Women's Livelihoods in Urban Mobility

Evidence, Opportunities and Pathways for Expansion

April 2026

Prepared by:

Urban Management Centre

Making cities work for everyone

First Edition: © Urban Management Centre, April 2026
ISBN: 978-93-5916-374-1

This publication is the outcome of extensive research undertaken by Urban Management Centre as technical support unit (TSU) operational from 2017-2026, to the Ministry of Housing and Urban Affairs for the Deendayal Antyodaya Yojana - National Urban Livelihoods Mission (DAY-NULM) and its successor, the Deendayal Jan Aajeevika Yojana (Shehri). The support has been enabled through funding from the Gates Foundation under the Strengthening Resilience and Inclusion with Voice and Economic Empowerment of the Urban Poor Women (STRIVE) program, aimed at embedding gender intentionality within urban livelihoods mission.

Acknowledgements:
Ahmedabad Municipal Corporation (AMC), Bubhaneswar Municipal Corporation (BMC), Cuttack Municipal Corporation (CMC), Puri Municipality (PM), Capital Region Urban Transport (CRUT)

Research
Sithara Ravikumar, Saurabh Bhatt, Soumya Mishra, Namrata Pradhan, Abhishek Bhrahma, Pankaj Barik, Ramchandra Samal, Geddam Renuka Sai, Roshan Mishra, Rujul Joshi, Nikita Popat, Anurag Anthony, Meghna Malhotra, Manvita Baradi

Design
Anika Bhosle, UMC

Prepared by:

Urban Management Centre
Making cities work for everyone

Urban Management Centre (UMC) is a home-grown, bootstrapped, women-promoted organization working towards professionalizing urban management in India and making cities work for everyone. UMC works across sectors to support policy design and implementation for cities, providing technical assistance to urban local bodies and facilitating change through peer-to-peer learning processes. It strengthens the capacity of city governments by offering technical expertise and enabling access to innovations in good governance from India and around the world. UMC's work spans key areas including urban water and sanitation, heritage management, urban planning, urban health, municipal finance, urban transport, and institutional strengthening.

For more information, visit our website: ***www.umcasia.org***

Women's Livelihoods in Urban Mobility

Evidence, Opportunities and Pathways for Expansion

Prepared by:

Urban Management Centre

Making cities work for everyone

Manvita Baradi
Director, Co-Founder

Meghna Malhotra
Deputy Director, Co-Founder

Director's Message

India's cities are growing at a pace and scale we have not seen before. With this growth comes a quiet but important question: who gets to participate in building and benefiting from these urban systems? Too often, women remain on the margins, especially in sectors like urban mobility that continue to be seen as male domains.

This study, Women's Livelihoods in Urban Mobility, comes from a simple but urgent need, to better understand where the opportunities are, what is working, and how we can open up this sector for women in a more meaningful and sustained way. It is not just about identifying gaps; it is about recognising that the opportunities already exist, and that they can and must be expanded.

What has stayed with us most deeply through our work are the stories of women like Shalini, Geeta, and Lily, and many others we met along the way. Each of them stepped into unfamiliar roles, navigated resistance, and persisted. Their journeys are not just inspiring, they are instructive. They show us that when systems make space, women step in and deliver with commitment and professionalism.

At the Urban Management Centre, our work over the years has consistently shown that this is not new or untested. We have seen women take on roles as Jal Saathis in water supply systems, work as Swachh Saathis across the solid waste management value chain, provide desludging services and manage public facilities. These are not pilots in the conventional sense, they are proof points. The challenge before us is to move from isolated examples to city-wide, and eventually system-wide, adoption.

There are already signals of what this scale can look like. Under the AMRUT Mitra initiative, nearly 45,000 women from Self-Help Groups are engaged in water quality and service delivery functions. This required clear intent and strong institutional backing. A similar push is now needed in urban mobility.

For us, this work is also rooted in a larger belief, that women's economic participation is fundamentally about rights, dignity, and recognition. It is about ensuring that women are able to access opportunities on fair terms, work in safe conditions, and be recognised and paid equally for the work they do. When this happens, the benefits extend far beyond individuals, they strengthen the quality, accountability, and inclusiveness of urban services themselves.

What this study tells us is both encouraging and sobering. Encouraging, because there are clear entry points and emerging models. Sobering, because without deliberate action, these opportunities will remain limited and uneven. Expanding women's participation will require policy design, convergence across programmes, and investments in skills, infrastructure, and finance. It will also require us to rethink long-held assumptions about who belongs in these roles.

We hope this publication contributes to that shift and we hope it encourages many more women to step forward, and many more systems to be ready to support them.

Meghna Malhotra
Manvita Baradi

Executive Summary

India's urban transition is accelerating, with cities projected to house over 40–45% of the population by 2030 while contributing more than 70% of the national GDP. This growth is accompanied by significant public investment in urban systems. In 2025–26 alone, nearly ₹96,700 crore has been allocated for urban development, of which approximately 37% is directed towards urban transport, making it one of the largest areas of public spending. Yet, despite this scale of investment and the expansion of livelihood opportunities within the sector, women account for only about 3.5% of the urban transport workforce, highlighting a stark gap between opportunity and inclusion.

This study, Women's Livelihoods in Urban Mobility, positions urban mobility as a livelihood ecosystem and examines how women can be more meaningfully integrated across its value chain. Using a qualitative, case study-based approach across cities in Gujarat and Odisha, the study analyses roles spanning first- and last-mile connectivity, core transit operations, and support services. It assesses not only where opportunities exist, but also the institutional, financial, and social conditions that shape women's entry, retention, and progression within the sector.

The report documents a range of models across cities, including asset-based self-employment through women-led e-auto initiatives in Ahmedabad and Surat; wage employment models such as Ama Bus and E-Saarthi in Odisha; SHG-led service delivery in parking management in Ahmedabad and Bhubaneswar; and passenger facilitation and terminal management roles in Puri. These cases provide grounded insights into both the opportunities available and the structural constraints that influence women's participation across the mobility value chain.

The key learnings emerging from the study are as follows:

1. Opportunities exist but are not inherently inclusive.
The mobility value chain offers multiple entry points from first- and last-mile services such as e-rickshaw driving to roles in transit operations and support services. However, the existence of these opportunities does not automatically translate into inclusion. Participation remains concentrated in roles with lower entry barriers in terms of skills, finance, and social acceptability. As roles become more technical, asset-intensive, or publicly visible, women's participation declines sharply, indicating systemic barriers rather than lack of capability.

2. Women demonstrate strong performance across roles.
Findings across all cases show that women perform effectively in mobility roles, demonstrating high levels of reliability, discipline, and strong citizen interface. Their engagement has contributed to improved service delivery outcomes, including enhanced accountability and user experience. The issue, therefore, is not whether women can participate, but whether systems are designed to enable and sustain their participation.

3. Institutional design determines the extent and quality of inclusion.
Where inclusion has been deliberately built into programme structures, outcomes have been significantly stronger. Odisha's mobility initiatives under CRUT, with mandated reservation (50% in Ama Rides and 100% in E-Saarthi), demonstrate how policy intent can drive scale and visibility. Similarly, direct engagement of SHGs by urban local bodies in Bhubaneswar enabled participation without complex procurement barriers. In contrast, the shift to formal tendering in Ahmedabad excluded SHGs due to compliance requirements, despite several years of demonstrated performance. Inclusion does not occur automatically; policies, procurement systems, and programme architecture play a decisive role in enabling or constraining women's participation.

4. Engagement models produce distinct outcomes and require a portfolio approach.
Three broad models of engagement are observed: wage employment, self-employment, and collective SHG-led models each with specific advantages and constraints.

a. **Wage employment models** provide accessible entry points through stable incomes, social security, and predictable working hours, but offer limited pathways for upward mobility and asset creation.

b. **Self-employment models**, particularly in last-mile services such as e-autos, enable asset ownership and higher earning potential. However, they are constrained by limited access to finance and operational risks, including inadequate public infrastructure (charging facilities, sanitation, rest areas, safety provisions) and constraints within home environments (lack of parking or charging access).
c. **Collective SHG-led models** enable easier entry and shared risk but face challenges in scaling under formal procurement systems. Requirements such as GST registration, audited financial statements, and prior contracting experience often exclude informal or semi-formal women-led enterprises.

These models are not mutually exclusive. A portfolio approach is required, with structured progression pathways that enable women to transition from low-risk entry points to higher-value opportunities over time through a graduation model.

5. Care responsibilities and working conditions are central structural determinants.
Care responsibilities emerge as a critical factor shaping women's participation, influencing both entry and continuity. In the absence of affordable and accessible care support, women's ability to sustain employment remains limited. At the same time, the nature of work and workplace conditions further constrain participation. Women show a clear preference for flexible work arrangements including shorter shifts, rotational roles, and predictable schedules that allow them to balance paid work with unpaid care responsibilities. However, mobility-related work is largely outdoor and field-based, with inadequate access to basic infrastructure such as sanitation, safe resting spaces, drinking water, and shelter. These gaps directly affect safety, dignity, and retention.

6. Persistent structural barriers limit scale.
Women's participation continues to be constrained by a combination of institutional barriers (restrictive procurement and lack of convergence), skill gaps (licensing and technical training), financial barriers (limited access to credit and asset ownership), and social norms (restrictions on mobility, safety concerns, and lack of acceptance in male-dominated spaces). Without targeted interventions, women are likely to remain concentrated in lower-value segments of the value chain with limited progression.

7. Convergence is a critical enabler but remains underdeveloped.
Evidence from sectors such as sanitation and water supply demonstrates that convergence between livelihood missions and service delivery systems enables structured engagement of women at scale, improves service outcomes, and strengthens accountability. In urban mobility, such convergence remains limited, with initiatives often implemented in silos. Leveraging existing livelihood ecosystems, particularly SHG networks, can enable systematic mobilisation, streamlined onboarding, and sustained participation.

Strategic Pathways to Scale
Moving from pilots to scale requires systemic, rather than incremental, change. This includes institutionalising convergence between mobility and livelihood programmes, redesigning procurement systems to enable participation of women-led collectives, and adopting a portfolio of engagement models across the value chain. It also requires investments in skills and transition pathways, improved access to finance through risk-sharing mechanisms, and significant improvements in working conditions, safety, and dignity. Formalising employment, integrating care-sensitive design, and strengthening monitoring and feedback systems are essential to sustain participation. Ultimately, scaling women's participation will require a clear policy push at national and state levels to align institutions, resources, and incentives towards gender-inclusive mobility systems.

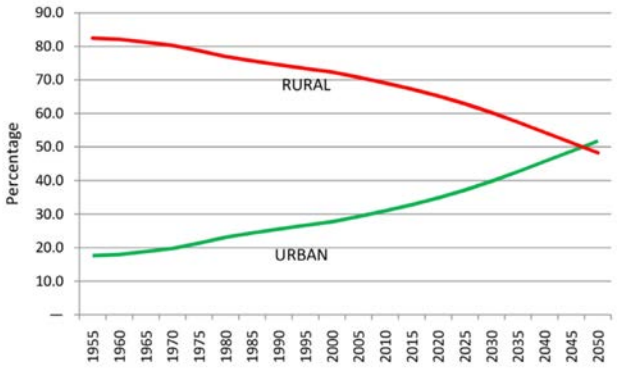
It is hoped that this study contributes to ongoing efforts by governments, practitioners, and institutions to create structured pathways for women's engagement in urban mobility and related sectors. More importantly, it seeks to enable a shift where systems are intentionally designed to support women's participation at scale, encouraging more women to enter these roles and ensuring that institutions are prepared to absorb and sustain their engagement.


CNG

Contents

1. Women's Livelihoods in Urban Mobility: Context and Rationale

India's development trajectory is increasingly urban. The Census of India (2011) recorded 31% of the population as urban, and projections from NITI Aayog and the National Commission on Population indicate that this share will exceed 40% by 2030. Cities already contribute nearly 70% of India's GDP, with this share expected to rise further as urbanization deepens. This transition is therefore not merely spatial, it is fundamentally economic, reshaping labour markets. India is witnessing large-scale internal migration, with millions moving to cities each year in search of livelihoods and better opportunities, making urbanisation central to employment generation and poverty reduction.



The Rise in Urban populace and the Fall in Rural populace [2]

The question therefore is not only about the pace of urbanisation, but its quality. The ability of urban local governments to sustain this expansion will depend on how effectively they deliver basic services, such as water, sanitation, housing and mobility in an equitable manner. Public transport, water supply, sanitation, housing, healthcare, education, public spaces, safety, and digital connectivity are not only determinants of liveability; they are also foundational to city's productivity and inclusion. These systems must therefore be understood not merely as service delivery functions, but as critical livelihood ecosystems that generate employment, enable labour force participation, and support local economic growth.

Within this broader transformation, the national vision of Viksit Bharat, 2047[1] places women-led development (Nari Shakti) at the centre of India's growth pathway. The discourse has evolved from viewing women as passive beneficiaries to recognizing them as active economic

Picture showing Rickshaws parked next to a BRTS lane and their drivers, mostly men, taking a break under the overpass

1 https://viksitindia.com/vision

2 Keshav, Arun & Bala Komaraiah, Jadi. (2015). Population Trends of Urban India. International Journal of Research in Economics and Social Sciences. 5. 245-253.

agents, community leaders and service providers who strengthen local accountability and governance systems. However, significant gender gaps persist. According to the Periodic Labour Force Survey (PLFs)(2022–23), the urban female labour force participation rate remains at approximately 25.2%, compared to 75.3% for men, with the overall urban Work Participation Rate (WPR) at around 50.3%. This disparity underscores the structural barriers women face in accessing decent and secure livelihoods in cities. Bridging this gap is therefore not only a question of equity, but a critical economic imperative for India's urban future.

Bridging this gender gap requires a deliberate expansion of women's participation into non-traditional roles, particularly in emerging and historically male-dominated sectors, to ensure more equitable access to high-growth livelihood opportunities. Urban services, in this regard, offer a critical and underleveraged pathway. There are already important precedents. The public health system, through the Accredited Social Health Activist (ASHA) network, demonstrates how women can be effectively integrated into frontline service delivery at scale. Similarly, national urban programmes such as Deendayal Antyodaya Yojana – National Urban Livelihoods Mission (DAY-NULM), Swachh Bharat Mission (SBM), and Atal Mission for Rejuvenation and Urban Transformation have enabled the engagement of women's Self-Help Groups (SHGs) across sanitation, water management, and community-level service delivery often through programmatic convergence. These examples illustrate how public systems can create structured entry points for women into urban service deliveries.

Understanding Women and Work

FLPR in India is about 42%, which is much lower than the developing country average of 50%[3]. The reasons for this inequality range from social cultural factors to demand and supply constraints, the income effect whereby women withdraw from the labour market as household income rises, low levels of formal skill attainment among women, mismatch between women's career aspirations and available work opportunities, lack of access to finance especially among self-employed women, among other factors[4]. However, underwriting all these barriers, and standing out as one of the most persistent barriers[5], the unequal distribution of care work is a major reason why women are curtailed from entering the labour force. The average woman in India spends 8 times more time on care work than the average Indian man[6]. While women spend 351.9 minutes per day on unpaid care work, the corresponding time spend by men is merely 51.8 minutes[7].

This unpaid care work limits women's labour force participation in multiple ways. It results in time-poverty whereby women have lesser time to allocate for income-generating work, it reduces their employment opportunities as they are forced to choose jobs that allow them to balance household and paid employment responsibilities, and it results in motherhood penalties whereby they lose significant income and career progression opportunities during child-bearing years[8]. In the Periodic Labor Force Survey conducted in 2021-2022, 44.5% unemployed women in India reported that their care commitments at home was the primary reason they are not in the labour force[9].

