



CLOSING GENDER GAPS IN TRANSPORT

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OVERVIEW

Transport services and infrastructure can be enablers or deterrents for women's empowerment. Women and men have different mobility patterns and experience different risks when using public transport. Transport-related barriers, such as availability, affordability, acceptability, physical access, safety, and security, disproportionately impact women due to existing structural inequalities in terms of time use and household decision-making and task distribution based on gender roles and stereotypes. Lack of safe transport can translate into girls missing schools, women not looking for jobs far away from home, giving up their jobs, or being unable to access health or childcare services. For example, according to International Labour Organization (ILO), lack of safe transport reduces the probability of women participating in the labor force by an estimated 16.5 percent.

In addition, women represent only about 16 percent of employees in the transport, storage, and communication sector worldwide, excluding them and their priorities from transport planning. This is when, globally, based on limited available data, women tend to make a higher proportion of trips using public transport and walking than men do. Care responsibilities, less access to cars, and less disposable income all shape women's transport choices and have the unintended result of them having a lower carbon footprint than men. At the same time, women often use public transport out of necessity, suggesting that primarily women are so-called "captive" transit users, and highlighting an environmental imperative for promoting gender equality in mobility to support sector decarbonization.

This policy note provides a framework for incorporating gender-responsive transport and mobility into the World Bank's Gender Strategy 2024–2030. It offers policy makers a number of key takeaways based on existing evidence and promising World Bank practices that address gender in mobility:

- **Affordability (cost) of transport can constrain women's access to health, education, and employment opportunities.** Direct subsidies and other targeted interventions can promote women's mobility and access to economic opportunities and education for women and girls.
- **Availability of transport** and in particular whether transport options have adequate first- and last-mile connectivity- **is a game changer.** It is a key factor to improving women's ridership of public transport, their access to and the quality of economic opportunities available to them, reducing their time poverty, and improving their access to education and health services.

- **Safety and security prevail as some of the main barriers to women's mobility.** Promising practices to prevent and respond to sexual harassment and other forms of violence in transport services include the development of mechanisms to ease reporting of transgressions, communication campaigns and better coordination of referral pathways.
- **Mobility barriers that disproportionately affect women are interrelated.** Women spend a significant share of their daily trips on the so-called "Mobility of Care", which is an amount of travel associated with care work performed predominantly by women to accompany dependent persons and to do household chores. Women's complex multipurpose and multimodal daily trips and heavier reliance on public transport compared to men often result in higher travel costs for them. For instance, evidence from several cities reveals that women must pay for more expensive transport options (so-called "pink tax", which is an extra amount women pay for certain products and services, in this case transportation) to increase their safety when traveling.
- **Other non-transport mobility barriers, such as social and gender norms, affect women's decision to move and use public transport.** These barriers include unequal shares of unpaid household and care work, and gender roles that condition women and girls' mobility or individual aspirations, among others. Building childcare facilities close to transport hubs or implementing behavioral change interventions can potentially promote women's use of transport under specific circumstances.



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This thematic policy note is part of [a series](#) that provides an analytical foundation for the new World Bank Gender Strategy 2024–2030. This series seeks to give a broad overview of the latest research and findings on gender equality outcomes and summarizes key thematic issues, evidence on promising solutions, operational good practices, and key areas for future engagement on promoting gender equality and empowerment. The findings, interpretations, and conclusions expressed in this work are entirely those of the author(s). They do not necessarily reflect the views of the World Bank or its Board of Directors.

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Gender equality is a core development objective. In 2015, the World Bank developed its [Gender Strategy \(FY16–23\): Gender Equality, Poverty Reduction and Inclusive Growth](#) highlighting the critical link between gender equality and the Bank’s goals of reducing poverty and boosting shared prosperity. The strategy lays out a roadmap for reducing gaps between men and women in four pillars: improving human endowments, removing constraints for more and better jobs, removing barriers to women’s ownership and control of assets, and enhancing voice and agency.

It recognizes the role of adequate transport in improving women’s access to better jobs, but it does not sufficiently account for the role that transport and mobility play in the daily lives of women and girls globally. Since 2016, the World Bank has taken major steps in incorporating gender considerations into its urban and rural transport operations (see Box 1). It has defined analytical frameworks and collected preliminary evidence to develop a more robust narrative on the nexus between gender-responsive transport and development.

