduce short motorised trips and increase Non-Motorised Transport (NMT) share by: Enhancing connected, barrier free footpaths and cycle lanes and also addressing their safety issues by:

- Developing a legal policy framework with pedestrian and the cyclists as central focus
- Developing NMT guidelines or modifying them to suit the context of the city

- Developing standards for traffic control devices (like the Manual on Uniform Traffic Control Devices (MUTCD))

- Forming of an NMT cell
- Introducing incentives for bicycling, disincentives for short motorised trips
- Designing safe crossings and location choices

- Marketing and creating a culture of bicycling.

2) Increase access to public transport – Accessible, reliable and integrated public transit strategy through:

- Introducing public buses where no transit system exists

- Improving existing Public Transport (PT) services (route rationalisation, Intelligent Transport Systems (ITS) solutions for reliability and flexibility)

- Integrating NMT, Intermediate Public Transport (IPT) and PT mandatorily for better last/first mile accessibility

- Developing IPT Policy

- Enhancing NMT for providing first and last mile connectivity to transit

- Integrating fares, allowing free and/or discounted transfers between routes and modes.

3) Traffic Management and Parking Management – These measures are important for ensuring safe mobility.

4) Diversify fuel types such as :

- Mandatory use of CNG for PT– BRT or local buses
- Enabling infrastructure for electric vehicle usage (residential areas, commercial/office)
- Promoting charging by solar panels.

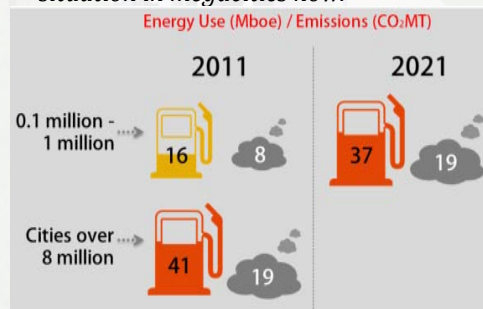
5) Reduce trip lengths and motorised trips through:

- Developing compact cities (infill)
- Clustering of city functions in walkable neighbourhoods
- Focussing on transit oriented development.

PROBLEM HIGHLIGHTS

Under Business As Usual (BAU) conditions:

- *Smaller cities are emerging as the energy hotspots for the future*
- *If proper interventions are not enforced in these cities now, high energy use with its impact on emissions will aggravate the current environmental situation*
- *Smaller cities will face the same externalities of high vehicular growth in the coming decades, similar to the situation in megacities now.*



Institute of Urban Transport (Ministry of Urban Development) with Sujaya Rathi and Anantha Lakshmi, CSTEP