

## Impact of Urban Densification on Travel Behaviour: Case of Surat and Udaipur, India

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**Abstract :** Cities, an outcome of natural growth and migration, are ever-expanding due to urban sprawl. In the Global South, urban areas are experiencing a switch from public transport to private vehicles, coupled with intensified urban agglomeration, leading to frequent longer commutes by automobiles. This increase in travel distance and motorized vehicle kilometres lead to unsustainable cities. To achieve the nationally pledged GHG emission mitigation goal, the government is prioritizing a modal shift to low-carbon transport modes like mass transit and paratransit. Mixed land-use and urban densification are crucial for the economic viability of these projects. Informed by desktop assessment of mobility plans and in-person primary surveys, the paper explores the challenges around urban densification and travel patterns in two Indian cities of contrasting nature- Surat, a metropolitan industrial city with a 5.9 million population and a very compact urban form, and Udaipur, a heritage city attracting large international tourists' footfall, with limited scope for further densification. Dense, mixed-use urban areas often improve access to basic services and economic opportunities by reducing distances and enabling people who don't own personal vehicles to reach them on foot/ cycle. But residents travelling on different modes end up contributing to similar trip lengths, highlighting the non-uniform distribution of land-uses and lack of planned transport infrastructure in the city and the urban-peri urban networks. Additionally, it is imperative to manage these densities to reduce negative externalities like congestion, air/noise pollution, lack of public spaces, loss of livelihood, etc. The study presents a comparison of the relationship between transport systems with the built form in both cities. The paper concludes with recommendations for managing densities in urban areas along with promoting low-carbon transport choices like improved non-motorized transport and public transport infrastructure and minimizing personal vehicle usage in the Global South.

**Keywords :** India, low-carbon transport, travel behaviour, trip length, urban densification

**Conference Title :** ICUDP 2021 : International Conference on Urban Development and Planning

**Conference Location :** New York, United States

**Conference Dates :** October 07-08, 2021