Pathways toward gender-inclusive mobility systems in India

UDDHESHYA: MAINSTREAMING GENDER FROM IDEAS TO ACTION (2023)

March 22, 2023 | New Delhi, India | Aravinda Devaraj, Harshita Jamba, Chaitanya Kanuri, and Pawan Mulukutla

BACKGROUND

The mobility of people and goods is a key driver of economic growth. Equitable access to mobility is an essential prerequisite for creating healthy, resilient, and empowered communities that can engage in economic and social activities. However, vulnerable groups, especially women and girls, lack access to safe and affordable transport options, and thus have limited their access to opportunities for education, healthcare, employment, and community participation.

To construct a holistic and nuanced understanding of the opportunities for, and challenges to, building a thriving, gender-inclusive mobility ecosystem in India, WRI India hosted "Uddheshya: Mainstreaming Gender from Ideas to Action" on March 22, 2023, bringing together relevant actors from city governments, transport departments, industry, and civil society organizations. The conference was convened under the aegis of the Forum for Decarbonising Transport, a NITI Aayog–led platform that is part of the NDC Transport Initiative for Asia (NDC-TIA), to enable more ambitious and inclusive transport decarbonization action. Uddheshya was hosted in partnership with Ola Mobility Foundation, Safetipin, and The Urban Catalysts.

The opening plenary featured Dr. Philip Ackermann (German Ambassador to India and Bhutan), Mr. Amitabh Kant (G20 Sherpa, India), Ms. D. Thara (Additional Secretary, Ministry of Housing and Urban Affairs, Government of India), Dr. Vandana Kumar (Additional Secretary, Rajya Sabha Secretariat, Government of India), and Dr. Sudeshna Chatterjee (Program Director, Research, WRI India). The speakers highlighted the importance of gender-inclusive mobility for empowering women.

This timely conference aligned with India's G20 presidency, which has women-led development as one of its key focus areas. The W20, the official G20 engagement group focused on gender equity, works in five priority areas:
women’s empowerment, grassroots women’s leadership, bridging the gender digital divide, education and skill development, and climate change. Through Uddheshya, WRI India aimed to bring to the fore the role of inclusive mobility in achieving these objectives.

The discussions at the conference drew from the rich experiences of local and global organizations working at the intersection of gender and mobility. Some of the key points highlighted in the conference were the following:

- The collection of gender-disaggregated data, or data segregated by gender, must be institutionalized in transport agencies and government departments at the city level to build an in-depth understanding of women’s travel needs and challenges. Public transport agencies must consider integrating the gender lens in all policy and planning processes to design suitable mobility solutions.

- Adequate representation of women at all levels of decision-making in the transport sector is crucial for including gender considerations in transport and urban development policies and designing gender-sensitive transport networks in cities. Encouraging public participation, strengthening feedback systems, and creating gender working groups are some avenues for enabling women’s representation in the transport sector.

- The electric vehicle (EV) industry is expected to create 10 million direct jobs and 50 million indirect jobs by 2030 (Ghosh 2022). The shift in the transport sector to electric mobility is an opportune time to ensure a just transition. This requires policymakers to institute strategic measures and ensure skill development of women at scale.

- To create large-scale, long-term impacts, a holistic approach is required to financing women’s mobility that includes mobilization of funds, cross-cutting allocations for major and minor interventions along the service delivery chain, and improved accountability of gender budgets in transport projects.

- Cross-learning and collaborative action across all stakeholders, such as transport agencies, private transport operators, civil society organizations, academics, and funding agencies in the mobility ecosystem will help advance gender inclusivity and achieve sustainable and equitable access to opportunities.

ABOUT UDDHESHYA

Uddheshya was the first-of-its-kind day-long conference on mainstreaming gender in the transport sector in India. The conference saw more than 80 gender experts, transport planners, researchers, practitioners, civil society representatives, and other stakeholders come together to discuss the importance of creating more inclusive mobility systems in Indian cities by using gender-disaggregated data for developing inclusive public transport and public spaces, and including more women’s voices in decision-making and planning in the transport sector.

The conference began with the plenary session, which outlined the need to create gender-inclusive mobility systems and their role in empowering women. The day’s panel discussions brought together mobility experts, private players, and grassroots-level organizations to deliberate on strategies for building gender inclusivity into existing mobility ecosystems, with a particular focus on public transport infrastructure and services. The round table discussions in the second half of the conference explored the challenges faced by stakeholders in scaling up mobility initiatives, such as financing and disaggregated data collection, to make the transport sector inclusive and sustainable. The EV transition was also discussed as a potential avenue for creating more gender-inclusive transport options.

