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Toolkit for Enabling Gender Responsive Urban Mobility and Public Spaces

India

VOLUME I

The 'What-To-Do' Note for Policymakers

Toolkit for Enabling Gender Responsive Urban Mobility and Public Spaces

India

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The ‘What-To-Do’ Note for Policymakers

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LIST OF ACRONYMS

ADB	Asian Development Bank
BMTC	Bengaluru Metropolitan Transport Corporation
BRT	Bus Rapid Transit
CBO	Community Based Organizations
CCTV	Closed Circuit Television
CMP	Comprehensive Mobility Plan
CPTED	Crime Prevention Through Environmental Design
CSO	Civil Society Organizations
D&I	Diversity and Inclusion
FGD	Focused Group Discussion
GAP	Gender Action Plan
GBV	Gender Based Violence
GCC	Greater Chennai Corporation
GESI	Gender Equality And Social Inclusion
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
ICC	Internal Complaints Committee
IPC	Indian Penal Code
IPT	Informal/Intermediate Public Transport/Informal Para Transit
KMRL	Kochi Metro Rail Limited
NGO	Non-Governmental Organization
NMT	Non-Motorized Transport
POSH	Prevention of Sexual Harassment Act
PTA	Public Transport Authorities
PWD	People with Disabilities
SOP	Standard Operating Procedure
SUTP	Sustainable Urban Transport Projects
TfL	Transport for London
ULB	Urban Local Body
UMTA	Unified Metropolitan Transport Authority
UN	United Nations
UNICEF	United Nations Children's Fund
VAWG	Violence Against Women and Children

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FOREWORD

The World Bank Group takes as its starting point that no country, community, or economy can achieve its potential or meet the challenges of the 21st century without the full and equal participation of women, men, and persons of minority genders. Gender equality is one of the five global thematic areas that are a priority for the Bank. The Bank's Gender Equality Strategy (FY16-FY23) prioritizes removing constraints to more and better jobs for women, with a clear focus on safe transport.

Systematically addressing gender-based inclusion gaps is one of the three focus areas of the India Country Partnership Framework FY18-FY22. In line with this, gender tagging for all new operations, supported by a dedicated focal point, is being undertaken by the India country team. Tagging involves analysis of gender gaps as they relate to the proposed operation, design and execution of actions to addressing these gaps, and monitoring benefits for women.

World Bank teams across countries are working on gender mainstreaming in urban mobility, recognizing that cities have historically been designed to fit the needs of able-bodied men than of women, girls, sexual and gender minorities, and persons with disabilities. Infrastructure and service barriers in accessing public transport, lack of safety and social norms severely limit women's work, education and life choices. In this context, as urban mobility systems expand, implementing agencies are feeling the need to address concerns of different genders and ensure safe and inclusive public spaces and public transport for women.

The Bank has published several pieces of works around gender-responsive urban design, most notably the Handbook for Gender-Inclusive Urban Planning in 2020. Through its extensive work in developing countries of South America, Africa and Asia, as well as in Indian cities such as Mumbai, Delhi, and Chennai, the Bank highlighted gendered differences in mobility patterns and the need for gender-responsive urban transport design.

Drawing on this extensive global and local experience, the South Asia Transport team has designed this Toolkit on "Enabling Gender Responsive Urban Mobility and Public Spaces in India" to bridge the gap between policymaking and program implementation.

Spanning across two volumes, and containing several practical tools such as templates, terms of reference, and guidance notes, the toolkit goes well beyond providing high level guidance. Not only will it inform a wide set of policymakers, but it will also equip teams within state and city authorities, development sector practitioners as well as private or community-based organisations to deliver gender responsive urban mobility systems in the years to come.

Sincere compliments to the project team for their thorough research and unrelenting dedication, which has led to this publication. I wish the team success, as they continue working across cities to support authorities in designing and executing gender responsive urban mobility systems. By enabling gender responsive urban mobility and public spaces, we aim to contribute to an inclusive transport and mobility system that leaves no one behind.

Auguste Kouame
Country Director - India
The World Bank Group

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FOREWORD

Dear Readers,

Indian urban local bodies and public transport authorities are increasingly beginning to recognize the gender-disaggregated needs of diverse commuters and users of public spaces. This understanding will encourage women, girls, and other gender minorities to take advantage of the better employment, education, healthcare and leisure that cities provide. We therefore need to address the knowledge requirements and guide forward-looking policies and engage more effectively in delivering quality infrastructure as well as need-based services that make cities more inclusive.

This two-volume Toolkit supported by the World Bank in the context of the Chennai City Partnership is a useful document for both policymakers and implementation agencies. The first volume 'What to do' focuses on the rationale and benefits of looking at access to urban infrastructure and mobility through a gender lens while the second volume, 'How-to,' focuses on aspects of designing a gender sensitive public space and mobility program in the urban context.

This Toolkit brings together lessons learnt on the 'what' and 'how' of gender mainstreaming in access to urban infrastructure and transportation through a series of 50 case studies from across India and the rest of the world, throwing light on interventions that have worked. I believe that the Toolkit will be useful and relevant in the context in which its target audience, that is, Indian urban local bodies and public transport authorities, operate. The Toolkit has contextualized its recommendations and implementation guidance for the Indian scenario, highlighting the specific learnings from the World Bank team's different studies undertaken in Chennai.

We are happy that the newly established Gender and Policy Lab within the Greater Chennai Corporation has been featured as a case study in both the 'What to do' and How-to' volumes, highlighting its use of the four-pillar framework mentioned in this Toolkit for action planning.

This Toolkit is relevant to the current discourse in urban planning, infrastructure development, and urban mobility and will undoubtedly be useful for government agencies, city authorities, and institutions in India.

My compliments to the project team and their extensive work in compiling this document. I welcome its publication and hope it adds to the ever increasing knowledge on gender mainstreaming in urban planning, infrastructure development and transportation, all of which I am sure will contribute towards making cities like Chennai safer and more accessible, enabling greater ease of mobility for women, girls, sexual and gender minority persons, as well as persons with disabilities.

With best wishes,

Gagandeep Singh Bedi
Commissioner - Greater Chennai Corporation

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DEFINITIONS

DUTY BEARERS

Duty bearers constitute the moral, legal, and ethical organizations and institutions with power and responsibility to ensure the protection of human rights.

GENDER vs. SEX

Gender refers to the socially constructed characteristics of people such as roles, behaviors, activities, and attributes a given society at a given time considers appropriate for men and women. These characteristics are context and time specific and changeable.

Sex refers to a set of biological attributes that are associated with the physical and physiological features of people.

GENDER AWARENESS

Gender awareness means to be in tune with the differences, expectations, and needs of people of different genders.

GENDER BASED STREET HARASSMENT

Gender-based street harassment is unwanted comments, gestures, and actions forced on strangers in a public place without their consent and is directed at them because of their actual or perceived sex, gender, or sexual orientation. It could be verbal, non-verbal, or physical in nature.

GENDER BASED VIOLENCE

Gender based violence (GBV) is violence directed against a person because of that person's gender or violence that affects persons of a particular gender disproportionately. GBV is perpetuated as a consequence of power imbalances derived from gender inequalities and stereotypes. It points to a larger systemic issue in place and constitutes patterns of behavior rather than a one-off act.

GENDER BLINDNESS

Gender blindness is an ideology where a person chooses not to see differences between genders which leads to gender-blind development policies and research; discriminatory legislations, traditions and attitudes; and women's lack of access to decision-making.

GENDER EQUALITY

Gender equality implies the consideration of the interests, needs, and priorities of all genders, recognizing the diversity of different groups. Gender equality in transport implies that the interests, needs, and priorities of all genders have been integrated into transport institutions, planning, design, and operations as well as in the management of the transport sector workforce.

GENDER INCLUSIVENESS

It is the notion that all services, opportunities, and establishments are designed to meet the needs of all genders.

GENDER MAINSTREAMING

Gender mainstreaming is a strategy to achieve equality between women and men by considering their different concerns and needs in problem analysis, laws and policies, planning, budgets, implementation, and monitoring.

GENDER MINORITY

Gender minority is used in this toolkit to denote a section of people whose sense of personal identity and gender does not correspond with their birth sex.

GENDER PARITY

Gender parity concerns relative equality in terms of numbers and proportions of women and men and is often calculated as the ratio of female-to-male values for a given indicator.

GENDER ROLES/ GENDER NORMS

Gender roles refer to social and behavioral norms within a specific culture, widely considered to be socially appropriate for individuals of a specific sex.

GENDER RESPONSIVE

Gender responsiveness refers to outcomes that reflect an understanding of gender roles

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Photo source: World Bank photo collection

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and inequalities and trying to encourage equal participation and equal and fair distribution of benefits. This toolkit touches on a series of interventions that fall within the threshold of gender inclusive to gender responsive; the final goal is to become gender transformative.

GENDER STEREOTYPE

Gender stereotype is a simplistic generalization about the gender attributes, differences, and roles of women and men. Gender stereotyping is the practice of ascribing to an individual woman or man specific attributes, characteristics, or roles by reason only of her or his membership in the social group of women or men. For example, the idea of men as breadwinners and females as caretakers represents a common stereotype seen around the world.

GENDER TRANSFORMATIVE APPROACHES

Gender transformative approaches (GTA) are programs and interventions that create opportunities for individuals to actively challenge gender norms, promote positions of social and political influence for women in communities, and address power inequities between persons of different genders.

HUMAN RIGHTS

Human rights are the basic protections and freedoms that everyone in the world is entitled to from birth till death regardless of their age, race, sex, nationality, ethnicity, religious affiliation, or anything else.

HUMAN RIGHTS-BASED APPROACH

The human rights-based approach (HRBA) is a conceptual framework for the process of human development that is normatively based on international human rights standards and operationally directed at promoting and protecting human rights. Human rights-based approaches are about turning human rights from purely legal instruments into effective policies, practices, and practical realities.

Common principles have been identified as the 'PANEL' principles: Participation, Accountability, Non-discrimination and Equality, Empowerment, and Legality.

MISOGYNY

Hatred of, contempt for, or prejudice against women or girls.

MOBILITY (in the context of this publication)

Mobility in the context of this publication focuses on public transportation and non-motorized transport (NMT) infrastructure.

MONITORING AND EVALUATION

A continuing function that aims primarily to provide the management and main stakeholders of an ongoing intervention with early indications of progress, or lack thereof, in the achievement of results. Evaluation is a selective exercise that attempts to assess progress systematically and objectively towards the achievement of an outcome.

PATRIARCHY

Patriarchy is a social system in which men hold primary power and predominate in roles of political leadership, moral authority, social privilege, and control of property and women are largely excluded from these.

PUBLIC SPACES (in the context of this publication)

Public spaces include open public spaces like footpaths, bus stops, metros, and sub urban rail stops, parks, and beaches. They exclude public spaces like malls and government buildings.

RIGHT HOLDERS

Rights holders are individuals or social groups that have entitlements in relation to specific duty bearers. In general terms, all human beings are rights holders under the Universal Declaration of Human Rights.

SEXISM

Showing prejudice, stereotyping, or discrimination, typically against women based on sex.

TRIP CHAINING

A trip chain describes how travelers link trips between locations within an activity space and is defined as a sequence of trips linked together between two anchor destinations, such as home and work.

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VOLUME I

THE 'WHAT-TO-DO?' NOTE FOR POLICYMAKERS

I. INTRODUCTION

1. ***Cities are engines of growth, job-creation, and innovations.*** Cities are economic powerhouses and innovation hubs with large markets that can attract investments, knowledge, skilled personnel and lead to innovations thereby generating economic opportunities. As workers and firms interact closely, cities generate an increase in labor productivity through agglomeration economies. Evidence shows a clear, positive correlation between urbanization and real gross domestic product (GDP) per capita for the world as a whole and in developing Asia (ADB 2019)[1] and in India in particular (World Bank 2007).[2] It is projected that Indian cities could contribute up to 70% of India's GDP by 2030 (MoHUA 2021).[3]

2. ***Globally, lack of consideration for diverse population needs in urban planning and design has constrained women's access to socioeconomic opportunities.*** Historically, cities across the world have been designed to fit the needs of able-bodied men rather than that of women, girls, sexual and gender minorities, and people with disabilities (PWDs). Women are under-represented in urban planning and design institutions, often excluded from decision-making, and often denied a seat at the table to voice their concerns. As a result, cities' public infrastructure, urban mobility systems, and public transport are designed to disproportionately benefit only one type of user, a 'neutral' male user. Consequently, women and other gender minorities find their access to employment, education, healthcare, leisure, and public spaces constrained (World Bank 2020).[4]

3. ***Indian cities need gender-responsive urban mobility and public spaces so that benefits of city-led economic growth can be more equitably distributed.*** India has amongst the lowest female labor force participation rates (FLFPR) globally, at 22.8% in 2019-20, with the urban FLFPR (18.5%) being lower than rural FLRPR (24.7%) (MoSPI 2020).[5] Moreover, gender gaps persist in tertiary education, skill training, and entrepreneurship. The Census (2011) data for cities (tier I, II, and III) shows that women form only 22% of all people travelling for work across India. Barriers in accessing public transport, lack of safety during travel, and social norms restricting mobility, severely limit women's work, education, and life choices (ADB 2013 et al. 2021; SUTP 2017).[6,7,8] Thus, in line with the aspiration for a new, self-reliant India, *Atmanirbhar Bharat*, and a shift from women's development to women-led development, it is crucial to ensure that urban mobility systems and public transport are designed to be inclusive and gender-responsive, so that women, girls, and sexual and gender minorities of all ages and abilities can aspire to become equal beneficiaries of the rapid economic growth occurring in Indian cities.

4. ***This toolkit is intended to bridge the knowledge gaps between policy making and program implementation for gender-responsive urban mobility and public space in India.*** While central and state governments are committed to the goals of gender equality and women's empowerment, they often need more practical tools and knowledge of how to translate their intentions into actions and to formulate programs to meet such policy objectives. This toolkit is intended to be a practice guide towards introducing gender equality and women's empowerment principles in designing urban mobility systems and public spaces so that they mitigate rather than reinforce gender inequalities.

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5. ***Inclusion and safety in public transport and public spaces in cities are the two central themes discussed in this toolkit.*** Gender is a key socio-demographic variable that influences travel behavior, but it is often the least understood. A recent study shows that women use public transport modes, such as a bus or train, over driving a car in six out of eight selected cities (ITF 2018).[9] Yet, if women perceive a lack of safety on public transport, they switch to taxis or private vehicles faster than men (ITF 2020).[10] A similar pattern is seen across Indian cities, where a recent study conducted in 11 cities shows that 47% of the women polled preferred public transportation, non-motorized transport, and autorickshaws, over a private vehicle (OMI 2019).[11] [12] This toolkit focuses on *inclusion*, especially in terms of understanding mobility patterns, infrastructure design, representation in decision-making, and *safety*, that is, reducing the threat perceptions and effective grievance-redressal as its two central themes.

6. ***The toolkit presents a four-pillar framework for designing gender-responsive urban mobility programs and public spaces:*** (i) *Assess the ground situation*, including understanding the differential demand for public transport infrastructure and services and overall safety in public spaces and public transport; (ii) *Strengthen planning and especially focusing on gender-inclusive representation in key decision-making institutions and on grievance redressal*; (iii) *Build capacity and raise awareness, focussing on the individual, institutional and community level*; and (iv) *Improve infrastructure and services*, with a special emphasis on women's safety. While activities related to each pillar could be implemented independently, the desired impact requires simultaneous implementation across the four pillars.

7. ***This toolkit is aimed at a wide range of stakeholders, including government officials, private sector implementing agencies, and practitioners in India.*** This toolkit has been prepared for three audiences: (i) Government officials and policymakers at the national, state, and city levels (for example, urban local bodies) seeking policy/program design ideas for devising gender-inclusive urban mobility projects; (ii) Public and private sector implementing agencies in the urban mobility sector seeking to mainstream gender-responsive principles in infrastructure and service delivery; and (iii) Development sector practitioners from international organizations, domestic agencies, community based organizations, and the private sector working on urban mobility or gender equality and women's empowerment.

8. ***The toolkit is divided into two volumes, with the first volume focused on high level guidance for policymakers, while the second provides a 'How-to' guide including practical tools for implementing agencies.*** This toolkit was designed by identifying gaps in existing gender program resources, benefitting from lessons learned from gender programs conducted in World Bank client cities and conducting a rapid assessment in one Indian city (Chennai). It is developed to be adaptable and flexible so that suggested recommendations can be implemented across Indian cities. The first volume focuses on summarizing the key recommendations under each of the four pillars. The second volume provides practical approaches, activities, and guidelines on how to plan, design, and implement a participatory, inclusive urban mobility program that explores the experiences and uses of public transport and public spaces from the perspective of all citizens: women, men, and sexual and gender and other minorities. While the toolkit strives to highlight the challenges and mobility constraints across all genders, owing to data constraints differences between women and men dominate the analysis. Further studies on gender are required in the Indian context to bridge this knowledge gap.

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TOOLKIT CONFIGURATION

Figure 1: *Toolkit configuration*

Source: World Bank 2022.

THE KEY ASPECTS OF THE FOUR PILLAR FRAMEWORK ARE GIVEN IN FIGURE 2.

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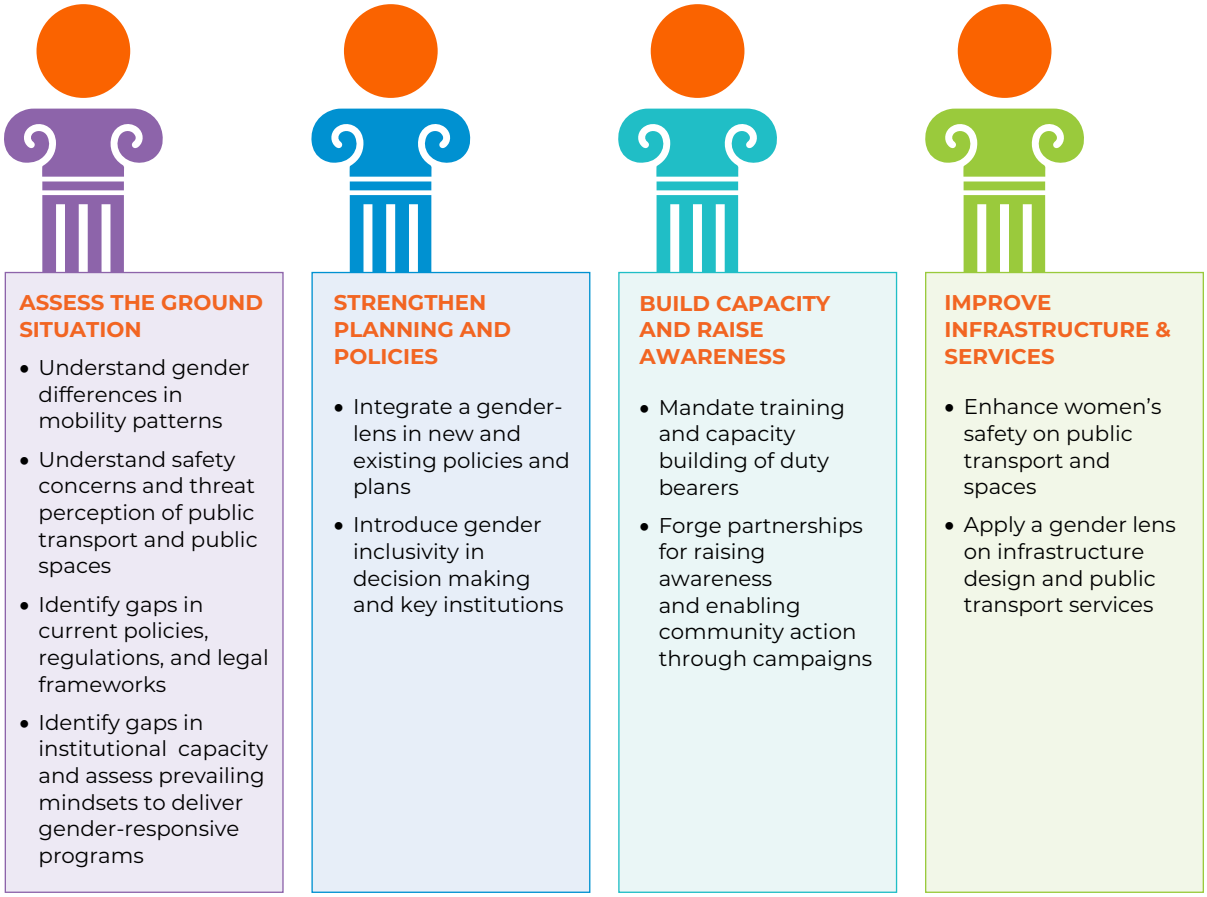

Figure 2: *The four pillar framework*

ENDNOTES

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12 The Ola study shows that a higher proportion of women use public transportation than men which translates into a revealed preference for public transport. However, it can be noted that although globally women make a higher proportion of trips using public transport and/or walking than men do, in some countries/contexts, women primarily take public transport not as a matter of preference but of necessity (care responsibilities, less access to cars, and less disposable income shape their choices and have the unintended result of their having a lower carbon footprint than men).