This shapes not just whether women work, but how. Research from India shows that women offered flexible working arrangements were significantly more likely to enter employment than those offered conventional positions[10] a preference that reflects care constraints rather than reduced ambition. Where a single opportunity falls short, women often combine multiple informal or part-time engagements to assemble adequate household income[11].

3 https://documents1.worldbank.org/curated/en/417411489495483028/pdf/WPS8004.pdf
4 https://www.sattva.co.in/ski/female-labour-force-landscape-in-india/
5 https://www.orfonline.org/research/building-india-s-economy-on-the-backs-of-women-s-unpaid-work-a-gendered-analysis-of-time-use-data
6 https://www.orfonline.org/wp-content/uploads/2023/06/TF6_610_CareEconomy.pdf
7 https://iwwage.org/wp-content/uploads/2021/05/IWWAGE-Working-Report-upd.pdf
8 https://www.orfonline.org/wp-content/uploads/2023/06/TF6_610_CareEconomy.pdf
9 https://dge.gov.in/dge/sites/default/files/2023-05/Female_Labour_Utilization_in_India_April_2023_final__1_-pages-1-2-merged__1_.pdf
10 https://blogs.worldbank.org/en/impactevaluations/what-prevents-indian-housewives-local-flexible-work-opportunities-guest-post
11 Chen & Raveendran, WIEGO (2014/2019)

However, urban mobility remains one of the least explored sectors for women's livelihoods. It is largely male-dominated, it presents significant untapped potential, ranging from roles in public transport operations and para-transit services to last-mile connectivity, maintenance, and digital mobility platforms. Unlocking this opportunity will require targeted interventions skilling, safety measures, institutional support, and enabling policies to facilitate women's entry, retention, and advancement in the urban mobility ecosystem. India's urban mobility sector is expanding rapidly, supported by significant public investment and policy prioritisation. The Union Budget 2025–26 allocates approximately ₹96,700 crore for urban development, with an estimated 35-40% directed towards strengthening urban transport[12]. This includes investments in metro rail, bus-based systems, and sustainable mobility infrastructure.

Sector	2025–26 (₹ crore)	Share of Total (%)
Urban Transport (MRTS, Metro, PM e-Bus Sewa)	36,117	37.3%
Housing (PMAY-Urban, PMAY 2.0, Industrial Housing)	25,794	26.7%
Water & Sanitation (AMRUT + SBM-U)	15,000	15.5%
Livelihoods (PM SVANidhi)	373	0.4%
Urban Challenge Fund	10,000	10.3%
Others	9,493	9.8%
Total	96,777	100%

Table 1: Sectoral Investment by Ministry of Housing and Urban Affairs, 2025-26

The Current mobility system is increasingly multimodal, spanning metro rail and Bus Rapid Transit Systems (BRTS) and conventional bus networks, alongside essential non-motorized transport (NMT) such as walking and cycling and emerging electric vehicle (EV) fleets[13]. Policies such as the National Urban Transport Policy (NUTP) have been instrumental in shifting the paradigm from "moving vehicles" to "moving people," with a strong emphasis on accessibility, integration, and sustainability. This approach is further reinforced through national initiatives like the Smart Cities and PME Bus Mission, which promote integrated and technology-enabled urban mobility solutions.

However, despite this rapid expansion, gender disparity remains a profound systemic challenge within the sector. Women currently constitute only 3-4% of the urban transport workforce[14], with participation constrained by structural barriers including gendered occupational norms, limited access to technical skills and training, safety concerns, and restricted access to finance, assets and care burden.

Increasing women's participation in the transport workforce is therefore not only a matter of livelihood generation and economic inclusion; it is also critical to improving the overall safety and accessibility of urban mobility systems. Greater representation of women, whether as drivers, conductors, planners, or service providers, has been shown to positively influence safety perceptions, enhance responsiveness to women commuters' needs, and contribute to more inclusive and gender-sensitive transport design and operations.

This report, Women's Livelihoods in Urban Mobility, presents a qualitative assessment using a case study approach to examine models that engage women in urban mobility services across cities in Gujarat and Odisha. The study analyses the livelihood ecosystem across the mobility value chain and identifies pathways to enhance women's participation.

The study documents existing models of engagement and assesses the institutional, financial, and operational factors that enable or constrain women's entry, retention and progression. The report aims to generate actionable insights to inform policy and programme design for integrating women into urban mobility at scale, while advancing a gender-responsive approach to the sector.

12 https://prsindia.org/files/budget/budget_parliament/2025/DFG_Analysis_2025-26-MoHUA.pdf
13 NITI. (2018, March 31). Retrieved from https://www.niti.gov.in/sustainable-urban-transport-way-forward
14
15 GIZ. (2023). Gender Mainstreaming in Urban Mobility. Gender Mainstreaming in Urban Mobility (p. 13). GIZ.
UMC's Technical Support Unit to the Ministry of Housing and Urban Affairs developed convergence guidelines to enable SHG-based livelihoods through integration of SBM and DAY-NULM. See guidelines: https://umcasia.org/wp-content/uploads/02_0111.-SBM_NULM-convergence-

Integrating Women into Urban Service Ecosystems: Lessons from AMRUT

Several national and state initiatives demonstrate how urban service delivery can be used to create livelihood opportunities for women. The AMRUT Mitra initiative has engaged over 45,000 women from Self Help Groups (SHGs) across nearly 1,900 cities to strengthen water supply and sanitation services. Under this initiative, women undertake a range of roles, including water quality monitoring, distribution support, park and garden maintenance, minor repairs, and citizen interface functions, contributing to improved service reliability, last-mile delivery, and enhanced local accountability. These roles extend beyond livelihood generation. Women are emerging as stewards of public services and active bridge between the local government and the citizens: strengthening community engagement, fostering trust between citizens and urban local bodies, and reinforcing accountability within urban systems.

The study documents several **programme-level lessons of relevance** to the broader question of women's participation in urban services:

- Women SHG members demonstrated the capacity to learn, adapt, and deliver across service functions, with measurable gains in income, confidence, and agency.
- SHG-led engagement produced improvements in service quality, including water tax collection, billing coverage, and household-level outreach, demonstrating the value of embedding women as structured service partners within urban systems.
- The AMRUT 2.0 and DAY-NULM convergence model shows that when institutional intent is aligned and backed by programme funding, integration between livelihood missions and urban service systems is both feasible and cost-effective.

The study also identifies **challenges** that, **if left unaddressed, will limit the scale and sustainability** of this model:

- Short-term and project-specific contracts disrupt work continuity and income stability; a transition to longer-duration contracting frameworks is necessary to provide livelihood security and sustained service quality.
- Payment processes remain multi-layered and slow, with delays creating cash flow stress for SHGs; clear timelines and simplified workflows are needed across states.
- Training is largely one-time and generic, with limited refresher or task-specific support; for women to perform effectively, training systems need to be structured, iterative, and designed with an understanding of the constraints women bring to the workplace.

AMRUT Mitra engaged in Water Quality Testing, Assam

In March 2026, MoHUA announced the expansion of the model to 5,000 cities, signalling a clear policy commitment to deepening women-led governance in urban water and sanitation (PIB, 2026). The initiative also presents **clear opportunities for scaling**, provided the following are integrated into its architecture:

- Bundled service contracts covering multiple functions such as billing, metering, grievance support, and outreach would ensure continuous engagement, reduce downtime between assignments, and contribute to more stable incomes for SHG members.
- Field-level data generated by women during service delivery, on service gaps, consumer behaviour, and quality, should be systematically captured and used for project planning and service improvement, rather than limited to compliance and payment verification.

What the initiative ultimately demonstrates is that **women's participation in urban service delivery is not an untested proposition, but an expanding reality.** Where the conditions have been made right, women have stepped in, performed with commitment, and strengthened the systems they serve. The Government's announced expansion of the AMRUT Mitra model from 1900 to 5,000 cities is a recognition of this potential, and an opportunity to embed the lessons and address the gaps this study has documented, at a scale that can meaningfully shift how urban services are delivered.

2: Urban Mobility Value Chain and Women's Livelihoods

Urban mobility in Indian cities is inherently complex, shaped by multiple transport modes, fragmented institutional arrangements, and evolving demand patterns. Mobility systems are delivered through a mix of agencies including urban local bodies, transport authorities, special purpose vehicles, and private operators, often with limited coordination among them. In many cities, infrastructure has developed incrementally, responding to immediate needs rather than through comprehensive planning. While cities such as Mumbai and Delhi have built mobility as a central pillar of urban development, in most cities it continues to evolve in a phased and demand-led manner.

Today, urban mobility functions as a network of interconnected services- buses, metro and rail systems, and, in some contexts, water transport, supported by first- and last-mile connectivity through feeder services, para-transit, and intermediate public transport. Together, these layers operate in tandem to enable seamless movement across the city.

This interconnected ecosystem also creates a diverse range of livelihood opportunities across the value chain, from wage-based roles such as drivers, conductors, and service personnel to self-employment models like auto-rickshaw operators and last-mile service providers.

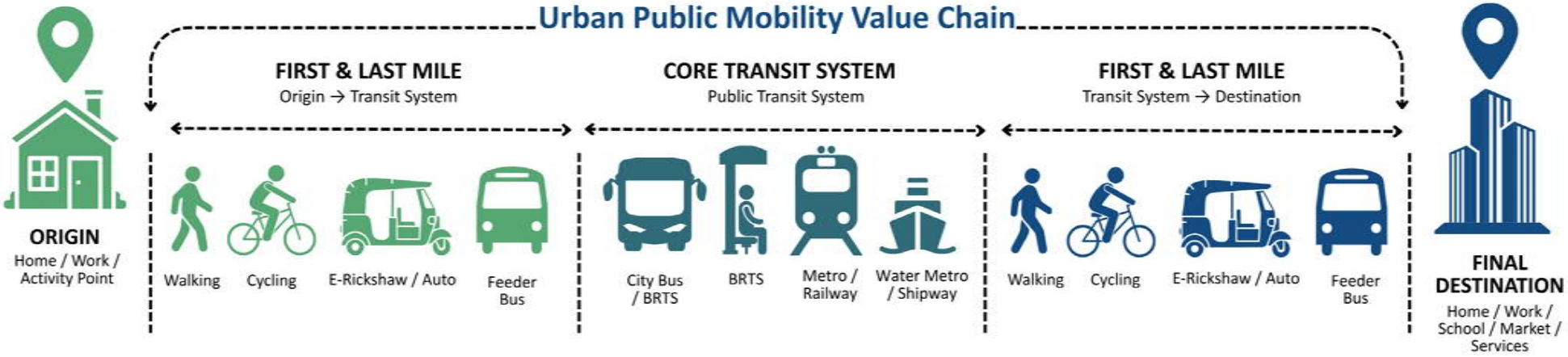
Ahmedabad City and its public mobility

The Mobility- Livelihood Value Chain: Where the Work Is and Where Women Can Enter

The urban mobility value chain comprises three interconnected segments: first mile, core transit, and last mile. The first and last mile segments connect origins and destinations to the public transport network through walking, cycling, e-rickshaws, feeder services, and microtransit. The core transit system includes buses, metro/rail, and water transport, forming the backbone of urban mobility. These are supported by enabling systems such as control rooms, customer service, parking management, and security.

Together, this value chain creates a wide spectrum of livelihood opportunities across segments, from first- and last-mile connectivity to core transit operations and support functions. These roles vary significantly in terms of entry requirements, ranging from low-skill, labour-intensive work to more specialised technical and managerial positions. Opportunities span low-entry, self-employment roles (such as e-rickshaw and microtransit operators), semi-skilled wage employment (including drivers, conductors, and station staff), and higher-skilled roles in areas like fleet management, depot operations, and control room systems.

Urban Public Mobility Value Chain & Livelihoods



Livelihoods across Urban Public Mobility Value Chain

	FIRST & LAST MILE (Origin → Transit System)				CORE TRANSIT SYSTEM (Public Transit System)					FIRST & LAST MILE (Transit System → Destination)			
POSSIBLE LIVELIHOOD ROLES	Pedestrian Facilities Manager (Maintenance)	Cycle Operator / Mechanic	E-Rickshaw / Auto Driver (Waged or self employed)	Feeder Bus Driver	Bus Driver	Bus Conductor / Ticket Inspector	Metro / Rail Operator	Station Staff	Water Transport Operator / Staff	Control Room Operator / Dispatch	Customer Service / Call Centre	Parking management / Operator	Security Staff
SKILL LEVEL	Low	Moderate	Moderate	Low	High	Moderate	High	Moderate	High	Moderate	Moderate	Low	Moderate
ASSET OWNERSHIP / FINANCIAL REQUIREMENT	No	Yes	Yes	No	No	No	No	No	No	No	No	No	No
GENDERED BARRIERS	Low	Moderate	Moderate	Moderate	High	Moderate	High	Low	Low	Moderate	Moderate	Low	Low
WHERE WOMEN ARE CURRENTLY PRESENT	Low*	Low	High (waged) Low (self employed)	Moderate	Low	Moderate	Low	High	Low	Moderate	Moderate	Moderate	High

*These roles do not exist in most cities

SKILL LEVEL
Low Moderate High

ASSET OWNERSHIP / FINANCIAL REQUIREMENT
Yes No

GENDERED BARRIERS
Low Moderate High

WHERE WOMEN ARE CURRENTLY PRESENT
Low Moderate High

Notre: This diagram is indicative and based on qualitative assessment and field insights from the study and not based on quantitative estimates

Women are present across segments of the urban mobility workforce, and several cities have piloted initiatives, often through Self-Help Groups (SHGs) to engage them. However, these efforts remain limited in scale and scope. This study maps livelihood opportunities across the mobility value chain and assesses women's current absorption in these roles, alongside the associated skill requirements, asset/financial needs, and gendered barriers, as illustrated in the diagram above. Women's participation across the value chain is uneven and concentrated. They are predominantly engaged in roles with lower entry barriers, where skill requirements are low to moderate, asset ownership is minimal, and gender norms are relatively less restrictive. These include customer service, ticketing, call centres, and select station-based support functions.

There is also emerging participation in first- and last-mile services such as e-rickshaw and auto operations, feeder services, and parking management, spanning both wage-based and self-employment models. As roles become more skilled, such as bus driving, ticketing and inspection, metro operations, and fleet or depot management, women's participation exists but remains limited rather than widespread.

Women's presence is particularly low in core operational and technical roles, including driving, maintenance, and field-based services, despite growing demand. Entry into these roles is constrained by a combination of factors: gender norms (linked to safety, working hours, public visibility, and care responsibilities), skill barriers (such as licensing and technical training), and financial constraints (including access to assets and capital). This points to a clear structural pattern: while the sector offers a wide range of livelihood opportunities, women remain concentrated in a narrow band of roles where barriers are lowest. Participation declines sharply as roles become more technical, asset-intensive, or publicly visible.

Addressing this imbalance will require a deliberate shift in programme and system design, reducing entry barriers, expanding access to skills and finance, and rethinking roles and working conditions to be more inclusive. Without such efforts, the growth of urban mobility risks reinforcing existing gender disparities rather than advancing equitable economic participation.

Chapter 4 builds on this analysis through case studies that examine what has worked, where constraints persist, and how cities can respond. The findings underscore that progress will depend on intentional, gender-responsive strategies, sustained institutional commitment, and convergence across programmes to enable women's entry into non-traditional roles at scale.

Integrating Women into Urban Service Ecosystems: Lessons from SBM

Women driver operating Battery-Operated Vehicle (BOV) deployed for waste collection services in Bhubaneswar

Various states have demonstrated how women can be integrated into urban service delivery as a viable livelihood pathway, particularly through Convergence[15] under Deen Dayal Antyodaya Yojana- National Urban Livelihood Mission (DAY-NULM), and Swachh Bharat Mission (SBM).