A spotlight session highlighted successful initiatives that are working toward gender-inclusive transport systems across different cities in India and around the world. The sessions were complemented by a photography exhibit that captured the daily life of women navigating cities, which served as a powerful visual testimony to the importance of gender-inclusive transportation.
Overall, Uddheshya offered a valuable platform for stakeholders to share ideas, insights, and best practices with the goal of creating a more gender-inclusive and sustainable transport sector.

FIGURE 1 | The opening plenary at Uddheshya

Source: Photo by WRI India

INTRODUCTION

The need for gender mainstreaming in the transport sector

Women’s empowerment is crucial for India’s sustainable development and its ambitious target of a $5 trillion economy. However, India has to cope with a wide gender gap in workforce participation rates (29.4 percent among women versus 80.7 percent among men in 2021–22) (Dhamija and Chawla 2023). This gender gap not only perpetuates gender inequality but is also responsible for a significant missed opportunity for economic growth and development. Barriers such as inadequate education or skills, lower wages, a higher share of household responsibilities, social and cultural biases, and the danger of harassment and gender-based violence prevent women from joining the workforce.

Extensive work is being undertaken to overcome these barriers through gender-specific programs in health, sanitation, housing, livelihood, education, and finance. However, women still need safe and affordable access to schools, workplaces, banks, and healthcare centers to participate in these programs and benefit from them. Therefore, a gender-inclusive mobility system is critical for the effective delivery of welfare schemes and services to women.

Not only do gender-inclusive transport systems play an important role in the economic and social development of society, but they also hold significant potential to drive sustainable mobility strategies and climate actions.
Challenges to gender mainstreaming

To serve the mobility needs of its women, Indian cities need to overcome two challenges.

**The first challenge is the systemic gender gap in the planning and design of mobility networks.** For example, the designs and dimensions of vehicle parts and the routing and scheduling of transit services prioritize the travel needs of able-bodied working men.

Men and women participate in different sets of activities within and outside their homes, leading to vastly different travel patterns and requirements. Whereas men travel primarily for work, women travel for a range of purposes including work, caregiving, social, and medical visits. Their trips are shorter and are often made during off-peak hours. A significant proportion of their trips is for caregiving, or “mobility of care,” requiring them to travel with dependents such as children, elderly persons, or others requiring mobility assistance. As a result, women’s travel choices must also account for the mobility needs of their dependents (Kwon and Akar 2022).

Most women are resource-poor, with limited access to personal vehicles or an adequate travel budget, increasing their reliance on modes such as walking, cycling, and public transport (CIVITAS 2020). Their mode choices are incompatible with auto-centric cities, which by design are difficult to walk or cycle in and thus lead to unsafe streets and isolated urban pockets. Concerns regarding personal safety and time savings compel some women to choose paratransit modes such as taxis and auto-rickshaws but at a significantly higher cost (World Bank 2022). Ultimately, women choose jobs, educational institutions, healthcare centers, and other essential amenities that are located closer to their homes, even if it means foregoing promising opportunities (Mehndiratta and Quiros 2014).

Such gaps result from a failure to understand and address women’s unique travel needs, pointing to the **second challenge: inadequate representation of women in the transport sector.**

---

**FIGURE 2 | A woman hails an auto-rickshaw in Bengaluru**

Source: Photo by Suneha Hameed for WRI India
Transport is traditionally a male-dominated sector, and women are underrepresented in the transport workforce at almost all levels. Barriers such as lack of education and personal assets, a high share of unpaid care work, high entry barriers, unfriendly work environments, and social constructs prevent women from entering the transport workforce (Ng and Acker 2020).

Transport agencies have neither official mandates nor clear strategies to integrate gender considerations into their operations. There is little room for practices such as public consultation or participatory planning that offer women a chance to voice their opinions during the planning process. Ongoing efforts to address women's mobility issues are often siloed or limited in their scope. Only a small percentage of government funds allotted for women's empowerment is directed toward mobility projects.

**Ongoing efforts to address the gender gap in mobility**

Programs by governments and civil society organizations in India have started addressing these gaps through various local and state-level initiatives. States such as Assam (PTI 2015), West Bengal (The Statesman 2023), and Tamil Nadu (DTNEXT 2022) have programs to provide free bicycles to schoolgirls from economically weaker sections. Studies have shown that such measures have increased the enrollment and attendance of girls in educational institutions. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) collaborated with Kochi Corporation and Cochin Smart Mission Limited to provide bicycle training to more than 700 women and girls through the “Cycle with Kochi” initiative (Jovial 2022), which opened up employment opportunities for 25 percent of the unemployed women enrolled in the program.