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II. RATIONALE:
WHY SHOULD URBAN PUBLIC SPACES AND MOBILITY SERVICES BE VIEWED THROUGH A GENDER LENS?

1. **Women are amongst the biggest users of public transport across Indian cities.** A gendered comparison of census data (2011) on '*Travel to place of work for other workers*' revealed that women and girls comprised only 22% of 'other workers'[1] and yet 84% of their trips were by public, intermediate public, and non-motorized modes of transport. Buses and walking are amongst the most used modes of public transport by women. On average, 45.4% women walked to work compared to 27.4% men, and 22.0% women took the bus, vs. 13.7% men. On the other hand, 28.6% men took private motorized transport, such as their own vehicles, vs. 15.8% women. While this data provides a snapshot from a decade ago, more recent data is broadly aligned with these findings (for example, Chennai CMP 2020).

2. **The preponderance of public transport usage is even higher amongst women from lower income groups, who typically have lower discretionary incomes**. Women are more likely to consider the affordability of the mode of transport than men, resulting in their opting for slower modes of transport since faster modes tend to be more expensive. Women are more dependent on public transport than men, especially when they are from lower-income groups (ITDP and Safetipin 2017).[2] For instance, in Mumbai, women made 45% more trips by bus than by train, which increased to 67% for households with incomes less than INR (Indian Rupee) 5,000 per month (World Bank 2011).[3]

3. **A meta-analysis of literature and surveys globally and in India shows some clear patterns of public transport usage for women and men** (figure 3) (ADB 2013; ITDP and Safetipin 2017; SUTP 2018).[4],[5,6] Women tend to travel shorter distances within a limited geographical radius and are more likely to travel with dependents during off-peak hours for unpaid care work, often referred to as mobility of care. Moreover, given the need to balance household and work responsibilities, women typically combine multiple tasks necessitating several short trips, that is, trip chaining (Figure 5), rather than taking a unimodal, long trip from origin to destination. Consequently, they end up paying higher fares for frequently changing direction, modes of transport, and breaking their journeys. They also have off-peak needs that are often underserved. Thus, there is a need for a city-level, gender-disaggregated analysis to understand the differential mobility patterns and provide services to cater to the needs of all.

4. **Urban mobility systems are often not designed to account for gender-based differences in mobility patterns.** Despite women forming a significant user group, while data is often collected for both sexes, few disaggregated analyses of mobility patterns at the city level in India are available. When such an analysis is available, it is seldom used to design tailored urban mobility solutions that suit differential needs of women and other genders. This process from data collection to data analysis to action to address differences is a fundamental approach to creating a gender responsive system.

5. **Lack of safe public transport options deters women from accessing promising opportunities and amount to levying a 'pink tax' on them.** Women's mobility is more likely to be impacted by unsafe experiences and concerns for personal safety (Table 1). The threat

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Trends in 'travel to place of work by other workers' across major Indian cities

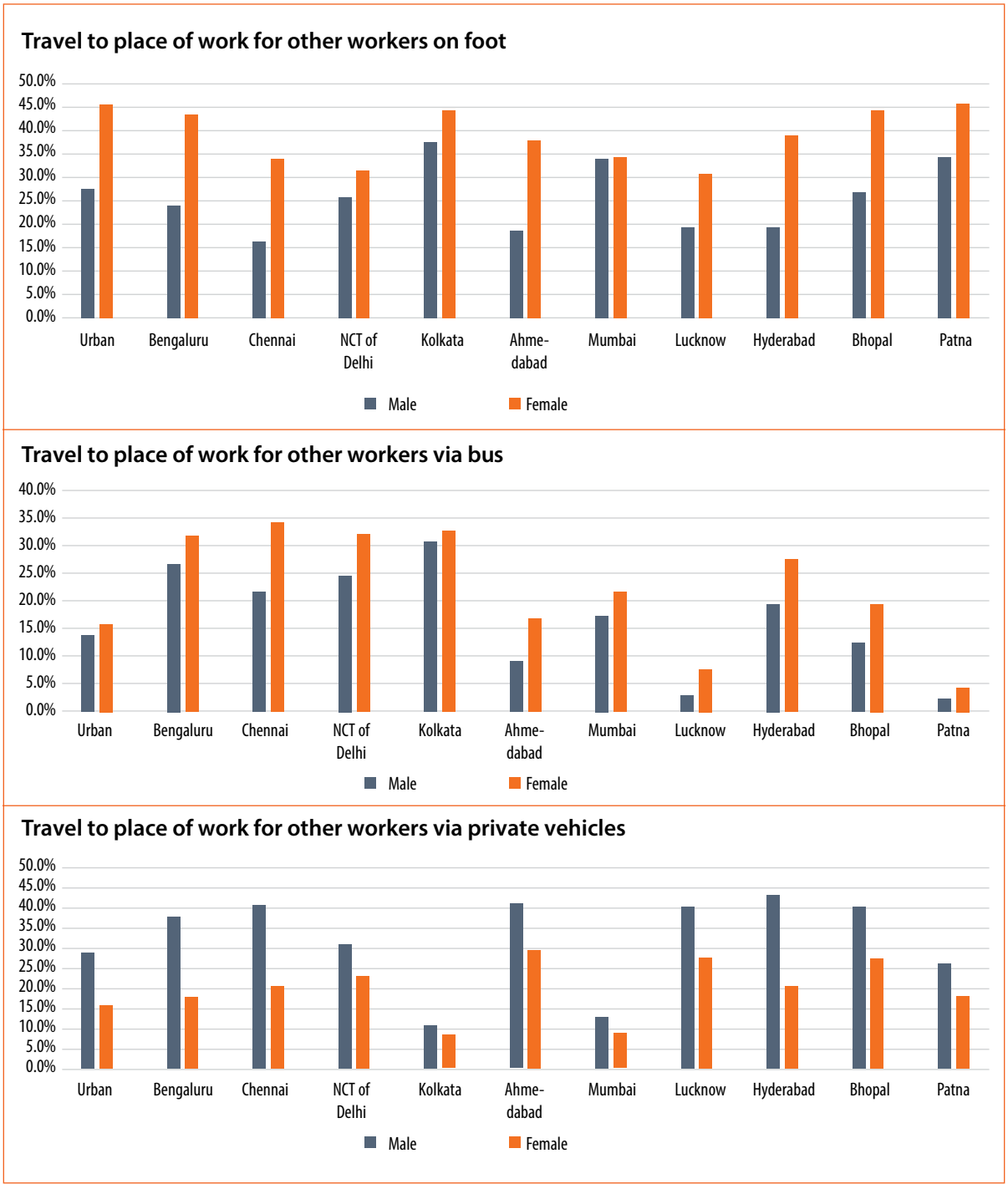

Figure 3: *Trends in 'travel to place of work by other workers' across major Indian cities*

Source: Census of India 2011.

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Differences in mobility patterns for women and men

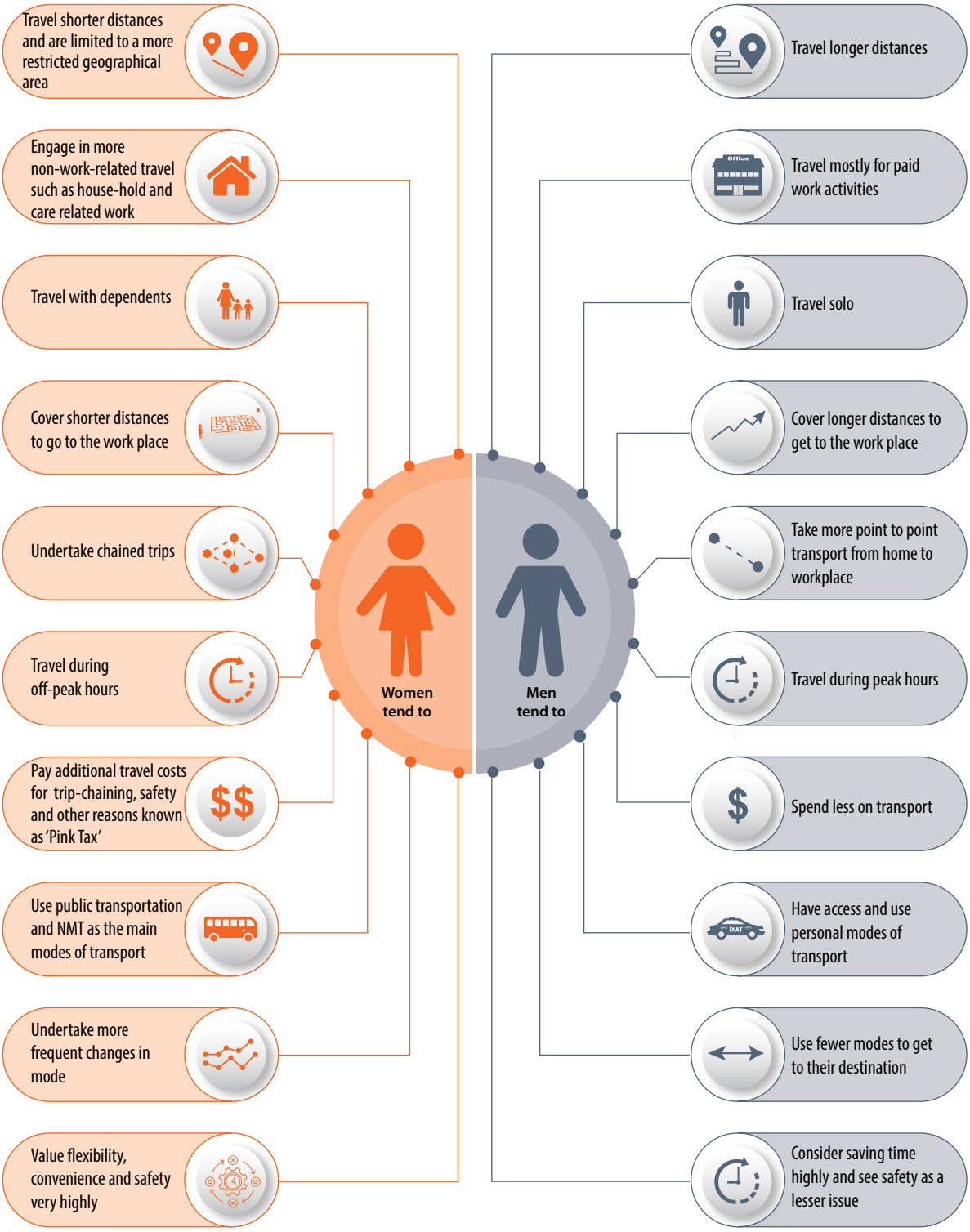

Figure 4: *Differences in mobility patterns for women and men*

Source: World Bank 2022.

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Trip chaining patterns

Figure 5: *Trip chaining patterns*
Source: UN Habitat 2013.

and/or experience of sexual harassment when commuting in Indian cities deters women from using public transport and commuting long distances (ActionAid Association 2018).[7] Consequently, women are often wary of travelling alone especially during the later hours of the day. Even in cases when a woman may not face any direct form of violence, the fear of what might happen, lack of effective grievance redressal mechanisms, and dysfunctional emergency helplines continue to be a deterrent. In such a scenario, women with the ability to pay, accept higher costs for accessing safer means of transport, amounting to the equivalent of a 'pink tax.' For instance, women may prefer to take non-shared taxis or other intermediate transport instead of public transport, which can be perceived as unsafe.

Forms of sexual harassment in public transport and public spaces

"Sexual harassment is defined as any unwanted, unwelcome and uninvited physical or non-physical action that makes a woman uncomfortable because she is a woman."

Verbal	Non-verbal	Physical
Catcalling, singing offensive songs, soliciting etc.	Leering, winking, stalking, indecent exposure, showing offensive gestures, public masturbation etc.	Touching inappropriately, rubbing against, groping, molesting, assaulting, and rape.

Table 1: *Forms of sexual harassment in public transport and public spaces*
Source: GIZ-SUTP 2018.

6. ***Lack of safety deters women from stepping out, creating a vicious cycle that lowers their presence in public spaces.*** Women's experience of cities is radically different from men's as they experience lack of safety, limits to their right to freely loiter in the streets, and thus, to claim a sense of belonging in public spaces (EPW Engage 2019).[8] The visible lack of women in Indian cities' public spaces only accentuates threat perceptions and further discourages women from stepping out of their homes or using parks, gardens, and other common civic amenities for leisure (Basu 2017).[9] Urban planners have a key role in recognizing that gender affects one's experience of a city and in integrating gender-responsiveness in urban design (UN Women 2011).[10]

7. ***Women face barriers in using public transport owing to gender-blind design elements during access and egress, waiting at stops and transfers, boarding and alighting, and inside the vehicle.*** The challenges faced by women are evident when the four stages are assessed through a gender lens - (i) access to and from a public transport stop; (ii) waiting at the transit station and transfers; (iii) boarding and alighting the vehicle; and (iv) travel in the vehicle.

   - In the first and last mile, when commuting between their homes to stations or transit stops, women often encounter deserted, poor-lit streets. The common approach of placing street lights only at intersections or major roads, may deter women from walking on dimly lit streets. Footpaths, especially in residential areas, can often be broken, discontinuous, obstructed by small shops, and without shade, deterring

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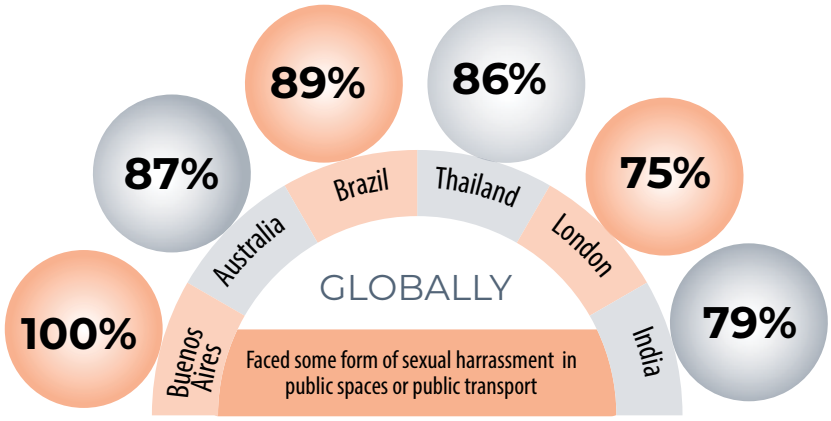
Photo source: Shutterstock

Statistics – Experiences and safety concerns in public transport and public spaces across the globe



Sources: ActionAid Association 2018; Infobae 2016; Johnson and Bennett 2015[11,12,13;]

In Chennai

>50%
of women faced sexual harassment in various forms while travelling

In France

100%
of women faced sexual harassment on the transit system

In Delhi

40%
of women were sexually harassed in a public places

33%
stopped going out in public

17%
quit their jobs rather than face harassment

95%
of women's mobility was restricted due to fear of harassment

82%
found bus to be the most unsafe

Sources:Deccan Herald 2013; Kurain 2017; Stop Street Harassment 2016[14,15,16]

In Sri Lanka

90%
of women were sexually harassed on public buses and trains

44%
said it negatively affected their personal lives

37%
said it negatively affected their work

29%
said it negatively affected their studies

Sources: Bhattacharya 2018; Boitiaux 2015; Kearl 2016; UNFPA 2017[17,18,19,20]

In Bengaluru

69%
of women faced sexual harassment in various forms while travelling

In UK

63%
said they felt unsafe in public spaces

11%
said someone intervened when they were harassed

85%
of cases on sexual violence excluding marital rape and assault go under reported

Figure 6: *Statistics regarding sexual harassment - responses from women surveyed.*

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Barriers across the four stages of a public transport journey

FIRST AND LAST MILE CONNECTIVITY

- Deserted and lonely streets
- Broken, obstructed and unshaded footpaths
- High compound walls
- Absence of consistent lighting
- Absence of safe cycling infrastructure
- Ad-hoc fare charges by auto drivers
- Limited access to real-time information of vehicles to pre-plan a journey

WAITING AT STOPS AND STATIONS

- Bus-stops located in footpaths and isolated areas
- Inaccessible and obstructed bus-stops with inadequate lighting
- Limited visibility at and around bus-stops due to opaque back panels
- Absence of human activity at and around bus-stops and stations
- Absence of real-time information, route maps and help-line number
- Absence of clean toilets for women and transgenders near bus-stops and stations
- Inadequate signage

BOARDING AND ALIGHTING

- High floor of buses
- Obstruction of bus-stops by on-street 2-wheeler parking
- Crowded boarding which increases probability of sexual harassment
- Large vertical gaps between the platform and coaches of sub-urban and metro rail

INSIDE THE VEHICLE

- Crowded buses
- Harassment inside the vehicle
- Absence of signage on help-lines and seat reservations for women

Figure 7: *Barriers during a public transport journey*

Source: World Bank 2022.

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women from walking longer distances. The lack of dedicated cycling lanes and cycle parking at public transport stations deters women from using cycles for first and last mile transport. Moreover, women find it harder to bargain with autorickshaws and other informal transport service providers even when fares are regulated.

- Transit stops and stations (especially for buses) are often deserted, especially during off-peak hours (when most women travel) and during late evening/ night hours, which further heightens anxieties about safety among women. Women may feel exposed to street harassment at stations, such as stalking, staring, and catcalling. Moreover, there is lack of infrastructure, such as separate toilets and rooms for breastfeeding and childcare. This is also the case at metro stations, which are perceived to be safer and have better infrastructure than bus stations.

- Boarding and alighting are challenging for women, especially at heavily crowded bus/train/metro stations, where they may miss their transport owing to jostling. Mixed boarding in public transport forces women to be in close proximity with many men which increases the chance of sexual harassment. Overcrowded public transport provides harassment perpetrators with an opportunity to push and rub themselves against women. Moreover, the high height of steps when boarding buses, obstructions of the bus stop by traffic, such as rickshaws and two-wheelers, and large gaps between the platform and coach-floor of metro/ rails create a literal barrier for women's entry into public transport vehicles, in particular in traditional clothing.