BOX 1. THE EVOLUTION OF GENDER IN TRANSPORT

In fiscal year 2017, the World Bank’s Transport Global Practice (GP) created a Gender Taskforce to have a structured approach to promoting gender equality in transport through the following work:

- Raising awareness internally and internationally about transport not being gender neutral
- Enhancing both the quality and quantity of interventions in the transport sector to promote gender equality
- Collecting data and developing analytical products to fill critical knowledge gaps in the area of women’s and men’s mobility and employment in the sector
- Leading policy dialogue to create an enabling environment for greater gender equality in the sector
- Leading global discussion through events and outreach to change mindsets and social norms that perpetuate gender inequalities in the transport sector
- Strengthening existing partnerships and forging new ones internally and externally to maximize the impact of its work on the ground
- Raising donor funds to support this work

These concerted efforts have resulted in the Transport Global Practice having a high level of gender compliancy in its projects since FY2019. The GP has raised awareness about the importance of a people-centered approach to sustainable mobility that includes a gender perspective, and has encouraged other organizations, like the International Transport Forum (ITF) and the World Road Association (PIARC), to embrace it.

It has also designed the first transport-related component in a Development Policy Operation (Jordan), worked with UN Women to develop a successful e-learning training course on gender equality in transportation, and supported the Labor Code reform in Azerbaijan with analytics that flagged hundreds of job restrictions on women’s employment, especially in infrastructure sectors.

Transport, and the mobility it offers, provide access to the activities that underpin the three strategic areas of the Bank’s proposed 2024–30 Gender Strategy: ending gender-based violence and elevating human capital, expanding and enabling economic opportunities, and engaging women as leaders, as well as each objective’s associated outcomes. Increased mobility through

transport provides freedom and allows people to access and exercise their fundamental human rights (see Box 2). People’s access to transport and their level of mobility are important components in determining their opportunities in life and their livelihood decisions, as well as their access to schools, health centers—all resources for building and protecting human capital. Transport is also essential

for access to economic opportunities, particularly jobs and markets. The critical role of transport in expanding and enabling economic opportunities is reflected in the strategy's fifth outcome, which seeks to "expand access to and use of services that enable economic participation," which highlights the importance of public and private investments "enabling services," including safe and accessible transportation. Transport is an equalizer, enables people to overcome spatial constraints, promoting social cohesion. Conversely, lack of transport and low mobility restricts opportunities and divides societies, thus deepening inequalities. Transport, as a sector, is an important component of the global economy and a major employer, primarily of men.

Transport has an intrinsic value for addressing gender equality. The ability to move around represents a basic freedom that allows everyone to enjoy and access their

fundamental human rights. It is essential for daily life and for helping people and societies achieve their development outcomes. The evidence is clear that realizing an individual's mobility potential requires overcoming a mix of barriers that goes beyond the availability and quality of transport modes and networks. Transport barriers interact with other barriers, such as peoples' self-efficacy, their income level, the forms of discrimination they face based on their social identity (such as race) or their gender identity, and a mix of social factors relating to gender-based discrimination, such as cultural and religious norms about "a woman's place" and expected behavior of women. If barriers can be removed, then transport can enable women and girls to accumulate and maintain their level of human capital (e.g., education, health) and their ability to access job opportunities and achieve employment.

BOX 2. WHAT IS MOBILITY?

Transport provides the systems and infrastructures that enable movement to happen, and for mobility to be realized. Mobility is not just about building roads but about creating thriving communities and propelling economies. It involves everything we do from day to day: driving to work, walking to school, getting produce to markets, and visiting families and friends (World Bank 2017). Mobility should be equitable, efficient, safe and climate responsive to ensure that the mobility needs of the current generation will not be met at the expense of future generations (i.e. that it will be sustainable (SUM4ALL, 2017).

It is important to differentiate between mobility and the actual decision to move, which can be influenced by other elements that are not necessarily transport related. Women's agency in mobility can be defined as a woman's ability to make and act upon decisions related to her mobility and make full use of public transport systems. Factors influencing women's decision to move and use public transportation can be external (e.g., those related to transport and infrastructure, family support, gender norms) and internal (e.g., aspirations, self-efficacy, and previous experiences on mobility). The interaction of these factors shaping women's decisions to access jobs has a direct impact on women's economic empowerment (Dominguez-Gonzalez, et al, 2020).

Transport has always had major implications for gender equality, but the transport profession has not often considered gender in its planning. Only in the last decade has transport started to be viewed through a gender lens by national governments, regional and local authorities, and other key stakeholders in the sector. While there was a body of expertise in the transport and gender field prior to this, most analyses and interventions were gender-blind (i.e., did not account for gender in the very design of transport networks to cater to women's complex travel needs, which often go beyond regular Monday to Friday business hour commute). This blindness is still prevalent in many areas of the transport profession globally. In many cases where a gender perspective is incorporated into transport, there is an omission to the fact that women with overlapping

characteristics like disabilities, poverty or non-binary sexual identity are even more disproportionately affected by the absence of inclusive approaches into planning. It is therefore important that the WB Gender Strategy 2024-2030 consider e transport as an issue that cut across all three strategic objectives, affecting women's foundational wellbeing, economic opportunities, and participation in decision-making and leadership.