**FIGURE 3 | A woman cycles in Bengaluru**

States such as Delhi, Punjab, Tamil Nadu, and Karnataka have introduced free public transport for women (Somvanshi 2021), while dedicated bus services in Thiruvananthapuram, Kerala, are helping fisherwomen ferry their produce from the waterfront to major market areas in the city (Express News Service 2021). Initiatives such as Mo E-ride in the city of Bhubaneshwar, Odisha, have inducted more than 120 women and transgender people as EV fleet operators (GIZ n.d.), thereby advancing both gender diversity and sustainable transport.
Transport agencies and mobility service providers are actively working to modify their recruitment policies and working environments to increase women’s participation in the transport workforce. Hyderabad Metro Rail has engaged more than 65 women as loco pilots (Sangam 2021), while two of Mumbai’s metro stations are entirely staffed and managed by women (Hindustan Times 2023). A third of Delhi’s most recent tranche of e-autorickshaw permits is reserved for women (Goswami 2022).

However, scaling up these individual initiatives and building an inclusive mobility ecosystem requires a structured and comprehensive approach. Gender mainstreaming in the sector requires a detailed and nuanced understanding of women’s travel needs, integration of gender considerations into all transport processes, collaborative action for implementation, suitable funding mechanisms, and system-level changes to the existing governance systems. At Uddheshya, exhaustive discussions with stakeholders across multiple sessions culminated in the identification of five key strategies to advance the ongoing efforts in the gender and mobility space.

**FIGURE 4 | Aparna Vijaykumar speaks at a panel discussion at Uddeshya**

**KEY LESSONS AND ENTRY POINTS FOR ACTION**

Uddheshya identified five key focus areas for building a gender-inclusive mobility ecosystem.

**Institutionalize gender-disaggregated data for inclusive mobility systems**

Collecting and analyzing gender-disaggregated data is the first step to understanding the differences in mobility patterns between women and men. Publicly available gendered data exists in various forms across different platforms such as the Time Use Survey, the National Family Health Survey, and the national census. However, for city planning and transport, mobility data collected as part of Comprehensive Mobility Plans and detailed project reports are not gender-disaggregated.
Public transport services in Indian cities have the potential to collect commuter data disaggregated by gender through ticketing and transit passes, commuter grievance and feedback records, crowd counting, and so on. For example, in 2021, WRI India worked with the Mumbai Metropolitan Region Development Authority (MMRDA) to understand the mobility patterns of women users of Mumbai Metro through ridership counts, commuter surveys, and station audits. In Bhubaneshwar and Kerala, GIZ has worked with transit agencies to issue gendered tickets to track the variations in the use of services by women throughout the day (SMART-SUT, GIZ India 2021). These data have been used to plan services, deploy security, and prioritize infrastructure development.

Gendered data collection and analysis by civil society organizations (CSOs) has helped build a considerable body of knowledge on, and awareness of, women’s mobility. For example, OMI Foundation has been undertaking large-scale mobility surveys with the gender, age, disability (GAD) lens embedded in the survey design. Social media posts and Internet campaigns have prompted authorities to address issues of harassment on specific bus routes in Delhi (Jamba and Ramprasad 2021). Organizations such as Data2X have demonstrated that big data from cell phone call records and social media posts can be used to analyze women’s mobility patterns (Gauvin et al. 2019). Using cell phone applications, the Red Dot Foundation (Sapam 2016) and Safetipin crowdsourced information about areas perceived as unsafe or that have witnessed incidents of harassment of women. These organizations also work with local agencies and share point-based locations in such areas (Bakshi 2016). This has resulted in actions such as the installation of streetlights and deployment of police personnel.

Although commuter data are important, disaggregated data on women as transport workers are also crucial to advance gender-inclusive mobility systems in India. Data on the transport workforce can establish the baseline and set measurable targets for achieving greater gender diversity in the transport sector.

FIGURE 5 | Session on Gender Inclusive Mobility for Women’s Empowerment at Uddheshya
Entry points for action

Institutionalize gender-disaggregated data collection at two levels: commuter-facing data and internal agency-facing data. Public transit agencies need to be trained on the importance of collecting disaggregated commuter-facing data, methods of collection and analysis, and the design of solutions based on the findings. Cities too must integrate gender-disaggregated data collection on women’s evolving travel patterns and mobility requirements through periodic, comprehensive transport studies and travel surveys.