Kerala's Kudumbashree Mission is among the most established examples, where women's collectives are engaged in a wide range of urban services including waste management, facility operations, and partnerships in mobility-linked services. Odisha has further strengthened this model through structured engagement of SHGs in urban sanitation and solid waste management services under SBM convergence. Similarly, Assam has piloted SHG-led service delivery models in sanitation and local infrastructure management, creating entry points for women in non-traditional roles.

Women's Entrepreneurship in Assam's Waterways: Jibondinga Incentive Scheme

The Assam Inland Passenger Water Transport Project, supported by the state-led Jibondinga Incentive Scheme, provides a 70% capital subsidy for marine engine costs and retrofitting of existing engines. By specifically allocating funds for women's Self-Help Groups (SHGs), the initiative has enabled 35 women in vessel procurement.

Women under this initiative undertake roles such as vessel owners and fleet operators, while also managing SHG marketplaces within river terminals. These interventions have collectively contributed to a doubling of total ridership and successfully established women as active entrepreneurs and owners within the inland water transport value chain.

Woman vessel owner under Jibondinga Incentive Scheme in Assam

Women Breaking Barriers in Delhi's Public Transport Sector

Woman bus driver in Delhi

The Delhi Transport Corporation (DTC) institutionalized women's livelihoods within public transport through an intentional recruitment of female bus drivers. To facilitate this transition, the Delhi Government implemented policy reforms in 2022 by reducing the minimum height requirement of drivers from 159 cm to 153 cm to allow women to become drivers and also waived the mandatory three-year heavy motor vehicle (HMV) experience duration in favor of a specialized one-month induction. In collaboration with the Azad Foundation, women from marginalized backgrounds are provided with technical training through the "Women with Wheels" program covering the high-axle vehicle operations alongside "Skill++" modules in self-defense and communication.

The number of women drivers has thus increased to 35 with salaries averaging ₹26,000 per month, demonstrating how targeted policy relaxations and institutional training can successfully transition women into contributors of the urban mobility system.

3: Study Objectives and Approach

This study was undertaken to assess the potential for scaling women's engagement in urban mobility livelihoods and to understand what works, under what conditions, and how such models can be expanded. It provides a qualitative assessment of existing models of women's participation, identifies key enabling factors, and outlines pathways for integrating women more effectively into the urban mobility ecosystem.

The study is based primarily on field-based qualitative research conducted in selected cities in Gujarat and Odisha. As a result, the findings and insights are grounded in these contexts and may not fully capture the diversity of models and experiences across all Indian cities.

To address this, the analysis is supplemented with secondary research and documented examples from other states. This includes well-established models such as the Kudumbashree Mission in Kerala, which has enabled large-scale engagement of women's Self-Help Groups (SHGs) in urban service delivery, and initiatives in Tamil Nadu where women have been integrated into public transport systems, including as bus conductors. While these examples provide valuable comparative insights, they are not based on primary field validation within this study and should be interpreted as illustrative rather than exhaustive.

Mobility Segment	Service Areas	Cases Documented	Geography	Models
First & Last Mile Connectivity	Last-mile/ Feeder services	Auto-rickshaws, e-rickshaws, shared mobility services, Cab-driving, aggregator-based services	Ahmedabad, Surat Bhubaneswar, Cuttack	Self-Employment and Waged Employees
Transit Operations	Public transport operations	Bus conductor and Guides	Bhubaneswar	Waged Employment
	Station and terminal management	Passenger facilitation, help desks	Puri	Waged Employment
	Depot and terminal operations	Depot assistance, maintenance and Security	Puri	Waged Employment
Support Operations	Parking management	Parking operations and fee collection	Ahmedabad, Bhubaneswar	Service Contracts

Table 2: Examining roles across three segments of the urban mobility value chain

The primary research has been conducted in selected cities in Gujarat and Odisha, chosen to capture variation in urban systems, governance capacity, and approaches to linking service delivery with livelihoods.

1. **Gujarat-**
   Ahmedabad, Surat represent relatively mature urban systems with established transport infrastructure and stronger municipal capacity. These cases provide insights into models around first and last mile connectivity, as well as operational and support functions within mobility systems.
2. **Odisha-**
   Bhubaneswar, Cuttack and Puri reflect emerging models of integrated and inclusive mobility, with stronger convergence between mobility systems and livelihood programmes, particularly through SHG engagement.

Research Questions and Objectives

The study is guided by the central question:
What are the potential service roles and livelihood opportunities across the urban mobility value chain where women can be meaningfully engaged and what barriers must be addressed to enable their effective inclusion?

Research Methodology

This study adopts a qualitative approach structured around **four key components**:

1. **Ecosystem Mapping:** Maps the urban mobility value chain to identify service roles and assess their suitability for women's participation. It examines existing engagement models, institutional roles (urban local bodies, transport agencies, livelihood missions), and operational arrangements such as contracts, outsourcing, and partnerships.

2. **Impact Assessment:** Assesses outcomes of women's engagement across:
   - **Livelihoods:** income, stability, job security, and working conditions
   - **Services:** efficiency, reliability, maintenance, and user experience

3. **Barriers and Work Conditions:** Analyses structural, social, and operational barriers influencing women's participation, including safety, shift timings, workplace facilities, and gender norms affecting entry and retention.

4. **Institutional and Scalability Analysis:** Examines governance structures, programme convergence, and institutional mechanisms to identify enabling factors, gaps, and pathways for scaling women's participation.

Data Collection Methods

The study draws on both primary and secondary data:

1. **Primary data:** Interviews and consultations with urban local bodies, transport agencies, livelihood missions, SHGs, private operators, and sector experts; supported by field visits and case documentation.
2. **Secondary data:** Review of policy documents, programme guidelines, and relevant literature on urban mobility and livelihoods.

UMC team interviewing bus conductor and guide engaged in city bus service in Bhubaneswar.

4: Case Studies

4.1: Women-Led E-Auto Initiative
Ahmedabad

City Context

Ahmedabad is the largest city in the State of Gujarat and the Seventh- largest urban agglomeration in India, with a population of almost 74 lakhs. The public transport system in Ahmedabad is structured around multiple modes. The Ahmedabad Municipal Transport Service (AMTS), operated by the Ahmedabad Municipal Corporation, runs an extensive bus network and carries approximately 5.75 lakh passengers daily[16]. The Bus Rapid Transit System (BRTS), operated by Ahmedabad Janmarg Limited (AJL), a SPV, serves an additional 1.6 lakh passengers per day across corridors, supported by GPS-enabled buses and real-time monitoring systems[17]. The Ahmedabad Metro, currently under phased development, has begun operations on select stretches and currently carries approximately 1.5 lakh passengers daily[18].

In addition to formal public transport, the city's mobility system is supported by a large base of intermediate and public transport, including auto-rickshaws, taxis, and app-based services. Travel behaviour in the city reflects a high dependence on personal and para-transit modes. Of the estimated 63 lakh daily trips, 35% are made using motorised two-wheelers, followed by bicycles (18.8 %), public transport (15 %), walking (13.2 %), auto-rickshaws (9.1 %), and private cars (8.9 %)[19].

The city's auto-rickshaw fleet, that offers last mile services, consist of 2,02,560 vehicles[20], of these, only 0.09% are e-autos. National studies on women's participation in the mobility workforce estimate the share of women drivers at 0.5% and 1% of the total fleet[21 22 23]. Applied to Ahmedabad's total auto-rickshaw fleet, this range would place the number of women auto drivers at approximately ~2,000. However, consultations with the President of the Ahmedabad Rickshaw Driver Union indicate that this is likely an overestimation, with around 500 women drivers being a more realistic figure. Within his own union, only 1–2 women members were registered, and none are currently active. He further noted that where women drivers are present, they are largely concentrated in the old city areas and industrial clusters in the eastern wards.

Geetaben with her E-Auto in Ahmedabad

guidelines_MoHUA-2018_UMC.pdf
16 World Resources Institute (WRI). 2023. Ahmedabad Transport Study. New Delhi: WRI India
17 Ahmedabad Municipal Corporation (AMC). 2023. Revised Parking Policy 2023. Ahmedabad: AMC
18 Gujarat Metro Rail Corporation (GMRC). 2025. Ahmedabad Metro Ridership Data. Gandhinagar: GMRC
19 Transformative Urban Mobility Initiative (TUMI). 2022. Ahmedabad Mobility Data. Berlin: TUMI.
20 National Informatics Centre (Parivahan). 2026. Vehicle Registration Data: Ahmedabad. https://parivahan.gov.in
21 Institute for Transportation and Development Policy (ITDP) India and GIZ. 2022. Women in Mobility Workforce Study. New Delhi: ITDP India
22 Ola Mobility Institute. 2019. Women in Last-Mile Mobility. Mumbai: Ola

About the Initiative

The Ahmedabad E-Auto Initiative was launched in 2023 with funding from the Gujarat CSR Authority and was implemented by the Urban Community Development (UCD) Department of AMC, with training and licence support by a local NGO. The initiative was open to all women, irrespective them being part of a Self-Help Group (SHG). Under the initiative, 135 e-autos were proposed. Approximately 135 women applied and underwent training; however, only 70 obtained driving licences, 30 were able to procure e-autos, and currently about 15 women are actively operating e-autos in Ahmedabad.

1. Asset Building and self -employment model

The initiative aimed to enable women's entry into non-traditional mobility livelihoods through asset ownership. It followed a self-employment model, combining a partial capital subsidy with bank-linked financing to support women in procuring e-autos and operating last-mile services.

Support provided under the initiative included:

1. One-time capital subsidy of ₹50,000 towards the cost of E-vehicle procurement
2. Additional capital subsidy of 30 % subsidy on the loan amount through the Shri Vajpayee Bankable Yojana (SVBY)
3. Training support and facilitation for obtaining RTO licenses. This cost was supported by AMC at INR 7,000 per person.

Table 3: Financing Structure for E-Auto Procurement

Component	Amount (INR)
On-road price of E-auto	₹ 4,00,000
CSR – E-auto initial capital subsidy	₹ 50,000
SVBY capital subsidy (30%)	₹ 1,20,000
Remainder (to be borne by beneficiary via loan)	₹ 2,30,000

2. Training and Capacity Building

The training was conducted by Janvikas, a local NGO. The programme was structured across three modules. The first was a technical module covering a learner's licence, on-road practice, self-drive, map reading, computer-based sessions on traffic rules and parking regulations and the permanent licence process. The second was a self-development module covering communicative English, first aid, and work readiness. The third was an empowerment module covering self-defence, gender and legal rights, and sexual and reproductive health.

The training period ranged from one to two months across participants. The duration varied based on each woman's pace of learning and her ability to attend sessions given existing household and care work responsibilities. Practical driving sessions were conducted at the Sabarmati Riverfront Ground. Participants then appeared for an on-road driving test at the RTO office. Women who completed the process received a training certificate and an LMV driving licence.

Women initially faced significant challenges in clearing the driving test. Many reported feeling intimidated during the track test, often conducted in the presence of large groups, which affected their confidence and performance. As a result, several women were unable to pass despite completing training.

To address this, Janvikas facilitated practice sessions on simulated test tracks available within the city. This preparatory support helped build confidence and familiarity with the testing conditions, leading to a higher success rate among women in obtaining their driving licences.

Women receiving their certificates after completion of their training | Urban Community Development (UCD) Department, Ahmedabad Municipal Corporation

Impact

135	70	30	15
Women Registered	Licenses Issued	E-Autos Procured	Actively operating

135 women registered under the initiative. Of these, 70 obtained driving licences, 30 procured e-autos, and 15 were actively operating at the time of the study. This reflects a significant drop-off across stages, with only ~11% of initially registered women continuing in operations.

Primary interviews with 12 participants indicate varied engagement levels:

- 5 women actively operating
- 4 women trained but did not procure vehicles
- 3 women procured vehicles but were not operating

Work Patterns and Income

Based on the interviews with women engaged in different operational models following work patterns and incomes were understood:

Work Pattern / Engagement Type	Description of Use	Reported Monthly Income (₹)	Income Characteristics
Independent operation (open market)	Women operated e-autos independently	₹18,000 – ₹22,000	Income varied daily, depending on demand and peak hours
Platform-based operation	Women used app-based services	~₹25,000	More consistent demand
Fixed / contract-based operation	Women operating under fixed monthly arrange-ments	~₹25,000 (~25% higher than open market)	Regular and predictable monthly income

Table 4: Understanding Work Patterns and Income of Women

Women operating under fixed or institutional arrangements reported higher income stability compared to open-market operations. Overall, the initiative enabled first-time entry of women into a non-traditional sector, contributing to income generation, mobility, and increased self-confidence and needs systemic scaling.

Women beneficiaries received ₹50,000 financial assistance under the initiative

"For my family, the e-rickshaw has been a real support. For me, it is not just a vehicle, it gives me independence, confidence, and an ability to go wherever I want."

Geeta Ben,
Ahmedabad

Driverben: Ek Nayi Pehchan

Driverben: Ek Nayi Pehchan is a non-traditional livelihood programme launched in 2016 by Janvikas, an Ahmedabad-based civil society organization. The programme was established on the premise that restricting women to feminised occupational categories reinforces economic inequality, and that entry into male-dominated sectors produces more durable changes in women's economic and social position.

The programme targets women from low-income urban communities in Ahmedabad. A majority of participants were separated, widowed, or divorced at the time of enrolment. A share of participants came from communities previously engaged in manual scavenging. The programme trained women as professional drivers across multiple vehicle categories, including four-wheelers, auto-rickshaws, BRTS buses, school buses, and trucks.

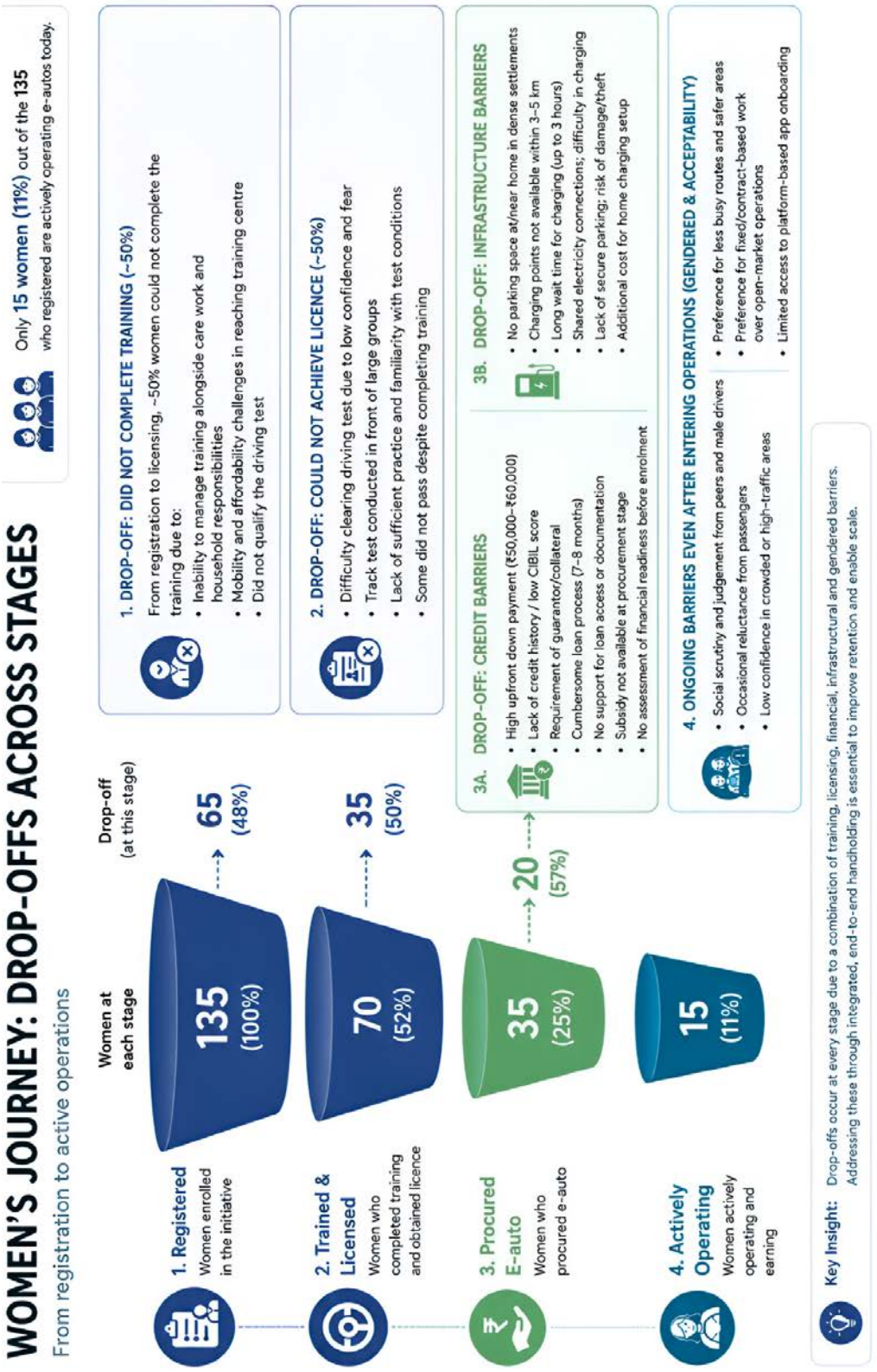
Training was structured across three modules. The first covered technical driving skills, learner's licence preparation, on-road practice, and the permanent license process. The second covered self-development, including first aid, communicative English, map reading, and GPS navigation. The third covered empowerment, including self-defense, legal awareness, and gender rights.