This note is structured into five sections. It starts by emphasizing why a gender focus on transport is important for development and outlines the beneficiaries of greater gender equality in transport. It then develops an approach and narrative for incorporating gender-responsive transport into the Bank's proposed Gender Strategy, by



outlining an analytical framework to deconstruct the mobility barriers that disproportionately affect women, and by showcasing the evidence on how these barriers can facilitate or constrain the closing of gender gaps and achieving gender equality and empowerment outcomes. The note then turns to some of the projects undertaken

under the current Gender Strategy to highlight promising practices toward closing gender gaps in mobility and employment for women. It then explains how stakeholders can make a positive difference in reducing gender blindness in the transport sector, followed by concluding remarks on closing the gaps and areas of resistance.

WHY A GENDER FOCUS ON TRANSPORT IS IMPORTANT



Transport impacts women and men differently. Mobility, and the transport systems that provide it, have been, and remain, a key factor in differentiating the lifestyles and quality of life of women and men in all regions. Women's mobility levels, their use of different transport modes, the barriers they encounter, and the risks they face differ sharply from those of men, in both the developing and developed world. While this gender gap has been closing in the developed world over the last 30 years, it remains significant. In the developing world, large differences persist, some of which have broadened after the COVID 19 pandemic. These issues have been documented in a review of literature spanning 20 years on gender and transport studies and initiatives completed by the Gender Taskforce of the World Bank's Transport Global Practice (Alam et al, 2022).

Women and men have different mobility patterns. While the quality of data on the mobility patterns of women and men in many developed countries has markedly improved in recent years, this cannot be said of developing countries where there remains a paucity of data. Nonetheless, it is generally recognized that compared to men, women have less access to cars and motorized two-wheelers; they make a higher share of their trips using formal and informal public transport services or by foot (CIVITAS, 2020; Munoz-Raskin et al, 2022).

However, these patterns are not universal. In Jordan, for example, men use public transport more than women (World Bank, 2022). Deficiencies in the country's public transport and social norms around women's mobility have pushed women to rely on private transport.. In most developed and developing countries, where data are available, men tend to have priority use of bicycles (ITDP, 2022). Differences in the mobility levels of men and women lead to equally strong differences in their ability to access opportunities. Addressing gender barriers to mobility benefits economies and societies at large and can yield gains for everyone, not just women.

Transport systems that are gender-responsive¹ are essential for gender equality. Public transport is a clear example of how the development of inclusive transport systems can bring enormous benefits to all and help close poverty gaps between men and women globally.. Gender-

responsive transport can help women better access jobs, education, and health services. Conversely, mobility barriers that disproportionately affect women constrain their human capital potential.

Women's contribution to the economy would be significantly improved by reducing barriers to mobility. In both absolute and relative terms, mobility deprivation greatly reduces the contribution that women can make to the global economy, and to smart, sustainable economic growth. Mobility barriers hinder women's access to jobs and key services, such as health and education, which affects both their own and their children's human capital accumulation.

For instance, research shows that parents' concern about girls' safety while traveling to and from school appears to lower girls' school enrollment in settings, such as South Asia, Africa, and the Middle East (Morrison et al, 2007). A 2017 report by the International Labor Organization identifies lack of transport as the greatest challenge to female labor force participation in developing countries, reducing the probability of women participating in the labor force by an estimated 16.5 percent (ILO 2017). Globally, about 49 percent of women participate in the workforce, compared with 75 percent of men, with a high degree of variance across regions and countries. A report by the International Monetary Fund (IMF) concludes that countries see significant macroeconomic gains when women can develop their full labor market potential (Elborg-Woytek et al, 2013). A McKinsey report finds that in a "full potential" scenario in which women play an identical role to men in labor markets, the global annual GDP could be increased by as much as \$ 28 trillion, or 26 percent, by 2025 (Woetzel et al, 2015).

Transport systems that are not gender-responsive can also contribute to increased absenteeism and decreased productivity among women, due to the psychological effects of sexual harassment they may face while using transport (World Bank, 2015). In urban areas of the Middle East and North Africa (MNA) region, a large number of the non-working women state that the lack of affordable, comfortable, safe, time-efficient, and reliable transport options prevents them from looking for work. This corresponds to three in five women in Amman, one in two in Beirut, and two in five in Cairo. (Alam, 2023).

