Indian metro plans will boost growth of mega-regions

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The central government has embarked on a major plan to overhaul urban public transport, with the Ministry of Urban Development offering to pay 30% of the cost of establishing metro rail in all cities with a population of over 2 million. It has also offered financial assistance in the preparation of Detailed Project Reports by state governments and local authorities. Such projects promise major gains at a time when the infrastructure deficit is slowing growth and voter demands for improved urban transport are rising.

What next

Government efforts to develop metro-rail will accelerate the growth of mega-regions around such cities as Delhi, Mumbai, Kolkata, Bengaluru and Chennai, but not bridge regional growth disparities. By themselves, metro projects will not alleviate infrastructure bottlenecks, but they could act as catalysts for supportive development and policies designed to maximise the benefits of such projects.

Analysis

The development of urban rail transits divides opinion among policymakers. Opponents state that such infrastructure has no effect on economic development; advocates say the benefits of such infrastructure are improving accessibility and affordability, and the development of a more sustainable and safer mode of transport. As railways have done in the past, such networks spatially reorganise and economically energise cities and their surrounding regions over time.

Domestic requirements

In India, private ownership of motorised vehicles has grown rapidly in recent decades but a vast population continues to rely on non-motorised or public transport:

- According to the World Bank, in India, only 18 out of every 1,000 people owned motor vehicles in 2009.
- A large number of these are concentrated in urban areas of which Delhi leads with 85 private cars per 1,000 people.

Moreover, friendly and efficient public transport is either absent or deficient in most Indian cities. Therefore, building any public transport system that caters to the majority will provide the impetus for economic development insofar as it is dependent on transport infrastructure.

Metro projects

Nineteen urban agglomerations (UAs) qualify for metro rail financing by the central government, although projects that are under construction so far follow the size of the population only for the top six most populated UAs (Mumbai, Delhi, Kolkata, Chennai, Bangalore and Hyderabad). However, four UAs and four cities with populations well below the 2 million mark also have metro rails that are operational or under construction. The motivation behind pursuing such projects is a desire to:

- facilitate regional connections within a UA; and

Impact

- Metro rail connectivity would propel the development of mega-regions around major urban agglomerations, clustering growth.
- Government confidence in urban transport megaproject formulation, implementation and management will rise, although turf wars will persist.
- This may improve government ability, especially at the local level, to handle different financial, regulatory and administrative contexts.

The majority of India’s population relies on non-private transport
promote urban growth around major economic centres.

Delhi and NCR

Delhi and the National Capital Region (NCR) provide the best example for pursuing such projects in areas with a population below 2 million:

- The cities of Gurgaon, Faridabad, Noida, Ghaziabad and Bahadurgarh, with cooperation from Delhi, are pursuing metro rails in order to harness the benefits of being in close proximity to the capital and the gains promised by overall development in the region.
- In particular, the track is being extended to Bahadurgarh where there are plans to build various special economic zones.

Monorail

In order to overhaul urban infrastructure, efforts are also underway to develop monorails that are more suited to the regional connection needs of smaller cities. Several metro-links have been proposed that would connect:

- Gandhinagar with Ahmedabad, and Surat with Navsari in Gujarat;
- Pune to Pimpri-Chinchwad in Maharashtra;
- Kanpur to its countermagnet, the small town of Bithoor, in Uttar Pradesh;
- Patna to its satellite town of Danapur; and
- Chandigarh to Panchkula in Haryana.

Regional overview

Although metro projects promise economic benefits to the host cities and UAs, their impact on limiting regional economic disparities will be limited, especially in the absence of a congruent national urban transport policy (see INDIA: Urban transport policy falls short - March 22, 2013).

Competitive advantage

While federal authorities are willing to finance 30% of the cost of developing metro rail transits, the rest of the funding has to be mobilised through measures such as internal state resources, public-private partnerships (PPPS), joint ventures and loans. This financial structure skews the transport development plan in favour of cities and states that are economically more developed, and hence wealthier, to begin with:

- Most of the metro rails that are operational, under construction or finalising implementation plans are located in the top 14 states with the highest GDP and in cities that are the top contributors to their respective state GDPs (such as Delhi, Mumbai, Chennai and Hyderabad). These cities rank among the top 30 in terms of competitiveness -- with the exception of Ghaziabad and Bahadurgarh which are adjacent to Delhi, ranked first in city competitiveness (see INDIA: Metro offers lessons for infrastructure plans - June 13, 2012). Such regions will be able to generate internal resources and private investment.
However, metro projects in less competitive cities such as Coimbatore, Kozhikode and Thiruvanathapuram are likely to face financing problems, particularly given the concern among investors about the slowdown in Indian and global growth. These cities may ultimately decide to go for alternatives such as the Bus Rapid Transport System or monorail.

**Capability gaps**

More competitive cities will also have an advantage over their less competitive counterparts in crucial areas such as having:

- technical capabilities in managing large, capital-intensive projects;
- greater political influence on the federal government and the markets;
- large populations that promise higher passenger numbers, and so better return on investment; and
- integrated and good quality multimodal transit that supports and enhances the benefits of metro rail.

Nonetheless, even small-scale rail networks in smaller cities will stimulate economic development and substantially reduce the local public transport infrastructure deficit.

**Second-order benefits**

Besides economic benefits, massive, capital-intensive metro rail projects also promise a secondary benefit: experience in developing and implementing new administrative and financing structures. These structures include all combinations of:

- joint ventures between central and state governments and municipal/city development agencies;
- different kinds of public-private partnerships;
- external loans;
- private funding;
- viability gap funding; and
- real estate development (including land leases) by government to generate funding.

This experience will be beneficial for numerous reasons:

- Typically, central and state governments compete for resources and power, rather than complementing one another.
- The infrastructure plan makes a strong case for authorities at all levels to expand their resource base. Already, there are plans to enact a progressive, dedicated, non-lapsable and non-fungible urban transport fund that draws on various surcharges and taxes.
Municipal governments gained a measure of autonomy with the 74th constitutional amendment in 1993, but translating this power into practice needs more learning opportunities.

Since most infrastructure projects have been government-led, PPP experience in this sector is lacking.

These projects promise to streamline key administrative processes associated with major development projects, especially with regard to land development.

Over time, the benefits of this experience can be expected to accrue well beyond the transport sector.