

Breathing in Bengaluru: Need for integrated planning

by Aparna K P

Bengaluru has been ranked as the most congested city in India, as per the [TomTom Traffic Index 2023](#). Severe congestion has led to a loss in productive hours and a frequent disruption of emergency services, in addition to economic impacts. Further, rapid urbanisation in the city leading to urban sprawl has strained the transportation infrastructure and resulted in increased accidents, traffic congestion, and air pollution.

The previous article in this series highlighted the impact of vehicular emissions on citizen health in Bengaluru. This article focuses on the potential for relieving vehicular congestion in the city by implementing sustainable mobility measures such as integrated planning.

Dealing with the bottleneck

Widening of existing roads and building new infrastructure have been common solutions to tackling traffic congestion. These measures temporarily lead to increased traffic speeds, but in the long run, they can result in more traffic congestion and lead to a loss of green cover. In this regard, implementing sustainable mobility practices, which aim to provide green, equitable, inclusive, safe, and secure mobility solutions, can bring about a substantial improvement in the road infrastructure.

Sustainable mobility can help meet transportation needs with minimal environmental impact, fostering harmony between humans and nature. It includes shifting to public transport, supported by the provision of real-time information at transport hubs or through apps, last- and first-mile (active and shared) mobility options, and adoption of electric or other green vehicles.

As per the [TUMI e-bus study](#) (2022), Bengaluru's public transport share is around 42%. As per the Comprehensive Mobility Plan for Bengaluru (2020), this share is projected to increase to [60% by 2031 and 70% beyond 2031](#). This can be achieved by implementing concepts such as *integrated land-use and transport planning* (ILUTP) and *transit-oriented development* (TOD) along with an improved mass transit system.

Upgrading mobility through ILUTP and TOD

Land use and transportation activities are dependent on one another. ILUTP aims to optimise urban land use to improve ease of living. A renewed approach to the development of a master plan that strategically links the transport network and land use is essential to improve the mobility index of the city. As such, many cities in countries such as Japan, Brazil, and Sweden are continuously working towards incorporating ILUTP.

TOD is the development of residential and commercial areas with necessary services along public transport corridors (including metro rail and bus rapid transit [BRT]). This strategy helps solve issues like traffic congestion, pollution, and under-utilisation of mass transit services. For instance, in Curitiba, Brazil, high-density areas have been built along its BRT corridors, which are utilised by [85%](#) of the population and have led to low vehicular emissions. One such measure, a bus priority lane, was implemented back in 2019 on a selected stretch in Bengaluru. However, it was later scrapped due to insufficient carriageway for other vehicles and on-going metro rail construction. Thus, the city needs to adopt a revised strategy for integrated planning through TOD to improve the quality of life of its residents.

Improving transit in Bengaluru

The [TOD policy in Bengaluru](#), introduced in November (2022), focuses on high-density development along metro rail corridors and traffic and transit management centres (TTMCs). The policy aims to achieve a high modal share of public transport, improve associated infrastructure for non-motorised transport (NMT) use, and implement mixed-land use that leads to shorter commutes. However, owing to the lack of economic inclusivity of real estate around metro rail stations and the lack of seamless connectivity to public transport hubs, TOD implementation has been slow-paced. Additionally, insufficient funding to improve public transit services/infrastructure, lack of multi-modal integration, absence of institutional integration, lack of parking and other necessities, lack of stringent action against illegal land encroachment, and absence of long-term strategies are other roadblocks for TOD implementation in the city. Metro rail and BRT corridors along the same route would be redundant. Hence, future BRT/bus priority lanes need to be planned for areas that are not served by the metro rail.

Bengaluru is poised for expansion, and the negative externalities of the same can be minimised by adopting sustainable mobility practices. The Bengaluru Metropolitan Land Transport Authority (BMLTA) aims to regulate urban mobility holistically, including development, operation, maintenance, monitoring, and supervision. It intends to integrate various institutions and departments to enable efficient transport planning and TOD implementation. Although the BMLTA bill was passed in December 2022, it is yet to be implemented. Once functional, BMLTA can promote seamless mobility through sustainable urban transport and plan for the effective implementation of TOD in the city. This would also require reassessing the travel habits of commuters, which can be a challenging but attainable task. Synergy among various mobility players (both public and private) and commuter-friendly first- and last-mile connectivity can ensure the successful implementation of TOD in Bengaluru.

The next articles in this series will explore the potential of non-motorised transport (NMT) or active mobility and Electric Mobility as a Service (eMaaS) to alleviate traffic congestion in Bengaluru.

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