Agencies must collect and maintain a gender-disaggregated staff database to inform their internal targets, recruitment, and workplace policies. Because national and global funding requirements are increasingly mandating clear targets for women’s participation in projects, such data will become key to advancing project goals and building women-friendly work environments.

Advance women-led practices in the transport industry

The inadequate representation of women in the transport workforce has emerged as an important gap in building gender-inclusive mobility systems. Currently, women reportedly comprise less than 1 percent of the total workforce in the transport and storage sector across India (Srija n.d.). Gender mainstreaming in the transport workforce can be achieved only by ensuring the sustained participation of women across the transport sector, from planning and policymaking to operations and management.

Governments and private industry players are actively working to lower entry barriers and recruit more women into the transport workforce. Women in various roles constitute 27 percent of the staff (Hindustan Times 2023) in public transport agencies such as the Maha Mumbai Metro Operation Corporation Limited (MMMOCL). The Delhi Transport Corporation has modified its selection criteria for bus drivers to make more women eligible to apply. The minimum height requirement has been reduced from 159 cm to 153 cm, and the minimum experience has been reduced from three years to one month. This has allowed more women to apply to the post and train to become bus drivers (Goswami 2022a). Grassroots-level organizations such as the Azad Foundation and MOWO (Moving Women) Social Initiatives Foundation, which provide motor vehicle driver training for women, are seeing an increase in voluntary participation. Transport service operators such as Sakha Consulting Wings and delivery platforms such as Even Cargo have launched women-only services. Organizations such as the Manas Foundation partner with transport departments to provide gender sensitization training to intermediate public transport operators (Alawadhi 2021).

However, structural challenges hamper the recruitment and retention of women in transport sector jobs. They include the lack of infrastructure and facilities such as women’s toilets and rest areas in the work environment, inflexible work schedules, and inadequate support to help women fulfill their caregiving responsibilities. Moreover, gendered social norms about transport jobs, which consider them suitable only for men, prevent women from seeking work opportunities in the transport sector. It is therefore essential to take a holistic approach to advancing women’s participation in the transport sector.

In addition to women’s participation in the workforce, their leadership and participation in planning and policymaking decisions is essential for the development of gender-inclusive transport systems. Women in positions of authority as heads of transit agencies, planners in transport departments, and bureaucrats and policymakers working on transportation systems can significantly influence the planning and design considerations of urban transport networks. Cities such as Vienna, Austria ( Förster et al. 2021); Tbilisi, Georgia (Niras 2021); and Umeå, Sweden (Coi 2022) have constituted dedicated gender working groups in their departments to review policies and projects through a gender lens and issue directions to achieve gender parity in their impacts.

Another avenue to integrate gender considerations is through public participation in planning processes. The Urban Catalysts, for example, worked with local communities in Kuakata (Bangladesh) to plan their public spaces through participatory accessibility, safety audits, and visioning workshops to incorporate their feedback in the final plans (The Urban Catalysts n.d.).
Entry points for action

Adequate representation of women must be ensured in all stages of transport and urban planning processes, from policymaking to on-ground implementation. This can be initiated by institutionalizing inclusivity in the governance structure at three levels: strengthening the commuter feedback and grievance redressal mechanisms, adopting a participatory approach to the planning process by involving women and voices from civil society, and actively recruiting women to positions of power in transport planning committees.

Integrating women in the transport workforce requires a systematic and comprehensive approach. Training programs for women must account for their time poverty and resource constraints, and skilling efforts must also address illiteracy, language barriers, and the digital divide. Women need to be made aware of their rights, job opportunities in the transport sector, government schemes, and the legal processes involved in claiming their benefits. Flexible work timings and support for care workers need to be set up to help women manage their professional and household responsibilities. Gender sensitization of male staff in the workplace and provision of facilities such as clean toilets, rest areas, and nursing stations must be mandated.

Leverage the EV transition to enhance gender inclusivity in the transport workforce

The transition to electric mobility is gaining momentum as countries strive to reduce their carbon emissions and mitigate climate change. India is one of 15 countries to have pledged that EVs would account for at least 30 percent of new vehicle registrations by 2030 (Clean Energy Ministerial n.d.) and has formulated various schemes for the promotion of the e-mobility ecosystem. However, it is crucial to ensure that this transition is just and inclusive, taking into consideration its impact on different socioeconomic groups and the potential for unequal distribution of benefits and costs. Women form one such important socioeconomic group that can significantly contribute to, as well as benefit from, this transition.

