

PRESS RELEASE:

Toyota Mobility Foundation and WRI India Release Study that Offers Key Insights into Metro Usage Patterns Across India

A survey of 7,200 commuters, across Nagpur, Delhi, and Bengaluru, conducted as part of the Station Access and Mobility Program (STAMP) underlines solutions for improving last-mile connectivity to metros.

New Delhi, July 17, 2023: Toyota Mobility Foundation (TMF) and WRI India today launched a working paper that offers new insights into the way commuters access and utilize the metro, and its implications on last-mile services. The paper ***'Improving Metro Access in India: Evidence from Three Cities,'*** was launched as part of Connect Karo 2023, a flagship knowledge event, organized by WRI India, that showcases research-based, solution-centric initiatives, geared towards sustainable development in India.

The paper presented key findings and recommendations based on extensive research across three metro cities – Nagpur, Delhi and Bengaluru. The study's findings reveal how poor access to metro stations impacts the use of the metro rail system in India. This shows that despite significant investment channeled into these systems, the lack of efficient last-mile connectivity has limited the metro's full potential. The working paper, compiled as part of the TMF and WRI India Station Access and Mobility Program (STAMP), emphasizes the urgent need for comprehensive and strategic planning to address this critical issue.

"The paper emphasizes the need for robust data collection and analysis of commuter behavior for each station. This will enable cities to design appropriate services that respond better to the needs of commuters. Understanding last-mile commuter behavior is crucial for increasing ridership, as it has been identified as the biggest hindrance to utilizing the metro," said **Madhav Pai, Chief Executive Officer, WRI India.**

One of the key findings of the study is that Indian metro systems primarily attract the demographic of 18- to 35-year-olds, who use the metro to access workplaces and educational institutes. Additionally, the research underscores that metro users prefer walking or low-cost shared modes of transport for last-mile connectivity, with informal paratransit modes, such as shared autos, emerging as a particularly popular option. In all three survey cities, walking and shared modes constitute over 75% of the total last-mile mode-share. This indicates that low-cost, shared services and pedestrian infrastructure play a vital role in facilitating last-mile connectivity for metro users.

The study also reveals the time-sensitive nature of commute in India, especially for women, who are averse to waiting for last-mile modes. Consequently, the working paper emphasizes the importance of high-frequency services when planning shared last-mile connectivity options. The research also indicates that existing fare structures empirically place a disadvantage on women as they tend to travel shorter distances, leading to higher fares. This highlights the need for fare structures that can accommodate gender-inclusive travel patterns. Another important finding is that users are willing to travel up to 20 minutes to access metro stations, including the time spent waiting for last-mile modes. This figure is

consistent across cities and income groups, indicating that the “catchment region” of a metro station is determined by access time rather than by a fixed area.

The working paper proposes several recommendations to address the last-mile connectivity problem in the Indian metro rail systems. The findings suggest that a metro station’s effective catchment area can expand by operating faster last-mile modes, reducing wait times, and increasing average speeds, which can improve ridership.

“Not all cities are the same, and not all catchment areas around a metro station are the same. The types of commuters are different. Their travel patterns and mobility needs are different. Understanding this diversity is critical to understand the best way to seamlessly integrate first and last-mile mobility into the metro journey. Appropriately grasping these critical insights, the working paper serves as a call to action for policymakers, urban planners, and stakeholders in the transportation sector to adjust the key parameters that drive the metro journey, including journey information, booking services, hardware and software used for first and last mile, seamless payment methods, etc. By adopting the recommendations outlined in this paper, India can further unlock the full potential of its metro rail systems, by placing the commuter experience at its center, and contributing to sustainable urban development with the best integration of public and private transportation,” said **Pras Ganesh, Executive Program Director, Asia Region, Toyota Mobility Foundation.**

To read the full paper, visit this link: <https://wri-india.org/publication/improving-metro-access-india>

The paper was released as part of Station Access and Mobility Program (STAMP), which is an initiative led by TMF and WRI India to promote better multimodal integration of metro rail, with other modes of transportation in Indian cities, through a partnership model with the innovation and entrepreneurial ecosystem. The initiative, which launched in 2016 in Bengaluru, has also been deployed in six other cities, namely Hyderabad, Kochi, Mumbai, Pune, Nagpur and Delhi.

About the Toyota Mobility Foundation

The Toyota Mobility Foundation (TMF) was established in August 2014 by the Toyota Motor Corporation (TMC) to support the development of a more mobile society in which everyone can move freely. The Foundation underscores TMC’s on-going commitment to continuous improvement and respect for people. It utilizes Toyota’s expertise and technologies to support strong mobility systems while eliminating disparities in mobility. TMF works in partnership with universities, governments, non-profits, research institutions, and other organizations, creating programs that are aligned with the UN Sustainable Development Goals (SDGs) to address mobility issues around the world.

Know more: <https://toyotamobilityfoundation.org/>

About WRI India

WRI India, an independent charity legally registered as the India Resources Trust, provides objective information and practical proposals to foster environmentally sound and socially equitable development. Our work focuses on building sustainable and liveable cities and working towards a low carbon economy. Through research, analysis, and recommendations, WRI India puts ideas into action to build



transformative solutions to protect the earth, promote livelihoods, and enhance human well-being. We are inspired by and associated with World Resources Institute (WRI), a global research organisation. Know more: www.wri-india.org

Learn more about our work at: <https://www.wricitiesindia.org/>

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