¹ The note defines gender-responsive transport as transport that integrates the needs of its diverse user base, including women and girls, and men and boys, by understanding and addressing the causes of gender inequality in mobility project, program or policy design. This would be different from gender-sensitive transport, which recognizes the different needs of women, men, boys and girls but does not necessarily address these differences other than to try and integrate an understanding of these differences within project, program or policy design (Adapted from UNICEF/UNFPA 2021).



Addressing gendered mobility barriers is also critical for transport decarbonization (Kurshitashvili et al, 2022a). The transport sector is currently the largest producer of global greenhouse gas (GHG) emissions, and the sector where progress to reduce them has been the slowest. In most countries, women make a higher proportion of trips using public transport and walking than men, who make more trips by car, motorcycle, and bicycle. Women's mobility patterns are often not a matter of preference but necessity. The amount of travel associated with care work that women undertake (or the so-called "mobility of Care" as coined by Sánchez de Madariaga, 2013) al, reduced access to a car, and less disposable income shape women's transport choices and have an unintended (albeit environmentally desirable) result of a lower carbon footprint than men's.

However, without positive intervention, a steady increase of women in the paid workforce could see women's car use converge with that of men's over time. Evidence is also starting to reveal that women also prefer safer and faster options when they can afford them, like ride-hailing services, even if they are more carbon intensive (Dominguez et al, 2020). Also, while women's lower carbon footprint may be desirable environmentally, it reduces their economic independence and participation in public and economic life. This suggests that addressing gendered mobility barriers would bring environmental dividends.

The social inclusion of women and girls is central to transport and gender issues. Differences in mobility and transport have been identified as key indicators of a growing duality in many societies, and gender plays an important role. The lack of sufficient mobility for many women and girls restricts their ability to fully engage in society. This, in turn, reinforces traditional gender roles, limiting many women and girls to the home environment and its immediate surroundings.

When women and girls do travel, unsympathetic transport systems expose them to gender-based violence (GBV), including sexual harassment. Women's exposure to intimate partner violence (IPV) also increases when there is a scarce supply of transportation services, and research found that transportation is used as a means of control and coercion among IPV perpetrators. Transportation barriers increase dependence on perpetrators, putting mobility decisions in their hands, and limiting women's independence, which thwarts the possibility of exiting an unhealthy relationship. Insufficient and inconsistent access to transport impedes the process of exiting IPV situations and regaining independence and stability (Nahar and Cronley, 2021). This has emerged as a major global problem.

Gender-responsive transport makes good business sense. The transport industry is one of the largest economic sectors globally. If transport operators can make their services more gender-responsive, enabling women and girls to safely gain better access to and choice of quality professional training and jobs, they can greatly expand their market and improve overall performance. Businesses also stand to benefit from providing greater job opportunities and better working environments for women in the transport sector, from back-office operations to front-line services. Such practices can also inspire women's entrepreneurship in the transport sector, for example, tricycle and motorbike taxi services emerging in some African countries (Dominguez et al, 2023).

The challenge ahead is to define a transport-gender narrative that articulates the key issues within existing social, environmental, and economic realities. The fact that transport is not gender-neutral is gaining increased global recognition. Building a narrative on gender and transport can leverage this momentum to call attention to new challenges and opportunities.

