

**OPINION**

**Multi-modal integration: The key to transforming India’s transport systems**

Ever-rising transport demand which corresponds with economic growth has been difficult to meet in the absence of integrated planning of land use and transport

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Ever-rising transport demand which corresponds with economic growth has been difficult to meet in the absence of integrated planning of land use and transport. (HT archive)

In India, urbanisation is increasing rapidly, offering economic opportunities across various sectors. This leads to domestic immigration of the working-class population to these urban centres, boosting its productivity, further leading to more economic activity through the establishment of more business centres and markets. This development cycle, through an analysis of its contribution to the Gross Domestic Product (GDP), shows that urban centres are the engines of economic growth, and their contributions to GDP will continue to grow. However, the needs of a rising population in an urban landscape must be met. Rapid urbanisation means more pressure on infrastructure, increasing congestion, rising pollution

and unmanageable urban sprawl. In the last few decades, governments have tried to meet the increasing travel demand. But the pace of rising demand has consistently beaten the rate of infrastructure development. Ever-rising transport demand which corresponds with economic growth has been difficult to meet in the absence of integrated planning of land use and transport.

Supporting infrastructure to keep pace with rising economic activity, therefore, is essential. Along with urban development programmes such as the smart cities mission, AMRUT and housing for all, among others, the focus on mobility infrastructure is equally important to ensure that the economic potential does not get constrained.

Policy planners have been advocating public transport solutions to free up Indian cities from traffic congestion and high pollution levels. These high-investment and high-operational expenditure projects have been approved because of the long-term, socioeconomic benefits they bring with them.

India has emerged as one of the fastest-growing markets for urban rail systems. The government has invested intensively in urban transport systems such as metros across tier-1 and 2 cities, inter and intra-city high-frequency bus services, monorails and so on. However, despite these projects being successfully implemented, ridership numbers have been far below the projections of the policymakers. These numbers have further been hit by the Covid-19 pandemic.

From a commuters' viewpoint, these projects provide an affordable, reliable, safe, fast and green alternative to other transport modes. However, there is scope for improvement in multi-modal connectivity. Unimodal and multi-modal networks involve transfers points where users can move from one mode to another. The walking and waiting time during these transfers discourage people from opting for public transport. Urban transport systems require several functions to be performed in a well-coordinated manner for a seamless travel experience. Unfortunately, there is a lack of coordination among the agencies.

Every agency is looking at commuters with a myopic view as their exclusive users, and not as one who wants to travel from one point to the other on more than one mode seamlessly. Public Transport agencies operate in isolation and have so far resisted plans of cross-integration in many cases.

Public transport platforms such as the Indian railways, metro trains, regional rapid transit system (RRTS), interstate buses, bus rapid transit (BRT) as well as aviation can no longer operate in isolation. There also remains the choice between public and personal transport. This depends on several factors such as duration, route, purpose, fare, convenience and

comfort. To ensure that these advanced transport modes become the natural choice for commuters, from every stratum of our society, we need to provide for the end-to-end travel requirements.

Addressing these challenges requires enabling the convenience and comfort of door-to-door trips by ensuring integration based on well-established global transport integration frameworks. In an international forum I attended, the transport integration framework was outlined at two levels.

First, the physical integration primarily comprising the implementation of efficient interchanges at stations/stops/terminals to minimise back-tracking, walking distances, level changes between services, and provide safe (off-street) and secure (well-lit) and weather-protected facilities.

Second, the service integration comprising network structure of route alignments and stoppage locations, level of services, schedules, fare structures and passenger information.

Despite an increased focus on the implementation of advanced public transport systems, the lower modal share of these systems has raised questions on the core objectives, not only from the perspective of financial viability but also from the perspective of the economic return from these projects. This includes the impact on the lives of citizens, reduction in pollution and lower congestion on roads. Therefore, solving these challenges calls for focused action with an emphasis on integrating multi-modal services at the planning stage.

Prime Minister Narendra Modi, in his Independence Day 2020 address, emphasised the government's commitment to bring in a paradigm shift in infrastructure by integrating key modes of transportation. He highlighted that it is critical to move away from the era of "working in silos". The opportunity is now to make our cities more accessible by enhancing multi-modal integration and improving the commuter's experience.

Hong Kong's public transport system serves as a good example. Its transport system includes railways, trams, buses, ferries and taxis. With multi-modal integration, Hong Kong has achieved public transit modal share close to 90%. Other great examples include Tokyo, Singapore, London, Madrid and Paris.

The creation of the Unified Metropolitan Transportation Authority (UMTA) in Indian states has been advised by the Centre, but hasn't proliferated across the country. Given that the public transport agencies are still taking a narrow view in many cases and not opening

up for integration, empowering the UMTA to take ownership of the transport ecosystem will help reach this goal.

It is also the responsibility of the upcoming projects to ensure integration with the existing modes of transport, and at the same time, it is equally important for the authorities to support this. With this in view, at National Capital Region Transportation Corporation (NCRTC), we plan to connect several nodes of NCR, by way of the country's first RRTS. We have been interacting with authorities to holistically integrate all public transport networks in the region.

Multi-modal integration, which is central to our planning, is a key enabler in increasing ridership as it incentivises commuters to shift from private transport. For example, the Sarai Kale Khan RRTS station will be a mega multi-modal transit hub of NCR, where all the three priority RRTS corridors will converge and integrate with the existing Delhi metro station, Nizamuddin Railway station, and ISBT.

At NCRTC, commuter convenience takes precedence over ease of implementation. We are committed to combine engineering solutions with top-class technology to provide sustainable urban mobility to the commuters of NCR. Multi-Modal integration and seamless connectivity will remain at the core of our planning and implementation.

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The views expressed are personal