By 2019, 119 women had been trained under the programme and 52 were enrolled at the time of reporting. Graduates were placed as professional chauffeurs, city bus drivers under the BRTS network, and school bus drivers, several holding these roles for the first time in Ahmedabad. In 2023, six women from the programme were selected to work as truck drivers in Hungary for a European logistics company, following a two-month spoken English training and a company-conducted selection examination. The programme received the Bridgestone India Mobility Social Impact Award in 2023 in the category of Mobility for Empowerment of Vulnerable Groups.

1. Janvikas programme page: https://www.janvikas.in/copy-of-urban-initiative
2. India Fellow blog on Driverben: https://indiafellow.org/blog/all-posts/the-vignette-of-a-driverben /
3. News India Times profile: https://newsindiatimes.com/breaking-barriers-women-in-non-traditional-occupations/
4. The Print, Hungary truck drivers story: https://theprint.in/india/women-drivers-from-ahmedabad-gearing-up-to-work-as-truck-drivers-in-hungary/1772027/
5. Baton Transport partner profile: https://batontransport.com/trucking-for-equality/5461/

Key Challenges

The initiative established a clear pathway for women's entry into the mobility sector through training and licensing. However, progression from entry to sustained livelihoods was constrained at multiple stages, requiring additional handholding and system-level support. Findings are based on interviews with women participants and triangulated with inputs from the training partner and the UCD Department.



1. Drop-offs during Training and Licensing with nearly 50 % of enrolled women did not complete training or obtain licences.

Key barriers included:
1. One-time capital subsidy of ₹50,000 towards the cost of E-vehicle procurement
2. Additional capital subsidy of 30 % subsidy on the loan amount through the Shri Vajpayee Bankable Yojana (SVBY)
3. Training support and facilitation for obtaining RTO licenses. This cost was supported by AMC at INR 7,000 per person.

Women reported feeling intimidated during track tests conducted in crowded settings, leading to failure despite completing training. Practice sessions on simulated tracks (facilitated by the NGO partner in Gandhinagar) improved confidence and pass rates, highlighting the importance of pre-test exposure and supportive environments.

2. Access to finance emerged as a critical bottleneck

Key barriers included:
1. Upfront contribution of ₹50,000–₹60,000 for vehicle procurement was unaffordable for many
2. Challenges in accessing formal credit due to lack of credit history, low CIBIL scores, and requirement of guarantors
3. Absence of structured credit facilitation support, despite existing provisions under DAY-NULM

Women often approached private financiers after rejection from banks, increasing financial risk. The loan process took 7–8 months, delaying operations. In several cases, subsidy support was not available at the point of procurement, increasing financial burden. Importantly, there was no prior screening of financial readiness, resulting in women completing training but being unable to proceed further, leading to loss of time and drop-offs.

3. Training focused primarily on driving and licensing

Post-training support was limited:
1. No structured guidance on route identification, passenger access, or market entry
2. Limited support for onboarding onto platform-based services (Ola, Uber, Rapido)
3. Heavy reliance on informal networks (family, peers) to initiate operations

Additionally, the 7–8 month gap between licensing and vehicle procurement disrupted learning continuity, reduced confidence, and delayed income generation.

4. Low Conversion to Active Operations

Even among those who procured e-autos, not all transitioned into active operations:
1. Difficulty managing work hours alongside household responsibilities
2. Challenges in accessing consistent ridership
3. Exposure to weather conditions and operational uncertainties
4. In some cases, vehicles were operated by male family members instead

This indicates that procurement alone does not ensure livelihood continuity without operational support.

5. Infrastructure and Operating Constraints

Women's operational conditions were significantly shaped by their living environments:
1. No space for parking in dense informal settlements (10–25 sq. m housing units)
2. Limited access to charging infrastructure, often located 3–5 km away
3. Long waiting times (up to 3 hours) for charging, reducing working hours
4. Shared electricity connections, making home charging difficult
5. Lack of secure parking, exposing vehicles to damage and safety risks
6. Additional costs for setting up basic charging infrastructure (wiring, sockets)

These constraints directly affected daily operations, time use, and income stability.

6. Gendered Barriers in Public Spaces

Even after entering the sector, women continued to face persistent gendered barriers:
1. Scrutiny and judgement from peers and male drivers
2. Occasional reluctance from passengers
3. Reduced confidence in operating in crowded or competitive environments

As a result, women showed a preference for driving on less busy routes and fixed or contract-based work arrangements over open-market operations.

Recommendations

The findings indicate that gendered barriers are the primary constraint to women's participation in mobility livelihoods. These are compounded by unaddressed care responsibilities, low aspiration for non-traditional roles, skill-related challenges, and financial barriers. The following recommendations prioritise these constraints in sequence:

1. Address gendered barriers and social acceptance:
Gender norms, safety concerns, and lack of acceptance in public spaces remain the most significant barriers. Women continue to face scrutiny from peers and hesitation from passengers. Structured efforts are required to normalise women's presence in mobility roles through community engagement, behaviour change campaigns, and visibility measures (e.g., branding, designated services). Engagement with male drivers, unions, and local communities is critical to shift perceptions.

2. Recognise and respond to care responsibilities:
Care work remains a largely unaddressed constraint, particularly among women from vulnerable groups. As indicated by local traiing partner, only 10–15 % of women interviewed in Ahmedabad expressed willingness to enter non-traditional roles, with a preference for familiar and socially accepted work. This underscores the need to design roles with flexibility, including shorter shifts, fixed routes, and proximity-based operations.

3. Enable flexible and structured work models:
Women show a clear preference for fixed and predictable work arrangements over open-market operations. Cities should prioritise contract-based or route-linked models, integrating women drivers into institutional demand (e.g., metro stations, schools, industrial areas), reducing the need to compete in informal markets.

4. Strengthen skilling with contextual support:
Driving training requires more than technical instruction. As observed, women face confidence barriers during licensing processes and require practice-based learning, exposure to real conditions, and handholding support. Training programmes should incorporate simulation, peer learning, and post-training support to bridge the gap between certification and actual operations.

5. Facilitate access to finance and asset ownership:
Even where women overcome social and skill barriers, financial constraints remain a critical bottleneck. Access to credit for vehicle procurement is limited due to lack of collateral and banking history. Credit facilitation must be strengthened through SHG-based financing, interest subventions, and structured loan support, reducing individual risk and improving access.

6. Strengthen institutional convergence and programme design:
The initiative should be aligned with DAY-NULM and the emerging urban poverty alleviation mission architecture, which already recognise transport workers as a vulnerable group. Leveraging SHG and ALF structures can support mobilisation, credit linkage, and sustained engagement. A stage-based programme design (from enrolment to operations) with defined support mechanisms at each stage can improve retention and outcomes.

7. Undertake positive publicity and awareness campaigns:
Public communication is essential to build acceptance and trust. Cities should undertake targeted outreach and visibility campaigns to normalise women's presence in mobility roles, encourage passenger confidence, and build community support.

8. Provide enabling infrastructure support:
Access to basic infrastructure remains critical for sustained participation. This includes designated parking spaces, charging infrastructure, and access to WASH facilities, particularly at key mobility nodes such as stations and terminals.

9. Strengthen safety mechanisms in public spaces:
Ensuring women's safety is essential for both entry and retention. This can be supported through linkages with local police booths, helpline systems, and driver unions, along with clearly defined safety protocols and grievance redressal mechanisms.

10. Adopt an Informed and Phased Approach to EV Integration:
The transition to electric mobility should be supported by adequate infrastructure. Without reliable charging, maintenance, and basic operational facilities, women operators face added risks that affect uptake and sustainability. Cities should prioritise infrastructure readiness before scaling and adopt a phased approach with necessary technical support.

4.2: E-Saarthi Initiative

Bhubaneswar

City Context

Bhubaneswar, the capital of Odisha, is a rapidly growing urban centre with a population of approximately 8–9 lakh (municipal area) and over 1 million in the urban agglomeration. Over the past decade, the city has witnessed significant growth in vehicle ownership dominated by two-wheelers, followed by cars and intermediate public transport (IPT). This has increased pressure on road infrastructure and reinforced dependence on private modes.

The city's modal share reflects this pattern. Estimates from city mobility assessments indicate that two-wheelers account for over 50–60% of trips, while public transport contributes roughly 15–20 %, with the remaining share comprising IPT, walking, and cycling. This imbalance has informed a strategic shift towards strengthening public transport and multimodal integration.

Bhubaneswar has adopted a public transport–led mobility approach, guided by its Comprehensive Mobility Plan (CMP), which emphasises sustainable mobility, integration of modes, and improved last-mile connectivity. This vision is operationalised through the Capital Region Urban Transport (CRUT), a state-level Special Purpose Vehicle under the Housing & Urban Development Department which plans, manages, and operates the city's bus and allied mobility services.

The city's bus system, earlier known as Mo Bus and now rebranded as Ama Bus, is widely recognized for its service quality, innovation, and inclusivity. Bhubaneswar has consistently received national recognition under the Urban Mobility India (UMI) Awards for excellence in public transport and urban mobility initiatives. The system is characterised by state-led planning and operations, with a strong focus on service reliability, passenger experience, and integration with feeder services.

Within this framework, CRUT has pioneered gender-inclusive feeder services through the E-Saarthi Ride / Mo-E Ride initiative (launched around 2020–21). The programme provides clean, electric first- and last/first-mile connectivity, linking neighborhoods to Ama Bus stops and major transit nodes. It is among the early examples in India where the public transport authority has directly integrated feeder services within the formal system, with a deliberate focus on engaging women, SHG members, and persons from transgender and HIV+ communities as service providers.

Bhubaneswar Skyline By Sailesh Patnaik | https://commons.wikimedia.org/w/index.php?curid=50313302

About the Initiative

The E-Saarthi Ride was designed as a feeder service to the primary Mo Bus network, offering affordable (flat fare of ₹10 per ride), eco-friendly, and reliable last-mile connectivity. A pioneering feature is CRUT's policy of 100% reservation for women, transgender persons, and HIV-positive individuals as "Sarathis" (drivers). This makes it a strong example of wage-employment in intermediate public transport (IPT). Recruitment is open and individual-based (through advertisements and references), with training and deployment managed directly by CRUT or through its agency. The model eliminates asset-ownership risk for women while providing formal employment with social security enabling easy entry point for women in non-traditional roles.

The initiative aligns with CRUT's broader goal of integrated multimodal mobility and has been recognised for its gender-inclusion impact, contributing to higher women's participation in public transport operations in Bhubaneswar.

The study profiled five women Sarathis (e-rickshaw drivers) actively operating under the E-Saarthi Ride / Mo E-Ride initiative in Bhubaneswar.

Name	SHG Member	Status	Previous Livelihood
Pravati Dalei	Yes	Actively operating	Housewife (no independent income)
Kabita Mitra	Yes	Actively operating	Sales associate at a jewellery shop
Budhu Murmu	No	Actively operating	Patient care attendant, KIMS Hospital
Anjali Digal	No	Actively operating	Daily wage labour
Sabita Bhoi	No	Actively operating	Housekeeping at hotels/government offices

Table 5: Profiles of Participants

All respondents reported stable monthly incomes, enhanced financial independence, and improved confidence and participation in household decision-making. Their work typically involves 8-hour shifts, operating e-rickshaws on designated feeder routes linked to the city's public transport system. The transition reflects a shift from informal and low-income occupations such as domestic work, daily wage labour, and service roles into a waged role within the urban mobility system.

1. Engagement model

E-Saarthi follows an individual-based recruitment model implemented through a formal procurement structure. CRUT engages a service provider (hiring agency) through well-drafted procurement contracts, which clearly define employment conditions, including wages, social security benefits (ESI, EPF), leave provisions, training support, and stipend during training.

The hiring agency issues employment letters and manages recruitment through outreach, public advertisements, and peer referrals. While Self-Help Groups (SHGs) are not formally integrated into recruitment or contracting, candidates from SHGs and other vulnerable groups are encouraged to participate.

The programme is open to women (typically 20–45 years of age), with preference for candidates from marginalised and vulnerable groups.

Common eligibility requirements include:

1. Basic literacy (ability to read and write)
2. Medical fitness certification
3. Willingness to undergo training and work in shift-based operations
4. Eligibility to obtain a commercial driving licence

The onboarding process is structured and multi-stage, beginning with application and screening, followed by document verification (including Aadhaar, PAN, residence proof, police verification, and fitness certification).

The initiative provides structured support to women participants through a waged employment model. Women are engaged on a fixed salary of approximately ₹14,600 per month, along with ESI and EPF benefits. The model also includes provisions for 4-paid leaves as per organisational norms.

2. Training & License Support

E-Saarthis undergo a structured training programme of approximately three months, combining classroom sessions with extensive on-field exposure. The training includes driving skills, support for obtaining an RTO licence, and orientation on operational protocols, followed by on-the-job training prior to deployment on designated routes under CRUT. Training is supported under the programme, and participants receive a stipend during the training period, with regular income beginning after deployment.

The training covers multiple components:

1. Technical skills: E-rickshaw driving, vehicle handling, safety protocols, and basic maintenance
2. Digital and operational skills: Use of POS machines for ticketing and fare collection
3. Soft skills: Passenger interaction, communication, grievance handling, and behavioural training
4. Practical exposure: Route familiarisation and supervised field operations

Training is delivered through external agencies/ consultants with support from CRUT, and participants receive certification upon successful completion, including a valid driving licence (LMV category).
The process is structured and time-bound, enabling relatively quick onboarding into operations. However, there is limited provision for refresher training or continuous capacity-building support post-deployment.

3. Work Place Support

The initiative provides a structured and supportive work environment for women operators. E-Saarthis work in fixed 8-hour shifts, with flexibility to choose shifts in coordination with supervisors. Overtime or multiple shifts are not permitted, ensuring safety in public trasnport.

