

MASS RAIL TRANSIT SYSTEMS

OPPORTUNITIES AND CHALLENGES

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INDIA IS URBANIZING AT A RAPID PACE AND THIS IS ACCOMPANIED BY A NUMBER OF CHALLENGES. TRAFFIC CONGESTION ON ROADS, ENVIRONMENTAL PROBLEMS, INCREASED TRAVEL TIME AND DETERIORATED QUALITY OF LIVING ARE SOME SUCH CHALLENGES. In an attempt to solve such issues, transport systems for many international cities are being planned for rail based mass rapid transit systems. Many Indian cities are in the process of strengthening their public transport system. Currently, eight metro rail networks are operational in India and over two dozen projects are in pipeline. The introduction of mass rapid transit system in India is expected to have a significant say on the urban morphology and the development pattern of the cities. Therefore, it is important to assess the influence of the urban rail transit on the land use, development patterns and design a transit oriented development (TOD) in the cities where metro rail transit system is currently being planned.

The biggest challenge for planning a TOD in most cases of Indian cities is that the metro rail transit system is an after- thought and has been introduced as a solution for congestion, inserted in the well developed areas. Metro rail in Chennai is one such case. Morphological studies show that extensive development has taken place in the influence areas of rail transit especially in the case of sub urban rail. However, this development is haphazard and uncontrolled, leading to congested localities with absence of adequate infrastructure facilities. In the case of MRTS, the impact was not found to be so prominent, especially because of poor connectivity offered by the MRTS. Also it might take several years before the impact takes its shape completely. Hence, it is essential that we capitalize on the development opportunities due to the introduction of metro rail and strategize for a desirable form of development.

The metro rail presently runs through well developed dense areas of Chennai along its arterial roads. Many of the adjacent areas have ready shown indications of clear increase in densities with the boom in property prices. At this point of time it is essential that prompt action be taken to prevent haphazard development in the influence areas. Development control regulations may be immediately brought into effect by mandating provisions for open spaces and suitable infrastructure facilities. Care must be taken to provide pedestrian friendly streets and roads especially within half a kilometre radius i.e areas within walkable distance to the transit stations to increase accessibility to the stations. Areas beyond this radius should be made accessible by other multi modal transport facilities.

Rail transit is a highly capital intensive infrastructure. In order to ensure efficient use and profitability, public private partnership models may be adopted. Hong Kong is an example of a city that has very high densities and successful rail transit systems. It works on a public private partnership where Mass Transit Railway Corporation (MTRC) sold twenty three percentage of its share to private investors. Here, the presence of private investors ensured market discipline while MTRC ensured public interest. Property development surrounding the stations further bring financial returns to the rail infrastructure investments. It creates facilities for the transit users in the form of residential areas, working environments and commercial, entertainment neighbourhoods surrounding the stations – which also add to the fare box revenues.

It has also produced improved environments in the form of master plans that improve circulation, physical integration of stations with surrounding retail-shopping facilities, and enrichment of land uses, all of which together can further boost land values and increase ridership. Controlled development by MTRC prevented land speculation and land-value benefits due to rail improvements from accruing to a handful of private individuals.

In Chennai, the metro rail passes through the arterial roads where property values are already high. Further improvement in the infrastructure facilities, would automatically enhance probabilities of further hike in the property values in these areas. This in turn may lead to induced gentrification. People of low income group would be forced to move away from the transit stations, thereby increasing their transportation costs. In India, since a large percentage of population belongs to economically weaker section of the society, inclusive planning with affordable housing is necessary in these influence zones.

WITH STUDY OF BEST INTERNATIONAL PRACTICES, IT IS DESIRABLE TO MAKE DEDICATED TRANSIT AREA DEVELOPMENT PLANS FOR INTEGRATED LAND USE AND TRANSPORT SYSTEM IN CITIES IN INDIA. THESE PLANS WOULD AIM TO STRATEGIZE THE DEVELOPMENT OF THE TRANSIT INFLUENCE AREAS WHILE GIVING ATTENTION TO THE POTENTIAL OF THE EXISTING LAND USE, MARKET DEMANDS AND THE URBAN DEVELOPMENT GOALS AND STRATEGIES SET BY THE GOVERNMENT.