- Women are at risk of sexual harassment when commuting inside mixed-gender compartments in the vehicle, especially inappropriate touching or groping which can be attributed to sudden braking and poor road conditions. This risk is exacerbated for transgender and minority gender persons, as they may not have access to women-only compartments. Misbehavior by bus conductors and drivers is also a frequent concern for women and girls (ITDP and Safetipin 2017).[21] Seats reserved for women are often occupied by men in crowded buses and metros. Hesitancy and fear of retaliation may cause women to stay silent and travel standing. Women are more likely to be accompanied by minors/dependents and carrying packages, however, most public transport vehicles do not have storage provisions. Handlebars are also often difficult to access for women and children, as they are often placed to match the height of an average male user.

8. ***Barriers to women's mobility actively restrict their choices around education and employment.*** India's female labor force participation rate (FLFPR) declined steadily over the last five decades, from 47.1% in 1987-88 to 30% in 2019-20 (Nikore et al. 2021),[22] making it one of the lowest globally. Several studies (Nikore et al. 2021; Pande et al. 2017; Sudarshan and Bhattacharya, 2008) find that mobility concerns about commuting safely to workplaces, commuting during late evening hours, or commuting further than a particular radius are amongst the most cited impediments to women's work participation. Moreover, Borker (2020) demonstrates that women students from Delhi University actively sacrificed better ranked colleges to attend lower-ranking colleges that lie on routes that are considered safe and closer to their homes. These mobility restrictions and barriers can therefore impact women's long-term aspirations for their work and education, and by implication their financial independence and agency.

9. ***Deep rooted gender-based social norms actively restrict women's movement outside their homes, necessitating a***

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Time spent by men and women on different activities in a day

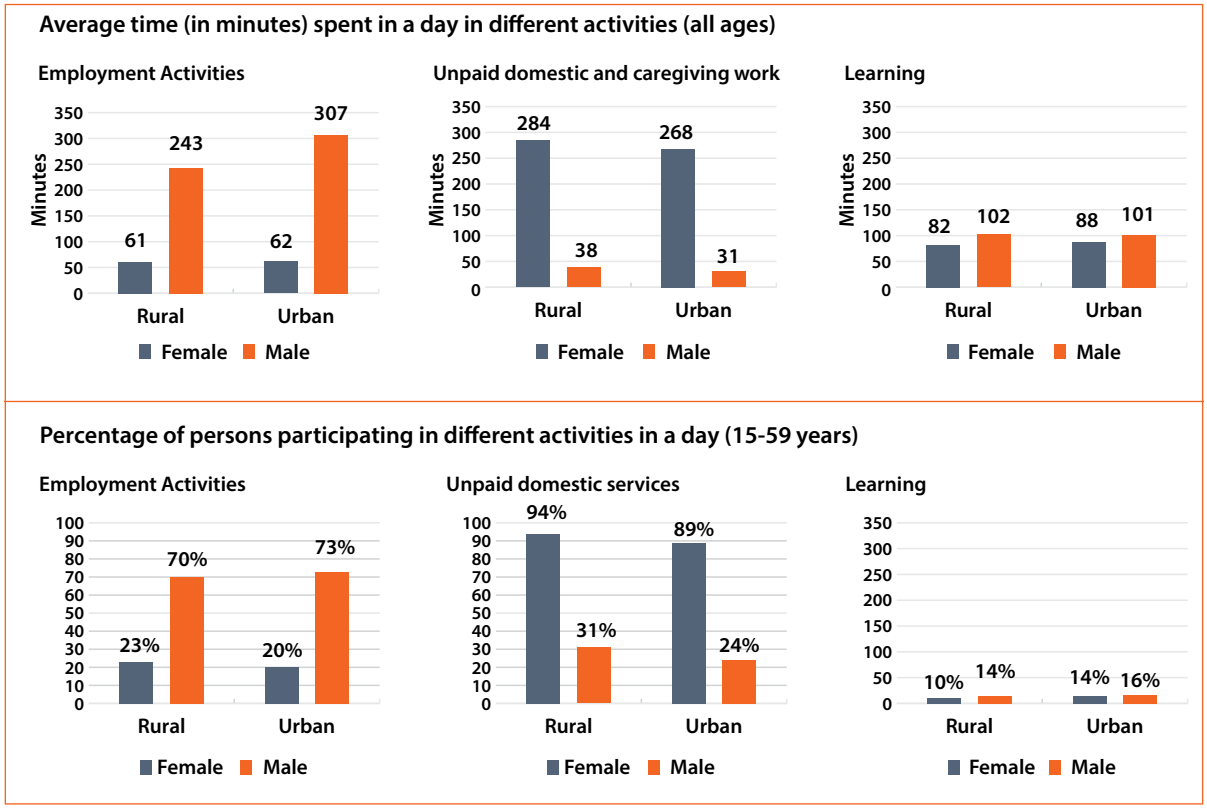

Figure 8: *Time spent by men and women on different activities in a day*

Source: NSO MoSPI TUS India 2019.

gender-sensitive approach to facilitate women's mobility. The Government of India's National Family and Health Survey (2015-16) shows that 46% women were not allowed to go alone to a nearby market, 50% to the health facility, and 52% to places outside the village or community. Overall, only 41% women in India were allowed to go alone to all three places (IIPS and ICF 2017).[23] These mobility restrictions are a manifestation of long-held social norms which view women's primary role to be caregivers in their homes. Lack of infrastructure (for example, closed circuit television cameras (CCTVs) and rapid response security teams), and services (for example, emergency helplines) to ensure women's safety in public spaces, makes these mobility restrictions even more rigid and persistent. These mobility restrictions were amplified during the spread of COVID-19, with several studies suggesting that women and girls are now required to provide strong reasons to leave their homes (Nikore et al. 2021).[24] Consequently, women may be less familiar with routes, signages, and fare options making them hesitant to commute. Public transport operators and service providers have a critical role in enhancing information availability so that navigating public transport and public spaces does not become an additional barrier to women's mobility.

10. ***Women bear a disproportionate burden of unpaid care work in India necessitating public transport solutions for mobility of care.*** The National Statistics Office's Time Use Survey 2019 (Figure 8) shows that, on average, Indian women

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spend about 5 hours per day on unpaid domestic and caregiving work, vs. 30-40 minutes for men. On any given day, 92% of working age women (15-59 years), participate in unpaid domestic activities, vs. only 29% men. There are almost no differences in the gender distribution of domestic work across rural and urban areas. Indian women thus perform 10 times the amount of unpaid work as men, far higher than the global average of 3 times (Mercado et al. 2020).[25] Childcare, care for the elderly, and preparation of food are the three most important tasks, which account for nearly 80% of the time spent on unpaid care work (MoSPI 2020).[26] In such a scenario, when trips undertaken for care work (for example, purchasing groceries, taking children to school, or taking elderly relatives to healthcare providers) are considered in the same category as 'leisure,' it not only devalues the importance of care work, but also becomes a tool of further gender inequalities. Therefore, there is a need to employ the mobility of care framework to urban mobility, "*for recognizing, measuring, making visible, valuing and properly accounting for all the travel associated to those caring and home related tasks needed for the reproduction of life," (UN Habitat 2018).*[27]

11. ***Women's 'time poverty' constrains time available for commuting.*** Women often plan their trips more strictly than men since their trips are often interlinked with balancing domestic and work commitments, for example, children's school timings and the times at which family members return home. This means that they are unable to allocate as much time as men on commuting and if required to wait too long they may have to delay or abandon their entire trip (Bandagi 2021).[28] As a result, inefficiency of urban mobility systems, manifesting in delays leading to higher transport times, unpredictability of public transport services, and difficulty in transferring between modes, disproportionately affect women (ADB 2013).[29] This can lead to situations where women opt for lower paying, less promising economic opportunities, put off visits to healthcare centers, or drop out of education/training.

12. ***Women surveyed across major Indian cities, have voiced the need for safer, cheaper, and more efficient public transport and public spaces.*** Surveys run across major Indian cities highlight the needs of women commuters, as well as implications of these needs remaining unmet, as shown through case studies 1 and 2. Some of the key takeaways are as follows:

    - A survey of 4,000 students conducted at the University of Delhi showed that women are willing to choose lower ranked colleges to avoid taking unsafe routes to study. They are also willing to pay higher for safer modes of transport (Borker, 2017).[30]
    - A World Bank supported survey of 3,024 households comprising 6,048 respondents (50% female) was undertaken in Mumbai in 2019. The study found that between 2004 to 2019, while men have shifted towards commuting to work by two wheelers, women to using auto-rickshaws or taxies, which tend to be more costly (per trip) than two wheelers, leading to a 'pink tax'. Moreover, about 30% of women surveyed cited lack of access to safe and affordable transport as a barrier to accessing employment, amongst other factors (Alam et. al., 2021).[31]
    - Focus group discussions (FGDs) with about 125 participants undertaken in Chennai by a World Bank study team in 2021 showed that women prefer shared auto-rickshaws to public-buses because of the higher frequency, shorter waiting time, and as a way to avoid crowded buses, especially during late evening hours. Women also expressed hesitation to report instances of sexual harassment due to limited awareness and fear of being stuck in the legal process.

Case study 1	Chennai urban mobility gender program: Gender gap assessment (World Bank)
City	Chennai
Year	2021
Survey Description	• A rapid assessment of secondary literature complemented by FGDs was conducted to place a gender lens on existing mobility infrastructures and transit services, institutional capacity, grievance redressal systems, mindsets of different stakeholders and expectations of women commuters in Chennai. • The study covered the Chennai Metropolitan Area (CMA), that included the Greater Chennai Corporation (GCC) and parts of Tiruvallur and Kancheepuram districts. • Secondary data from the Comprehensive Mobility Plan of Chennai, 2019 and travel to workplace data from the Census of India (2011) were also compared to understand trip patterns and the shifts in travel modes and work distances. • Focus group discussions (FGDs) with 125 commuters and frontline workers, 20 key informant interviews with senior officials in public transport authorities and, civil society organizations, alongside an online qualitative survey with 26 women were undertaken to understand expectations from urban transport systems. • Findings from this rapid assessment provided initial trends, which need to be studied further (e.g. through larger primary surveys) to understand gender-based differences in mobility patterns in Chennai.
Key Findings	
Safety	• Women reported developing strategies to avoid sexual harassment including avoiding buses at night, travelling either in groups, with a male member of the family or with regular auto-rickshaw drivers. • Women and girls were hesitant to report instances of sexual harassment, due to lack of support either by drivers/ conductors or police, limited awareness of helpline numbers, fear of victim blaming and time-consuming legal processes.
Gender differences in travel patterns	• Women travel shorter distances than men for all purposes – with the average distance travelled in Chennai Metropolitan area being 7kms for women, vs. 9kms for men. • Due to safety concerns, women avoid travelling after dark. More women travel from 3-5 pm to while more men travel during 5-7 pm.

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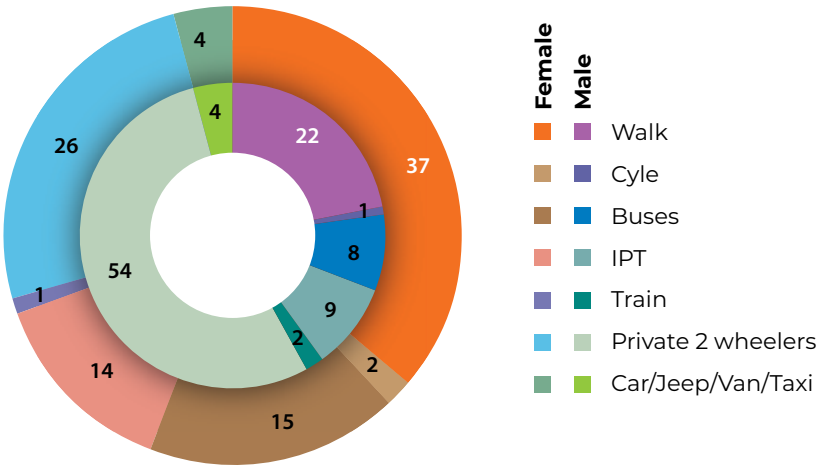
Choice of transport mode	• For women, walking was the predominant mode of transportation as compared to men, who use 2-wheelers for their trips. • A higher share of women used public (16% vs. 10%) and intermediate public transport (14% vs. 9%) as opposed to men. Intermediate public transport are typically auto-rickshaws.  • Women expressed a preference for shared auto-rickshaws to public-buses in FGDs because of the higher frequency, shorter waiting time and lower crowding than public buses tend. This preference becomes even stronger during late evening hours to avoid longer waiting times at stations. • Women and girls also perceive metro to be a more reliable and safer mode of transport compared to buses. • Only 5% of women respondents owned vehicles in contrast to 44% of men, indicating that the vehicle is not registered in their name.
Other challenges	• In the FGDs, women bus drivers and conductors expressed a need to relook at the infrastructure of buses, which are designed for male drivers - brakes and clutches are tight, seats heat up during the summer making it uncomfortable for them to sit for long hours. They also expressed a requirement to have separate toilets or restrooms for female staff at bus depots. They also highlighted concern about their uniforms which are identical to their male counterparts. They claim to feel conscious wearing pants, especially when menstruating. • Overall awareness of gendered mobility, safety, and inequity in transport and public spaces was found to be low in the FGDs and key informant interviews.
Application in other Indian cities	• Before detailed assessments are done, a rapid assessment of the ground situation can be done using a small team of experts. • Key government stakeholder interviews, focused group discussions with right holders and duty bearers, review of relevant laws, policies, manuals and infrastructure projects, analysis of existing mobility data and safety audits of a couple of neighborhoods can provide sufficient data to start framing the contours of the gender program and planning detailed assessments.

Case Study 2	Safety First: Perceived risk of street harassment and educational choices of women (Borker 2018)[32]
City	Delhi
Year	2017
Survey description	• The survey aimed at highlighting the tradeoffs women face between safety and educational choices relative to men. • The data used in the analysis was collected through a survey of 4,000 students at the University of Delhi, mapping of potential travel routes to all colleges using Google Maps, and crowdsourced mobile application safety data.
Key findings	
Safety	• 89% of the total college-going female students surveyed reported that they faced some form of harassment while using public transport in Delhi. Therefore, the fear of harassment motivated female students to take various precautions for their safety. • 72% of the female students reported avoiding an unsafe area while 67% of them avoided going out after dark to mitigate chances of street harassment. • Women were willing to choose a lower ranked college to travel by a route that was perceived to be safer. Women were willing to attend a college that was 13% points lower in quality for higher safety. This is equivalent to choosing a college that is 8.5 ranks lower. In comparison, men were willing to attend a college that was only 1.4% (or 0.9 ranks) lower in quality for higher safety.
Gender differences in travel patterns	• In terms of route choices, relative to men, women chose routes that were safer, more expensive, and had a shorter travel time. • Women were willing to travel for 27 minutes more daily on a route that was perceived to be safer. However, men were only willing to increase their travel time by 4 minutes for an additional unit of safety.
Ability and willingness to pay	• In terms of travel costs, women were willing to travel by a route that cost INR 20,000 (USD (United States Dollars) 310) more per year if it was safer. In comparison, men were willing to spend only an additional INR 1,200 (USD 19). • As a result, women were willing to spend 16 times more than men in terms of travel costs for an additional unit of safety.
Choice of transport mode	• Metro was more popular among women by a significant margin of 20% compared to other public transport modes. Of the women who travelled by the metro, 80% reported exclusively traveling in the ladies-only compartment. • Buses were perceived as the most unsafe mode of transport by women with about 40% of the harassment incidents involving a bus or the people in it.

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Case Study 2	Contd.
Application in other Indian cities	• Studies can be undertaken in cities and regions across the country to examine if women are willing to compromise on their choice of college due to barriers in travelling. • This will also contribute towards making a compelling case for the city authorities to design, plan, and execute a gender program to make the city safer and inclusive.

Case study 2: *Safety First: Perceived risk of street harassment and educational choices of women*

13. ***Women's active participation and involvement in urban planning can ensure gender-responsive decision making.*** Women representatives and leaders can bring the needs and requirements of women users to the forefront of the urban planning debate. The sectoral distribution of women's participation in the transportation, storage, and communication sector stands at 3.6% (PLFS, 2019-20). It is therefore essential to take measures to increase women's participation in the urban planning and transport planning sectors.

14. ***Concluding remarks.*** Urban planning and design often fail to accommodate differential needs of men and women, constraining women's access to socio-economic opportunities. Women travel shorter distances during off-peak hours usually for household and care work, engage in trip chaining and end up paying higher travel costs, relative to men, to ensure their safety. Despite being major users of public transport, women's concerns around safety, affordability, accessibility, connectivity and overcrowding are often neglected by policymakers and technical staff who design urban mobility systems, in favor of as system that benefits a "neutral" male user. Whether women constitute the majority or minority of users in a particular city, applying a gender lens and undertaking gender disaggregated analysis for policy design and implementation are essential to ensure that policies and practices are inclusive and gender responsive.

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ENDNOTES

1 All workers i.e., those who had been engaged in some economic activity during the year preceding numeration and who were not cultivators or agricultural labourers or household industry workers were termed as "other workers" (OW). The type of workers that came under this category included factory workers, plantation workers, those in trade, commerce, business, transport, mining, construction, political or social work, all government servants, municipal employees, teachers, priests, entertainment artists, etc. In fact, all persons who work in any field of economic activity, other than cultivation, agriculture labour or household industry, were covered in this category.
Source: http://labourbureau.gov.in/WL%202K5-6%20Chap%201.htm#:~:text=All%20workers%20i.e.%2C%20those%20who,other%20workers%E2%80%9D%20(OW).

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III. WHAT ARE THE KEY ELEMENTS OF A GENDER-RESPONSIVE URBAN MOBILITY PROGRAM?

1. ***Theory of change - a tool for designing gender-responsive urban mobility programs and public spaces.*** The theory of change lays the foundation for developing a detailed plan of action for program implementation. In this context, defining a theory of change can prove to be a simple methodological tool that helps in identifying key interventions to address the adverse effects of gender blind and unsafe urban planning and public transport services. While the precise outputs and outcomes can be defined at the city-level, it is important that the interventions lead to a common impact: women, girls, sexual and gender minorities, and people with disabilities (PWDs) enjoying inclusive, gender-responsive public spaces and transport services that address their unique needs, free from harassment and the threat of harassment, empowering them to pursue economic and personal opportunities of their choosing.

2. ***To achieve this impact and to address key barriers, it is recommended that interventions be organized around four pillars.*** First, it is necessary to undertake an as-is **assessment of the ground situation** and understand gender-disaggregated mobility patterns, needs of women commuters, condition of the infrastructure, and create benchmarks. Second, **policies, supporting legislations, regulations, guidelines, and plan documents and other manuals,** need to be analyzed and suitably modified to incorporate a gender lens. Third, there is a need to undertake **gender-sensitization training and capacity building** for institutions responsible for implementing modified policies, plans, programs, and projects. And finally, there is a need to improve the **design of infrastructure and introduce gender-responsive services** to improve the inclusion and safety of public transport and public spaces. Actions under each of these pillars are best taken simultaneously. In the sub-sections that follow, we discuss interventions that could be supported by governments under each of the four pillars.