Participants are provided with uniforms and ID cards, which establish their identity as part of a formal, government-supported service. Operations are conducted on designated routes, reducing uncertainty in demand and navigation.
Vehicles are owned and managed by the system, and are parked at depots equipped with charging infrastructure. This removes the burden of asset ownership, parking, and charging responsibilities from women operators.

The workplace also includes institutional support mechanisms, such as safety protocols, POSH (Prevention of Sexual Harassment) compliance, grievance redressal systems, and breakdown assistance. In addition, basic amenities including water, sanitation, and rest facilities are available at depots, supporting day-to-day working conditions.

E-Saarthi driver at depot starting her day

Impact

50	40	35	100%
Total E-Rickshaws	Operational Vehicles	Female Drivers	Reservation: women, transgender persons, HIV+

The initiative has enabled a transition for women from informal, low-income, or unpaid roles into stable, waged employment within the urban mobility system. Many participants were previously homemakers or engaged in irregular work; they now earn a fixed monthly income (~₹14,600) with social security benefits (ESI and EPF), contributing to improved financial stability at the household level. Beyond income, women reported greater financial independence, increased confidence, and higher participation in household decision-making. Several participants also noted family support in sharing care responsibilities, enabling their continued engagement in work.

Income Transition

Table 6: Understanding Work Patterns and Income of Women

Name	Previous Income	Current Income	Income Change
Pravati Dalei	₹0 (housewife)	₹14,600 + benefits	First independent income
Kabita Mitra	Variable, informal	₹14,600 + benefits	Substantial gain
Budhu Murmu	Hospital attendant wages	₹14,600 + benefits	Comparable, with benefits
Anjali Digal	Daily wage labour (uneven)	₹14,600 + benefits	Significant stability gain
Sabita Bhoi	Housekeeping wages	₹14,600 + benefits	Comparable, with benefits

Overall, the initiative has contributed to greater income stability, improved working conditions, and access to formal employment, marking a shift in women's participation within the workforce.

In addition to livelihood outcomes, the initiative has contributed to improvements in mobility services. The deployment of trained women operators on designated feeder routes has strengthened first- and last-mile connectivity, improved service reliability, and enhanced passenger experience.

Women operators are often perceived as more approachable and responsive, contributing to a sense of safety and comfort for riders, particularly women and elderly passengers.

> ***"Earlier, I used to go looking for work every morning, and sometimes there was nothing. Now at least I know I have work every day. Even if it is hard, there is no tension about whether I will earn or not."***
>
> Anjali Digal, Bhubaneswar

> ***"Before this, I was mostly at home and didn't earn anything myself. Now when I bring money home every month and I don't have to ask for money to anyone for small things anymore. That feeling is very different, I feel more confident going out and working."***
>
> Pravati Dalei, Bhubaneswar

Key Challenges

While the initiative has enabled women's entry into urban mobility through a structured, waged model and has seen strong retention, with many women continuing in these roles for nearly four years two key challenges emerge:

1. Limited income progression:
The fixed salary model provides stability but offers limited scope for income growth, as earnings are not linked to performance or ridership. Over time, this may constrain upward mobility in earnings for women who are in this role for longer duration.

2. Absence of asset ownership:
Vehicles are owned and managed by the CRUT, which reduces financial risk but also means no asset creation or long-term wealth accumulation for women through this livelihood. Women expressed graduation model where after some timeframe, asset ownership and affordable credit option are offered that will enable upward economic mobility.

Recommendations

The Ama Ride initiative demonstrates a scalable model for women's inclusion in urban mobility through structured, waged employment. By ensuring targeted inclusion of women and marginalised groups, along with formal training and social security benefits, the programme has created pathways for stable income, improved working conditions, and participation in non-traditional roles. It also shows how public transport systems can contribute to both livelihood generation and strengthened last-mile connectivity.

At the same time, the model has limited scope for long-term income progression and asset creation. To address this, the following may be considered:

1. **Introduce pathways for progression** by providing options for women to transition beyond entry-level roles into higher-responsibility or supervisory functions within the system.
2. **Introduce buy-out or ownership models** for interested participants, allowing a gradual transition from waged employment to self-employment.
3. **Introduce graduation pathways** by creating structured mechanisms for women who are willing to move into independent or enterprise-based mobility roles, with access to credit and market linkages.

Strengthening these aspects can support a shift from stable employment to longer-term economic advancement, while retaining the strengths of the existing model.

Integrating Women into Kochi Water Metro Operations

The partnership between Kochi Water Metro and the Kudumbashree Mission demonstrates how high-tech urban transport can be leveraged to create diverse livelihood opportunities for women. Through this collaboration, 30 members of Kudumbashree Self-Help Groups (SHGs) have been integrated into the workforce of India's first water metro system, moving beyond traditional roles into technical and service-oriented positions. Women under this initiative undertake roles such as ticketing, customer relations, housekeeping, and facility management across various water metro terminals with average salaries of ₹35,000 per month.

4.3: Pink Auto Initiatives 2017 and 2021

Surat

City Context

Surat, the second-largest city in Gujarat and one of the most dynamic cities in India, with a growth rate of approximately 4.9 per cent per year. It is one of the fastest-growing cities in the world and the eighth-largest city in the country. The metro area population of Surat in 2025 approximately 85.82 lakh, reflecting decades of sustained in-migration driven by its thriving textile and diamond industries[24].

The public transport system in Surat is structured around multiple modes and operated by the Surat Municipal Corporation (SMC). The city's public bus services, comprising both the Bus Rapid Transit System (BRTS) and City Bus Services are managed by Surat Sitilink Limited, a SPV by SMC. The BRTS and City Bus services are operational on 12 routes (166 BRTS buses) and 44 routes (575 City buses) respectively, with an average daily ridership of 1.4 lakh and 1.35 lakh respectively. The BRTS network spans 108 km of dedicated corridor, making it India's longest dedicated BRTS network. The Total ridership across BRTS and City Bus services grew from 28,000 passengers per day from 2014 to 2,10,000 by 2022[25].

The Surat Metro, currently under construction, is being implemented by the Gujarat Metro Rail Corporation Limited (GMRC). Trial runs on a key stretch of the Surat Metro began in April 2026 on an 8.5-kilometre corridor between Dream City and Althan Tenement, ahead of operational clearance. The project spans a total of 40.35 km across two corridors and is projected to carry 17.8 lakh passengers daily by 2046. The metro's completion is expected by December 2026–27, subject to construction progress[26].

Travel behaviour in Surat reflects a high reliance on non-motorised and para-transit modes. Non-motorised transport (NMT) modes account for approximately 43 per cent of all trips in Surat, the highest share among comparable Indian cities, indicating significant potential for further NMT infrastructure development. Public transport carries around 13 per cent of all trips in the city[27].

Work trips made by three-wheelers (auto-rickshaws) account for 4.6 per cent, while trips for education purposes account for around 13 per cent of auto-rickshaw usage[28]. The auto-rickshaw fleet forms a critical first and last-mile and trunk-route service in Surat. According to a user satisfaction survey conducted following the introduction of BRTS, 75 per cent of BRTS users had previously shifted from three-wheelers (shared autorickshaws) and two-wheelers, underscoring the centrality of autorickshaws to the city's pre-BRTS mobility.

Women in the Pink Auto, Surat

The share of women auto-rickshaw drivers in the city remains negligibly low; based on national estimates (ITDP India & GIZ, 2022; Ola Mobility Institute, 2019; ITF, 2021), the presence of women drivers in Surat's auto sector is likely comparable to other Gujarat cities, where it constitutes a small fraction of the overall fleet.

23 International Transport Forum (ITF). 2021. Women Drivers in Urban Transport. Paris: ITF
24 (Surat Municipal Corporation)
25 https://www.nec.com/en/global/solutions/transportation/case-datumsi/index.html
26 https://metrorailnews.in/surat-metro-bridging-urban-expansion/
27 (UNESCAP, 2018; brtdata.org).

About the Initiative

The Surat Pink Auto Initiative was launched twice, first time in 2017, and the other in 2021. The Pink Auto Initiative in 2017, was focused on employing women in mobility by providing INR 5000 as a subsidy to women, purchase CNG autos. The SMC facilitated these women in accessing loans from banks and additional 30% subsidy from Shri Vajpayee Bankable Yojana, for purchasing CNG Auto Rickshaws.

Nearly 500 women participated in the initiative, 150 of them obtained learning licenses following training by the SMC and 90 secured Driving licenses. However, due to social and family issues many women dropped out, while others failed to get loan approvals due to documentation issues. While the initiative successfully led to 35 women purchasing CNG auto-rickshaws, only 15 are currently operational.

A similar initiative was started with the Pink 'E-auto' initiative started in 2021, with a bipartite agreement between Indian Oil Corporation Limited (IOCL) CSR fund transferred through the Gujarat CSR Authority (GCSRA) as Managing authority and Surat Municipal Corporation Assistance and Relief Fund and UCD as implementation authority. The initiative was open for both men and women aspirants who wanted to purchase an e-auto for their livelihood.

The initiative aimed to provide employment to marginalized women through the introduction of eco-friendly e-autos. Open to all, women meeting specific income (under ₹4L p.a.), credit, and educational (8th pass) criteria, the program was backed by an IOCL CSR fund of ₹57.30 lakh for 135 vehicles. Key support for each beneficiary included a ₹30,000 capital subsidy, an additional 30% subsidy via the Shri Vajpayee Bankable Yojana, and comprehensive technical and driving training for RTO licensing.

Out of 135 autos, 11 women opted and were able to purchase the e-auto and today, only 4 women are currently operating E-autos.

Beneficiaries with their autos under the Pink Auto Initiative 2017 and 2021

1. Engagement model

The 'e-Auto Mitra' serves as a local agent or promoter in the Pink e-auto Initiative's implementation structure. The 'e-Auto mitra' were incentivised with Rs. 2000 per woman, broken down into multiple stages such as documentation, training and licence provision, vehicle purchase help and linkage with the employment to the woman.

Upon completion of training, participants appeared for the driving test and obtained licences through the Regional Transport Office. Women then applied for loans through financial institutions and based on loan approval and subsidy access, women procured e-autos and initiated operations.

2. Training and Capacity Building

The training was given by the UCD department, covering theoretical and practical modules over a period of 2 months. The theoretical module included computer-based sessions on traffic rules and parking regulations. This was followed by practical driving sessions conducted in the open grounds in Surat. However, women reported that post this initial training, they needed support to identify routes, be on boarded on platform-based apps such as Ola, Uber, Rapido etc.

3. Financial Support Model

For the 2017 Pink CNG Auto Initiative, Rs.5000 was provided as capital subsidy to woman from SMC and remaining 30% subsidy from Shri Vajpayee Bankable Yojana.

Under the 2021, Pink E-Auto initiative, the financial model combined reducing upfront costs by ₹30,000 with a 30% capital subsidy under the Shri Vajpayee Bankable Yojana, against an average e-auto cost of approximately ₹4 lakh. This reduced the upfront requirement by about ₹1.4 lakh, with the remaining ₹2.6 lakh to be arranged through loans or personal sources. The upfront down payment ranged between ₹20,000 and ₹60,000. Women reported that arranging this amount was not feasible with their existing income conditions. In several cases, women discontinued at this stage due to inability to mobilise the required funds and limited financial support from their families.

Women in the Pink Auto | Urban Community Development (UCD) Department, Surat Municipal Corporation

Impact

Pink Auto Initiative during 2017 – SMC Initiative

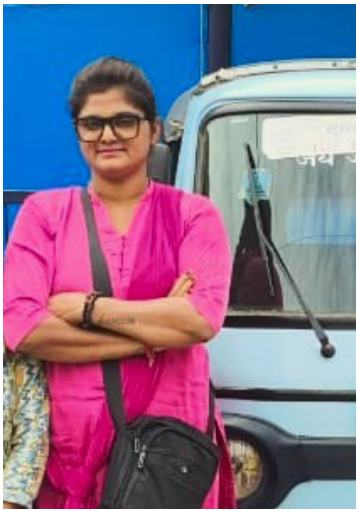
500	150	90	15
Women opted to choose for the initiatives	Women obtained Learning License	Women Recieved Driving License	Women currently Operating Pink CNG Auto

Pink Auto Initiative during 2021 – IOCL+GCSRA+SMC

135	11	11	4
Total Autos to be disbursed to both men and women	Women opted to choose for the initiatives	E-autos procured by women	Women currently Operating Pink CNG Auto

"I am a single mother of 2 children, and e-auto has been a very helpful livelihood. This provides me flexibility to manage my time as well as look over my kids. However, there are drawbacks with e-auto, such as minimum range, lack of charging infrastructure and lack of mechanics during sudden breakdowns. Though, it is lighter and easily operatable than a CNG auto, hence I feel it's more comfortable to drive an e-auto."

Babita. Surat



Key Challenges

1. From registration to licensing
From registration to licensing, some women could not complete the process due to inability to manage training alongside existing work and household responsibilities. In a few cases, women did not qualify the driving test and were not issued licences. The largest gap was in procurement of E-Autos. Amongst the 11 women who procured e-autos, 4 women are actively operating, with reasons related to charging infrastructure, range coverage in a city like surat and managing work hours.

2. Lack of Initial Screening
The process lacked initial screening of financial readiness or credit eligibility of the shortlisted women before enrolment. As a result, women completed training but were unable to proceed to procurement due to financial constraints. This led to loss of time and effort for participants who could not continue and limited the number of women who were able to move into actual operations.

3. No support in accessing loans
Women who attempted to access bank loans faced multiple challenges such as lack of prior credit history, requirement of guarantors, and low CIBIL scores in some cases. Women also did not receive any support to access bank loans. In some cases, women approached private finance institutions after not receiving approval from nationalised banks. These challenges are consistent with those identified under DAY-NULM. Typically under DAY-NULM, community organizations provide handholding support to loan seekers. Such support was not provided to women under this initiative.

4. Long Loan Processing
The loan process took 7-8 months on an average. During this period, women could not begin operations. Women also reported that although the capital subsidy from IOCL was disbursed at the first stage itself, the subsequent subsidy under Shri Vajpayee Bankable Yojana, at the stage of the procurement.

5. Parking and Charging issues
Most women who were trained belonged to urban poor households and lived in dense informal settlements where parking and charging for e-autos was difficult. As a result, vehicles could not be stored safely near the place of residence. This was one of the reasons that impacted dropout even after procurement. (As discussed during FGD with women transport workers in Surat).

6. Resident objections
Electricity connections in these settlements were often shared across households. Women reported difficulty in using electricity for charging, as it was not possible to separately measure consumption. This led to objections from other residents and required additional coordination.

7. Limited Access to charging infrastructure
In several cases, charging points were not available within a 3-to-5-kilometre radius. Women reported travelling to these locations and waiting for extended periods, often up to three hours, for the vehicle to charge. This reduced the time available for daily operations.

Recommendations

1. Credit linkage can be routed through SHGs and ALFs, with Community Organisers supporting loan applications, documentation, and repayment planning. This can reduce dependence on individual bank access and shift risk and access from the individual to a collective structure. The initiative can leverage existing urban livelihood systems. The new mission on urban poverty alleviation already include transport workers as a vulnerable occupation group, with provisions for financial products, and SHG-based financial systems. The UCD Department, which implements these programmes, can integrate provisions into the e-auto initiative.

2. A stage-linked design can be introduced with clear progression points: enrolment → financial readiness assessment → training → pre-approved credit → vehicle procurement → operations. Each stage can have defined timelines and support plan.

3. The initiative shold be integrated with the city's transport system. Women e-autos can be linked to AMTS, BRTS, and Metro stations for first and last-mile services through designated routes or service zones. Contracts can also be formalised with institutions such as construction sites, schools, and industrial clusters.