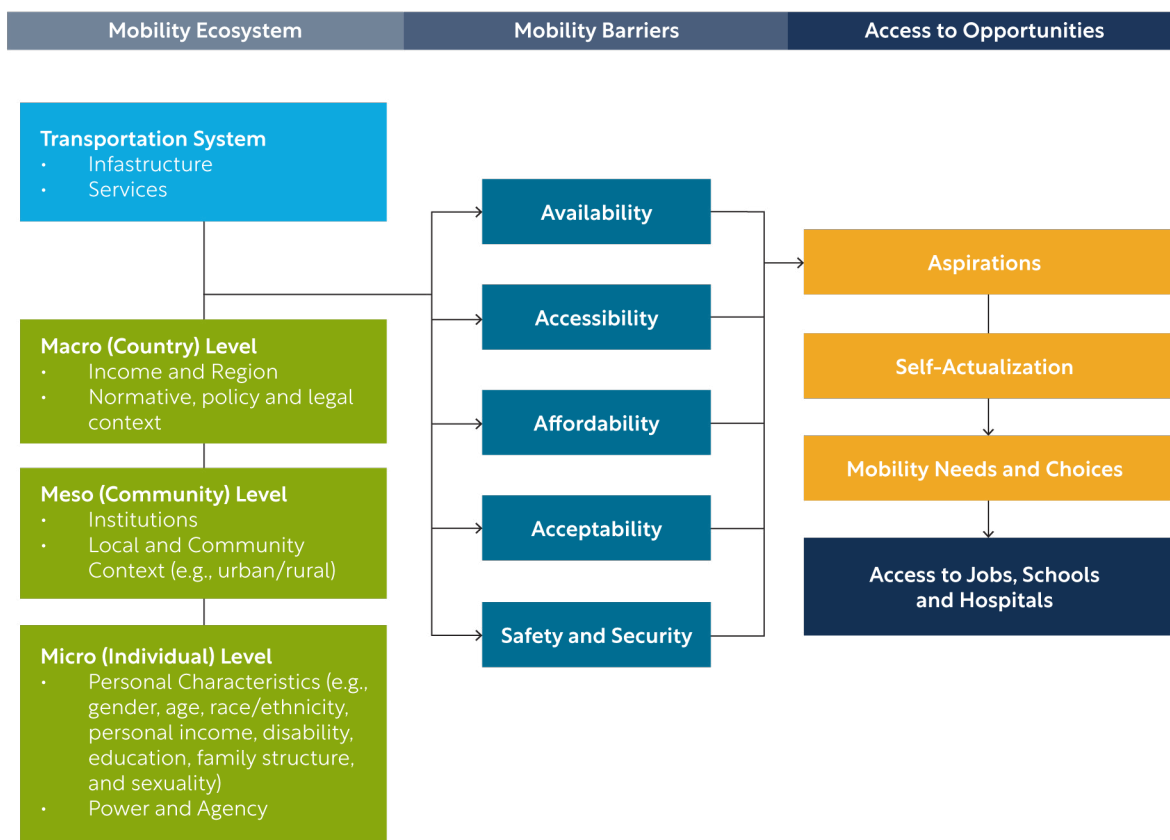


From initial concept and design to operations, the transport sector needs to address existing gender inequalities. To date, this has remained an overlooked aspect, both in the transport sector and in other sectors addressing gender issues. Based on its exhaustive literature review (Alam et al, 2022), the World Bank's Transport Global Practice has developed a framework to conceptualize how the transport system within the mobility ecosystem interact with macro, meso, and micro level factors to explain women's and men's mobility needs, barriers, and choices, which, in turn, influence their access to economic opportunities and basic services, such as education and health (see Figure 1). The approach is structured to show how transport and gender can interact with the four pillars of the Bank's Gender Strategy.

In short, the approach has three dimensions: a mobility ecosystem, mobility barriers, and access to opportunities. It defines:

- Three levels, or 3 Ms (Macro, Meso, and Micro), which relate to the country, the community, and the individual
- Two spatial levels (Urban and Rural), and possible further categories
- Five dimensions of accessibility: Availability, Affordability, Accessibility, Social Acceptability, and Safety and Security

FIGURE 1. CONCEPTUAL FRAMEWORK FOR WOMEN'S AND MEN'S ACCESS TO ECONOMIC AND SOCIAL OPPORTUNITIES



Source: Alam et al, 2022.



The transportation system (infrastructure design and operation, and transport services) interacts with environmental factors to determine women's and men's usage of transport systems, which influences their economic and social aspirations. The **macro level** is the country-level enabling environment, consisting of the country context, norms for policymaking, legal frameworks, income level, regional variance, and so on. The **meso level** describes the local enabling environment or community level, which, includes the context of the community, whether it is urban or rural, and local economic, social, and cultural conditions. Both macro and meso factors can act as either barriers to or enablers of women's access to economic opportunities and basic services. **Micro-level** factors are individual and encompass personal characteristics (such as gender, race, ethnicity,

personal income, disability, education, family structure and sexuality) and power and agency (such as aspirations, capabilities, self-confidence, and decision-making).

The framework demonstrates that a nuanced approach is required when addressing women's varying rural and urban mobility barriers. Lifestyles vary enormously within urban and rural contexts, due to population density, settlement patterns, climate, local economies, and social structures, among other factors. The five dimensions of accessibility vary considerably from a deeply rural area to a city environment. Gender-friendly transport solutions must be tailored to the spatial, economic, and social context in which it is delivered. Geography, therefore, cuts across the five levels of accessibility and links to the three macro, meso, and micro layers of the mobility ecosystem.

BOX 3. FIVE CATEGORIES OF MOBILITY BARRIERS AND THEIR DISPROPORTIONATE EFFECTS ON WOMEN

Availability: This relates to the coverage of the transport network in time and space, and the availability of different modes of transport. In rural areas, away from major inter-regional road and rail corridors, transport services remain sparsely distributed with few surfaced roads or defined walkways. Greater proximity to urban areas increases the quality and density of road and rail-based networks, and formal and informal transport services become more abundant. Public transport services are available to all, but mobility is dependent on the network density, service type, and frequency of the services provided. Since women rely on public transport more than men, these factors impact women more. For example, women may need to walk long distances or take informal modes of transport if public systems do not cover internal routes. This can be expensive and unsafe. A lack of evening transport may also mean that women working in the services sector are less likely to take night-shift jobs.