Photo source: World Bank photo collection

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Sample - Theory of change

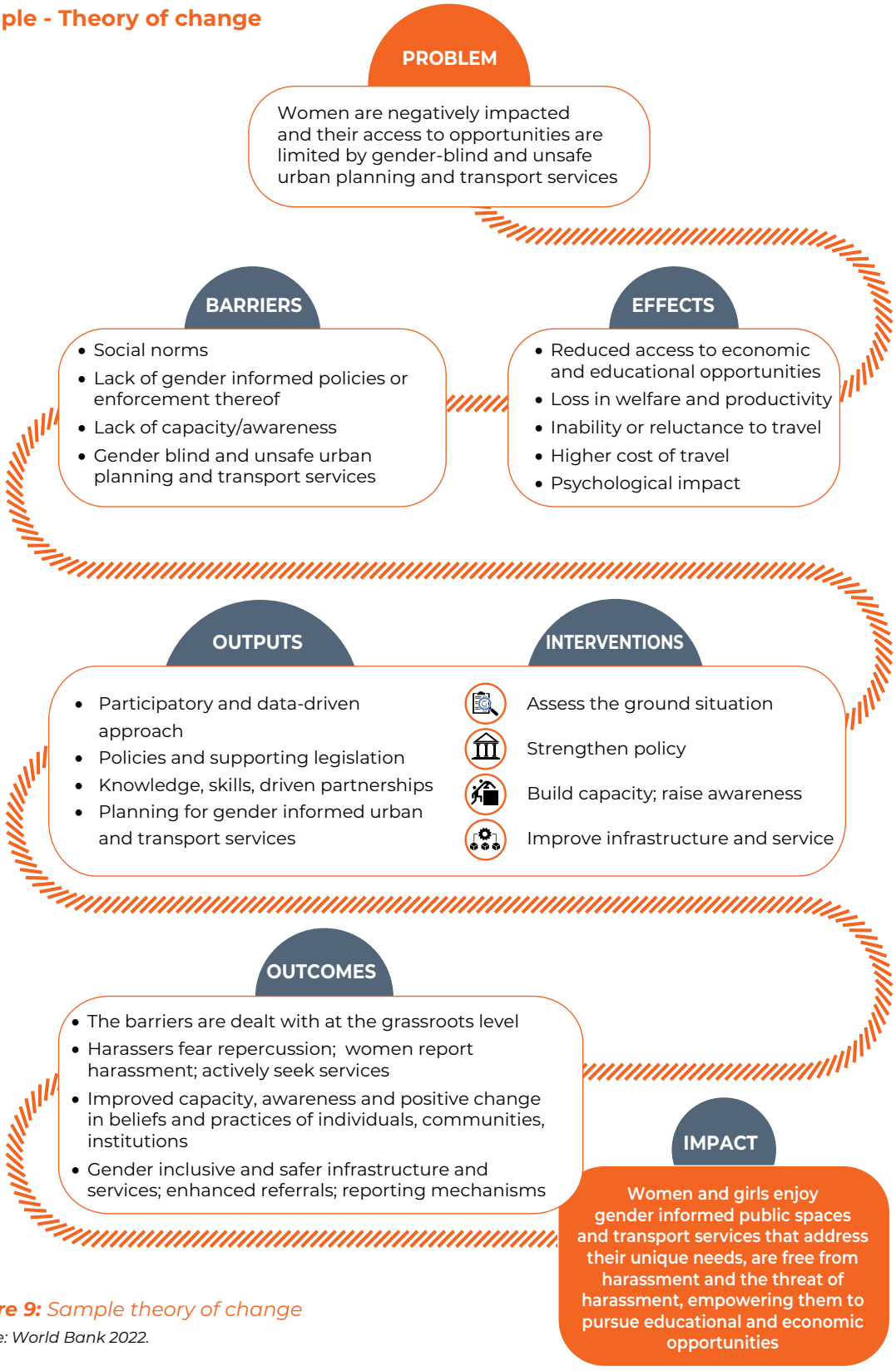

Figure 9: *Sample theory of change*

Source: World Bank 2022.

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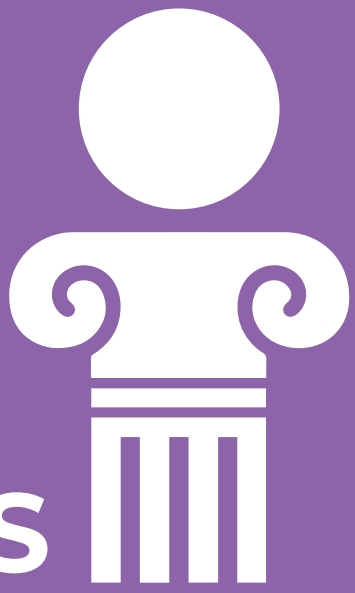

ASSESS THE GROUND SITUATION

- Understand gender differences in mobility patterns
- Understand safety concerns and threat perception of public transport and public spaces
- Identify gaps in current policies, regulations, and legal frameworks
- Identify gaps in institutional capacity and assess prevailing mindsets to deliver gender-responsive programs

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3. ***The design of inclusive public transport services and public spaces begins with an on-ground baseline gender gap assessment of current services.*** The ground assessment aims to understand the access barriers to women's use of public transport services and public spaces, as well as the underlying causes giving rise to the barriers. The baseline assessment seeks to quantify and benchmark what proportion of a city's women are actually using several types of urban mobility services. This involves an assessment of the following areas: (i) gender differences in mobility patterns; (ii) safety concerns and threat perceptions of public transport and public spaces, including infrastructure design; (iii) current policies, regulations, and legal frameworks which create barriers to women's mobility and access to public spaces; and (iv) gaps in institutional capacity, including mindsets and gender biases.

(i) Understand gender differences in mobility patterns

4. ***To provide inclusive, gender-responsive services, public transport authorities need to understand gender-based differences in mobility patterns.*** As noted above, people often have different requirements. Public transport authorities, therefore, should strive to answer the following questions:

Assessing the on-ground situation

Figure 10: *Assessing the on-ground situation*
Source: World Bank 2022.

- **What are the gender-based differences in mobility patterns**, in terms of timing, purpose of travel, distance travelled, trip chaining, trip duration, route-choice, preferred mode etc?
- **What are the key drivers behind these gendered preferences** – safety considerations, crowding at particular choke points, cost/affordability considerations, first/last mile connectivity issues, different motivations to travel (for example, care work may be a bigger priority for women), or other concerns.
- **How can public transport authorities address gender-based differences** through gender-responsive infrastructure, services, and differential pricing solutions?

Gender-based differences in mobility patterns and implications for public transport authorities (PTA)

What are the gender-based differences in mobility patterns?

- Timing
- Purpose of travel (primary / secondary)
- Distance travelled (max/average)
- Trip chaining
- Trip duration
- Route-choice
- Preferred modes (first / second / third)

What are the key drivers behind these gendered preferences?

- Cost / affordability considerations
- Safety considerations
- Crowding at choke points
- First/last mile connectivity issues
- Other concerns

Gender based mobility patterns			Design and policy priorities for PTAs		
Parameter	**Women tend to**	**Men tend to**	**Infrastructure**	**Services**	**Pricing**
• Distance travelled & trip duration (average)	• Typically travel shorter distances, and are limited within a more restricted geographical area • Women are more likely to cover shorter distances to go to work / place of business	• Travel longer distances	• Prioritize walking infrastructure – wide, obstruction-free footpaths, street-lighting and clear signages • Build dedicated bicycle lanes	• Introduce short, circuitous bus routes to meet the needs of women commuters	• Reduce the cost of short-distance travel and transfers

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Gender based mobility patterns			Design and policy priorities for PTAs		
Parameter	**Women tend to**	**Men tend to**	**Infrastructure**	**Services**	**Pricing**
Travel patterns	Undertake chained trips	Follow more point-to-point transport from home to workplace	• Plan for multimodal terminals, with dedicated space to interchange to IPT such as autos, taxis, and rickshaws as well as parking space for bicycles and private vehicles	• Rollout mobile application to integrate IPT with public transport and create combined trip options	• Establish flat pricing across public transport modes based on distance rather than travel mode • Impose no penalty / additional charges for mode changes or transfers
Purpose of travel	Engage in more unpaid work-related travel, such as household or care related work, that is, mobility of care Travel with dependents	Travel mostly for paid work activities Travel solo	• Ensure sufficient seating for women, children, and elderly at stations and in vehicles • Ensure sufficient storage space in vehicles for small bags • Ensure ease of entry / exit on vehicles	• Provide additional services / stops near markets, schools, and hospitals away from the city center	• Offer discounted travel for children and elderly people
Timings	Travel during off-peak hours Travel during the daytime	Travel during peak hours	• Ensure sufficient shade / cover at stations / waiting areas to protect from rain and sun	• Increase services during off-peak hours leveraging on data platforms • Partner with intermediate public transport (IPT) service providers to enable coverage during off-peak hours	• Allocate resources to bus operators to ensure more services during off-peak hours
Preferred modes	Use public transport and non-motorized transport (NMT) as their preferred[1] modes of transport	Use private modes of transport	• Reserve seating for women and persons of minority genders • Ensure provision of safety infrastructure (for example, CCTVs) in vehicles and stations • Ensure sufficient provision of restrooms for women and persons of minority genders at stations • Consider introducing gender-neutral restrooms in addition to existing gender-segregated restrooms for the safety and comfort of transgender, non-binary individuals	• Offer phone/ WhatsApp based safety helplines for women and persons of minority genders to tackle street harassment • Introduce 'request stop' services on buses during late evening hours • Increase presence of emergency response personnel / marshals in vehicles / stations	• Offer discounted cards / special fares for women and persons of minority genders

Table 2: *Gender-based differences in mobility patterns and implications for PTA*

Source: World Bank 2022.

5. ***Regular collection and analysis of gender-disaggregated mobility/trip data is required to understand differentiated mobility patterns.*** City-level authorities, including public transport service providers and agencies maintaining public spaces can regularly collect gender-disaggregated data covering women, men, trans-persons and other genders, to understand their different mobility patterns and create gender responsive mobility services. For instance, a recent user perception survey conducted by C40 Cities Finance Facility and GIZ in Bengaluru to assess the Bengaluru Metropolitan Transport Corporation's (BMTC) bus services in 2020 (Case Study 3) found that more women travelled for household care work than men, fewer women travelled during late evening hours vs. men, and women's monthly expenditure on commuting was lower than men, even though the number of trips taken was not much lower (CFF-GIZ 2020).[2]

6. ***Gender-disaggregated data collection is also essential for the monitoring and evaluation of gender-informed infrastructure changes.*** To understand if the interventions promoting gender mainstreaming in public transport have been effective it is necessary to monitor and evaluate key performance indicators. In such a scenario, gender-disaggregated baseline information is essential to demonstrate changes over the life of a project and provide a reference point for assessing gender equality results (ADB 2013).[3] Gender-sensitive indicators measure the changes in the behavior and involvement of people over time. Gender-sensitive indicators can be devised to measure improvements in mobility infrastructure and physical design of public spaces, transport services, and representation and participation in decision making.

7. ***Gender-disaggregated data can be collected using a variety of methods***, including household surveys, surveys of public transport users/users of public spaces, traffic surveys, and time-use diaries. It is important that data be collected on both motorized and non-motorized transport modes, especially to get an accurate picture of walking and cycling. Once collected, the data needs to be disaggregated and analyzed to understand how those differences materialize in the local context. Data can also be collected through origin-destination surveys which provide a detailed picture of trip patterns and travel choices of a city or region's residents. Intercept surveys along with user satisfaction surveys can also be used to collect feedback on respondents' experiences of public transport during travel. Women are not a homogenous group, and It is thus important to further disaggregate the data by age, socio-economic status, family composition, level of mobility etc.

8. ***When collecting gender disaggregated data, it is important to remember that gender differences in mobility patterns provide the 'observed' differences in the use of transport systems.*** These observed patterns form women's revealed preferences, which are an outcome of women's decisions to commute and their choice of transport, and these are affected by various extraneous factors. It is also important to consider what are the *preferences* of transport users first, something which observed outcomes may not reveal. For instance, the fact that women are likely to cover shorter distances may be a result of the fact that women have less time/freedom/finances to commute. To the extent that some of these factors can be tackled through policies, then these should also be considered. Subsidized travel for longer durations and more frequent buses covering major routes can allow women to take longer trips, lower costs, and take less time. Therefore, relying on observed patterns of mobility alone to direct policy towards specific modes may not give the full picture. It is also important to elicit data on preferences and alternatives.

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9. ***It is also critical to understand the drivers which deter women from travelling and their mobility restrictions.*** Some women do not travel at all or only travel infrequently via public transportation. Individual, social, and cultural factors all have an impact on their travel decisions. When addressing these issues through urban planning from a gender perspective, it is critical to understand the underlying causes of this. Surveys can be designed to help understand the factors that contribute to these mobility restrictions. Household surveys and non-user surveys, as well as participation in focus group discussions, can provide detailed feedback on the specific factors limiting mobility of women, girls, and persons of minority genders. Household surveys can be designed to include more categories of infrequent travel to understand low mobility travel patterns. Questions such as 'how frequently do you travel in a week?' could be modified to account for travel frequency over longer time periods, such as months.

10. ***Data collection surveys are best complemented by qualitative focus group discussions to understand the drivers behind preferences across genders.*** Qualitative focus group discussions with women, girls, and persons of minority genders complement data collection to understand the reasons behind stated preferences. Such discussions can cover women's entire public transport journey, from the first mile to the station, then in the vehicle, and then the last mile to understand gaps, challenges, and barriers at each stage (SUTP 2018).[4] For instance, the Ola Mobility Institute conducted an 11-city survey (Case Study 4) covering more than 20,000 respondents (with over 40% women) to understand the mobility preferences of women, including preferred modes of commuting and willingness to use public transport. The survey found that women preferred to switch away from public transport as soon as they could afford it, owing to challenges with respect to first/last mile connectivity and lack of safety on public transport (OMI 2019).[5]

Photo source: Shutterstock

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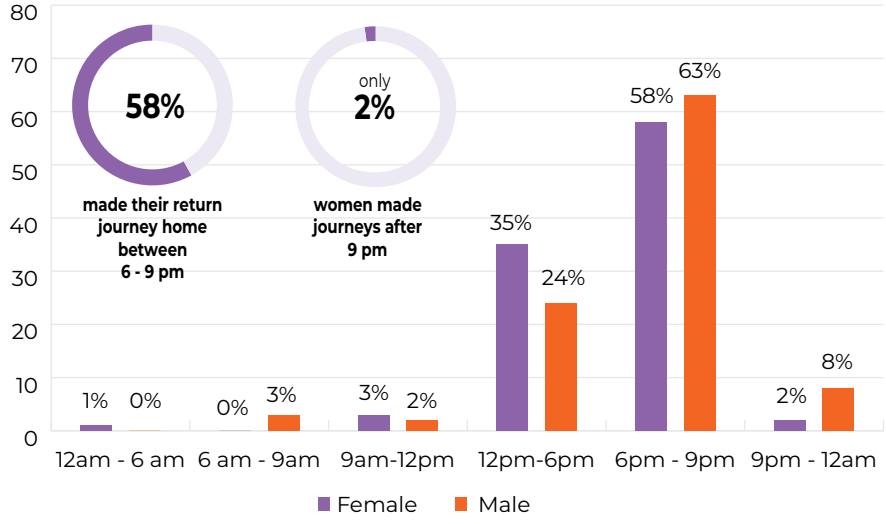
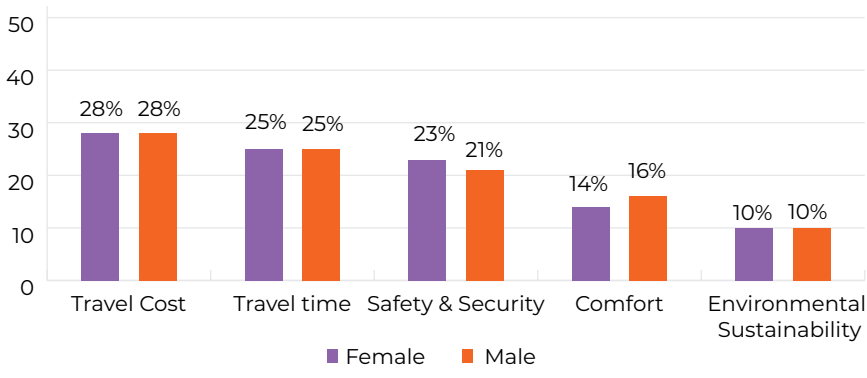
Case Study 3	User perception study done as part of 'Gender Equality and Social Inclusion' (GESI) in the Bengaluru Metropolitan Transport Corporation (BMTC) fleet (CFF-GIZ 2020)[6]
City	Bengaluru
Year	2020
Survey description	• As part of the GESI action plan adopted by BMTC, a user perception survey was conducted, aimed at assessing the importance and performance of BMTC services from an inclusion perspective. • The survey was conducted from August to October 2020 through online and offline modes. The sample size of 400 adults included at least 50% women respondents.
Key findings	
Safety	• A majority of the women (58%) made their return journey home between 6 - 9 pm. Only 2% of the women made journeys after 9 pm.



- 23% women and 21% men prioritized safety and security over other travel parameters.



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Case Study 3	*Contd.*
	• Awareness of BMTC's initiatives to improve safety for women commuters — a dedicated helpline number and women's safety committee — was low.
Gender differences in travel patterns	• Household and care work were the most frequent travel purposes for 13% women as compared to only 2% men. It was the second most frequent purpose of travel for 29% women relative to 23% men. • Men travelled more frequently than women. Women made 6% fewer bus trips per day than men. 20% men made more than two trips per day as compared to only 9% women.
Application in other Indian cities	• User perception studies can be done as part of a larger household survey to assess mobility patterns or as a stand-alone perception survey done to assess satisfaction and expectations of the commuters. To be meaningful, this would need to be disaggregated by at least sex, age, and income level.

Case study 3: *GESI in BMTC fleet*

Case Study 4	**What do women and girls want from urban mobility systems? (OLA Mobility Institute) (OMI 2019).[7]**
Cities	11 major cities - Ahmedabad, Bengaluru, Bhubaneshwar, Chennai, Hyderabad, Indore, Jammu, Kochi, Mumbai, Mysuru, and New Delhi.
Year	2018
Survey description:	• Survey data collected from 11 cities with 9,935 female respondents. • Provides evidence on women and girls' perceptions and expectations from urban mobility systems.
Key findings	
Safety	• Only 9% of women surveyed felt riding public transport is 'very safe' with majority(38%) terming it 'somewhat safe'. • 57% of women reported that their city did not have footpaths or they were discontinuous and encroached. • 35% women perceived most or all roads in their city as dark and unsafe at night.
Ability and willingness to pay	• With an increase in incomes, women's preference for public transport declined rapidly. Almost 50% women who earned less than INR 15,000 per month reported public transport as the most preferred mode of transport. While it was the least preferred mode (2%) for those who earned more than INR 1,00,000 per month. • About 40% women choose public transport due to affordability, and 16% as they had no other choice. On the other hand, 26% opted for it due to convenience and 18% due to time saving.

Case Study 4	*Contd.*
Choice of mode of transport	• Women comprised 38% of the bus users, 35% were metro/ train users, and 40-45% of rickshaws, on-demand taxis, and other shared public transport. Higher reliance on rickshaws, on-demand taxis, and other shared public transport may be due to the convenience offered by these services, especially for short travel and trip chaining.
Other challenges	• 89% women (and men) felt that the public transport information system was not designed such that information was available and easily accessible. • Only 55% women used smart cards for public transport.
Application in other Indian cities	• User expectation studies can be done as a part of a larger household survey to assess mobility patterns or as a stand-alone perception survey to assess satisfaction and expectations of the commuters. To be meaningful, this would need to be disaggregated at least by sex, age, and income levels.