4. Training was limited to driving and licensing. It needs to be extended to include platform onboarding (Ola, Uber, Rapido), digital payment use, route planning, and basic vehicle management. Partnerships with platform companies and local contractors can be built into the training stage. Women can exit training with confirmed access to at least one mode of work, reducing the gap between licence and income generation.

5. Awareness programmes should be conducted with family members, local communities, and existing male drivers. These can be implemented through SHGs, NGOs, and transport departments.

6. Structured outreach system to be developed through SHGs, ALFs, and ward-level campaigns. Women drivers can be identified through branding, uniforms, or designated services. This has been used in other cities (e.g., pink autos) to improve recognition and passenger trust.

Oor Cabs and the Formalization of Women's Livelihoods in Trichy

Oor Cabs, a Tamil Nadu-based startup, has a sustainable mobility model in Tiruchi by integrating women into the electric vehicle (EV) value chain through employment-based framework. By maintaining full ownership of the fleet, the startup effectively removes the barrier of asset ownership, hiring women as formal employees entitled to fixed salaries and performance-linked incentives. To ensure a gender-inclusive transit environment, the initiative has committed to a 50% representation of women across its operations, currently deploying female drivers to operate half of its initial 50-unit e-auto fleet. This initiative transitions women into professional roles as e-mobility providers, leveraging digital platforms such as WhatsApp and mobile apps for seamless service delivery and provided dedicated solar-powered charging infrastructure. With plans to scale to 500 vehicles, the model demonstrates how private-sector innovation and sustainable infrastructure can be leveraged to create secure, inclusive, and scalable livelihood opportunities for women in urban transport.

4.4: AMA Bus Initiative (Guides/Conductors)

Bhubaneswar I Cuttack I Puri

City Context

Capital Region Urban Transport (CRUT) is a state-owned public transport authority based in Bhubaneswar, Odisha, India. Established in 2018, it manages and operates bus and e- rickshaw services in the Bhubaneswar–Cuttack–Puri metropolitan region, Rourkela, Berhampur. CRUT is notable for introducing the Mo Bus and Mo E-Ride systems in Odisha. CRUT runs Ama Bus (formerly Mo Bus, launched 2018) with a fleet of 670-720 buses, including 290 electric ones across standard AC/non-AC, midi, and e-buses on 115 routes spanning 1400 km and 2,099 stops. Daily ridership averages around 3 lakh passengers, supported by digital tools such as the Ama Bus mobile application, National Common Mobility Cards, WhatsApp-based ticketing, and real-time bus tracking, which improve convenience and ease of travel for users.

The services cover both city routes such as the extensive network of 106 routes across Bhubaneswar and Cuttack as well as inter-city connectivity, including around 36 daily trips to Puri. The system is supported by infrastructure such as bus depots, automated ticket vending machines, and a toll-free customer helpline (1929). In addition to improving transport services, CRUT also focuses on environmental sustainability, regular training of employees, and inclusive employment by promoting opportunities for women and transgender persons through initiatives such as Ama-Bus initiative.

Bus Conductor and Guide engaged under AMA Bus Initiative in Bhubaneswar

About the Initiative

The Ama Bus initiative in Odisha operates across the Bhubaneswar–Cuttack–Puri Economic Region (BCPPER). With a focus on strengthening safety, reliability, and affordability in public transport, the initiative aims to enhance women's ridership and overall travel experience by creating a more inclusive and secure system and drawing from emerging best practices in gender-inclusive urban transport systems.

As part of this approach, the programme has created a strong pathway for women's employment in the urban mobility sector by engaging them as Bus Guides (conductors). CRUT has institutionalised gender inclusion within its operations by mandating that a significant share of Bus Guides are women, ensuring their presence in frontline service roles. Currently, around 1364 guides are engaged under the Ama Bus system of which, 40% are Women and transgender women. CRUT's hiring agency recruits guides and has the mandate of hiring 50% women in these roles.
This case study draws on qualitative insights from Focus Group Discussions (FGDs) conducted with 22 women Bus Guides across the three cities. The discussions explored their socio-economic backgrounds, work experiences, shifts in agency and identity, and the challenges they encounter in their roles. The narratives presented here reflect collective experiences, supported by verbatim accounts that bring authenticity to the findings.

1. Engagement model

Recruitment and employment of women bus guides is structured through formal contracts, with clearly defined provisions on wages, social security, training, and working conditions. Women Bus Guides are hired through agencies engaged by CRUT, ensuring a stable, waged employment model within the public transport system. This structured approach supports both service quality and livelihood generation.

Women beneficiaries are identified through local outreach mechanisms, including community networks, public notifications, and referrals. The initiative remains open to women from diverse socio-economic backgrounds, including those not linked to Self-Help Groups (SHGs), enabling broader inclusion.

2. Employment Structure

The initiative combines regular employment, enabling women to transition into formal livelihoods.

Key features include:

1. **Fixed monthly salary** ranging from ₹14,000–₹16,500, along with EPF and ESI benefits through the hiring agency
2. **Performance-linked incentives**, with defined KPIs such as punctuality, promotion of digital payments, reporting lost-and-found items, assisting elderly passengers, use of grievance systems (PGRS), and adherence to operational protocols. Eligible participants receive quarterly incentives of up to ₹3,000
3. **Fixed working hours (8-hour shifts)**, supporting predictable schedules and improved work-life balance
4. **Provision of uniforms and formal identity cards**, enhancing visibility, professionalism, and recognition as part of a public service system
5. **Paid leave provisions, including maternity benefits** (with partial wage support), along with accidental insurance coverage

Operations are organised in shift-based schedules, typically 7:00 am–1:00 pm and 3:00 pm–9:00 pm. Women have flexibility to opt for shifts based on their needs. This has worked particularly well for younger women and students, allowing them to combine work with education, for instance, attending college after morning shifts.

Women are engaged as salaried staff (through operators under CRUT's service model), earning approximately ₹14,000–₹16,500 per month, depending on experience and performance-linked components. This fixed income structure provides income stability and predictability.
The model also allows women to take additional shifts, enabling them to earn supplementary income when required. While this provides financial flexibility, most women opt for extra shifts selectively, balancing work with rest and household responsibilities.

City	No. of Guides interacted
Bhubaneswar	12
Cuttack	7
Puri	3

Table 7: No. of women bus guides interviewed

3. Training and Capacity Building

Selected candidates undergo a structured training programme facilitated by CRUT and its operational teams, designed to prepare women for frontline roles as Bus Guides.

The training focuses on both technical and service-oriented competencies, including:

1. Ticketing operations and use of electronic ticketing/POS machines
2. On-the-job training (OJT) through supervised exposure to live bus operations
3. Passenger interaction and behaviour, including communication and grievance handling
4. Safety protocols and adherence to operational procedures
5. Personal grooming and professional conduct, aligned with service standards

The programme typically includes ~15 days of classroom training, followed by 15–20 days of field-based practical exposure. Trainees also work as "spare guides", shadowing experienced staff to build confidence and gain real-time experience. Support is provided for obtaining a conductor licence as per the Motor Vehicles Act.

Upon completion, women are deployed as Bus Guides on Ama Bus routes, with defined roles, fixed working hours, and regular remuneration, supported by continued on-the-job learning.

4. Workplace Support

The initiative provides a structured and supportive work environment, with provisions aimed at safety, dignity, and operational ease. CCTV systems in buses ensure safety for both passengers and service providers, complemented by RAT (Rapid Action Team) monitoring and safety audits.

At depots, women have access to basic facilities, including rest areas, dining spaces, designated break times, WASH facilities, locker rooms, and changing spaces. Some depots have also initiated childcare facilities, responding to care responsibilities.

Bus guide in Bhubaneswar City

Impact

1. **1. Livelihood Security and Financial Independence:** With monthly earnings ranging from ₹14,000 to ₹16,500, women now have a reliable source of income. This predictability has reduced financial stress and enabled better household planning. In some cases, women have become primary or co-breadwinners, strengthening their position within the family.

2. **Enhanced Confidence and Social Recognition:** Working in a public-facing role has significantly boosted women's confidence. Daily interactions with passengers, managing ticketing systems, and handling responsibilities have improved their communication and problem-solving skills. This visibility has translated into greater respect not only in public spaces but also within their families.

3. **Skill Development and Professional Growth:** The initiative has equipped women with both technical and soft skills. Training in electronic ticketing machines, route management, and customer interaction has enhanced their employability. These skills extend beyond the workplace, contributing to overall personal development.

4. **Increased independence and participation in decision-making:** One of the most significant changes reported was increased mobility and decision-making power. Women who previously had limited exposure to the city now travel across routes independently. Financial contribution has also strengthened their voice in household decisions, including children's education and major expenditures, shared Jyoti Sahoo, bus guide with CRUT, Cuttack.

5. **Beyond livelihood outcomes:** The initiative has also contributed to improvements in public transport usage and service experience. As noted in CRUT's internal assessments and programme documentation, the presence of women Bus Guides has helped enhance women's ridership and overall comfort in using public transport, particularly by improving perceptions of safety, accessibility, and service responsiveness.

Women engaged as bus conductors/ guides, Cuttack City

Key Challenges

Most women working as Bus Guides under the Ama Bus initiative come from low-income urban households across Bhubaneswar, Cuttack, and Puri. While the programme provides structured entry into formal employment, several operational challenges affect day-to-day working conditions.

1. A key concern is the limited availability of basic infrastructure along routes. While facilities such as toilets, drinking water, and rest areas are available at depots, these are often absent at intermediate stops and terminals. For women operating on longer routes, this creates significant difficulty during duty hours.

2. Women also reported long travel times to reporting points, as many reside in peripheral areas. This adds to the overall workday in terms of both time and cost. In addition, the absence of safe and designated rest spaces during breaks at intermediate locations means women often wait inside buses or in open areas between trips.

3. Working conditions vary across routes due to uneven availability of facilities. Some routes and terminals are better equipped, while others lack even basic amenities, resulting in inconsistent work environments.

4. While the recruitment and training process is structured, operational confidence develops largely through experience. Women reported learning through peer support and on-the-job exposure, indicating scope for more structured mentoring during the initial phase of deployment.

5. The financial model provides income stability through fixed salaries, with the option of additional earnings through extra shifts. However, clearer systems for incentives and equitable access to additional work could further strengthen earnings.

6. Overall, the initiative has enabled women's entry into formal roles in public transport. Addressing gaps related to infrastructure at intermediate stops, commute challenges, and on-ground support can improve working conditions and support sustained participation.

Recommendations

The Ama Bus initiative stands out as a scalable and replicable model that integrates urban mobility with women's economic empowerment. By formalizing employment, ensuring steady income, and enhancing women's public presence, the initiative has brought transformative changes in their lives.

However, to sustain and deepen this impact, targeted interventions are needed:

- **Strengthening Infrastructure:** Provision of gender-sensitive facilities such as toilets, rest areas, and drinking water at terminals
- **Career Pathways:** Introducing structured promotion systems, supervisory roles, and skill-based progression
- **Continuous Capacity Building:** Regular training in digital systems, customer service, and leadership skills

In essence, Ama Bus is not just a transport service, it is a platform for social change. By placing women at the forefront of public service delivery, it challenges traditional gender norms and paves the way for more inclusive and equitable urban systems.

> ***"Earlier, every month was uncertain. Some months we earned, some months we didn't. Now I have a fixed salary, and I can plan expenses for my children's education."***
>
> Soudamini Sarangi, Bhubaneswar

> ***"Whenever there is a need at home, I take a double shift. It helps me for extra earning."***
>
> Arshu Tudu, Bhubaneswar

4.5: Parking Management

Ahmedabad

City Context

As per the Ahmedabad Parking Policy 2023, the city recorded a total vehicle population of approximately 39.9 lakh in 2021, with a compound annual growth rate of about 7 % over the previous decade (AMC, Revised Parking Policy 2023). Two-wheelers accounted for nearly 75 % of all registered vehicles, while four-wheelers comprised around 18 %. This growth in vehicle numbers increased demand for parking across the city, particularly in high-traffic commercial zone (old city) and transit corridors.

Ahmedabad Municipal Corporation piloted engaging Area Level Federation in managing parking at approximately 50 locations, comprising traffic islands, under-bridge sites, on-street locations, and off-street facilities, between 2015 to 2021. This engaged approximately 300 women who managed parking spots, collected parking fees and supported in restricting parking violation across these locations. During this engagement, the city's parking policy was yet to be implemented, and this initiative worked as a base to design city's parking policy.

Bhadra plaza parking plot, AMC, Ahmedabad

About the Initiative

Women-Led pay-and-park initiative was introduced in February 2015 by AMC in coordination with the UCD department, on a shared revenue model. The UCD Department engaged these ALFs through a preferential procurement model, by issuing 6-month licence to operate and based on the performance there were renewed periodically. The parking charges were decided by the AMC, which were flat rate of ₹10 and ₹20, for 2 and 4 wheelers respectively. The ALF deployed women from their SHGs at the designated locations, who operated in turns, from 9 am to 9 pm, divided between 2 shifts. The women collected parking charges in cash and issued receipts.

1. Engagement model

The engagement process began with the ALF submitting an application to the UCD department. The application required the ALF registration certificate, Aadhaar cards of office bearers, the ALF's PAN card, and bank account details. Licences were issued in the name of the ALF under this process unlike the formal procurement processes. The onboarding process was simplified to enable ALF to participate in work.

2. Training and Capacity Building

UCD department conducted a brief 4-hour training, covering basic operational aspects such as ticketing, citizen interface, and parking management. After this the women started working on the ground. During the initial phase, UCD officials provided on-ground support to assist women in interacting with citizens, collecting parking fees, and handling day-to-day situations at the site.

3. Financial Support Model

The parking management contracts operated on an 80:20 revenue-sharing model between the ALF and the Ahmedabad Municipal Corporation (AMC), where 20% of the collected parking charges was shared with AMC. From the remaining 80%, the ALFs distributed income among the members engaged, while retaining 2% for administrative and operational expenses.

As reported by women, the monthly collection ranged between ₹1.5 lakh and ₹2 lakh. Daily cash collection was deposited by the members with the ALF president against the parking tickets issued. The ALF president then deposited the amount in the ALF's bank account. The ALF president was responsible for ensuring that collections matched the issued tickets, submitting records to AMC, and raising invoices for revenue settlement. The ALF president ensured that women engaged in the operations were paid a fixed monthly salary of ₹9,000, with provision of one paid leave. A monthly roster was maintained for shift allocation. The ALF also arranged basic workplace requirements, including drinking water and parasols during summer months.

SHG women managing a parking lot in Ahmedabad

Impact

Prior to joining the initiative, women members were primarily engaged in home-based informal work, including tailoring, papad-making, and handicrafts, with reported monthly earnings of approximately ₹3,000 to ₹4,000. Under the pay-and-park initiative, women reported monthly earnings of approximately ₹8,000 to ₹9,000. Women also said that this income was more regular compared to their earlier livelihood activities.

The work was structured in six-hour shifts, which women managed alongside unpaid care responsibilities at home. Shift allocation was decided internally by the members. Women mentioned that they were able to take additional shifts when available, which increased their monthly income.

Based on interaction with the Urban Community Development (UCD) Department, officials reported that the engagement of women supported on-ground parking management. This included improved fee collection and reduction in parking violations at several locations.

The initiative was discontinued following the introduction of the Parking Policy in 2021, which was implemented in 2023. The policy introduced differential pricing, digital systems, and a formal procurement process for parking management. Under this system, Area Level Federations became ineligible to participate. ALFs did not meet compliance requirements such as formal documentation and financial reporting.[29]

"As part of the ALF, we were managing the parking site every day. Earlier, most of us were doing small work from home with irregular income. Through this, we started earning every month. This work gave me and my women the flexibility to choose when to work."