Affordability: This dimension refers to travel costs and the extent to which people can afford to travel when and where they want. Affordability constraints on women's mobility is visible in all global regions, but particularly in the developing world, where it is an outcome of high levels of poverty and inequality. Gender role-based constraints in poor communities starve women of both time and space to conduct basic daily activities. For those women who work, jobs tend to be low income, flexible and precarious, and often combined with care responsibilities. Unacceptably high travel costs, combined with care responsibilities, result in a pattern of local living and working, and the narrower life horizons that this produces for women. It can also make them captive to transport modes and traveling environments where sexual harassment and GBV are more prevalent.

Physical and temporal accessibility: This refers to the accessibility of activities that people need or wish to do in time and space. It differentiates from availability, as accessibility has a strong linkage with transport connectivity and land use. Activity locations may be accessible, but not when they are required. Women's gender role dictates that they must combine domestic, care, and job-related activities within a limited amount of time. This has a strong impact on the activities that women and girls can actually reach, limiting many girls to a more constrained choices of education and training, and women to jobs that are local, part-time, and lower paid.

Social and cultural acceptability: Transport modes and networks provide access to all the basic needs for living and working, but women's use of them is mediated by their perceived acceptability. A level of transport provision suitable for some groups may be wholly unacceptable to others, and yet there is the need for transport systems to be fully inclusive. There are four levels that shape people's perceptions and use of the transport system: (i) the way the system is used, (ii) the perceptions and attitudes people have toward using the transport system, (iii) the deeper values and social mores that people have, which condition attitudes toward transport (often a factor of generations), and (iv) people's personalities. All these four levels combine to show how acceptable the existing transport provision is, and areas for potential improvement.

Safety and security: The lack of safety and security for women from sexual harassment and GBV when they travel is one of the biggest transport problems globally. This not only relates to the actual incidence of harassment and GBV, but also the general perception and fear that the transport system is unsafe for women and girls. Many professionals still do not view this element as a transport problem, despite many recent practical transport investments that have addressed this issue, and with very positive outcomes (Kurshitashvili et al, 2022b).



The mobility barriers that women and men face, based on their circumstances, needs, and choices determine their experience of the transportation system. These barriers fall into five broad categories, all of which disproportionately affect women (See Box 3.)

The suggested approach provides a holistic framework for assessing the gender dimensions of transport. While the different dimensions are described individually, it is important to note that women and girls will experience combined impacts of different dimensions. Transport-gender inequalities stem from compounded accessibility problems that manifest themselves in the lifestyles of women of different ages, abilities, and capacities, specific to their local environment. Poor mobility and access across the five levels of accessibility all underline the fact that, globally, too many women and girls are restricted to economic and educational opportunities in the immediate local area, and are deprived of wider social and cultural networks and good quality access to opportunities, such as jobs and vital services (Alam et al, 2022).

Practical examples

The systematic literature review conducted by the World Bank's Transport GP showcases the existing evidence on the impacts of mobility barriers on women's access to education, health, and employment. This section provides a snapshot, together with promising practices of World Bank-financed operations that can contribute to addressing affordability, availability, and safety and security concerns. These examples

demonstrate that common gender issues affect the life situations and chances of women and girls across all regions. While there are local particularities, the level of commonality allows for successful solutions to be deployed across regions and within countries. A critical success factor in such interventions is the ability of stakeholders at all levels to co-create solutions that are effective and sustainable. In addition, the examples also touch base on interventions aiming at promoting women's employment in the transport sector as an entry point to address employment segregation and to promote gender responsive transport planning.

Mobility

Affordability barriers can constrain women's access to health, education, and employment opportunities.

According to the literature, the cost of transport is one of the main barriers to accessing maternal health services in some rural areas (Alam, [et.al](#), 2022). Transport problems have been a major cause of perinatal mortality in mountainous rural regions of Nepal, where the cost of transport was deemed the second most significant factor after the cost of skilled attendance (Hada, 2020). In rural Uganda, 45 percent of women who tested HIV-positive during antenatal care between 2007 and 2010 failed to attend the clinic within a specified interval after a previous visit (or were lost to follow-up as universally defined in medical literature); high transport costs were often mentioned as a major barrier to seeking continued care (Lubaga et al, 2013). Data reveals that in extreme cases of limited affordability, as is the case of South

Africa, transport costs have a significant weight in the selection of people's transport modes and access to economic opportunities. 11.4% of urban respondents of the 2020 National Household Survey said that they walk all the way to home because they cannot afford public transport, and 30.8% of households identified travel cost as the main variable that influenced their decision to choose a mode of transport. Even if data is not disaggregated by sex for this case, it can be inferred that women's time poverty, wage gaps and inequality in decision making within the household make them more vulnerable to expensive public transport.