Case study 4: *Ola Mobility Institute*

(ii) Understand safety concerns and threat perceptions of public transport and public spaces

11. ***Regular user surveys are required to understand under-reporting of sexual harassment.*** It is important for city-level authorities and public transport service providers to understand the extent to which lack of safety is a challenge. Thus, the first step is to undertake user surveys across public transport services (buses, metros, suburban trains, etc.) and amongst walkers and cyclists to understand incidences of sexual harassment, awareness, and experiences of using grievance redressal mechanisms and key barriers (SUTP 2018).[8] In addition, surveys of staff members at grievance redressal facilities and transport service operators can help in gauging their attitudes and mindsets about sexual harassment.

12. ***Undertake regular safety audits of public transport and public spaces.*** Regular safety audits of their facilities can help city authorities and public transport service providers benchmark the level of harassment and identify blind spots. Safety audits are a participatory tool that allow women to assess the safety and threat perceptions of a public space / public transport facility, including identifying infrastructure challenges, design issues, and gendered use of space. Safety audits can provide valuable information on transport design and can be undertaken at different stages of a project: during project preparation, implementation, and even as a tool for evaluation. Two types of safety audits may be prioritized:

- **Safety audits of public spaces**: Safety audits across public spaces, including streets, parks, community areas, dump grounds, and open spaces involving regular users of a space, that is, local women and girls and identify the factors that make them feel unsafe (JAGORI and WICI 2010).[9] These can be done in person wherein women and girls can walk through these areas and share their experiences using telephonic surveys or through mobile applications. For instance, in 2018, Safetipin was commissioned by the department of women and child development, Government of Delhi to conduct a safety

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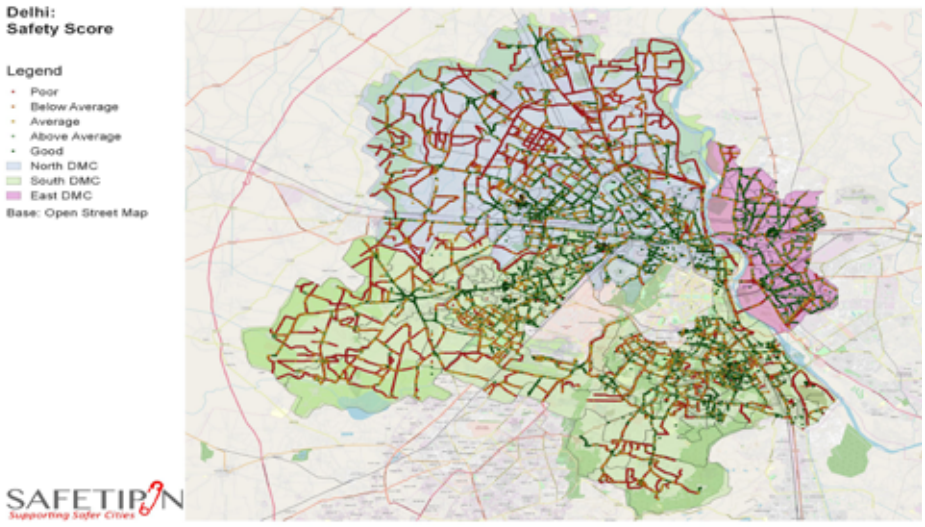
mapping of the entire city, using data on safety contributed by users on the MySafetipin mobile application. Drone-based surveys of public spaces can then be conducted to prepare precise maps.

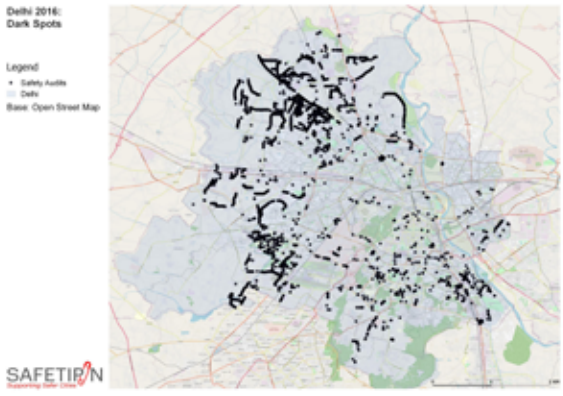
- **Safety audits of public transport facilities**: Participatory safety audits can help assess women's experiences across the four stages – first/last mile connectivity, at the station, while boarding and alighting, and in the vehicle (ITDP and Safetipin 2017).[10]

The Metropolitan Action Committee on Public Violence against Women and Children (METRAC), based in Toronto, Canada, developed the Women's Safety Audit (WSA) in 1989. It defines WSA as

"a method to evaluate the environment from the standpoint of those who feel vulnerable and to make changes that reduce opportunities for assault..."

Source: http://www.metrac.org/about/downloads/about.metrac.brochure.pdf

Case Study 5	**Delhi: A Safety Assessment (Safetipin 2019)[11]**
City	Delhi
Year	2015 - 2018
Survey details	In Delhi, Safetipin mapped the entire city at regular intervals and 25,294 safety audits were conducted in the city to provide assessed information on physical infrastructure like street lighting, pavements, bus stops, metro stations, last mile connectivity, and social amenities, such as parks, toilets, and markets. Data was collected using two mobile applications - MySafetipin and Safetipin Nite. The former was used to generate data from users and volunteers while the latter was used to generate images of the city which were then coded and analyzed for key safety concerns.
Key findings	The overall feeling of safety in Delhi was rated below average and the city map was prepared based on the safety audit for Delhi government's action. 

Case Study 5	**Contd.**
Lighting	In 2016, about 7,500 dark spots were found in Delhi through Safetipin mapping. Safetipin worked with the Delhi government to improve street lighting in the city. In 2019 on re-mapping to measure the impact of improvement programs, dark spots were reduced by 5,000 and another 2,700 dark spots were located. These were in the periphery while the core looked better than before.
	
Public spaces	Public toilets are often poorly designed and located on walk-paths, making it uncomfortable for women. Visibility emerged as another major concern for women and girls, influencing their perceptions of safety. Obstructions on walk-paths caused by vehicular parking, inappropriate positioning of street lights, garbage bins, signages, and dumping of construction debris also contributed to lack of access to public spaces for women.
Public transport	Lack of formal and safe intermediate para-transit facilities creates barriers in first/last mile connectivity and discourages women from using public transport.
Application in other Indian cities	A safety audit is an important initial step to gather data on the ground situation related to the built infrastructure. The findings can inform the upgrades required in brownfield infrastructure and design greenfield infrastructure, including various elements like lighting, footpaths, public toilets, bus shelters, and visibility. Based on the budget available, cities can either hire professional agencies to do the audits or plan a community led initiative.

Case study 5: *Safety assessment of Delhi*

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(iii) Identify gaps in current policies, regulations, and legal frameworks

13. ***Review existing transport sector policies, regulations, plan documents, legal frameworks, and guidelines to identify gaps for gender-inclusion and responsiveness.*** While physical adjustments can address a part of the existing challenges, real progress requires a thorough review of existing policies, regulations, plan documents, legal frameworks, and guidelines by transport sector regulators and policy agencies, state level transport authorities, city planning agencies, municipal bodies, and public transport service providers. To that end, a benchmarking exercise is recommended to answer four questions:

    - What are the measures currently in place to establish inclusive and gender-responsive public transport facilities and public spaces?
    - How do the current measures compare with challenges identified by women and persons of minority genders in surveys and safety audits?
    - Do policies provide for mechanisms to introduce new measures for inclusion and gender-responsive services?
    - Are there any gender-based restrictions in the use of public transport or public spaces, for example, not being allowed after specific timings?

    This exercise will help agencies in planning revisions of their policies, regulations, guidelines, and legal frameworks to make them more gender-responsive (Pillar 2).

(iv) Identify gaps in institutional capacity and assess prevailing mindsets to deliver gender-responsive programs

14. ***Benchmark technical capacity, gender representation, and understand prevailing mindsets across stakeholders and implementing agencies.*** To successfully roll out and operate a gender-responsive public transport system, complete with inclusive public spaces, staff across national transport sector regulators and policy agencies, state level transport authorities, city planning agencies, municipal bodies, urban local bodies, and public transport service providers need to have appropriate awareness, technical skills, and a positive mindset and attitude for planning, designing, and implementing infrastructure and service upgrades applying a gender lens. Technical capacity, mindsets, and attitudes towards women and persons of minority genders are best benchmarked along the following parameters:

    - Representation of women and persons of minority genders across levels, especially in decision making and at the leadership levels.
    - Gender sensitivity and comprehension of the need for gender-responsive public spaces and mobility systems.
    - Attitudes and responsiveness in addressing cases of sexual harassment on public transport, in public spaces, as well as in workplaces.
    - Proficiency in technical skills required for designing and implementing gender-responsive programs.
    - Gender-bias, gender-linked blind spots, attitudes towards women, girls and persons of minority genders, and mindsets.

    This exercise will help implementing agencies in identifying the gaps in representation, key technical competencies as well as prevailing gender biases amongst their staff which can be addressed through capacity building, training, and by raising awareness (Pillar 3).

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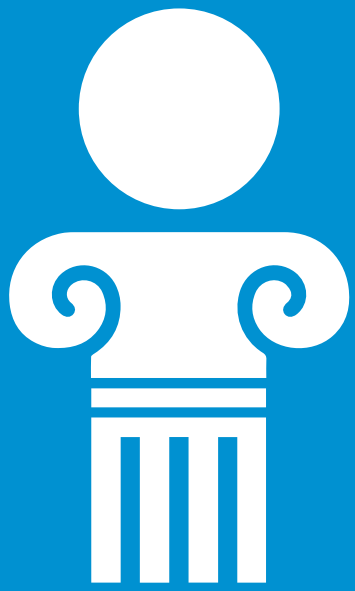

STRENGTHEN PLANNING AND POLICIES

- Integrate a gender-lens in new and existing policies and plans
- Introduce gender inclusivity in decision making and key institutions

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15. ***Existing policies, plans, laws, and institutions can be made more inclusive by incorporating a gender lens and ensuring diverse representation at key institutions.*** Following the review of existing transport sector policies, regulations, plan documents, legal frameworks, and guidelines to identify gaps for gender-inclusion and responsiveness undertaken during the assessment of the ground situation, a way forward can be charted to address the identified gaps. This primarily involves working on two elements: First, integrating a gender lens in new and existing policies and planning, and second, promoting gender inclusivity at key institutions, particularly in leadership and decision making. We discuss each of these in turn.

(i) Integrate a gender lens in new and existing policies and plans

16. ***Mainstream gender-disaggregated concerns and incorporate gender action plans in comprehensive mobility plans developed at the city-level.*** The Government of India encourages cities to develop comprehensive mobility plans (CMPs) which lay out *"a vision statement of the direction in which Urban Transport in the city should grow"* (MoUD 2010).[12] The CMPs are meant to identify short, medium, and long-term investments in urban mobility infrastructure and services (across motorized and non-motorized transport). The Government of India's toolkit for the preparation of CMPs recommends that: (i) priority should be accorded to improvements in mobility across all genders; (ii) gender-disaggregated data should be collected on travel patterns, accessibility issues, safety to walk and cycle; and (iii) modelling of future trip patterns should incorporate gender-disaggregation to ease planning.

Over and above these guidelines, city authorities can also consider developing a gender action plan (GAP), embedded within the CMP (SUTP 2018).[13] Cities can identify their own priority areas (for example, improving safety for women in public transport, introducing new design of public transport vehicles, and preferential fare policies for women), introduce gender-responsive infrastructure and service-based solutions with clear outputs and outcomes to address gaps that have been identified, and then monitor their implementation. The advantage of embedding GAPs (Gender Action Plans) in CMPs is that gender actions are then viewed as integral to the success of the CMPs and their implementation is closely monitored by the same team, which is responsible for delivering on the CMPs as done in London (Case Study 6) and Dhaka (Case Study 7).

ToC

Case Study 6	Transport for London (TfL) – Action for Equality Plan (TfL 2020)[14]
City	London
Year	2016 - 2020
Project overview	• Four-year action plan to promote equality for public transport users, TfL staff, and other relevant stakeholders. • Developed based on a comprehensive analysis of gender-disaggregated data on travel patterns and detailed consultations with diverse groups of stakeholders like women's groups, disability rights groups, students, and elder persons, among others.
Key features of the intervention	• Laid out concrete goals and measurable actions that TfL intended to take over the four-year plan period to enhance equality for all stakeholders around 11 areas: – Improving customer experience, catering to needs of all. – Ensuring access to customer information in a relatable manner. – Accessible network, that is, improving the accessibility of London's transport infrastructure. – Travelling safely and securely, especially for women, young people, and persons from the Black, Asian, and minority ethnic communities. – Formalizing clear fee structure that offers value for money and affordability. – Ensuring that the transport system promotes and improves health. – Improving workforce diversity in TfL. – Supporting current and future employees hone their skills. – Engaging with employees and promoting an inclusive culture. – Promoting diversity in business partners. – Engaging with London's diverse communities to inform service design.
Application in Indian cities	While cities may have overall policies for women's empowerment, it would be useful for the transport authorities, through a unified metropolitan transport authority, if in place, to have a common long-term action plan with measurable indicators to make transport infrastructure and services safer and more inclusive.

Case study 6: *TfL – Action for Equality plan*

ToC

Case Study 7	Greater Dhaka Sustainable Urban Transport Project – Gender Action Plan (ADB, 2019)[15,16]
City	Dhaka
Year	2012- Present
Project overview	• Project aims to develop a sustainable urban transport system in north Greater Dhaka, including the construction of a 20-kilometer bus rapid transit (BRT) corridor and a depot and terminal facilities in Gazipur city. • Supported by the Asian Development Bank, Japan Fund for Poverty Reduction, and Agence Française de Développement
Key features of the intervention	• The BRT was specifically planned to support women's employment as the selected route connects residential areas of female factory workers and a garment factory. • A GAP prepared for the project laid out clear, quantifiable targets as follows: – BRT achieves a ridership of 100,000 passengers per day (at least 30% women) in the 1st year of operations. – The BRT system's design meets international standards, including safety and comfort features for women, children, and disabled persons. – At least 70% of the garment workers (majority of whom are women) and 50% students (at least 20% women) using BRT receive subsidized monthly travel passes. – Reserve 20% seats for women. – Ensure separate queuing system for male and female passengers at BRT stations and priority boarding for pregnant women, elderly, children, and handicapped persons. – Reserve and allocate at least 15% of the vendor area for women vendors. – Employ women in BRT construction and maintenance work (at least 20%), BRT operations (at least 10%), special project operations (at least 20%), project implementation units (at least 20%). – Gather baseline gender-disaggregated data and gender analytical information as part of any preparatory surveys, feasibility studies, assessments, and reports. – Ensure participation of women in training teams, awareness campaigns (at least 30%), training for traffic policy on gender issues, and in the improvement of local markets and feeder roads for non-motorized transport (at least 30%).
Applications in Indian cities	Rather than planning projects 'for women,' mainstreaming gender aspects in all projects can become a core approach in cities. While designing a transport infrastructure project like the BRTS project mentioned above, cities can develop a GAP that contains specific gender elements to be considered in the program design and implementation.

Case study 7: *Greater Dhaka sustainable urban transport project - GAP*

17. ***Devising fare policies to lower cost of travel for women and persons of other genders to boost their ridership.*** As noted above, cross-country evidence suggests that women tend to travel shorter distances during off-peak hours for unpaid care work and engage in trip chaining, thus paying higher fares for frequently changing direction, modes of transport, and breaking their journeys. State governments, city authorities, and public transport providers can consider introducing fare policies targeted at women and persons of minority genders to reduce their cost of travel, enhance affordability of public transport, and boost ridership.

    City authorities and public transport agencies can undertake user and household surveys to ascertain whether prevailing fare policies are discriminatory and estimate the quantum of cost burden on women. For instance, if the prevailing fare policies reward long-distance commutes, whereas women in the city mostly undertake frequent short trips, the fare policy will be discriminatory.

    State governments, city authorities, and public transport agencies can design incentives for women and persons of other genders using public transport, based on a gender-disaggregated analysis of mobility patterns at the city level. Some of these include offering discounts on off-peak travel (for example, Santiago, Chile; Jakarta, Indonesia) (ITDP 2018),[17] integrated fares based on distance travelled across different modes like bus, metro, etc. (for example, Seoul, Republic of Korea (Development Asia 2019),[18] Singapore (MOT 2021)[19] (Case Study 8)), and discounted travel cards for special preference groups (for example, United Kingdom and Brazil) amongst other forms.

    Several states in India offer discounted or even free travel for women on public transport. For instance, Delhi, Punjab, Tamil Nadu, and Uttar Pradesh have schemes for fare-free travel in government buses for women, where state governments provide subsidies to state transport corporations to bear the costs. While fare-free bus transport schemes are one option, other fare policies can also be studied for application to other modes and to balance financial sustainability considerations. Increased supply during off-peak hours may be a higher priority than lowered fare, and accordingly the same level of subsidies could be directed towards compensating for such increased supply. Moreover, policies need to be designed to include all genders – specifically, transgender persons who are presently left out of these policies.

Case Study 8	**Integrated distance-based fare structure, Singapore (MOT 2021)[20]**
City	Singapore
Year	2010 onwards
Project overview	The distance-based fare structure was introduced in 2010 to improve intermodal connectivity of the public transport system eliminating erstwhile boarding charges which were levied every time on boarding a bus or metro.
Key features of the intervention	• Under this system, commuters only need to pay a fare based on the total distance travelled from origin to destination regardless of the number of transfers they make. • It, thus, effectively eliminates the fare penalties associated with making intermodal transfers or breaking their journeys.

ToC

Case Study 8	Contd.
	• This ensures that customers are given more flexibility and choice over the routes for their journeys thereby enhancing their travel experience so that they use transfers to choose faster routes, minimize waiting time, or make multiple stops (that is, trip chaining).
Application in Indian cities	As Indian cities see the development of multiple transport modes and the number of metro systems expand, mode agnostic distance-based fares may be evaluated by PTAs – especially bus and metro corporations to ease mode shifts and offer a unified public transport service, which can ease women's mobility disproportionately.

Case study 8: *Singapore integrated distance-based fare structure*

18. ***Devise special policies/schemes to include women in the mobility field.*** The transport field is considered a predominantly male dominated field. The poor representation of women as frontline staff in public transport encourages a vicious cycle where women continue to feel unsafe in public transport. Subsidies and schemes can be introduced to encourage women to take up entrepreneurship in the intermediate public transport (IPT) sector, for example, support women who wish to purchase and operate vehicles like autorickshaws, shared autos, and taxis and making it more inclusive and safer for women.

