Efficient mobility can fast track economic growth

Mr Vinay Kumar Singh – MD, NCRTC

Mr. VK Singh is presently leading transformation in regional mobility as the first Managing Director of NCRTC, which is mandated for designing, developing, implementing, financing, operating and maintaining Regional Rapid Transit System (RRTS) projects in the National Capital Region of India. Formerly, Mr Singh was the CEO of the High-Speed Rail Corporation, where he played a key role in developing the Mumbai-Ahmedabad HSR project and finalisation of techno–economic agreement between India and Japan for construction of this line.

India today is exploring multiple avenues in transportation across all modes – be it rail, road, air, or waterways. Do you envision each such avenue having its own sufficient target market to have a business case?

Foremost, I am sure we all would appreciate that efficient mobility is key for economic growth. Not only in India, even if we look towards more developed geographies, we will find that mobility, be it for passengers or for goods, is driven by various modes/ combination of modes of transport depending upon the commodity, price, and time sensitivities. However, there is no dearth of demand for any transport mode. This is also evident from an analysis of density of transport across modes be it rail, road, air, or waterways in the country vis-à-vis the average in developed countries.

Nonetheless, given the limitation of resources and capital-intensive nature of infrastructure, it is imperative to carry out a detailed and realistic feasibility analysis before planning any transport project and ensure that the modes complement, and not compete with, each other. This has been re-emphasized and made **a national priority with GatiShakti Masterplan** by the Hon'ble Prime Minister, the objective of which is to integrate various modes of transport and create complementarities.

Another important consideration, environment sustainability, should be one of the key underlying principles in infrastructure planning. In line with this, **MoHUA has changed the methodology in case of appraisal of Metro/ RRTS projects, moving from financial viability (FIRR) to economic viability (EIRR).**

One example proving the importance of various modes of transport aimed to serve various travel segments, is the implementation of Regional Rapid Transit System (RRTS) in NCR being undertaken by NCRTC. While Delhi and its neighboring areas have seen connectivity via timetabled intercity trains, metro rail, buses, and taxis, what was missing thus far was a high-speed regional commuter network. **This is exactly the gap NCRTC aims to plug in by implementing the country's first regional rail i.e. RRTS**.

NCRTC, a third railway system in Delhi after the National Railways and the Delhi Metro, is targeting to make the slightly disjointed transport system in NCR region more efficient. Could you walk us through the targets that are planned to be achieved?

Regional rails provide high-speed, high-capacity regional trunk commuter network connecting Metropolitan and big cities, towns, and urban nodes across the region.

One step that NCRTC has taken is to integrate the three corridors at Sarai Kale Khan and make them interoperable enabling seamless travel and eliminating the need for passengers to deboard the train when travelling from one corridor to another. This will be transformational for passenger convenience and enhance the impact of RRTS. This network, through multi-modal integration, is seamlessly integrated with national transit networks such as airports and railways on one hand and city level networks like Metro, BRTS and City Buses on the other, creating a network of networks. Thus, regional rails create much needed synergy between national and city level networks in such a way that the entire network of networks complements and acts as feeder and dispersal for each other and incentivizes adoption of public transit systems besides addressing urban issues of congestion, pollution, unmanageable urban sprawl, and migration etc.

While it is a rail-based commuter network with the first corridor being built at a cost of INR 30,000cr, it is very different from what the country has seen so far. With a design speed of 180 km/hr, RRTS is an efficient, reliable, high-speed, comfortable commuter rail service that is targeted at connecting key urban nodes of NCR like never before. With RRTS coming in, the travel time will come down to about a third of its current level.

In phase I, a 383 kms long network of three corridors, converging at Sarai Kale Khan, is prioritized for implementation which will help commuters to move from one corridor to another without changing trains. Seamless connectivity and multimodal integration at RRTS stations are at the core of RRTS planning and implementation. The first of these three corridors, Delhi-Ghaziabad-Meerut RRTS Corridor is 82 km long with 25 stations between Sarai Kale Khan in Delhi to Modipuram in Meerut. The **construction work on the entire 82 km long Delhi – Ghaziabad – Meerut corridor is in full swing and will see trial runs on the priority section early this year with operations opening for the public by March next year**. The entire corridor is scheduled to be operational by 2025.