Shardaben, Ahmedabadf

"At the parking site, we used to work in shifts and collect fees from vehicles. People would sometimes question us, but we continued working. Before this, I did not have any fixed income. From this work, I started earning around ₹8,000 to ₹9,000 per month. I was able to manage my expenses without depending on others."

Manjulaben, Ahmedabad

SHG women managing a parking lot under a bridge in Ahmedabad

28 https://www.unescap.org/sites/default/files/SUTI%20Mobility%20Assessment%20Report%20%20-%20Surat.pdf
29 https://umcasia.org/wp-content/uploads/Assessing-Preparedness-of-Area-Level-Federation-ALF-to-Extend-Financial-Lending-Support-for-SHG-Empowerment.pdf

Key Challenges

Based on interaction with women, the following challenges were realised.

Administrative Challenges

1. **Following the introduction of the parking policy after 2021, a tender-based contracting system was introduced.** The new system required compliance with conditions such as Goods and Services Tax registration, tax filings, and audited financial records. Most ALFs did not meet these requirements. No support was provided by the UCD Department to enable compliance. Parking operations were subsequently transferred to private contractors.
2. **The licence to operate was issued for six-month periods and required renewal at each interval.** Women reported delays in renewal during each cycle. Despite expiry of the licence, AMC instructed women to continue operations and collect parking charges during the delay period.

Operational Challenges

1. **Digital payment infrastructure**, including mobile point-of-sale machines, was not available. All transactions were conducted in cash, with no digital record at the point of collection. No system was in place to verify daily collections against the number of vehicles parked or tickets issued. The process relied on ALF-level reporting, with no independent audit or verification mechanism across sites. This might have led to trust issues between the UCD department and ALFs engaged.
2. **Women were not provided identity cards or uniforms** during the period of engagement. Women mentioned that vehicle owners at times refused to pay parking charges due to lack of identification and questioned their role. Instances of misbehaviour were also reported. No grievance or escalation system was available to address such situations. In cases of prolonged parking of unidentified vehicles, no coordination mechanism was available with traffic police.
3. **No linkage was established with nearby traffic police booths.** During festival periods, working hours extended until midnight or 1:00 AM. No safety or escort arrangements were provided during these extended hours.
4. **Infrastructure conditions varied across locations.** On-street and traffic island sites had no provision for basic facilities. Under-bridge sites had access to shade but did not have drinking water. Lighting at several undeveloped sites remained non-functional for extended periods. In the absence of these provisions, ALFs arranged basic facilities using 2 % of their revenue share.

Recommendations

These recommendations are for cities planning to implement a similar initiative, where similar challenges may arise and can be addressed:

1. **Simplify contracting requirements** for Area Level Federations (ALFs) or provide compliance support through the concerned department for registration, documentation, and financial reporting.

2. **Issue local government-authorised identity cards and uniforms** to all women engaged at parking sites. Introduce standard uniforms and visible badges for on-ground identification. Ensure these are provided at the time of onboarding and remain mandatory during operations.

3. **Map each parking site to a designated traffic police contact point.** Establish a protocol for routine coordination, support during peak hours, and presence during extended working hours such as festivals. Provide site-level contact details to all operators.

4. **Ensure provision of basic amenities** such as drinking water, toilets, shaded seating, and adequate lighting at every parking location.

5. **Introduce a digital ticketing system** for real-time transaction recording. Enable digital payment options at all sites. Link daily collections with a central system for verification and monitoring.

6. **Conduct information, education, and communication (IEC) activities** to improve visibility and awareness of the initiative, so that citizens cooperate and participate.

7. **Set up a city-level system with defined contact points** for reporting disputes, non-payment, and safety concerns. Maintain records of complaints and actions taken at the local government level.

4.6: Parking Management

Bhubaneswar

City Context

Bhubaneswar, the capital city of Odisha, has emerged as a leading example of integrating urban service delivery partners across several urban services. Under the Housing & Urban Development Department, the city has actively leveraged Self Help Groups (SHGs) to strengthen last-mile governance and service provision. The Bhubaneswar Municipal Corporation (BMC) has progressively expanded the role of SHGs beyond traditional livelihood activities into core municipal functions, including sanitation, water testing, tax collection, and facility management.

Parking management in the city expanded in response to increased vehicle use, particularly along commercial corridors such as Janpath. Prior to this initiative, parking services were managed through contractors with limited consistency in service delivery. In this context, the engagement of a transgender SHG (TG SHG) in parking management was introduced as a community-based service delivery model.

SHG members collecting parking charge in Bhubaneswar

About the Initiative

The parking management initiative was introduced in 2019 by the direct nomination of transgender SHG, TG Swikriti SHG, by BMC. A 3.5 km long stretch along Janpath was given to the group for managing the parking on both sides of the road. The engagement was based on prior experience of the SHG in municipal functions, particularly holding tax collection and COVID-19-related service support. The initiative was intending to bring more social acceptance and formal integration of transgender people in the formal livelihoods space.

1. Engagement model

The onboarding process required submission of documents including SHG registration certificate, Aadhaar cards of members, PAN card, bank account details, resolution letter, and previous work experience documents. Support in completing documentation was provided by ULB officials. The onboarding process was simplified to enable TG SHG to participate in work.

2. Training and Capacity Building

Training support under the initiative was limited to a one-day orientation conducted by a transgender-focused NGO. The training was practical and on-field in nature. It covered use of POS machines, manual ticketing, citizen relations, grievance handling, and basic safety protocols.

Meghna Sahoo, President of SHG, accepting the work order

3. Financial Support Model

The selection was primarily based on SHG's ability to meet the financial requirement of depositing a fixed contract amount of ₹3,20,000 per month. Any collection over this amount was distributed amongst the workers as their income. The SHG was also expected to take full responsibility for managing the service, with any profit or loss borne by them. In the initial phase, SHG reported financial losses due to lower collections. Over time, collections improved and SHG began generating surplus income.

SHG member collecting parking charge, Bhubaneswar

Impact

Prior to this engagement, members were primarily involved in informal activities such as begging which had irregular and unstable earnings, particularly during the COVID-19 period. Under the initiative, members reported earning between INR 10,000 to12,000 per month. Members reported improved financial independence, with direct transfer of income into individual bank accounts.

The initiative represented a shift beyond livelihood provision, with members reporting increased stability in income and continuity of work. The work required continuous public interaction, which contributed to improved confidence in dealing with citizens and handling day-to-day situations at parking sites. Members reported gradual improvement in public behaviour over time, leading to increased social recognition in their roles. The use of point-of-sale machines and ticketing systems also resulted in improved familiarity with digital tools as part of daily operations.

The initiative was designed to integrate transgender women into the formal workforce through structured engagement in municipal service delivery. Members reported that this engagement increased their visibility in public spaces and contributed to gradual social acceptance. Regular interaction with citizens at parking sites also contributed to improved awareness among the public regarding the role of transgender persons in formal work settings.

"Before this, our income was never fixed and people didn't treat us seriously. Now we manage parking and deal with the public every day. At first, it was difficult people would argue but slowly things have changed. We earn regularly now, and there is more respect. It feels like we are doing proper work like others do."

TG, Bhubaneswar

Citizen posing with the SHG Members

Key Challenges

Based on interaction with the transgender persons engaged in parking management, the following challenges were reported:

Administrative Challenges

1. **The financial model required the SHG to deposit a fixed monthly amount of ₹3.7 lakh irrespective of actual collections.** This placed the financial burden entirely on the SHG, particularly during the initial phase when collections were low and the group reported losses. The model did not account for fluctuations in demand across locations, seasonal variations, or external factors such as extreme weather conditions, which directly affect parking volumes and revenue. In the absence of any risk-sharing mechanism, SHG bore the full impact of revenue shortfalls while remaining liable for the fixed payment. Members reported that a flexible or shared-risk model linked to actual collections would reduce this burden.
2. **Administrative delays of 10 to 15 days in receiving payments were reported.** These delays were linked to documentation requirements and internal processing timelines within the authority. Since the SHG was required to deposit a fixed monthly amount in advance, delays in receiving surplus income affected internal cash flow and distribution to members.

Operational Challenges

3. **Members reported lack of access to toilets, drinking water, and designated rest areas** across sites. Given that the work involved long hours in outdoor conditions, the absence of these facilities affected daily functioning and comfort. Members also reported that there were no provisions for shaded seating or protection during extreme heat or rainfall, requiring them to continue work under exposed conditions.
4. **Social stigma and resistance from the public** were reported, particularly during the initial stages of implementation. Members reported instances where vehicle owners refused to pay parking charges despite being issued valid tickets and identification shown. Cases of verbal disputes and harassment were also reported. While public behaviour improved over time with continued presence, such instances were still reported intermittently.

Recommendations

The following recommendations are intended for cities planning to implement similar initiatives, where comparable challenges may emerge and can be addressed:

1. **Develop and adopt a shared-risk financial model** between the Urban Local Body and SHG, which allows flexible structure where the monthly deposit is adjusted based on location-wise demand, seasonal variation, and observed revenue trends.

2. **Ensure provision of basic amenities** such as drinking water, toilets, shaded seating, and adequate lighting at every parking location.

3. **Administrative processes related to payments and approvals to be defined by fixed timelines** for processing payments must be established and communicated to SHGs.

4. **Support for documentation, compliance, and access to financial resources must be ensured for SHGs.** The concerned department must provide assistance in maintaining basic financial records, understanding contractual requirements, and meeting documentation norms.

SHG members engaged in Parking Management

5: Key Learnings

The case studies presented in the preceding chapter provide grounded insights into how women are currently engaging with urban mobility systems across different cities and models. These examples illustrate the diversity of roles, institutional arrangements, and outcomes from waged employment in formal public transport systems to self-employment and SHG-led service delivery. While each case is context-specific, a set of recurring patterns emerges across them in terms of where women enter, how they sustain participation, and the constraints they encounter.

When viewed together, these cases move beyond individual narratives to offer a system-level understanding of women's participation across the urban mobility value chain. They highlight not only what is working, but also where gaps persist in institutional design, access to finance, skilling, working conditions, and social acceptance. These insights form the basis for distilling broader learnings and identifying pathways for scale presented below:

Key Learnings from Case Studies

1. Multiple entry points exist across the mobility value chain and women are willing to take up diverse roles.

The cases highlight that women can be integrated across diverse roles such as:

a. First/Last Mile: e-rickshaw drivers under Mo E-Ride
b. Core Transit: bus guides/conductors under Ama Bus
c. Support Services: parking management (Ahmedabad, Bhubaneswar)
d. Passenger Interface: facilitation services at Puri bus stand

Insight:
Despite facing intersecting constraints such as gendered norms, limited prior exposure, literacy and financial barriers, and restricted mobility, women are willing to enter non-traditional roles and learn new skills. Their participation reflects a gradual and evolving process in economic engagement.

Drop-offs observed across models also indicate that existing systems tend to retain only those women who are able to overcome multiple constraints, while others exit due to structural barriers. This highlights the need to design for inclusion beyond early adopters. Importantly, discontinuation or drop-offs observed in some cases should not be viewed as failure, but as part of this transition. Entry, exit and re-entry cycles are common, as women's livelihoods are non-linear.

It is also important to recognize that women are not a homogeneous group. Participation varies across class, caste, migration status, age, and education levels, influencing both access to opportunities and ability to sustain engagement.

2. Women Perform Effectively Across Roles

Across all case studies, women demonstrated high levels of discipline and operational reliability, along with strong citizen interface and service orientation. Their engagement has contributed to improved service outcomes, including better accountability, transparency, and enhanced user experience. These observations are consistent with evidence from sectors such as sanitation and water supply, where SHG-led, engagement has led to improved service quality and increased citizen trust.

Insight:
The question is no longer whether women can perform in these roles, they demonstrably can. The focus should instead shift to creating the necessary agency and enabling environment, including supportive institutional design, working conditions, and access pathways, to facilitate and sustain their participation at scale.

3. Different Engagement Models Enable Different Outcomes

Based on the cases profiled, three distinct models emerge:

a. Collective SHG-led models (Ahmedabad, Bhubaneswar parking): Enable community ownership, shared risk, and easier onboarding but face challenges in scaling under formal procurement systems.
b. Individual employment models (Ama Bus, Ama Ride, E-Saarthi): Provide stable wages, structured training, and social security eliminating asset ownership and financial barriers and enabling long-term retention.
c. Asset-based self-employment models (E-Auto Ahmedabad, Pink Autos Surat): Offer higher earning potential by creating skills and asset building but are constrained by access to finance, licensing, and social barriers.

Insight:
No single model is sufficient across the value chain. A portfolio of engagement models is required, aligned to the nature of roles and entry barriers. Even within the same role, multiple pathways should be enabled. For instance, women can begin in waged employment models, which offer lower risk and easier entry, and transition over time into asset-based or self-employment models through buy-out, leasing, or ownership pathways.

As women gain experience, confidence, and financial stability, they may be better positioned to take on higher-risk, higher-return opportunities. Designing such progression pathways is critical. The central objective should be to enable graduation and upward mobility in women.

4. Institutional design determines women's inclusion. Where institutional intent was strong, outcomes were significantly better.

The case studies clearly demonstrate that women's participation is shaped by institutional intent and system design. Where inclusion was built into programme structures, outcomes were significantly stronger and more visible

a. Odisha's mobility models under CRUT mandates women's reservation (50% women in Ama-Rides, and 100% in E-Saarthi). This created scale and visibility.
b. Direct engagement of SHGs by ULBs (Bhubaneswar) enabled inclusion without complex procurement
c. In contrast: transition to formal tendering (Ahmedabad) excluded SHGs due to compliance barriers in spite of 6-7 years of successful operation.

Insight:
Inclusion does not occur automatically it must be intentionally designed into institutional frameworks. Policies, procurement systems, and programme structures play a decisive role in either enabling or constraining women's participation.

A cyclye-sharing station in Bhubaneswar

5. Persistent Barriers Limit Scale

Despite positive outcomes across cases, several recurring constraints continue to limit the scale of women's participation:

a. Institutional barriers: procurement norms, lack of convergence across programmes
b. Skill barriers: licensing requirements, gaps in technical training
c. Financial barriers: asset ownership, limited access to credit
d. Work conditions: safety concerns, inadequate infrastructure, unaffordable care support, long or inflexible hours. Among these, care responsibilities emerge as a central structural constraint, shaping women's availability, choice of roles, and continuity in employment.
e. Social norms: restrictions on mobility, visibility in public roles, everyday experiences of harassment, social scrutiny, and lack of acceptance in male-dominated workspaces, which affect both entry and retention.

These patterns are consistent with findings from initiatives such as AMRUT Mitra, where women's participation remains concentrated in non-technical roles due to lower entry barriers, rather than capability constraints.

Insight:
Without targeted interventions, women are likely to remain clustered in lower-value segments of the value chain, with limited progression into higher-skilled or higher-income roles. Integrating care-sensitive design into mobility systems needs through flexible shifts, proximity-based deployment, and affordable childcare support are central to women's participation in livelihoods.

6. Convergence is a Critical Enabler

Where convergence across programmes and institutions has been established, outcomes are significantly stronger. Evidence from sectors such as sanitation and water supply shows that:

a. SHGs gain access to structured and sustained work opportunities
b. Urban local bodies benefit from a reliable and accountable service delivery workforce
c. Programmes achieve dual outcomes of livelihood generation and improved service delivery

However, such convergence remains largely absent in urban mobility, where initiatives are often implemented in silos.

Insight:
Institutional convergence is critical for scale. Without it, urban mobility initiatives remain fragmented and limited in reach. Leveraging existing livelihood ecosystems such as SHG networks and mission structures, as demonstrated in initiatives like AMRUT Mitra can enable structured mobilization, streamlined onboarding, and sustained participation of women.