19. ***Devise preferential procurement policies to prioritize purchases from gender-inclusive suppliers.*** State governments, particularly public works departments, transport departments, as well as urban local bodies are typically large buyers of goods and services. Under the Government of India's Public Procurement Policy for Micro and Small Enterprises (MSEs) 2018, 25% of the annual procurement by central government entities must be made from MSEs, including 3% from women entrepreneurs (M/o MSME 2018).[21] State governments, urban local bodies (ULBs), and public transport authorities can also consider devising their own preferential procurement policies so that they reward women-owned businesses/ businesses owned by persons of minority genders, and other suppliers with a higher representation of women and persons of other genders in their workforce and leadership positions. State governments can also support efforts to understand the barriers and challenges preventing women-owned businesses from accessing and fully participating in the urban mobility market value chains. Based on the challenges and gaps identified, strategic sourcing decisions can be taken to evaluate the diversity of the supplier base and to increase the share of women-owned businesses in procurement (UN Women 2020).[22]

(ii) Introducing gender inclusivity in decision making and key institutions

20. ***Diversifying representation in urban local bodies, public transport authorities, especially at senior leadership and decision-making level.*** Building on the institutional capacity assessments undertaken when benchmarking the ground situation, ULBs, urban metropolitan transport authorities, public transport authorities (PTAs), and even state governments can gauge the representation of women and persons of minority genders across different seniority levels in their organizations, as well as across different job functions and job roles (Case Study 9). Enhanced diversity in the

workforce can help ULBs, PTAs, and other implementing agencies to become more aware of, and more sensitive to, issues faced by women, girls, and persons of minority genders when using public spaces and public transport. Women's presence in decision making positions increases the likelihood of the formulation of more gender-responsive policies. Strategies for diversity and inclusion are best adopted across the 'talent pipeline,' that is, from entry level through to middle and senior management and top leadership, so that they do not just focus on attracting more women and persons of minority genders, but also support career development and retention. Moreover, women and persons of minority genders should be represented across departments and job functions and job roles, so that they can make their way to senior management and decision-making levels. Some of the strategies that may be considered include:

- **Entry level**:
  - Undertaking recruitment from non-traditional colleges and streams.
  - Specifically encouraging women and persons of minority genders to apply for job advertisements.
  - Instituting quotas for recruitment of women and persons of minority genders.
- **Middle to senior management:**
  - Undertaking surveys of women employees and understanding their challenges so that retention policies can be designed in a participatory manner.
  - Devising specialized training and development opportunities, especially focusing on soft skills, such as networking, negotiation, and crisis management.
  - Being supportive of employees' care work responsibilities and providing access to reliable care services, such as creche facilities (Maternity Benefit Act 2017),[23] flexible work arrangements and care leave (parental leave and elderly care, for example) to women, men, and persons of minority genders.
  - Instituting quotas in promotions.
- **Leadership and decision making:**
  - Developing a strong internal talent pipeline so that women and persons of minority genders may be promoted to leadership roles.
  - Hiring women and persons of minority genders for leadership roles from other organizations.
  - Creating new, innovative positions, such as Chief Diversity Officer or Chief Inclusion Officer (filled by women or persons of other genders) to promote a culture of inclusion in the organization.
  - Mandate minimum thresholds for inclusion of women and persons of minority genders on high level committees, commissions, and other decision-making bodies for public transport.
- **Enhancing representation across departments and job roles**:
  - Regular departmental audits (seniority-wise) to track representation.
  - Training programs to reskill and upskill employees from related departments to switch to more technical units, especially focused on women and persons of minority genders.

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Case Study 9	Gender diverse workforce on Kochi Metro, Kerala, India (KMRL 2018; LSGD Kerala 2018)[24,25]
City	Kochi
Year	2018 onwards
Project overview	The Kochi metro was inaugurated in 2018 and is operated by the state-owned entity, the Kochi Metro Rail Limited (KMRL).
Key features of the intervention	• From the very start of its operations, around 80% of Kochi metro's staff have been women working across a wide range of positions: cleaning staff, ticket machine operators, train drivers, station managers, and more, including seven women locomotive pilots (of the total 39). • In 2016, KMRL signed an agreement with Kudumbashree, a women's self-help group in Kerala to engage it for facilities management at metro stations including ticketing, customer relations, housekeeping, parking management, and running the canteens. Facilities at the Kochi metro station are now managed by all-women staff from Kudumbashree, making it the largest crew of women to be employed by any metro in India. • Moreover, in accordance with the transgender policy of the Kerala state government, KMRL also introduced a policy to recruit members of the transgender community. 60 members of the transgender community were hired for a variety of roles ranging from handling ticket counters to maintaining the metro line.
Application in other Indian cities	Similar initiatives can be taken by other bus and rail agencies to enhance the workforce participation of women and representation of women in the transport sector.

Case study 9: *Gender diverse workforce on KMRL*

21. ***Establish a dedicated team to implement GAPs and targets in CMP.*** ULBs, PTAs, city authorities, and other implementing agencies can consider establishing a dedicated team to undertake the implementation of GAPs and gender-related targets in CMP. Such a team is meant to collaborate with multiple duty bearers from various government organizations and external experts from related fields to facilitate women's safety and accessibility in the city. Moreover, the team can have one or more advisory committees to advise on specific areas, such as infrastructure design, safety, gender-responsive route planning, awareness creation, as well as undertaking results monitoring (Case Study 10).

Case study 10	Chennai Gender and Policy Lab
City	Chennai
Year	April 2022 onwards (supported by approved World Bank project)
Project overview	• The government of Tamil Nadu has established an apex committee for implementing the state government's Nirbhaya program for ensuring women's safety. • The Chennai Gender and Policy Lab is being established under the state government's Nirbhaya program. • It is planned that the Gender and Policy Lab will act as an advisory body to the apex committee.
Key features of the intervention	• A two-tier structure is proposed for the Gender and Policy Lab: (i) the existing apex committee consisting of high-level government officials of different departments setting the vision for the city; and (ii) a dedicated body, a "Gender and Policy Lab" with 3 sector specialists ensuring impact-driven planning. • The apex committee will also appoint working committees, made up of national and international sector experts and civil society partners to provide guidance and assist the Gender and Policy Lab. • It is envisaged that the lab will undertake the following activities: – Provide guidance to the apex committee on gender-responsiveness in public transport – Engage with and leverage the various committees – Create necessary planning, implementation and evaluation frameworks and guidance materials, – Design and oversee surveys, and integrate findings in overall program – Create communication and training plans – Guide the implementing agencies during project roll-out and drafting of policies – Monitor and report progress • It is envisaged that the lab will work with the corporation department, transport department, city police and social welfare and women's empowerment and other state-run institutions.
Application in other Indian cities	The Gender and Policy Lab is the institutional mechanism in place to drive the integrated gender program in Chennai. Other cities can consider following a similar model of hiring dedicated experts or can form a dedicated team leveraging existing internal experts.

Case study 10: *Chennai Gender and Policy Lab*

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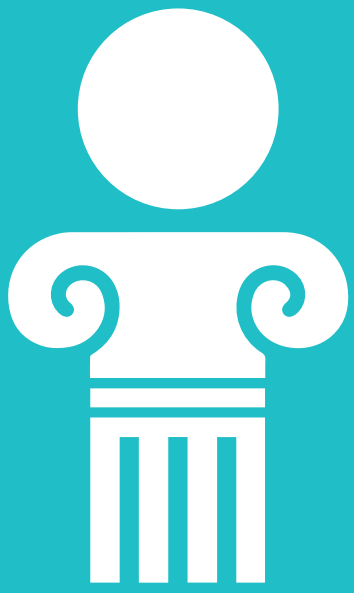
22. ***Strengthen grievance redressal to fast-track sexual harassment complaints.*** Cross-country analyses as well as evidence from Indian cities shows that while prevalence of sexual harassment on public transport and in public spaces is high, reporting and subsequent actions taken for redressal are low. Grievance redressal encompasses the entire process of a user raising a complaint with the service provider, followed by its acknowledgment, investigation, and subsequent redressal. It is a vital element for building gender-responsive and safe transport systems and public spaces. To ensure quick, effective, and responsive grievance redressal, good inter-departmental coordination is required within ULBs, PTAs, and other implementation agencies to handle sexual harassment complaints (SUTP 2018).[26] The dedicated team established to implement the GAP could also include a 'one-stop' grievance redressal cell to fast track processing sexual harassment complaints. Some of the functions of this cell could include:

    - Registering complaints of sexual harassment.
    - Creating agile, simple, and confidential reporting mechanisms, responsive to the specific city-context including online (for example, mobile application, WhatsApp helpline), telephonic (for example, emergency phone number), and offline modes (for example, helpdesk).
    - Liaising with police authorities on behalf of ULB / PTA for investigations.
    - Formulating standard operating procedures (SOPs), with clear timelines, on how to handle sexual harassment complaints for ULBs / PTAs.
    - Managing sexual harassment complaints made via helplines / mobile applications / in-person.
    - Coordinating across departments and agencies to ensure timely redressal of complaints, as per timelines specified and agreed in the SOPs.
    - Ensuring that parallel systems of reporting are not created and find entry points to tie to existing services and procedures to respond to violence against women and identify what would be needed for these services to respond to cases of sexual harassment in transport.
    - Others, as necessary, based on specific situation at the PTA / ULB / implementing agency.

23. ***Develop monitoring and evaluation guidelines for gender-mainstreaming projects.*** According to the World Bank 'Handbook for Gender-Inclusive Urban Planning and Design', a monitoring and evaluation framework will allow the evaluation of both successes and failures, as well as the opportunity to adapt a project during or following implementation to improve on delivered outcomes based on feedback and relevant gender-disaggregated data. A management plan can be put in place to improve project performance if it is found that targets are not being met (IBRD 2020).[27] Implementing agencies can consider instituting detailed guidelines to ensure that gender disaggregated indicators are incorporated in M&E (monitoring & evaluation) frameworks utilizing the gender-disaggregated data mentioned in Pillar 1.



BUILD CAPACITY AND RAISE AWARENESS

- Mandate training and capacity building of duty bearers
- Forge partnerships for raising awareness and enabling community action through campaigns

ToC

Photo source: Gerald Ollivier/World Bank

24. ***Whether women are able to exercise their "rights to a city" depends in part on delivery of public services by duty bearers, making gender sensitization, capacity building, and awareness creation critical.*** The 'right to the city' framework advocates building safe cities such that women have equal rights to enjoy the city and claim space in any way they wish to, without experiencing violence or the threat of violence. Often, in times of an emergency, women may be unaware that support mechanisms exist – who is the appropriate first responder, how can they contact them, emergency helpline numbers, how to report harassment – these are just a few of the many concerns that may arise. In such a scenario, it becomes incumbent upon duty bearers to create awareness and standard operating procedures to manage emergency situations. This is only possible if duty bearers themselves are trained to handle such situations. Duty bearers, including government officials and frontline staff in ULBs, PTAs, other implementation agencies, are key decision makers responsible for formulating policies, plans and decisions regarding the public spaces and public transport. Therefore, for cities targeting to be more inclusive, gender-sensitization and technical training of duty bearers assume significance to make them aware of their existing prejudices, gender-biases, and differential mobility needs across genders; responding to emergency situations, and imparting technical skills for designing gender-responsive urban mobility solutions. Over and above the training for duty bearers, it is also important to undertake wider awareness creation campaigns to influence mindsets and social norms.

Institutional strengthening, capacity building and raising awareness

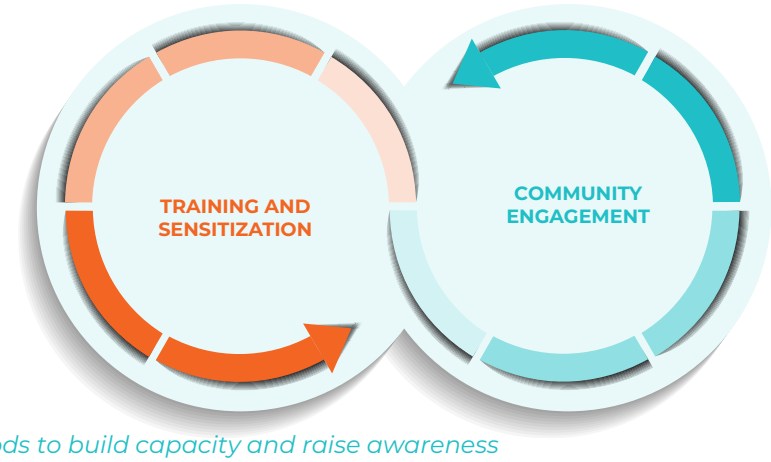


Figure 11: *Methods to build capacity and raise awareness*

Source: World Bank 2022.

ToC

(i) Mandate training and capacity building of duty bearers

25. ***Capacity building and gender-sensitization of managements at ULBs, PTAs, and implementing agencies to ensure gender-responsive planning, design, implementation, monitoring, and evaluation of public transport services.*** An on-ground assessment of institutional capacity is helpful for ULBs, PTAs, and other implementing agencies to benchmark their current capacity, and identify the gaps in technical skills, as well as understand the mindsets of employees, especially at management and leadership levels. Senior and mid-management at these agencies take decisions which impact the lives of millions of women, girls, and persons of minority genders utilizing public transport and public spaces daily. It is thus important to understand potential pre-existing biases in mindsets as well as gaps in technical capacity. Based on identified gaps, agencies can pinpoint the precise areas to prioritize for management training, as well as the nature of the training (Table 3).

26. ***Gender sensitization training for drivers, conductors, security, and other frontline staff operating public transport facilities.*** Frontline, customer-facing staff at ULBs, PTAs, and other implementing agencies require a diverse set of skills in management. While policymakers and management define guidelines, they are actually implemented by the frontline staff. Thus, it becomes important to clearly communicate the guidelines and the rationale behind their adoption, as well as undertaking regular, continuous gender-sensitization exercises with frontline staff. Frontline staff are often first responders in crisis situations and witnesses of sexual harassment. They are also the face of the public transport services and need to effectively communicate with all users, regardless of their gender. Training for frontline staff therefore needs to be tailored to strengthen their soft skills and ensure successful implementation of GAPs.

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Recommendations - Capacity building at ULBs, PTAs, and implementing agencies

1. Key areas of training for management (indicative, not exhaustive)							
Developing gender-responsive street planning, design, and elements in public spaces	Developing gender-responsive public transport and intermediate para transit (IPT)	Ensuring safety for women, girls and persons of minority genders in public spaces and public transport	Conducting gender-disaggregated data collection and mapping mobility patterns	Conducting gender-inclusive route and operational planning	Formulating strategies for enhancing diversity and inclusion in the workforce	Designing campaigns for raising awareness on gender-equal 'rights to the city'	Implementing gender budgeting to ensure sufficient financial resources for implementing GAPs (under CMPs)
2. Key areas of training for frontline staff (indicative, not exhaustive)							
Awareness of key laws, rules, and regulations prohibiting sexual harassment and other forms of violence in public transport and public spaces	Increasing awareness of emergency helpline numbers, mobile applications, and grievance redressal mechanisms	Defining role of of frontline staff and SOPs to be followed in cases of sexual harassment	Communicating the assistance available to frontline staff who witness sexual harassment or face harassment from colleagues/ customers	Responding to crises in a gender-sensitive manner	Understanding policies / guidelines to achieve gender-responsive public transport services	Improving sensitization to challenges faced by women and persons of other genders across the four stages of a public transport journey	Improving gender-sensitive communication

2. Nature of training (indicative, not exhaustive)							
Should the training modules be designed in-house or outsourced?	Should the training be regular and long-term (for example, conducted over a year or more once a week), or be undertaken through intensive workshops (for example, annual or bi-annual workshops)?	What should the medium of the training be? (for example, through exposure visits, video-based, audio-based, written)?	What should the duration of each session, module and overall curriculum be?	Should the training be tailored for different teams, or should it be a common training curriculum across departments?	How can local contexts and content be integrated into the training modules?	How should the learnings during the training be evaluated (for example, post-training assessments, exercises, part of performance review)?	What post-training support should be provided?

Table 3: *Capacity building recommendations*

Source: World Bank 2022.

27. ***Tailored training programs targeting the gaps in mindsets between rights holders and duty bearers.*** A key factor that drives behavior towards women in public spaces and public transport is the lens from which issues pertaining to them are viewed. The on-ground assessment of staff in implementing agencies can help in identifying the gaps between aspirational mindsets (for example, 'rights to the city') and stakeholders' existing mindsets (Case Study 11). Identification of these gaps helps give direction to design the training programs which can help in shifting mindsets of duty bearers.

Case Study 11	Barabari Ki Dagar, Surakshit Safar (aspiring for gender equality through creating safe travel) (Government of NCT of Delhi 2019; Manas Foundation)[28,29]
City	Delhi, Haryana, Gurugram, Pune, Mumbai, Guwahati, Hyderabad, Chennai, Kolkata, and Bengaluru.
Year	• 2014 (Partnership with Delhi Transport Corporation). • 2018 (Uber Partnership). • 2019 (Haryana Roadways Department).
Project overview	• The 'Barabari ki Dagar, Surakshit Safar' (aspiring for gender equality through creating safe travel) is a gender sensitization program for public transport drivers started by Manas Foundation as part of its gender justice initiative. • The program includes in-person training, classroom training as well as multiple initiatives that go beyond the classroom to positively engage with public transport drivers and encourage them to adopt professional behavior and practices. • It has now engaged more than 500,000 public transport and IPT drivers from across Delhi, Haryana, and major metropolitan cities.

Case Study 11	Contd.
Key features of the intervention:	
Training partnerships	• Since 2014, Manas Foundation has been partnering with Delhi Transport Corporation (DTC) to provide gender sensitization training to all public transport drivers. – The program has been integrated with the transport department's system by making it a vital component of their license renewal or vehicle fitness. • In 2018, in partnership with Uber India, gender sensitization sessions were conducted for Uber driver partners in Gurugram, Pune, Mumbai, Guwahati, Hyderabad, Chennai, Kolkata, and Bengaluru. • In 2019, in partnership with United Nations Children's Fund (UNICEF) and India Oil Corporation (IOC) and Indraprastha Gas Limited (IGL), training was provided to 13,000 drivers and conductors of Haryana Roadways across the 21 districts of the state.
Safe Gaadi	• 'Safe Gaadi' is a mobile app developed for drivers which they download post training on their smartphones. • The app comprises learning material on gender, violence against women, laws pertaining to violence against women, latest updates on program activities like scholarships for their daughters, important days and celebrations on various social issues, and drivers' stories of positive change and actions. • The app employs audio-video tools, incentive-based games and quizzes to ensure sustained use and interest of drivers.
Change-makers	• Gender sensitized drivers use the game 'snakes and ladders' metaphorically (where the snakes represent gender norms and ladders represent gender-inclusive narratives) to generate educative messaging on gender sensitive behavior. • This initiative makes drivers a catalyst in creating gender sensitive behavioral changes at micro levels or in personal spaces, that inevitably get extended to public spaces.
Collective events for change	• This activity re-engages drivers to be active citizens on important days in the history of women's rights and human rights such as International Women's Day and Human Rights Day. Along with the program team, drivers undertake events to engage with the larger community on some of these issues.
Application in other Indian cities	Building partnerships with educational institutions, CSOs, NGOs, and CSR wings of corporations can help develop and execute high quality training programs for transport workers and other duty bearers.

Case study 11: *Aspiring for gender equality through creating safe travel, India*

ToC

(ii) Forge partnerships for raising awareness and enabling community action through campaigns

28. ***To build a gender-responsive and safe city, it is important to raise awareness at individual and community levels for shifting mindsets.*** For citizens to receive equal rights and equal access to public spaces and transport, it is important to change existing mindsets that operate from long held societal beliefs towards a rights-oriented approach. The persistence of attitudes and behaviors that perpetuate negative stereotypes, discrimination, and gender inequalities are a barrier in achieving safe, gender-responsive public transport and public spaces.

29. ***Social and behavioral change campaigns are an impactful way in which gradual shifts in mindsets can be triggered across large sections of society***. While training is targeted at influencing individual behavioral change, campaigns are a tool to influence wider, societal changes. Sustained and inclusive campaigning and engagement ensures that rights holders are made aware of their rights and changing their perceptions about themselves and duty-bearers shift their attitudes from keeping women safe to making the public spaces safe. Campaigns can be conducted through mass and social media, through direct engagement with user communities, advocacy to bring policy changes, and storytelling where lived experiences of others help in building empathy and motivate others to act.