The transition from internal combustion engine (ICE) vehicles to EVs has opened new avenues for including women in the mobility industry. New jobs in highly skilled professions such as design, software, and electronics assembly are being unlocked in the EV sector. Industries are looking to fill their requirements for skilled labor from the increasing pool of women graduating from the science, technology, engineering, and math (STEM) fields (Srivastava and Nagaraj 2022).

The EV transition has also catalyzed the recruitment of women into the semiskilled workforce in two areas: the manufacturing sector and transport operations. These skill sets are less physically demanding than those in the ICE industry, making the EV sector more attractive to women. Manufacturers such as Ola, Tata Motors, Hero MotoCorp, Ampere EV, Bajaj, and Piaggi (PTI 2018) have established new manufacturing and assembly units with all-women shop floors in cities such as Hyderabad, Chennai, and Pune. Women have also taken up leadership positions in start-ups and enterprises operating in supporting areas such as battery manufacture and charging infrastructure (Philip 2011).

The relative ease of handling EVs has also enabled women to take up jobs as drivers of e-rickshaws and electric buses. Recognition of this potential has led governments to support e-mobility schemes that promote women’s participation. For instance, the state-owned Convergence Energy Services Limited (CESL), which coordinates large-scale e-bus procurement in India, has mandated driver training for women in the e-mobility sector (ET Auto 2022) and 25 percent participation from women as drivers and depot and factory staff in their tenders.

Entry points for action

Awareness must be created about the availability of jobs for women in the EV sector. Identifying jobs and skills that women can take up can be an entry point for enhancing women’s participation in the EV workforce. Beyond this, targeted skill development programs need to be designed through partnerships between industry and academia to train women at scale for various jobs in the EV value chain. It is especially
important to identify women engaged in the informal vehicle manufacturing segments and arrange reskilling programs for them. For this, opportunities such as the 30 percent reservation of seats for women in industrial training institutes (ITIs) (PIB Delhi 2021) can be harnessed while designing courses related to the EV industry.

**Programmatic approach to financing the gender-inclusive mobility ecosystem**

Globally, both public and private institutions have been funding gender and mobility initiatives. Institutions such as GIZ (SMART-SUT, GIZ India 2021), the World Bank (World Bank n.d.), and the Asian Development Bank (Asian Development Bank 2022) have been financing projects that focus on inclusive mobility. Private players such as ETO Motors are financing programs to train women as e-rickshaw drivers (Express Mobility Desk 2022). Philanthropic organizations such as Shell Foundation also help these women access affordable finance options and support infrastructure; they also run numerous other initiatives (Shell Foundation 2020). As for public funding, ministries and government departments have allocated funds for women’s safety in transport in the form of various initiatives for women’s mobility (Agarwal 2023). Programs to recruit women into the public transport and paratransit workforce in cities such as Kochi and Surat have also received funds from the local city and state governments (Swamy et al. 2021).

However, a programmatic approach to financing equitable and affordable mobility access for women is still missing. Government funding is often limited in its scope, focusing narrowly on infrastructural measures for women's safety. For example, the Safe City Project financed by the Government of India's Nirbhaya Fund is an initiative to create safe and empowering public spaces for women and girls in eight Indian cities (ANI 2021). However, the program limits itself to solutions such as emergency response systems, video surveillance, and deployment of security personnel. Other related aspects that are essential for women's safety such as accessible and affordable public transport, reliable first and last mile connectivity, and inclusive design of public spaces are not covered under this program (Express News Service 2023).

Private sector initiatives often take a narrow approach to financing initiatives for gender inclusion in transport. For example, organizations that offer driver training to women from underprivileged backgrounds receive funding only for the driver training module. Driving knowledge alone does not equip women to take on jobs as drivers. To successfully enter the workforce, women also need to be trained in soft skills, preparation of documents (proof of identity, address, licenses, etc.), the use of digital tools (such as smartphones), self-defense, and access to legal remedies.

Further, entrepreneurs in the transport ecosystem who try to advance the cause of women as commuters or as workers do not get adequate funding to scale up. This does not give much incentive for enterprises to actively focus on initiatives for women. Therefore, a comprehensive and programmatic approach must be adopted to financing the transport ecosystem.

Gender budgeting is a tool for gender inclusivity that is widely used by governments and private organizations. This tool allows budgetary allocations to be prepared and analyzed from a gender perspective and revenues and expenditures to be structured for gender equality (European Institute for Gender Equality n.d.). It helps overcome inherent gender biases and the inequalities present in conventional systems, and advance more inclusive practices for financing infrastructure and services. Countries such as the United Kingdom and South Korea use gender budgeting to allocate funds to specific women-centric programs, and Canada and Uganda have used it to track the impact of their budget on women (Nikore 2019).

