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Sustainable Public Transport Modal Shares for Indian Cities

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Abstract—The world cities especially high income Asian cities such as Hong Kong, Seoul, Singapore are moving towards higher public transport (PT) modal shares. These cities are targeting for low carbon cities by focusing on sustainable PT (public transport, cycling and walking) with systematic policy level decisions. Indian cities are growing rapidly in terms of population, urban sprawl, income levels and vehicle ownership. In contrast, PT modal shares are declining, causing congestion and undesirable emissions levels. At present, India urban population share is more than 30% and it is projected to reach 50% by 2039. As per latest urban statistics, less than 100 out of 496 Class-I cities are having organized public transport system. Ministry of Urban Development (MoUD) has recommended target public transport shares for Indian cities in 1987 and it has also mentioned that all Class-I cities should target more than 30% of public transport modal share. These modal shares are at policy level target shares and not represent the city's existing characteristics such as population density, average trip length, etc. The present study analysis revealed that no Indian city is close to MoUD target public transport shares. Moreover, the PT modal shares are declining notably during last two decades. The decline in PT shares is a serious concern in terms of health, urban environment and city mobility sustainability. The research paper concentrates on what is the need for desirable PT modal shares and further it will propose the empirical assessment model to arrive desirable public transport shares for Indian cities based on its existing characteristics. Empirical assessment of desirable PT modal shares will help in decision making process to develop the cities in a sustainable way.

Keywords: Public transport modal share, sustainable mobility, city planning, population density.