30. ***Partnerships with community-based organizations can be an effective solution to raising awareness, undertaking campaigns, and shifting mindsets.*** While ULBs, PTAs, and implementing agencies have the physical space to host awareness campaigns, they may not have direct connections with user communities. Given their on-ground presence, connections with all sections of society and mission orientation, community-based civil society organizations (CSOs) and non-governmental organizations (NGOs) can be important partners for campaigns targeted at shifting mindsets around rights of women and persons of minority genders to public transport and public spaces. In the matter of safe cities for women and changing knowledge, attitudes, and behaviors, partnerships with NGOs and CSOs can help in achieving: (i) greater awareness about helplines, complaint mechanisms, and redressal systems; (ii) get direct feedback from stakeholders on the challenges faced when using public transport / public spaces; (iii) organize interactions between duty bearers and rights holders; (iv) build and design media campaigns and training modules; and (v) support capacity building, training, and sensitization programs for duty bearers.

31. ***Developing tools for bystander interventions and training***. A bystander is someone who witnesses an event but is not directly involved in the event, a chance spectator. In public transport or public spaces, a bystander may witness instances of sexual or other forms of harassment, especially targeted at women and persons of minority genders. Bystander training and interventions help not only in preventing or assisting in immediate situations, but also enabling a shift in culture such that more citizens are aware and know how to recognize gender-based harassment and violence when they witness it (UN Women 2020).[30] Community awareness campaigns and training are essential to enable a shift from bystander apathy and passive behavior to a pro-social response where a bystander intervenes in a situation (Case Study 12).

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Channels for raising awareness in the community

Figure 12: *Channels for raising awareness in the community*

Source: World Bank 2022.

Enabling responsive bystander interventions: Making a shift from passive to pro-social (Fenton 2016)[31]

1. Notice the event	Develop social consciousness through awareness campaigns and training programs so that participants recognize: • Negative impact on victims • Behaviors along the continuum of sexual violence, such as sexism, hostile attitudes towards women, rape myth acceptance, victim-blaming • Potentially dangerous violent situations as they occur
2. Interpret it as a problem	
3. Feel responsible for dealing with it	Evoke: • Participants' sense of responsibility and righteousness • Participants' empathy for victims • Participants to question and address their own attitudes towards violence against women and gender biases
4. Possess the necessary skills to act	Developing skills: • Ensure bystanders are aware of simple steps that they can take to intervene in a non-threatening manner relevant to city context (through awareness campaigns) • Develop techniques keeping intersectional and social identities of people in mind
5. Decide to help	• Incentivize bystander interventions by recognition through media, appreciation certificates, etc. • Build grievance redressal systems which ensure bystander safety and anonymity • Simplify and create easy access to reporting • Establish systems to support bystanders' interventions

Table 4: *Enabling responsive bystander interventions*

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Case Study 12	Stand Up (Stand Up)[32]
Country	Global program
Year	2020
Program overview	• Stand Up is an awareness and training program against street harassment through encouragement of bystander interventions, developed by L'Oréal Paris in partnership with Hollaback! and Breakthrough in November 2020. • In 2019, L'Oréal Paris commissioned an international study in collaboration with the Institut de Publique Sondage d'Opinion Secteur (IPSOS) in eight countries to better understand the issue of sexual harassment in public spaces. • The study found that 78% women had experienced sexual harassment in public spaces and only 25% had claimed that they were helped out by a bystander.
Key features of the intervention	• The program provides training for women and men to intervene safely when they witness harassment on the street. Their goal is to train 1,000,000 people and create a culture of zero tolerance towards street harassment. • The program provides digital training for those experiencing sexual harassment as well as bystanders. • For bystanders, the training program follows Hollaback's 5Ds' approach – Distract, Delegate, Document, Direct, and Delay. • So far, 372,494 people have completed the Stand Up training.
Application in Indian cities	A simple and catchy bystander intervention training program (under 20 minutes of training) with effective takeaway skills can be planned and executed at the community level to reach a substantial number of people at the same time – universities, schools, factories, offices, and open public spaces with huge footfalls .

Case study 12: *StandUp awareness program*

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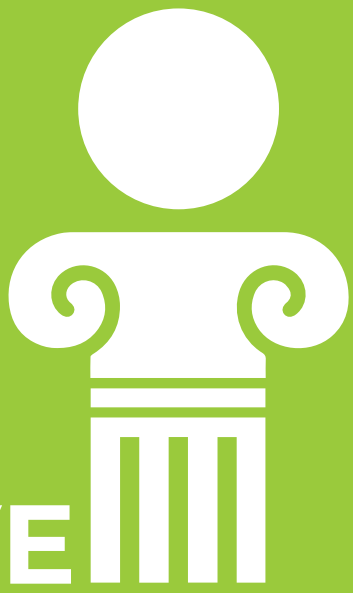

IMPROVE INFRASTRUCTURE AND SERVICES

- Enhance women's safety on public transport and spaces
- Apply a gender lens on infrastructure design and public transport services

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32. ***Barriers to use of public transport and public spaces can be reduced through gender-responsive infrastructure design and introduction of gender-responsive mobility services.*** Ensuring the safety of women and persons of minority genders when using public transport and public spaces (such as streets and parks) are a paramount concern for city authorities including city planners, ULBs, PTAs, and others. Moreover, even infrastructure related barriers can preclude women and persons of minority genders from using public transport or public spaces (ADB 2013).[33] Placing a gender lens on the infrastructure design of streets, stations, and public transport vehicles, and introducing gender-responsive services (such as 'request stop programs,' or covering routes frequented by women) can diminish these barriers.

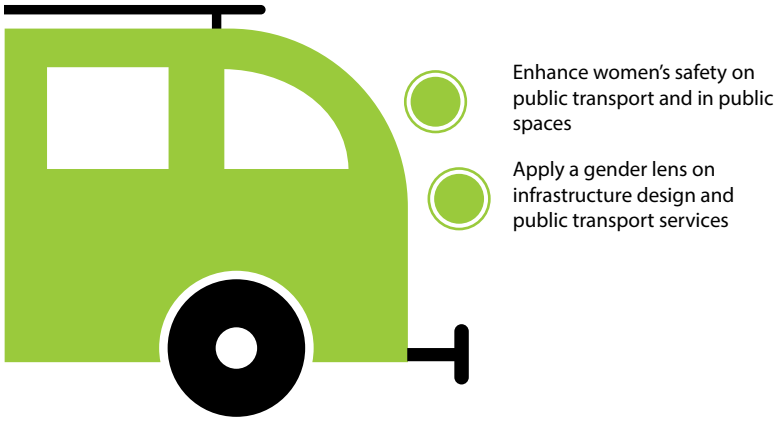

Figure 13: *Improving infrastructure and services*

Source: World Bank 2022.

(i) Enhance women's safety on public transport and in public spaces

33. ***Adequate lighting in streets, public spaces, at stations, and in public transport vehicles are important infrastructural tools to improve safety.*** City authorities, urban planners, ULBs, PTAs, and other service providers can analyze where lighting gaps occur and provide adequate street lighting and lighting at public transport stations to improve safety. Street lighting and lighting at stations is meant to remain consistent in the range of 30-40 lux (ITDP and Safetipin 2017).[34] Using an analysis of gender mobility patterns, authorities can identify routes most used by women. These routes can be priorities for the

provision of well-lit streets, stations, and unobstructed, continuous, and accessible footpaths with clearly defined spaces for walking and street infrastructure. Street lights should be positioned such that dark spots are avoided. Large public spaces, such as parks, grounds, office spaces, or markets also require adequate lighting. Lighting facilities at stations should cover waiting areas and women's convenience facilities (such as washrooms, creches, and changing rooms). Regular audits may be required to ensure that they are in working order. An example of street light auditing and mapping performed by Safetipin for the World Bank in Tondiarpet in Chennai city is given in Figure 18.

34. ***Emergency services, including emergency buttons, helplines, mobile based service for emergency complaints, marshals, and rapid response teams can alleviate threat perceptions.*** A combination of emergency services may be required to effectively alleviate the threat of sexual harassment in public transport and public spaces. Emergency buttons can be placed in public transport vehicles which link directly to the security at the next station where the complainant can lodge her/his complaint as well as identify the harasser. Emergency helpline numbers can be advertised prominently at stations and in public transport vehicles. Following the Corona disease induced lockdown in March 2020, India's National Commission

Example of auditing of street lights in Tondiarpet, Chennai

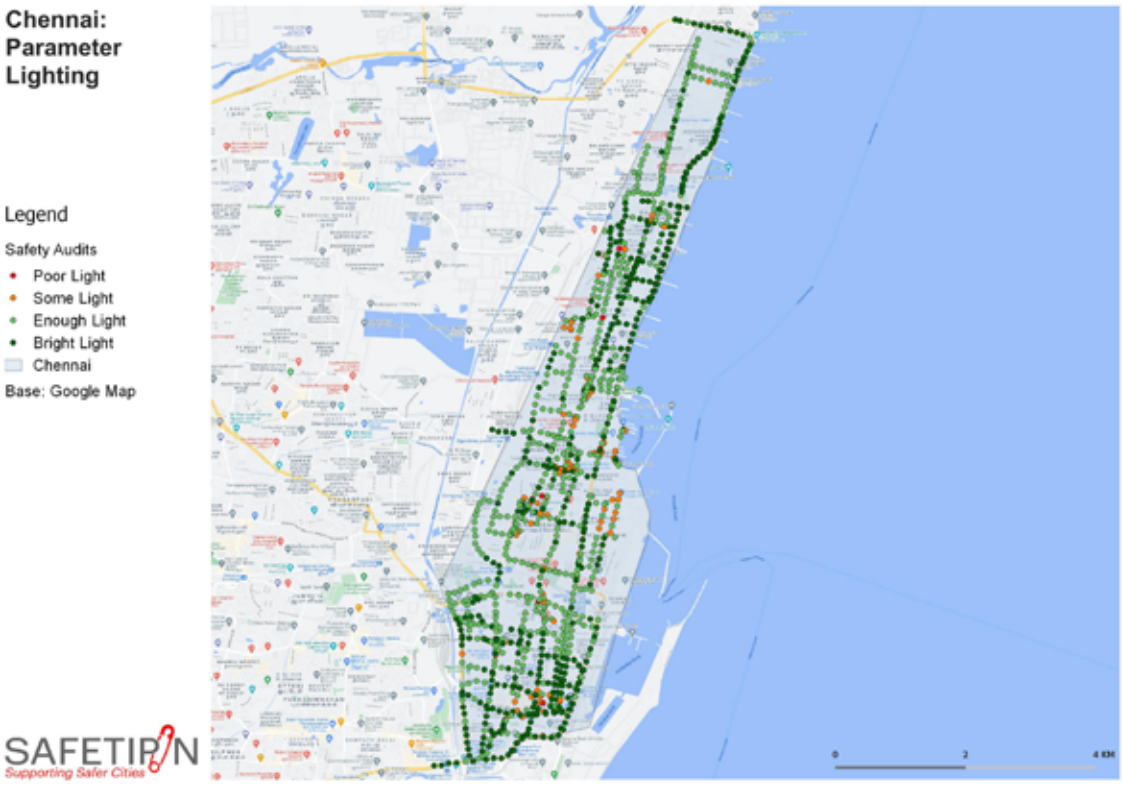

Figure 14: *Example of street lights auditing in Tondiarpet, Chennai*

Sources: Safetipin 2021; World Bank 2021

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on Women launched a WhatsApp based helpline for reporting instances of domestic violence, which received a third of the overall complaints in 2020 (PIB 2020).[35] Similarly, for users with access to smartphones, a WhatsApp based helpline, or an app operated by city authorities can be created to report harassment on public transport and in public spaces discreetly (Case Study 13). Moreover, for those without smartphones, a text-based service can be offered. In addition, presence of security marshals (with at least 50% of them being women) and assurance of a rapid response team, arriving in a timely manner to act against the harasser can help in alleviating the threat perception.

Case Study 13	Safe Toronto Transit Committee (TTC) app (Elerts 2017; SafeTTC 2022; Whalen 2017)[36,37,38]
City	Toronto
Year	2017
Project overview	The Toronto Transit Committee launched the Safe TTC app that allows passengers to report instances of harassment, safety concerns or suspicious activities directly to the TTC's Transit Control Centre in a discreet manner.
Key features of the intervention	• Customers can use the 'Report a Problem' button to send texts, images, or videos. • There is a provision for submitting other relevant information such as vehicle type (bus, streetcar, or subway), route numbers, station locations, and the type of incident (harassment, theft) to help the Transit Control Centre take appropriate steps. • Customers also have an opportunity to report cases anonymously. • The reports are received by trained officers at the Transit Control Centre who will either respond by dispatching transit enforcement officers to the vehicle, station, or stop, or provide instructions directly to the person reporting the incident. • The app also offers the 'Call Police' button which connects customers directly to 9-1-1 dispatch in cases of emergency.
Application in Indian cities Application in Indian cities	Incidences of sexual harassment in public spaces are grossly under-reported. While several factors contribute to this, if reporting is made easier as seen in the Toronto case study, the likelihood of women complaining increases. A combination of a campaign to increase reporting like 'report it to stop it' (TfL) and introducing an app to ease reporting will work well to achieve results. India has an example with the newly launched 'Kaaval Uthavi' app in Tamil Nadu by the Greater Chennai Police, which allows online complaints to be made.

Case study 13: *Safe TTT app*

35. ***'Request stop' programs for women and persons of minority genders can reduce the need for walking and paratransit options.*** 'Request stop' programs are available in several cities around the world, which allow bus passengers to disembark at a location other than a bus stop along the route in the evening hours reducing their last mile distance. For instance, Toronto has a request stop program to help all customers (regardless of gender) get off in between bus stops when travelling alone between 9pm and 5am (TTC 2022).[39] On the other hand, Montreal also has a 'between the stops' program, however, this is offered only to women (STM 2022).[40] The Telangana State Road Transport Corporation (TSRTC) has introduced a similar program in the Greater Hyderabad area and issued orders in August 2021 to all bus drivers and conductors to stop TRSTC buses anywhere on the request of women in late evening hours (Bandagi 2021).[41]

36. ***Increasing the proportion of women frontline staff members– bus drivers, conductors, and security officials can enhance safety.*** Currently, the representation of women servicepersons as bus drivers, conductors, and security guards remains low across major cities in India. City authorities, ULBs, PTAs, and other implementing agencies can set targets to increase the proportion of women and persons of other genders in these jobs. Diversifying representation is not only important in senior leadership and decision making, but also in frontline positions to service the needs of diverse customer groups. Increasing diversity in frontline roles makes women and persons of other genders most visible and normalizes their presence in public transport and public spaces even in late evening hours, enabling a shift in mindsets. Most importantly, the greater presence of women and persons of minority genders add to a feeling of safety.

37. ***Enhance safety on intermediate public transport (IPT) services.*** IPT refers to vehicles like autorickshaws, cycle rickshaws, vans, tempos, jeeps, private buses, and private minibuses that operate on a metered, shared, or per seat basis on routes operated by the private sector with intermediate stops. Some of the measures which can be taken to improve safety on IPT include:

    - Mandatory police verification of drivers at the time of employment.
    - Mandatory and periodical gender sensitization training for drivers can be achieved by empowering unions to encourage their members to undergo gender sensitization training alongside awareness campaigns in partnership with CSOs/NGOs.
    - Creation of SOPs to prevent and address sexual harassment in IPT vehicles and mandatory training for paratransit drivers on the same.
    - Mandatory display of the name and photograph of the driver as well as helpline numbers at the front of the vehicle, where passengers can see them.
    - Provision of designated IPT stands which have adequate shelter, are well-lit and display emergency numbers.
    - Provision of subsidies, financial incentives, and skill training in partnership with CSOs / NGOs to encourage women/ trans-person IPT drivers.
    - Institution of procedural reforms, such as simplifying licensing procedures for women and persons of minority genders, such as single window clearance at regional transport offices (RTOs).

38. ***Ease reporting for sexual harassment grievances.*** Studies conducted across the world, and in different cities in India have noted that under-reporting is a specific issue with sexual harassment at public

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places. For instance, a study of women and girls aged 12-21 years in the United Kingdom, found that only a quarter of those experiencing public sexual harassment reported it (Plan International 2021).[42] In India, multiple surveys have found far lower rates of reporting across major cities. For instance, in a study of women conducted in Mumbai, only 2% of the women who had faced harassment as commuters approached the police and none were satisfied with the outcome (Bharucha and Khatri 2018).[43] Survivors refrain from complaining to authorities for a variety of reasons, such as lack of awareness, perceiving the crime to not be serious enough to report, fearing reprisals from the perpetrator, social stigma, and victim blaming (Osmond and Woodcock 2015;[44] Southgate and Russell 2018).[45] For instance, in one study on women in Delhi, respondents said that they chose to simply move away from harassers due to fears that the situation might escalate further while some women said that they did not want to 'create a scene' (Dhillon and Bakaya 2014).[46] In such a scenario, implementing agencies can adopt a variety of techniques to break stigmas and make reporting easier for women and persons of minority genders, including (i) creating SMS (Short Message Service)/WhatsApp/app-based helplines for reporting, including provisions for anonymous reporting; (ii) mass media campaigns to encourage reporting (as discussed in Pillar 3); and (iii) clear communication of the standard operating protocol that will be followed after reporting.

(ii) Apply a gender lens on infrastructure design and public transport services

39. ***Apply a gender lens on state and city-level urban planning.*** The World Bank's 'Handbook for Gender-Inclusive Urban Planning and Design' identifies six areas in the built environment where urban planners can consciously apply a gender lens to design public spaces and services incorporating concerns of women, girls, and sexual and gender minorities of all ages and abilities: (i) **access** to public services and spaces, free from barriers and constraints; (ii) **safe, easy, and affordable** mobility; (iii) **safety and freedom from violence,** that is, being free from real and perceived danger in public and private spheres; (iv) **health and hygiene**, such that the city is free from health risks in the built environment, especially those disproportionately affecting women and persons of other genders; (v) **climate resilience**, that is, the city's built environment is prepared for, responsive to, and able to cope with the immediate and long-term effects of disasters and the disproportionate risks to women and persons of other genders during disasters are accounted for; and (vi) women and persons of other genders have **security of tenure**, that is, they are able to access and own land and housing to live, work, and build wealth and agency. State governments and ULBs periodically formulating and updating city-level urban development master plans, street plans, affordable housing plans, and plans for building public spaces, can apply a gender lens in line with this approach to enhance inclusivity (World Bank 2020).