In India, although gender budgeting has been adopted at the level of the central and most state governments, it does not adequately cover mobility-related projects. India’s gender budget for 2023 has allotted INR 2,230 billion to schemes for empowering women and mitigating the gender gap (Rao 2023), but women’s mobility does not explicitly feature in the list of focus areas.
Entry points for action

Financing gender-inclusive mobility initiatives must move from piecemeal solutions to more programmatic efforts for sustained and large-scale impact. Funding from both government and private institutions, along with the ancillary ecosystem that enables impact, is necessary for the success of such initiatives. Public funding allocations must adopt a model tied to specific gender targets to ensure their effective utilization. Financial products and instruments that make investments based on environmental, social, and governance (ESG) considerations can also be leveraged to provide financing flows for the growth and scaling up of women-centric enterprises.

Collaborate for scalable impacts of gender inclusion in transport

Integrating women into the transport sector requires coordinated action by various stakeholders at multiple levels. Current efforts to mainstream gender in the transport sector are largely fragmented and siloed, with most organizations working within the constraints of their expertise or geographical reach. Research organizations and CSOs, which have been at the forefront of several initiatives for gender-responsive mobility, are limited in their ability to scale up and institutionalize proven solutions.

A major reason for this limited ability is the fragmented nature of urban transport governance in Indian cities. Different aspects of transportation are handled by different departments at the city, state, and central levels with little horizontal or vertical coordination (Baindur 2015). A typical barrier to achieving seamless intermodal integration in large Indian cities is the lack of coordination between different transport agencies (bus, rail, metro, and paratransit operators) and other departments with intersecting jurisdictions and functions (traffic police, municipal corporation, public works department, etc.). For example, such an effort in Mumbai would require coordination between operators of the city bus services (Brihanmumbai Electric Supply & Transport Undertaking), the Indian Railways for the suburban rail network, the Maha Mumbai Metro Operation Corporation Limited (MMMOCL) for the metro rail network, the autorickshaw and taxi drivers’ associations, the MMRDA for physical infrastructure development, and a number of other agencies responsible for the design and maintenance of access routes and public spaces. Currently, there is no formal system in place to facilitate efficient exchange of data, learnings, or best practices across these agencies.

Cross-learning is essential to scale up and support gender-sensitive initiatives. Kochi Metro worked with a local women’s self-help group to recruit women for the management of the metro system. This learning further benefited the Kochi Water Metro in planning their recruitment drives and training programs to onboard women as “boatwomen” in what is traditionally a male-dominated sector (The Hindu 2023).

Constituting dedicated working groups or committees can facilitate the coordination needed to advance gender-inclusive practices across organizations and sectors. An example is the Women in Transport steering committee set up in the state of Victoria, Australia. It is an advisory body responsible for recommending industry targets, monitoring the allotment of funds to meet gender targets, collecting data and conducting research to identify and address systemic challenges for women in the transport sector (Department of Transport and Planning 2021), and endorsing sector-wide campaigns. A similar committee in the European Union provides a platform for organizations from different countries to exchange good practices and promote women in transport professions by raising awareness on equality issues (European Commission n.d.).

In addition to improved intra-government coordination, collaborations between the transit agencies, financiers, and CSOs are necessary for initiating and scaling up innovative initiatives for women’s mobility and institutionalizing the programs effectively. Institutions such as the Asian Development Bank (Asian Development Bank 2013) and the World Bank (World Bank 2022) have collaborated with multiple city governments and transit agencies to advance gender inclusivity in transport systems. The learnings from these exercises have led to the development of gender toolkits and guidelines that can help Indian cities institutionalize best practices for framing clear gender strategies and integrating gender considerations into their transport systems.
Moving from specific issue-based approaches to a more comprehensive programmatic approach to gender inclusion will help facilitate cross-learning and peer sharing across all stakeholders, procure appropriate funding for both core and support programs for women’s mobility, consolidate individual efforts and expertise for scaling up, and bridge the existing gaps in the mobility ecosystem.

**Entry points for action**

Interdepartmental coordination on transport policies and processes is key to effective implementation of inclusive mobility solutions for women. This requires clear channels for interdepartmental communication, exchange of data and learnings across projects, and collaboration on shared responsibilities pertaining to gender issues in mobility systems. Integrated governance structures or umbrella bodies such as Unified Metropolitan Transport Authorities (PTI 2022) have to be constituted to achieve this and ensure effective coordination in the long term.