Women with disabilities² are disproportionately affected by affordability constraints. Inaccessible transport services due to infrequent services -as in the last mile- and barriers from the inappropriate design of transport and public related spaces force women with disabilities to rely on private transport which implies an additional cost. A study by the Universidad Pedagógica de Colombia in Tunja revealed that people with disabilities use public transportation 33% less than the rest of the population and take taxis six times more than people without disabilities (Lynn et al, 2023). Finally, the need for some persons with disabilities to have someone accompany them, for instance to the

health visits, increases the transport cost for them and the person accompanying who, given the mobility of care, could be assumed to be a woman (UN, 2018).

Evidence shows that subsidies can promote women's mobility and access to economic opportunities and education. Findings from study in Addis Ababa, Ethiopia reveal that the provision of a transport subsidy increased both the intensity and the efficacy of participant's job search, and that the outcomes were stronger for women (Abebe et al, 2016). Similar findings are reported from Lahore, Pakistan, where lower-income women are more likely to use buses or rapid transit to access employment and are, therefore, more likely to benefit from fare subsidies (Zolnik, Malik, and Irvin-Erickson, 2018). A new Bank project is testing subsidized transport in rural Pakistan (see Box 4). Similarly, a promotional bicycle sale in Morogoro, Kenya, which gave a 15–20 percent discount, proved to be very popular among secondary school girls, suggesting that cost may be a bigger barrier than cultural norms in preventing girls and women from riding bicycles in some settings (Alam et al, 2022). Other studies have revealed significant diversity in women's transport needs, depending on their income and place of residence (Mejía-Dorantes, 2018; Mejía-Dorantes and Villagrán, 2020).

BOX 4. SUBSIDIZED TRANSPORT AIMS TO KEEP GIRLS IN SCHOOL IN PAKISTAN

The World Bank-financed Khyber Pakhtunkhwa Rural Accessibility Project (KPRAP) will help address gender gaps in education by improving safe and climate-resilient all-weather access to schools, health facilities, and markets in rural districts of the Khyber Pakhtunkhwa (KP) province in Pakistan. The project also aims to improve school participation and regular attendance, through the provision of subsidized transport to schools for girls from marginalized communities in selected districts.

Affordable transport is key to improving accessibility for the population of KP, specifically for girls. Data shows that 40 percent of the rural population in KP must travel 50 minutes to access a health facility. In 2016–17, the rate of out of school children was 34 percent, which included 49 percent of all girls and 21 percent of all boys. Rates increased with the level of education. Data collected during the project preparation revealed that among children who have never enrolled in school, 27 percent cited accessibility reasons, such as a difficult commute (i.e., long distances and high costs of transportation) and the absence of schools in villages.

To address these accessibility issues, the project will subsidize up to 70 percent of children's transport costs, with parents expected to cover the remainder. Parent Teacher Councils will be strengthened to sign and monitor contracts. The project will fund the development of contracts so they include key performance indicators, safety, and service standards.

² According to the Convention on the Rights of Persons with Disabilities, persons with disabilities include those “who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others.”

Availability of transport is a key factor to improving women's ridership of public transport, their access to and the quality of economic opportunities available to them, and the reduction of their time poverty.

In a study conducted in West Bengal, India, the participants (older women) reported that they wanted to avoid public transport due to various reasons but had no other alternatives available to them (Bhattacharya, 2018). In India, women suffered greater livelihood erosion due to loss of access to public transport after resettlement to areas on the fringes of the cities of Chennai and New Delhi (Alberts, Pfeffer, and Baud, 2016; Anand and Tiwari, 2006).

In terms of time poverty and availability, evidence shows that reducing the amount of time women in rural Uganda spend in transport activities was a critical factor in enabling

a simultaneous expansion of non-traditional agricultural export and food production (Evers and Walters, 2000). Rural women from the Tshitwe community in South Africa indicated that they would like to travel farther afield to market their products, services, and labor to a wider and more diverse clientele. They also wanted to acquire further education and training, but it was not always possible because of lack of access to transport. In rural northern Nigeria, women entrepreneurs emphasized that the poor condition of roads and consequent transport challenges had a negative impact on the success of their businesses, affecting their ability to recruit employees, service customers, and deliver goods (Seedhouse, Johnson, and Newbery, 2016). A pilot project in Mozambique is rehabilitating rural feeder roads to improve mobility and access to economic, health, and social services (see Box 5).