Summary

In summary, women's participation in urban mobility is no longer a question of feasibility but it is a question of intent and system design. The evidence clearly demonstrates that women can and do perform across roles. What is required is a shift from viewing women's inclusion as peripheral to embedding it from the outset in planning, programme design, and implementation.

This transition is neither simple nor linear. Women's entry into mobility livelihoods is shaped by multiple, intersecting barriers - social norms, safety concerns, care responsibilities, skill access, and financial constraints. Addressing these requires deliberate effort at every stage; it cannot be treated as optional or peripheral. It demands sustained institutional commitment and continuous course correction. The opportunity, therefore, is not to design new models or pilot new approaches, but to scale, standardise, and institutionalise what is already working, fix things that can make it work and to do so with a sustained intent to integrate women across the urban mobility ecosystem.

A cyclye-sharing station in Bhubaneswar

6: Recommendations

To move from pilot initiatives to scalable systems, the following 10-Step recommendations are proposed. These recommendations build on evidence from the case studies presented in this research, as well as insights from prior engagements in supporting programme convergence across missions such as SBM–DAY-NULM and initiatives like AMRUT Mitra.

The following recommendations are structured by level of responsibility: National and State Governments for enabling policy and system-level changes, and urban local governments and transport agencies for implementation and service design.

1. Institutionalizing Convergence Across Urban Missions

One of the strongest lessons emerging from both the mobility case studies and the sanitation sector is the central role of programme convergence in enabling scale. In sanitation, the structured convergence between DAY-NULM and SBM created clear institutional pathways for engaging SHGs as service providers, backed by policy guidelines, funding linkages, and defined roles.

Even in the water supply sector, under the AMRUT Mitra initiative, there was a strong impetus and support from MoHUA to states and cities to initiate the engagement of SHGs in water quality testing, user fee collection etc.

In contrast, urban mobility lacks such a formalized convergence framework. While isolated initiatives exist, they are often implemented independently by transport agencies, urban local bodies, or special purpose vehicles, without systematic linkage to livelihood missions. This results in missed opportunities to leverage the extensive SHG networks already mobilized under DAY-NULM.

To address this, there is a need to institutionalize convergence between urban mobility systems and livelihood programmes. This would involve:

- Defining mobility-related roles within DAY-NULM's livelihood frameworks
- Enabling ULBs and transport agencies to directly engage SHGs
- Creating joint planning and budgeting mechanisms across departments

Such convergence would not only expand livelihood opportunities but also strengthen service delivery by embedding community-based accountability into mobility systems.

2. Designing Inclusive and Flexible Procurement Systems

The Ahmedabad case clearly demonstrates how shifts in procurement frameworks can either enable or exclude women's participation. The earlier preferential procurement model allowed ALFs to participate with minimal barriers, whereas the transition to formal tendering, requiring GST registration, audited financials, and compliance documentation, effectively excluded them.

This highlights a critical structural issue: standard procurement systems are not designed for community-based institutions.To enable inclusion at scale, procurement frameworks must be rethought to accommodate SHGs and similar collectives.
This includes:

- Introducing preferential procurement provisions or reserved categories for SHGs
- Designing graded compliance requirements, where smaller contracts have simpler documentation norms
- Allowing direct engagement or nomination-based contracting for specific service categories
- Providing institutional handholding to help SHGs transition into formal contracting systems

Without such reforms, even well-performing models' risk being discontinued as systems formalize

3. Adopting a Portfolio of Engagement Models Across the Value Chain

The case studies show that women's participation is enabled through different models: collective SHG engagement, wage employment, and self-employment. Each model has distinct advantages and constraints. For instance, SHG-led models (such as parking management) are effective in enabling rapid entry and collective ownership but may face limitations in scaling under formal systems. Wage employment models, such as Ama Bus, provide stability, regular income, and structured working conditions, making them particularly suitable for core transit roles. Meanwhile, asset-based models like e-rickshaw ownership offer higher income potential but are constrained by access to finance and social norms.

This suggests that a single-model approach is insufficient. Instead, cities should adopt a portfolio approach, aligning different engagement models with different segments of the mobility value chain:

- Support services and facility management: SHG-led collective models
- Core transit operations: wage-based employment
- First/last-mile services: supported self-employment

Such differentiation allows for broader inclusion while also aligning with operational requirements.

4. Investing in Skills, Training, and Transition Pathways

A consistent pattern across both mobility and sanitation sectors is that women tend to be concentrated in roles with lower skill requirements. The AMRUT Mitra evaluation similarly highlights that a large proportion of SHGs are engaged in non-technical roles due to ease of entry, rather than capability constraints. This indicates that the issue is not willingness or ability, but access to structured skill development and progression pathways. Without such pathways, women's participation risks remaining confined to lower-value segments of the value chain.

To address this, skilling efforts must go beyond basic orientation and focus on:

1. Technical training (e.g., driving, maintenance, digital systems)
2. Certification and licensing support
3. On-the-job training and mentorship
4. Clear pathways for role progression, enabling women to move from support roles to core operational roles

5. Enabling Access to Finance and Reducing Asset Risks

Financial barriers remain a major constraint, particularly for roles that require asset ownership, such as auto-rickshaws or e-vehicles. The Surat Pink Auto initiative demonstrates both the potential and the limitations of such models; while subsidies and loans enabled some women to participate, many dropped out due to challenges in accessing finance or navigating documentation requirements.

In contrast, models like Mo E-Ride eliminate asset ownership barriers by providing vehicles and structured employment, significantly improving accessibility.

Going forward, cities should adopt blended financial models, including:

- Capital subsidies and interest subvention
- Leasing or shared ownership models
- Credit facilitation through SHG-bank linkages
- Risk-sharing mechanisms between government and operators

Reducing financial risk is essential for enabling women to enter and sustain participation in higher-value roles.

6. Improving Working Conditions, Safety, and Dignity

Across case studies, working conditions emerged as a critical determinant of participation. Women faced challenges related to lack of basic amenities, safety risks during late hours, absence of identity and recognition, and exposure to difficult environmental conditions.

The sanitation sector provides strong guidance here, emphasizing health, safety, and dignity as central to workforce integration. Improving working conditions is not only a welfare measure it directly impacts retention, performance, and service quality.

Applying these principles to urban mobility requires:

- Ensuring minimum infrastructure standards (toilets, drinking water, lighting, rest areas)
- Providing uniforms, ID cards, and formal recognition
- Establishing safety protocols and grievance redressal systems
- Designing shift structures that account for women's time constraints and safety concerns

Garima Gruh, space for resting, cleaning, storing and changing for sanitation workers in Bhubaneswar

Odisha's sanitation programs, particularly under Garima scheme, prioritized dignity and well being of sanitation workers through following initiatives:

- Prision of safety gear, uniforms, and identity cards
- Establishment of Garima Grihas (resting and welfare spaces)
- Regular health check-ups and access to social security schemes
- Institutional platforms for grievance redressal and worker voice

These interventions led to:

- Improved working conditions and occupational safety
- Greater retention and consistency in service delivery
- Enhanced social recognition of sanitation workers

Bus guides in in Bhubaneswar

7. Formalizing Employment and Strengthening Social Protection

A key distinction between successful and less sustainable models is the degree of formalization. Wage-based models like Ama Bus demonstrate how structured employment: fixed salaries, defined shifts, training, and identity can significantly enhance both livelihood outcomes and dignity. In contrast, informal or semi-formal arrangements often expose women to income instability and lack of protection.

To address this, programs should aim to:

- Provide long-term contracts with annual performance reviews
- Ensure timely and transparent payment systems
- Extend social protection benefits, including insurance, pensions, and health coverage
- Integrate women workers into formal labour and welfare systems

Formalization is critical for transforming short-term opportunities into sustainable livelihoods.

8. Recognising and Enabling Care Support as a Critical Enabler

Across all case studies, one of the most consistent yet often invisible constraints affecting women's participation is the burden of unpaid care work. Women's ability to engage in urban mobility livelihoods is closely tied to their responsibilities within the household, childcare, elder care, and domestic work which shape their availability, mobility, and choice of work.

In several cases, women reported selecting shifts based on care responsibilities, limiting their ability to take on longer hours, night shifts, or roles that require fixed or extended schedules. In models such as parking management, shift flexibility allowed women to balance work and care. However, in more structured roles such as transport operations these constraints can become a barrier to entry and retention.

To address this, urban mobility systems must integrate care-sensitive design into programme and policy frameworks. Key approaches include:

- Provision of childcare support near major workplaces such as depots, terminals, and transit hubs, either through creches or partnerships with existing childcare services
- Flexible and predictable shift structures, allowing women to balance work and care responsibilities without income loss
- Proximity-based deployment, enabling women to work closer to their homes, especially in first- and last-mile services
- Integration with existing schemes (such as Anganwadi services or City livelihood centers and Palna scheme) to provide care support infrastructure
- Encouraging shared responsibility models, including sensitization of employers and institutions to recognize care constraints

9. Strengthening Monitoring, Feedback, and Adaptive Systems

A recurring gap across case studies is the absence of structured feedback and review mechanisms. Even where challenges persisted over multiple years, there was limited evidence of program adaptation or course correction.

In contrast, sanitation programmes have increasingly adopted data-driven monitoring systems and feedback platforms to track performance and address issues in real time.

Urban mobility systems can benefit from similar approaches by:

- Introducing digital tools for tracking service delivery and payments
- Establishing regular review forums involving women workers and SHGs
- Developing performance indicators linked to both service and livelihood outcomes
- Such systems enable continuous learning and improve programme effectiveness over time.

10. Driving Scale Through National and State-Level Policy Push

Perhaps the most critical lesson is that scale requires intentional policy push. The AMRUT Mitra initiative demonstrates how national-level direction can rapidly expand women's participation across multiple states and cities, supported by clear guidelines, funding, and monitoring frameworks.

Urban mobility currently lacks a comparable push. To unlock its full potential, there is a need for:

- National guidelines on women's participation in urban mobility systems
- Defined targets or incentives for states and cities
- Model frameworks for engaging SHGs and women workers across the value chain
- Dedicated funding windows for gender-inclusive mobility initiatives

Such a push would signal priority, align stakeholders, and enable replication at scale.

Bibliography

1. Ahmedabad Municipal Corporation (AMC). 2023. Revised Parking Policy 2023. Ahmedabad: AMC
2. Azad Foundation. n.d. Women with Wheels. https://www.azadfoundation.com/core-initiatives/women-with-wheels /
3. Baton Transport. n.d. Trucking for Equality. https://batontransport.com/trucking-for-equality/5461/
4. Bhubaneswar Municipal Corporation (BMC). 2019. TG Swikriti SHG Parking Management Contract. Bhubaneswar: BMC.
5. Capital Region Urban Transport (CRUT). 2026. Ama Bus Operations Report. Bhubaneswar: CRUT.
6. Directorate General of Employment (DGE). 2023. Female Labour Utilization in India: April 2023.
7. Gujarat Metro Rail Corporation (GMRC). 2025. Ahmedabad Metro Ridership Data. Gandhinagar: GMRC
8. India Fellow. n.d. The Vignette of a Driverben. https://indiafellow.org/blog/all-posts/the-vignette-of-a-driverben/
9. Initiative for What Works to Advance Gender Equality (IWWAGE). 2021. Working Report on Care Work.
10. Institute for Transportation and Development Policy (ITDP) India and GIZ. 2022. Women in Mobility Workforce Study. New Delhi: ITDP India
11. International Transport Forum (ITF). 2021. Women Drivers in Urban Transport. Paris: ITF
12. Janvikas. n.d. Urban Initiative: Driverben Programme. https://www.janvikas.in/copy-of-urban-initiative
13. Kochi Water Metro and Kudumbashree Mission. n.d. Facility Management Services. https://lsgkerala.gov.in/en/kudumbashree/news/kudumbashree-extends-facility-management-services-kochi-water-metro
14. Local Self Government Department, Kerala. n.d. Kudumbashree in Kochi Water Metro. https://lsgkerala.gov.in/en/kudumbashree/news/kudumbashree-extends-facility-management-services-kochi-water-metro
15. Ministry of Housing and Urban Affairs (MoHUA). 2018. SBM-NULM Convergence Guidelines. https://umcasia.org/wp-content/uploads/02_0111.-SBM_NULM-convergence-guidelines_MoHUA-2018_UMC.pdf
16. A Resource Guide for Decision Makers and Sanitation Leaders, UMC. 2025. Resource Guide Final. https://umcasia.org/wp-content/uploads/UMC-Resource-Guide-Final_10012025_V2.pdf
17. Amrut Mitra Compendium, UMC-CUPDF,2026. https://umcasia.org/wp-content/uploads/Amrut-Mitra-Compendium_09032026_Final-for-PRINT50-compressed.pdf
18. National Informatics Centre (Parivahan). 2026. Vehicle Registration Data: Ahmedabad. https://parivahan.gov.in
19. News India Times. n.d. Breaking Barriers: Women in Non-Traditional Occupations. https://newsindiatimes.com/breaking-barriers-women-in-non-traditional-occupations/
20. Observer Research Foundation (ORF). 2023. Building India's Economy on Women's Unpaid Work. https://www.orfonline.org/research/building-india-s-economy-on-the-backs-of-women-s-unpaid-work-a-gendered-analysis-of-time-use-data
21. Ola Mobility Institute. 2019. Women in Last-Mile Mobility. Mumbai: Ola
22. PRS Legislative Research. 2025. DFG Analysis 2025-26: MoHUA Budget. https://prsindia.org/files/budget/budget_parliament/2025/DFG_Analysis_2025-26-MoHUA.pdf
23. Sattva Consulting. n.d. Female Labour Force Landscape in India. https://www.sattva.co.in/ski/female-labour-force-landscape-in-india/

24. She Drives Change, World Bank. n.d. Assam Inland Water Transport Case Study. https://shedriveschange.worldbank.org/case-study/case-study-18-assam-india
25. Surat Municipal Corporation (SMC) and Surat Sitilink Limited. n.d. BRTS and City Bus Ridership. Surat: SMC
26. Surat Municipal Corporation (SMC). n.d. Pink Auto Initiatives 2017 and 2021. Surat: SMC.
27. The Print. n.d. Women Drivers from Ahmedabad Gearing Up for Hungary. https://theprint.in/india/women-drivers-from-ahmedabad-gearing-up-to-work-as-truck-drivers-in-hungary/1772027/
28. Times of India. 2024. Startup Launches E-Auto Rides in Trichy. https://timesofindia.indiatimes.com/city/trichy/startup-launches-e-auto-rides-in-trichy/articleshow/110809402.cms
29. Transformative Urban Mobility Initiative (TUMI). 2022. Ahmedabad Mobility Data. Berlin: TUMI.
30. United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP). 2018. SUTI Mobility Assessment Report: Surat. https://www.unescap.org/sites/default/files/SUTI%20Mobility%20Assessment%20Report%20%20-%20Surat.pdf
31. Urban Management Centre (UMC). n.d. ALF Financial Lending Support Assessment. https://umcasia.org/wp-content/uploads/Assessing-Preparedness-of-Area-Level-Federation-ALF-to-Extend-Financial-Lending-Support-for-SHG-Empowerment.pdf
32. Viksit Bharat. n.d. Vision 2047. https://viksitindia.com/vision
33. World Bank. 2017. Female Labor Force Participation in India. https://documents1.worldbank.org/curated/en/417411489495483028/pdf/WPS8004.pdf
34. World Resources Institute (WRI). 2023. Ahmedabad Transport Study. New Delhi: WRI India

9 789359 163741

www.umcasia.org

Follow Us

Urban Management Centre

Making cities work for everyone

Head Office:
A202, GCP Business Centre,
Opp. Navrangpura Fire Station,
Navrangpura, Ahmedabad-380009