How do you see the private sector making an impact or playing a role in the RRTS system across NCR and / or in the Railways sector pan India?

NCRTC has tapped into the expertise of the private sector in the implementation of the project. One significant step which we have taken is for procurement of rolling stock bundled with maintenance. So, we are taking advantage of OEM in maintenance of rolling stock which is optimizing the expenditure of rolling stock and other systems. Further, we are going for **Automatic Fare Collection System, which is coming through a hybrid annuity model procurement system.**

Another important attempt that we have taken is engaging a private O&M operator who will not only operate the system but also maintain the sub-systems, be it track, signalling, electrical or mechanical. This is being done for the first time in India. The corporation will continue to guide them to ensure all safety protocols are being followed. Other than this, on the non-fare box revenue side, we are involving private parties in developing and exploiting the commercial potential of our stations.

We take pride that we have got credible and committed partners from the private sector who have experience and expertise of implementing similar projects within India and globally. We have got support from some of the best consultancy firms in the world to fill the gaps wherever needed.

While Delhi / NCR is a densely populated area, the current ongoing pandemic may have a lasting impact at least on the services segment modus operandi. How do you see this impacting RRTS?

At present we are 3 years away from full-scale operations, but the impact has been felt in construction due to supply chain disruptions and reverse labour migration. However, **we are making our best efforts to keep the project progress on schedule. The impact of the pandemic cannot be denied on most of the sectors. However, a clear user-centric approach and planning for behavioral changes is key to minimize such impact**, be it any business. Nonetheless, being in a developing stage as a country as far as adequate transport infrastructure is concerned, the demand may see a short-term dent but not a very significant long-term impact.

In case of RRTS, since the beginning of the project, **we have focused on leveraging cutting-edge technology to enhance customer experience and provide hassle-free safe travel experience to commuters**. We are exploring and will be implementing several path-breaking technological solutions for a better public transport system that prioritizes health and safety. These include cashless and contactless payment system, automated sanitization of lifts and escalators, mobile app for contactless multimodal journey booking, baggage pick and drop, contactless passenger screening (frisking), mm-wave scanners and more.
These technologies are aimed at making the journey on RRTS an altogether different experience. Moreover, being a regional commuter system, this will have its own demand which will bring lifestyle change over the long-term and will not be easily substituted by use of personal vehicles.

To add to the experience and effectiveness, we also plan to leverage an AI-based computer vision system for surveillance and people tracking. The AI-based system will develop a unique identity number (similar to a fingerprint) based on facial characteristics and other features such as clothes. This will enable agencies to track, within seconds, a lost person or child within the system, or track suspects. Automatic abandoned baggage detection will make stations more safe and secure.

Following up on the last question, it would be great if you could share some insight on the steps being taken to incorporate risk mitigation in your plans?

Well, be it such a massive and complex implementation or subsequently operation and maintenance of such a vast system, there are a host of risks at every stage. Having said that, I am confident to share with you that identification and planning for various risks has been an integral part of our strategy since inception.

To start off with, owing to the design speed of 180 Kmph, **RRTS is a first-of-its-kind system in terms of technology, and therefore there is a high technological risk which we have acknowledged and addressed across sub-systems**. Secondly, being a multi-state implementation, it also poses a high regulatory/stakeholder risk which we have taken cognizance of since the beginning.

As a strategy, we take up enabling work before the main construction contractors are handed over work sites so as to ensure encumbrance free ready-to-work sites for the contractors and minimize the uncertainty/ delay risk.

Furthermore, with initiatives like planning the alignment as per travel needs of the potential passengers, extensive multi-modal integration, and adoption of National Common Mobility Card, the focus is on providing holistic solutions for the transit needs of public and minimize revenue risk.

We at NCRTC have taken the initiative of developing a huge network-of-networks of public transit systems via Multi-Modal Integration (MMI) in the NCR. This will be crucial for the long-term sustainability of new-age capital intensive public transit systems. In fact, high-speed regional rail-based systems will be crucial to meet the growing transit needs of the several mega-regions in our country. These mega-regions, like NCR, will be the key drivers of growth for India's overall economic development.

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