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# IISc study identifies policy interventions for gender-inclusive mobility

Low-income and lower mid-income women were found to have shares significantly higher than men in bus, metro and walk modes



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Representative image. Credit: DH Photo

The links between gender, income, and the choice of transportation modes have not been widely studied in developing countries.

Researchers at the Indian Institute of Science's (IISc) Sustainable Transportation Lab have tried to address the gaps by identifying policies that could shape a more equitable modal split in Bengaluru.

The study found a grouping of 19 planning, economic, regulatory and IT policy interventions as most effective for both genders in reducing the use of cars and two-wheelers while increasing the mode share of public transport (PT) and non-motorable transport (NMT).

The interventions, tested in isolation and combinations, included increasing PT coverage, discounted fares for women in PT, defining car-restricted zones, and improving real-time information of PT systems. Four gender-income groups — low, lower-mid, upper-mid, and high — were studied in the Bengaluru Metropolitan Region.

Researchers Ubaid Illahi, Gayathri Harihara Subramanian and Prof Ashish Verma contended that policy interventions limited to individual transport modes could prove inadequate in developing a comprehensive, gender- and income-inclusive mobility model.

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Low-income and lower mid-income women were found to have shares significantly higher than men in bus, metro and walk modes. While men across income groups preferred two-wheelers, a good proportion of upper-income men were found using the metro, indicating that reliability influenced their choice.

### **Actionable findings**

The study, done as part of a project titled Institutionalising Gender Smart and Gender Astute Mobility, had funding support from the Directorate of Urban Land Transport, Government of Karnataka.

“The findings are pointers to Urban Local Bodies and agencies entrusted with diverse aspects of planning, be it buses, the metro, or the footpaths, to adopt gender-inclusive models,” Prof Verma told *DH*.

Improving surveillance, design and safety measures could increase the mode share of walking for women (+0.499 per cent).

With improved NMT infrastructure, women are more likely to walk (+1.36 per cent), while men are more likely to cycle (+0.26 per cent). Dedicated bus lanes were found to cause a +1.67 per cent shift among women toward buses.

The researchers said affordability was key to promoting PT and NMT but it came with the risk of people switching to unsustainable transport modes when their incomes improve.

Identifying deterrents — women, for instance, could be avoiding two-wheelers because of a higher possibility of accidents, and pollution — will be critical in devising transportation policies.

“Even a 1 per cent shift towards public transport could mean that a significant number of private vehicles are taken off the roads,” Prof Verma said. A sustainable modal split in Bengaluru could have an 80 per cent combined share of PT, cycling and walking modes, he said.