



# GENDER INCLUSION IN ELECTRIC MOBILITY

## THE URBAN CATALYSTS

OCTOBER 2024



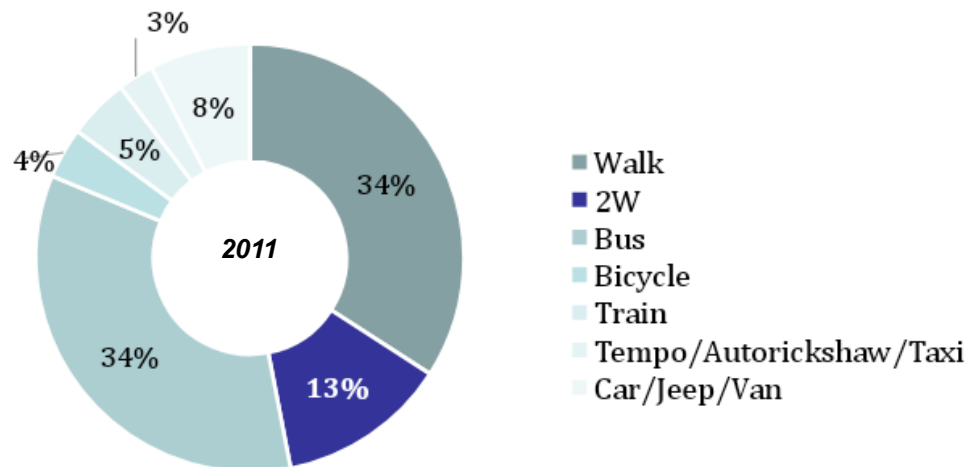
# Understanding Gendered Impacts

**73%** of 378 million vehicles are 2Ws (Sept 2024)



**54%** of all EV sales in India are E2Ws (June 2023-24)

Modal share of women in Chennai, Tamil Nadu



Women want  
**Mobility**

Note: 2011 data includes the work trips made by women.



**\$165.6 billion**

*between 2022-27*

*Last-mile delivery market is estimated to be between **\$6.0-7.0 billion in 2024** and is projected to grow at a Compound Annual Growth Rate (CAGR) of 15.6% annually<sup>1</sup> (Evolve India, 2024).*

---

**Role of two-wheelers has evolved from solely providing passenger mobility to facilitating employment opportunities.**

Only **7% of all licenses** were issued to women in 2019-20  
*(MoRTH, 2020)*

In 2021, women were estimated to constitute **4-7% of delivery drivers** in India *(The Economic Times, 2022 )*



*In 2 metropolitan cities of India-  
Chennai & Delhi*



**Driving  
License**



**Financing**



**Design**



**Charging  
Infrastructure**



**Institutional  
Support**



# Driving License

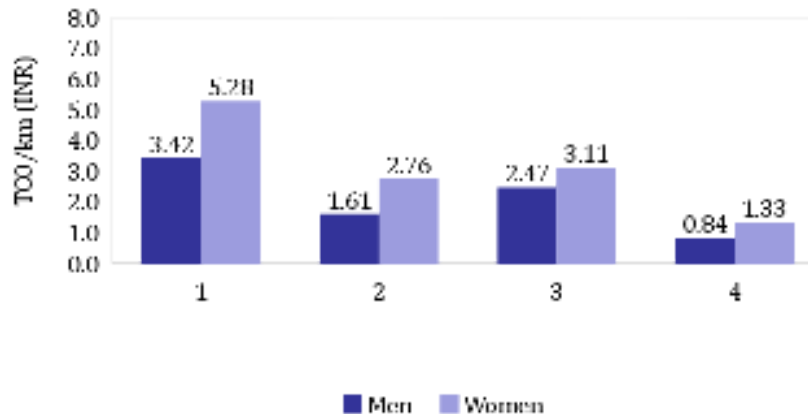
- Women rely on friends and family members to learn driving; **dearth of female driving instructors**
- The average reported cost of obtaining a license is over **2.5 times** the cost of license as per government regulations.
- Lack of awareness on the online process for applying for a license and booking slots for the driving test.
- **Gaps in the online licensing process:**
  - Passing the learners' test;
  - Long waiting times;
  - Passing the driving test;
  - Issues in navigations through administrative processes at the RTOs

# Financing

*Despite needing a two-wheeler for my job, I faced challenges obtaining a loan due to a low CIBIL Score, which is difficult to improve without employment. However, my sister with her strong CIBIL Score from employment, extended her support by taking loan for me.”*

- A female EV Commercial user (Chennai)

Gender differences in E2W Total Cost of Ownership (TCO) based on usage type.



TCO for female E2W users is found to be **1.2 to 1.7 times higher than that of their male counterparts** (differ by type of use of E2W)

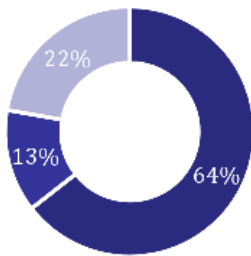
- Women face challenges in accessing financing, as evidenced by 46% of female respondents who obtained loans doing so in the name of a male relative.
- **Key barriers faced by women include:**
  - Limited awareness of available financial products and processes;
  - Low CIBIL scores;
  - Requirement for male co-signatories;
  - Overall low levels of financial literacy among women.;
  - Limited network & information to understand financial process



# Charging Infrastructure Audit

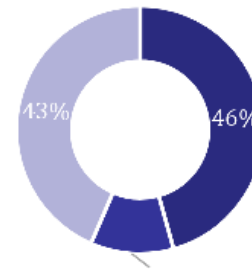
## Operational Status of Audited Charging Points (CPs)

■ Operational ■ Not operational ■ Doesn't exist



N: 45

**Delhi**  
**2,452 charging points\***  
1,570 - operational



N: 46

**Chennai**  
**151 charging stations\*\***  
69 - operational



Charging station located behind the advertisement board, Karol Bagh



Charging point located hidden among pipelines in Chandni Chowk



Charging point covered with a protective box to prevent theft in Rajiv Chowk



CP located on a raised curb without a ramp

# Charging Infrastructure

(E2W users experience)



*“Upon arrival at a charging point, I realised that the charging port didn't suit my vehicle. I became really scared as my two-wheeler started blinking due to the low battery. Somehow, I managed to make it back home, but it was a nightmare for me.”*

*- Female personal user*

- **Men:** Affordability and presence of functioning charging points.
- **Women:** Safety, accessibility and quality of the charging point. Women are concerned about how to use charging stations, the safety of these locations, and longer waiting times, which could attract unwanted attention.

# Design of EVs



***Issues with post-sales support:*** Lack of E2W technicians



Light weight scooters are appreciated, but stability and skidding compared to ICE vehicles is a concern at higher speeds



*Limited-availability & affordability of spare parts in local market*



*Concerns around light weight are being addressed through technology such as reverse assist*



*Concerns about risks of EV batteries during the monsoon season, especially due to urban flooding and its impact on battery integrity.*



Quiet operations appreciated though it may pose a safety concern for pedestrians





Women on the move decarbonizing transport

# Thank You

Website: [www.theurbancatalysts.org](http://www.theurbancatalysts.org)

Email: [communications@theurbancatalysts.org](mailto:communications@theurbancatalysts.org)