40. ***Improve walking and cycling infrastructure to ease first and last mile connectivity for women, girls, and persons of other genders.*** It is recommended that for a walking friendly street network, the median urban block lengths are typically in the range of 100-150m. Footpaths and pedestrian crossings are best designed to be universally accessible, with minimum 3.5m width, in line with the IRC (Indian Road Congress) 103: 2012 guidelines for pedestrian facilities. Broken, discontinuous, or blocked footpaths need to be fixed as a priority by removing obstructions, repairing broken footpaths and accessibility elements, and reclaiming vehicular lanes for footpath widening. Presence of public bicycle

Gender lens on infrastructure design and public transport services

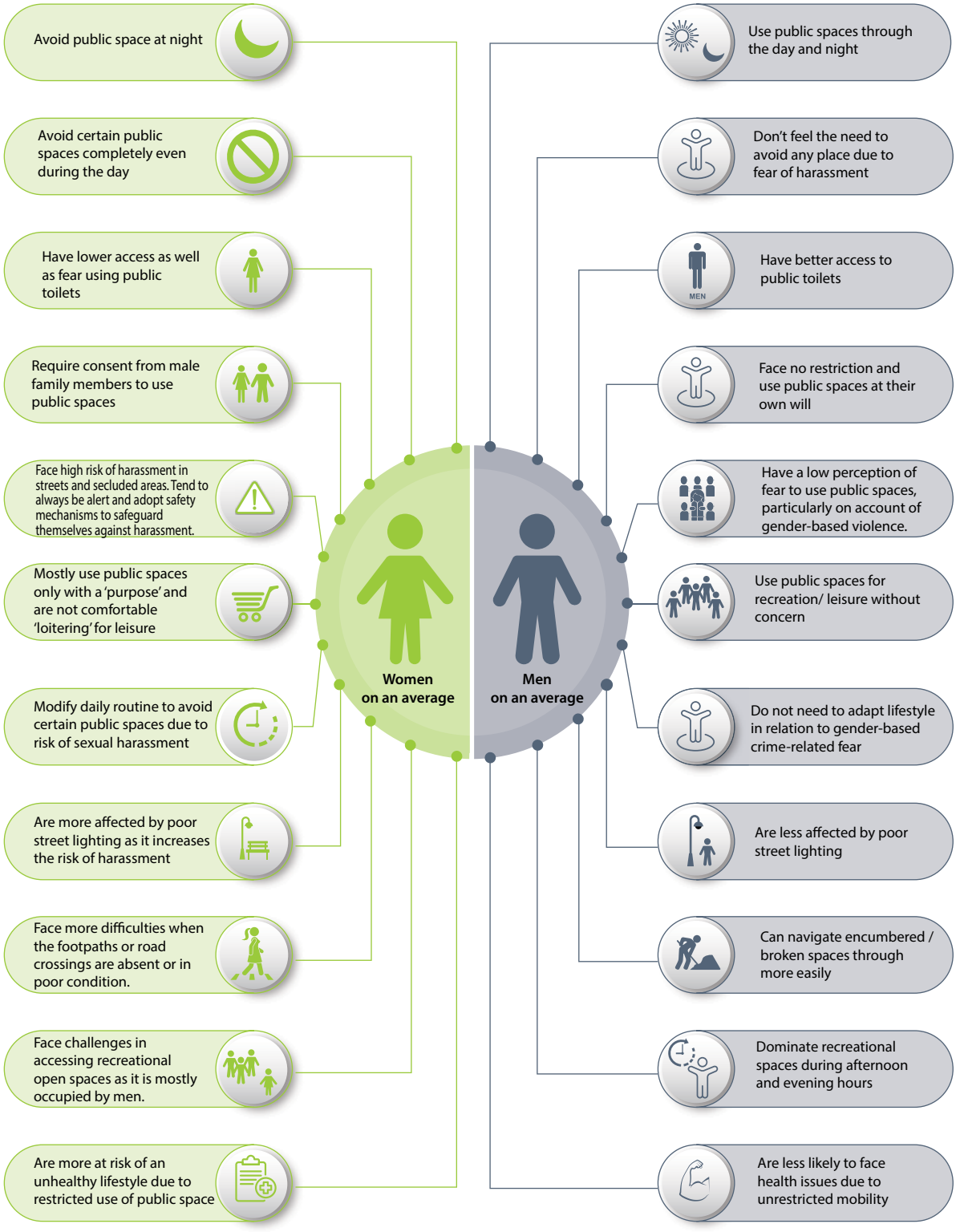

Figure 15: *Gender lens on infrastructure design and public transport services*

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sharing systems with incentives for women, girls, and persons of minority genders and dedicated, continuous, even, shaded, well-lit cycle tracks without encroachment can help in encouraging a wider adoption of cycling. In addition, city authorities can also consider the use of gender-inclusive signages on pedestrian traffic lights, public transport, and other public spaces and foster an active use of public space to increase 'eyes on the streets.'

41. ***Plan urban mobility systems to simplify modal changes and ensure services on routes frequented by women, thereby easing trip chaining***. In addition to being well-lit, street infrastructure needs to be designed with designated zones to access intermediate public transit (IPT), public transport, and bicycling facilities. Stations are best when designed to encourage multimodality with co-located bus, metro, suburban trains, and other public transport modes. These multimodal stations can also have designated zones to host mobile-app based taxis and other IPT facilities (like autorickshaws), hired bicycling services, as well as car and bike parking. Helpline numbers and route maps with multiple modes are then prominently displayed at stations, as well in an interactive format and through mobile applications/text-based inquiry services. Moreover, city authorities can also consider developing and integrating gender-responsive locational guidelines in transit planning. By identifying places frequented by women, girls, and other gender minorities for work, education, and mobility of care based on an analysis of gender mobility patterns, PTAs can introduce necessary public transport services based on traffic levels.

42. ***Introduce gender-responsive guidelines and infrastructure design to ease boarding, alighting, and transfers.*** City authorities and PTAs can create guidelines for ensuring uniform on-level boarding and low step height for easy boarding at metro, train, and bus stations and minimize gaps between platforms and vehicles. Guidelines and rules are worth formulating to allow preferential boarding/alighting for women, girls, and persons of minority genders or separate boarding /alighting queues. Operationally, PTAs can adjust the stop time for buses, metros, and other modes at stations and ensure that the bus stops are unencumbered. Implementation of the guidelines requires that frontline staff be made aware of the challenges posed to women, girls, and persons of minority genders during boarding and alighting. City authorities also need to create appropriate monitoring mechanisms to ensure consistent implementation by PTAs. PTAs can also consider signages with colour coding at stations to help passengers board the right compartment and avoid accidentally entering ladies' compartments.

43. ***Introduce gender-responsive design of public transport vehicles.*** City authorities can set procurement rules so that public transport authorities procure fleet as per UBS (urban bus specifications) II specifications with lower handlebars, wider gangways (minimum 700 mm), and space for strollers, access ramps and women doors. Procurement rules can also specify that the height of grab rails or handles should be designed with consideration to female anthropometry and there should be sufficient storage space for shopping bags, wheelchairs, and strollers. Moreover, clear signages to demarcate seats reserved for women, the elderly, persons with disabilities, and other groups and enforcement by marshals can help in ensuring reserved seating policies. PTAs can also consider reserving separate vehicle sections for women travelling with children and elderly persons.

44. ***Expand bus fleets to ease crowding in buses and introduce new gender-responsive bus services.*** About 2 million registered buses were plying on Indian roads in 2019, of which 93% were privately owned and 7% were publicly owned (MoRTH 2021).[47] However, bus availability varies across cities. Bus overcrowding can

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increase feelings of insecurity and crowd out women, girls, and persons of minority genders from buses. In a recent study in Bhopal, Gwalior, and Jodhpur, 82% of the women reported overcrowding in buses as a reason for feeling unsafe (Safetipin 2020).[48] Even with existing service levels, India needs to add over 460,000 buses to the urban public transport fleet by 2031 (KPMG 2017).[49] The requirements will be higher if the load factor of the bus is to be kept within 100% of the total capacity during peak hours and if new gender-responsive bus services are to be introduced. Introduction of new routes based on an analysis of gender mobility patterns and catering to the needs arising from mobility of care, for example, bus routes frequenting markets, schools, and hospitals, provision of more frequent bus services to reduce waiting time for women, and off-peak services or 'ladies special services, then fleet requirements are likely to be higher. Such growth in services can be made more effective through coordination with private shared mobility operators to offer more services during off-peak hours leveraging on integrated data platforms.

45. ***Provision of gender-responsive infrastructure at stations, terminals, and depots.*** Over and above being well-lit and providing adequate shelter, gender-responsive design of stations, terminals, depots, and rest stops includes the following elements (Case Studies 14 and 15):

- Public toilets and feeding rooms within walking distance of bus stops; all terminals, depots, and other public transport stations have public toilets and feeding rooms as per requirements. Public toilets to include separate toilets for women as well as a unisex accessible toilet for persons of minority genders and PWDs.
- Gender-neutral restrooms in addition to existing gender-segregated restrooms may be considered for the safety and comfort of transgender, non-binary individuals.
- Creches instituted at depots. Creches can be women-only, as well as gender-neutral, so that parents of all genders can benefit from the creche facilities.
- Shops within terminals and depots can be awarded to women / persons of minority genders on a preferential basis or quota can be applied (for example, 50% of the shops to be auctioned to female vendors).
- Gender-inclusive signages.
- Presence of security personnel.
- Prominently display a passenger information system (PIS), route map and helpline / emergency numbers in different languages (and for PWDs).
- PIS information should be displayed in multiple common languages (at least 2), relevant to the city's context.

Case Study 14	Women friendly city project (World Bank 2018)[50]
City	Seoul, South Korea
Year	• 2007-2009 (majority of the interventions) • Focus on the 'women friendly city' approach continues till the present
Project overview	• The project aimed at integrating perspectives of women into city planning policies to minimize the inconvenience and insecurity experienced in their daily lives. • The project involved every department and organization of the Seoul Metropolitan Government (SMG) with the Women and Family Policy Affairs Office responsible for its comprehensive management. • 90 core programs were established to implement a four-year plan (2007 – 2010) in cooperation with 135 SMG departments, 13 organizations, and 25 autonomous districts.

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Case Study 14	Contd.
Key features of the intervention	
Gender-disaggregated data on mobility patterns and preferences	• As the first and the most crucial step, SMG focused on identifying the inconveniences women had to bear in the city environment, to modify them into more women-friendly alternatives. • SMG thoroughly assessed the needs of women based on expert advice (eight times), public surveys, and beyond, and made efforts to improve facilities including roads, transportation, and restrooms based on these assessments. • The assessments and policies were applied to five areas, which were closely related to the daily lives of women: 1) care, 2) work, 3) prosperity, 4) convenience, and 5) safety.
Gender-informed infrastructure	• Women-friendly parking lots, walkways, parks, and restrooms were built, characteristics of which included wider spaces, brighter lights and CCTV cameras. • Parking lots were demarcated using pink lines for exclusive use by women. • Restrooms also included diaper-changing tables, CCTV cameras, and emergency bells at entrances. • Standard manuals for restrooms, parking lots, walkways, and parks are available for use in designing and constructing similar facilities in the private sector. • A 'women-friendly facility mark' was awarded to excellent facilities following an on-site? inspection. • Lowered heights of the sidewalk ledge, hump-type crosswalks, and resting areas separate from pedestrian walkways were introduced to improve commute safety and experience. • Stabilizing handles in buses and subways that were previously adjusted to an average male's height were changed to allow women to hold on to them easily.
Mobility of care	• Childcare centers, breast-feeding rooms, and day-care centers were installed in public places like subway stations. • Ticket gates for baby carriages in subway stations were installed.
Safety	Call-taxi system and Safe-Return-Home service were started to send passenger information to the individual's parents or guardian while she/he was in a taxi .
Application in Indian cities	This is a good example of a gender program which included assessing the ground situation, setting up the institutional mechanism for effective coordination amongst various departments, and carrying out infrastructure improvement projects addressing areas of importance for women. Indian cities can adopt this model by adding elements to strengthen policy and address wrongly held gender beliefs.

Case study 14: *Women friendly city project, South Korea*

Case Study 15	Gender mainstreaming in urban planning (city of vienna 2022; hunt 2019; urban solutions 2017; Wood 2020)[51,52,53,54]
City	Vienna
Year	1990s to present
Project overview	• In 1992, a Women's Office was set up in Vienna to look into gender specific planning issues and introduce gender mainstreaming in urban planning. • In 1998, a Coordination Office was established to work across 12 planning and traffic departments to ensure fairer urban development. • Since the 1990s, Vienna has practiced 'gender mainstreaming,' through the application of the '4R method' to city planning, guided by one core question applied to the 4Rs: 'WHO GETS WHAT AND WHY OR WHY NOT?' • Applied to: Representation, Resources, Reality, and Rights. • As of 2020, through the support of a dedicated Gender Mainstreaming Office, over half Vienna's 70 municipal departments have undertaken gender mainstreaming projects on their own. • Vienna has carried out more than 60 initiatives that have used gender mainstreaming, including street lighting projects, widening pavements for buggies, additional seating, apartment complexes and social housing designed by and for women, and improving the safety of shortcuts and alleyways by adding mirrors. • In 2013, the city published a manual on the subject which is freely available (Urban Development and Planning 2013).[55]
Key features of the intervention:	
Gender budgeting	• First introduced in 2005, since 2009 there has also been a legal obligation to carry out gender budgeting (City of Vienna 2022).[56] • All of Vienna's departments must report twice a year on how their expenditure has benefited men and women equally.
Increasing women's representation	• There are binding targets for a balanced gender ratio at all levels of decision making, as well as in working groups, project teams, commissions, advisory boards, as well as when organizing events, for example, when selecting speakers. • Workplaces must be structurally gendered and barrier free (City of Vienna 2022).[57]

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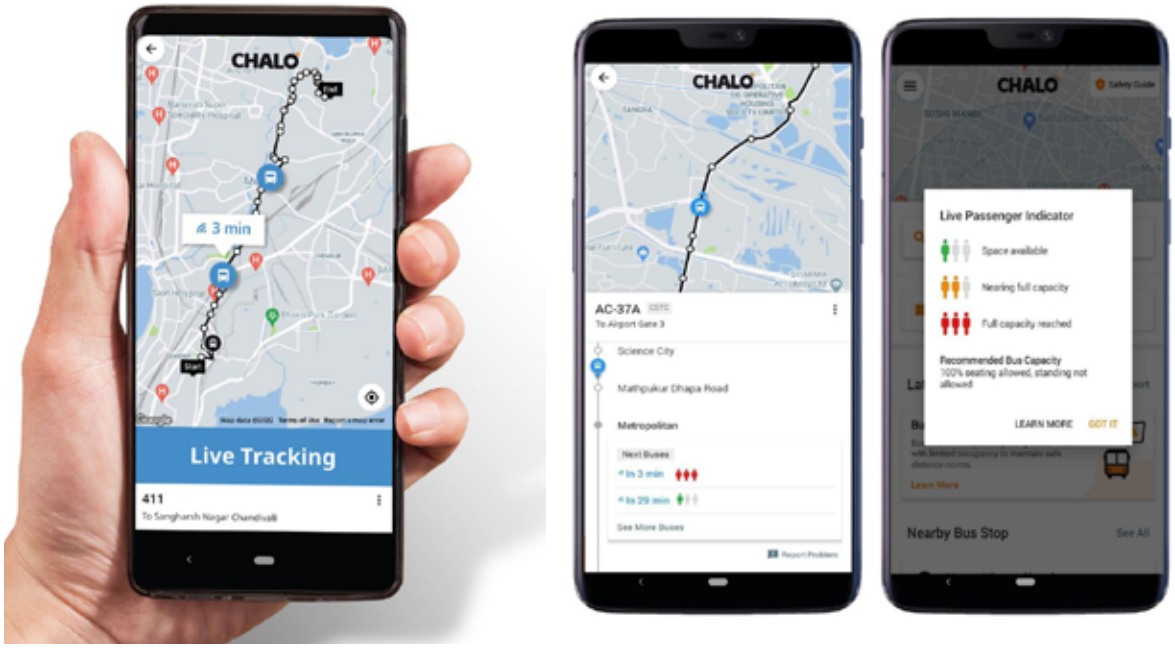
Case Study 15	Contd.
Gender sensitive transport planning	• In 1999, the Women's Office conducted a large-scale survey of gendered transportation use, which resulted in a long-run focus on improving pedestrian access, from widening crosswalks to providing more lighting. • A pilot project was undertaken in the district of Mariahilf between 2002 and 2006 adjacent to the city center which resulted in: – 60 intersection improvements (new pedestrian crossings, smoothing uneven surfaces). – widening of more than 1,000 meters of pavement. – Improved lighting in 26 spots. – installation of ramps and an elevator. – removal of obstacles on pedestrian paths and creating a 'barrier free design.' • Following the pilot, Vienna implemented a few regulations: – Mandating all new sidewalks to have a minimum width of 2 meters. – Issuing guidelines for retrofitting stairs with pram ramps. – Installing signages on the city's U-bahn (rapid train service) to raise awareness.
Gender-sensitive infrastructure in parks	• Gender sensitivity guidelines have been applied to the planning and design of parks in Vienna since 2005 so that parks are used by girls and boys on equal terms (City of Vienna 2022).[58] • Special focus is planned on safety features, such as footpaths being clearly visible and parks being well-lit.
Application in Indian cities	Vienna is a long-standing example of gender mainstreaming in urban planning and its model can be adopted by Indian cities with modifications to suit Indian conditions.

Case study 15: *Gender mainstreaming in urban planning, Austria*

Case study 16	Chalo app
City	Pan-India (28 cities)
Year	Since 2014
Overview	• The Chalo app is a passenger information system (PIS) and mobile ticketing platform which aims to make travelling by public transport safer and more reliable • The PIS lets people track their bus live and know the time the bus will arrive at their stop, track the nearest bus-stop and also find the quickest and cheapest way to get to a location from another • The ticketing platform lets people buy mobile passes and mobile tickets

Case study	Contd.



App Features	• Live tracking and safety: With the Chalo App, passengers can see on a map exactly where and how many minutes away their bus is. For women, and particularly for night-time travel or in lonely areas, this is very helpful, as they can reach the bus stop just a minute prior to their bus arriving. It also helps them plan their travel thus reducing time poverty faced by women. Chalo users can set up their trusted contacts on the app and share their live bus status in real time with them to increase safety. These contacts can also be immediately alerted by pressing the SOS button • Multi-lingual: The Chalo App is available in 9 languages, so it is easily accessible to all people. The app is available in English, Hindi, Tamil, Malayalam, Kannada, Telugu, Bangla, Marathi, and Assamese. • Live passenger indicator: This feature shows passengers a live view of how crowded the bus is – whether there are seats available, standing space available, or if the bus is full. This is very helpful for women as they can choose to take the next bus if it is less crowded, or even an alternate route. • Mobile tickets and passes: Passengers can buy their bus ticket on the app itself which means that a woman travelling can simply purchase the ticket on her phone and take her seat in the bus, instead of having to approach the conductor in a crowded bus thus increasing the chances of harassment.

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Case study	Contd.
Application in Indian cities	• Chalo has reported seeing an overall bus ridership increase of 25% - 100% in cities in the first year of implementation itself. • They also report that women ridership has visibly increased in buses in cities with Chalo where in one case where Chalo deployed e-rickshaws to help people travel to bus stops from nearby residential areas, women ridership doubled from that bus stop. • Indian cities can explore introducing similar services to increase safety, inclusiveness and ridership of women.

Case study 16: *Chalo app*

46. ***Concluding remarks.*** For women, girls, sexual and gender minorities, and people with disabilities (PWDs) to experience inclusive, gender-responsive public spaces and transport services that address their unique situations, concerted and long-term commitment is required across stakeholders, including policymakers, duty bearers, and citizens. Gender-responsive interventions for urban mobility and public spaces can be designed around four key pillars: (i) assess the ground situation; (ii) strengthen planning and policies; (iii) build capacity and raise awareness; and (iv) improve infrastructure and services. While interventions suggested under each of the four pillars can be introduced even as stand-alone initiatives, a coordinated program at the state or city level can unlock synergies and amplify the impact of each intervention.

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ENDNOTES

1 Preferring public transport is a matter of revealed preference. This point is previously addressed in endnote 8.

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4 SUTP (Sustainable Urban Transport Project). 2018. *Module 7a - Approaches for Gender Responsive Urban Mobility - Sustainable Transport: A Sourcebook for Policy-makers in Developing Cities.* Germany: SUTP. https://sutp.org/publications/approaches-for-gender-responsive-urban-mobility-gender-and-urban-transport-smart-and-affordable/

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6 CFF-GIZ (C40 Cities Financial Facility). 2020. *Gender Equality and Social Inclusion in Electrification of BMTC Fleet*. Bengaluru, India: CFF-GIZ. http://cff-prod.s3.amazonaws.com/storage/files/hUhdBtXYoxAw8uHD1Af83tmvZMjdZjlSoHA9mhUg.pdf

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