Comprehensive data-sharing and peer-learning systems across various governmental and non-governmental stakeholders in the mobility ecosystem will catalyze the scaling up of gender-inclusion initiatives. Setting up data-sharing platforms can facilitate coordination between transit agencies, mobility service providers, other government departments, and CSOs active in the urban space. Professional networks such as Women on the Move (GIZ and WRI 2021) can provide a platform for cross-learning and collaborations across organizations to compound individual competencies, access larger funding opportunities, and scale up the impacts.
NEXT STEPS

Uddheshya brought together voices from government, industry, and CSOs to explore strategies and best practices for building gender-inclusive mobility ecosystems. As next steps, the speakers identified the following steps to integrate gender inclusion in transport from ideas to action:

- Institutionalize gender-disaggregated data collection in transport agencies and government departments. This will help shed light on women’s travel needs.
- Integrate a gender lens in the policy and planning processes of public transport agencies. This will ensure that gender-inclusive mobility solutions are developed.
- Ensure that women are adequately represented in decision-making roles in the transport sector. This will help create gender-sensitive transport networks.
- Encourage public participation, strengthen feedback systems, and set up gender working groups in organizations. This will ensure that women are represented in the transport planning processes.
- Promote skill development of women in the EV industry and create awareness about emerging job opportunities. This will ensure that women are included in the transition to electric mobility.
- Make workplaces more gender inclusive by sensitizing male staff, providing basic hygiene and sanitation facilities, and flexible working hours.
- Design targeted skill development programs through industry–academia partnerships to train women at scale for various jobs in the EV value chain.
- Adopt a holistic approach to financing for women’s mobility programs, mobilizing funds, and improving accountability through gender budgeting.
- Allocate funds for major and minor interventions along the service delivery chain for women-centric projects as well as for women-led mobility initiatives.
- Foster cross-learning and collaborative action among stakeholders in the mobility ecosystem for gender inclusivity and equitable access to opportunities.
- Develop comprehensive data-sharing platforms to enhance coordination among transit agencies, mobility service providers, government departments, and CSOs.

FIGURE 7 | Kalpana Viswanath interacts with participants at Uddheshya

Source: Photo by Rajeev Malagi, WRI India
LIST OF SPEAKERS

Representatives from government and public transport agencies

Dr. Philipp Ackermann, German Ambassador to India and Bhutan
Amitabh Kant, G20 Sherpa, India
D. Thara (IAS), Additional Secretary, Ministry of Housing and Urban Affairs (MoHUA)
Sudhendu Jyoti Sinha, Advisor, NITI Aayog
Garima Gupta (IAS), MD, Shahjahanabad Redevelopment Corporation (SRDC) and Secretary, Women and Child Development (WCD)
Manoj Joshi, Director – Operation, Maha Mumbai Metro Operation Corporation Limited (MMMOCCL)
Archana Chauhan, Head, National E-Bus Program, Convergence Energy Services Limited (CESL)

Representatives from industry and civil society organizations

Aishwarya Raman, Executive Director, OMI Foundation
Akshima Ghate, Managing Director, RMI India
Aparajita Agrawal, Director of Strategy & Development, Value for Women
Arina Cosac, Head of Climate Change Policy, British High Commission, New Delhi
ElisaMarie D’Silva, CEO, Red Dot Foundation
Himani Jain, Senior Programme Lead, Council on Energy, Environment and Water (CEEW)
I.V. Rao, Distinguished Fellow, The Energy and Resources Institute (TERI)
Jai Bharathi Addeppalli, Founder and CEO, MOWO Social Initiatives Foundation
Dr. Kalpana Viswanath, Co-founder and CEO, Safetipin
Meenu Vadera, Founder, Azad Foundation and Sakha Consulting Wings Pvt. Ltd.
Mitali Nikore, Transport Specialist, The World Bank
Pramoda Gode, Senior Advisor, World Economic Forum
Ranjit Gadgil, Program Director, Parisar
Rebecca Fisher, Director, Drive Electric Campaign
Sarika Panda Bhatt, Director, Nagarro
Sayli Udas Mankikar, Head, City Climate Alliance, National Institute of Urban Affairs (NIUA), MoHUA
Shikha Rokadiya, Senior Researcher, International Council on Clean Transportation (ICCT)
Sonali Vyas, Program Head, Safetipin
Swati D’Souza, India Lead Analyst and Coordinator, International Energy Agency
Swati Ganeshan, RISE Fellow, Shakti Sustainable Energy Foundation
Swati Khanna, Senior Sector Specialist, KfW Development Bank
Tahseen Alam, Business Development Advisor, India, Shell Foundation
Urda Eichhorst, Senior Project Director, Gesellschaft für Internationale Zusammenarbeit (GIZ)
Dr. Vandana Vasudevan, Urban Development Author and Researcher
Vasudha Madhavan, CEO, Ostara Advisors
Vijay Saini, International Council for Local Environmental Initiatives (ICLEI) South Asia
Yogesh Kumar, Founder and CEO, Even Cargoe
Representatives from WRI India

