

Assessing Expansion and Integration of Existing Metro Network in and around Pune City

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Abstract

Urban mobility in rapidly expanding cities is becoming harder to handle, mainly because of increasing traffic congestion, uncoordinated transport systems, and a growing dependence on private vehicles. This study evaluates the contribution of metro network to everyday travel in Pune by analyzing both the operational & proposed metro network to everyday travel in Pune & to show their interaction with existing surface transport modes.

It uses a combination of stakeholder survey responses and spatial analysis of various transport networks. The findings suggest that while the metro has improved travel along certain corridors, its overall coverage is still limited, particularly in emerging areas such as Hinjawadi, Hadapsar, and Chakan. Analysis reveals the weak coordination between different transport systems. For instance, integration with PMPML bus services and Indian Railways is not very smooth, and last-mile connectivity around metro stations remains inadequate. As a result, the overall efficiency and ease of use of the system are affected.

Based on these findings, the study proposes a set of planning measures that mainly focus on improving overall integration within the transport system. These include strengthening feeder services, creating well-designed interchange points, extending metro connectivity towards key growth areas, and improving coordination between different agencies. The study ultimately points out that metro development by itself cannot address mobility challenges. Instead, there is a need to adopt a more integrated, region-level approach to effectively improve urban mobility in Pune.

Keywords

Multimodal Transport Integration, Metro Expansion, Urban Mobility, Last-Mile Connectivity, Accessibility.