



ABSTRACT

This report explores how the newly introduced metro rail will contribute to solving the overall transportation issues in Bangalore, Karnataka, India.

The motivation for this report is to determine:

- Whether the projected ridership for the newly introduced metro rail can be realized with the existing and proposed transportation network
- Whether the existing land uses around the metro stations and the recommendations of the Bangalore Master Plan 2015 achieve the desired land use optimization along the metro stations for achieving the desired ridership for the metro rail and other public transportation systems.

Site visits to 15 metro stations for the Bangalore Metro, Phase 1, were conducted to analyze the existing land uses and transportation facilities and determine whether densification can occur around the stations. The site visits concluded that the opportunities for additional densification, multimodal connectivity and walkability are varied around the metro stations.

The transit oriented performance analysis concluded the following:

- the desired density of uses around the metro stations cannot be achieved by the requirements of the Bangalore Master Plan 2015
- the transportation connectivity around the metro stations is not fully developed to encourage a modal shift from private vehicles to the metro
- adequate facilities for walkability are not fully developed
- a lot of the existing established uses are likely to remain for a long time

Given the diverse nature of land uses in Bangalore, the design principles for creating and encouraging Transit Oriented Development (TOD) around the metro stations in Bangalore will have to be customized for the existing areas that the metro will serve. Therefore, detailed station area plans must be developed for each station for integrating land use and transportation. The plans must include recommendations for land use and transportation connectivity and must serve as an integrated land use transport station area plan (LTSAP). The agency/agencies responsible for the land use and transportation station area plans (LTSAP) must develop, implement and enforce the integrated plan. The 500 meter around the metro stations must be developed for integrated land use and transportation connectivity. The 500 m area around the metro stations will be referred to as the LTSAP area.

The main aim of the LTSAP must be to minimize private vehicle dependency and promote public transit ridership in the areas around the metro stations. The report includes general, specific and design recommendations for developing, implementing and enforcing the LTSAPs and recommendations for Bangalore Metro Phase II LTSAPs. An example of how a LTSAP can be developed is given for the Jayanagar Metro Station.