Aparna Vijaykumar, Senior Program Manager, Electric Mobility
Chaitanya Kanuri, Associate Director, Electric Mobility
Harshita Jamba, Program Manager, Integrated Transport
Madhav Pai, Chief Executive Officer (CEO)
Mirza Firoz Beg, Head, Equity and Poverty, CEO's Office
Shahana Chattaraj, Director, Research, Data & Innovation
Sudeept Maiti, Associate Program Director, Integrated Transport
Dr. Sudeshna Chatterjee, Program Director, Research, Data & Innovation

REFERENCES


ACKNOWLEDGMENTS

The authors would like to thank all those who helped shape this document. We are thankful to all the speakers and participants of Uddheshya for their time and for sharing valuable insights at the conference.

We would like to express our gratitude to Dr. Philip Ackermann (Hon’ble Ambassador from Germany to India and Bhutan), Mr. Amitabh Kant (Hon’ble Sherpa for India’s G20 Presidency), Ms. D. Thara (Additional Secretary, Ministry of Housing and Urban Affairs), Dr. Vandana Kumar (Additional Secretary, Rajya Sabha Secretariat), Mr. Sudhendu J. Sinha (Advisor, NITI Aayog), Ms. Garima Gupta (MD, SRDC and Secretary WCD), Mr. Manoj Joshi (Director – Operation, MMMOCL), and other representatives from ministries, industry experts, panelists, and participants for the rich and insightful discussions.

We thank our emcees, Azra Khan and Vishal Ramprasad, and our rapporteurs, Aloke Mukherjee, Diksha Choudhary, Garima Agrawal, Priya Bansal, and Trinayani Sen. We would like to specially thank Anya George, Tanushree Venkatraman, Rama Thoopal, Safia Zahid, Mandeep Kaur, and other colleagues from the communications and operations teams for their tremendous support in organizing the conference.

This conference was made possible thanks to the timely support from the Forum for Decarbonising Transport, NDC-TIA, IKI, and our partners at the OMI Foundation, Safetipin and The Urban Catalysts. Our special note of thanks to Sonal Shah, Aishwarya Raman, and Vandana Vasudevan for reviewing, and to Santhosh Matthew Paul, Ankita Rajeshwari, and Manasi Nandakumar from the editorial team for helping us release this conference proceedings.

ABOUT THE AUTHORS

Aravinda Devaraj is a Senior Program Research Analyst with the Sustainable Cities and Transport program at WRI India. She helps collect and analyze mobility data to support public transport agencies understand the impact of transport policies and projects on women and vulnerable commuter groups.

Harshita Jamba is a Program Manager with the Sustainable Cities and Transport program at WRI India. She is a gender-focused urban mobility expert working toward creating livable, equitable, and accessible cities. She leads engagements with public transport agencies to institutionalize gender mainstreaming and build more inclusive mobility systems in Indian cities.

Chaitanya Kanuri is the Associate Director of the Electric Mobility program at WRI India. She leads various research and project initiatives on electric mobility at the national and state levels. Her areas of research include state-level policies and regulations to promote e-mobility, EV charging infrastructure planning frameworks, and e-mobility start-up business models.

Pawan Mulukutla is the Director of Integrated Transport, Electric Mobility & Hydrogen at WRI India. Pawan is responsible for providing strategic direction and implementing the overarching objectives of these programs. He also leads the teams’ development of synergistic and action-oriented research programs to support India’s ambitious decarbonization journey through effective, equitable and inclusive mobility solutions.
ABOUT WRI INDIA

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

We are inspired by and associated with World Resources Institute (WRI), a global research organization with more than 1,000 experts around the world. World Resources Institute began in Washington, DC, in 1982 to provide cutting edge analysis to address global environment and development challenges. WRI spans more than 60 countries, with offices in Brazil, China, Europe, Mexico, India, Indonesia, and the United States. In all these locations, WRI works with government, business, and civil society to drive ambitious action based on high-quality data and objective analysis. The India Resources Trust has a license from WRI to use the trademark "WRI India."