Urbanization and Growth in Indian Transportation Scenario

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Abstract

Indian planners and engineers are working towards vertical expansion by way of elevated or underground transportation facilities. Initiatives in both road and rail based corridors are taken up. The full paper discussed the above aspects in detail

Keywords: Transport Improvement Measures - Grade Separator, Long Corridor, Bus Rapid Transit System (BRTS), Mass Rapid Transit System (MRTS), Multi-modal Transport Integration.

1 Introduction

Indian urban cities are under severe strain, transport being the most critically affected. Citizens suffer restricted mobility and choking pollution. Lack of integration of environmental concerns into urban transport planning has deepened the crisis. As most of the major Indian urban areas are already heavily built-up, finding space to route transport corridors through them has become a daunting task.

Planning for, designing and constructing urban transport infrastructure is becoming more and more involved, with inputs from multiple sources.

2 Urban Scenario & Transport Characteristics in India

Urban areas are engines of growth where mobility plays a crucial role in this. The problems of urban transport have increased multi-fold with many cities breaching the threshold of one million populations. The vehicle ownership and per capita travel has increased resulting in severe strain on urban infrastructure facilities.

The population of India rose from 439,235,000 in 1961 Census to 1,210,726,932 as per 2011 census (1,285,000,000 for year 2015) that is 193% in 2015 while the urban population rose from 82,690,540 in 1961 to 388,524,900 in 2011 and approx 410,000,000 increasing nearly by 400% in 2015

which is proof of rapid urbanization in India in the past 50 years. Chart 1 depicts the details
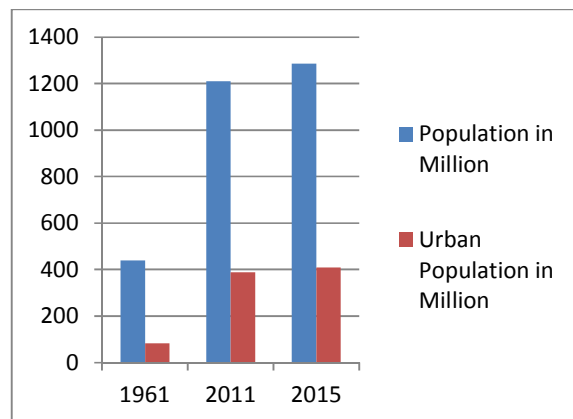
Indian travel conditions are becoming worse day-by-day despite increasing investments in road infrastructure, clean fuel policies, and metro construction. The highly mixed traffic like cars, buses, three wheelers, scooters & motorcycles, bicycles and other non-motorized vehicles are competing with each other for available space

The daily vehicular trips in Indian urban areas may perhaps double in 10 years whereas space for urban transport is very much restricted. Most cities being old having narrow roads and congested built-up areas leading to limitations in road area and right of way. The generic negatives (Figure 1 and Figure 2) in urban areas are population density, heritage character, existing utilities, environmental & dysfunctional transport infrastructure.

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