BOX 5. ADDRESSING RURAL WOMEN'S MOBILITY CHALLENGES THROUGH GENDER-RESPONSIVE SERVICES

Evidence shows that the rehabilitation of feeder roads can help make economic opportunities and services more accessible (World Bank, 2018a). However, without complementary interventions, women will not benefit equally to men from such projects (World Bank, 2018a). According to the Demographic and Health Survey, in Mozambique, 49 percent of women ages 15–19 and 51 percent of women ages 20–34 report that distance is the main factor limiting their access to health facilities. This not a minor issue, considering that Mozambique's ratio of 1,500 maternal deaths to 100,000 live births is among the world's highest.

[Mozambique Safer Roads for Socioeconomic Integration project](#) will be financing the design of a pilot rural transport services program on selected feeder roads to improve mobility and access to economic, health, and social services to population groups in target areas. At the core of the pilot design is the recognition that women and men have different mobility patterns in terms of mode, affordability, quality, and social norms. Elements to be considered for the design of the pilot include financial sustainability, cultural adaptability, addressing of mobility barriers (affordability, availability, acceptability) by different groups (women, men, people with disabilities, elders and others), legal/formal arrangements (public, private, PPPs), willingness to pay by different users, existing risks for each scenario, and opportunities, barriers, and risks for e-mobility.

Lack of reliable transportation has been reported as a significant barrier to both women's access to reproductive and maternal health services and girls' access to education facilities. In the same vein, providing bicycles to girls in rural India improved their secondary school enrollment significantly (reducing the gender gap in enrollment by 40 percent) and improved their test participation and scores (Muralidharan and Prakash, 2017). Research from rural communities in India (Murthy and Barua, 2004) and Uganda (Musoke et al, 2015) identifies delay in care due to lack of transport facilities, alongside inappropriate referrals and poor emergency preparedness of referral facilities, as important non-medical determinants of maternal deaths. Lack of transportation was also a key factor reported by Women in rural Afghanistan who had not delivered any

of their children in a health center, second only to cost of services (Higgins-Steele et al, 2018). Community-based transport strategies and emergency transport schemes have emerged as useful, cost-effective, and replicable solutions for underserved rural and peri-urban areas to improve women's access to health facilities in case of emergencies (Atuoye et al, 2015; Babinard and Roberts, 2006). In rural Sierra Leone, an emergency referral system relied on specially-designed motorbike ambulances to transport pregnant women to health facilities. The service was deemed accessible by local communities and was highly valued by those it served (Bhopal, Halpin, and Gerein, 2012). A project in Haiti is improving road conditions to support women's increased access to and use of health services (see Box 6).



BOX 6. ADDRESSING WOMEN'S HEALTH CHALLENGES THROUGH IMPROVED CONNECTIVITY AND ACCESSIBILITY

The [Haiti Rural Accessibility and Resilience Project](#) is working to increase all-weather road access in selected sub-regions and improve the resilience of selected segments of the road network. Data from Haiti illustrates how accessibility is a key variable in increasing women's use of health facilities. World Bank data suggests that accessibility is the second-largest challenge for women seeking treatment, immediately after lack of financial resources to pay for the medical services themselves. A 2012 World Bank household survey also found that in 62 percent of rural households with at least one woman ages 15 to 49, the decision to seek medical care is affected by distance. Poor road conditions also constitute a barrier for women to access health facilities, including for prenatal care. This explains in part why only 39 percent of women in the same age cohort deliver in a health facility, with poorer women being eight times less likely to do so (World Bank, 2018b).

The project developed mobility plans informed by a qualitative and quantitative assessment of the barriers that women face in using the roads. Key among them were the condition of roads, insecurity, and time poverty. For instance, 44 percent of surveyed women, compared to 32 percent of surveyed men, said they do not feel comfortable with trips made alone. The methodology gave more weight to roads identified women and those leading hospitals and prenatal and postnatal health services. Prior to the 2021 earthquake, six contracts were underway to rehabilitate selected roads, but resources had to be relocated to address earthquake damage. Additional resources will be required to implement complementary interventions from the mobility plans, including adding lighting on the roads and constructing hospitals in areas identified by women.

Women with disabilities are limited in their mobility due to the inability to access transport infrastructure services.

Women with disabilities face challenges due to lack of universal access design and issues that go from high curb heights, lack of warning in front of obstacles, pavements occupied by traders, lack of access for wheelchairs, poor lighting, among others (Alam et al, 2022). In terms of the

relationship between women with disabilities, transportation and health, two studies from rural Ghana showed that lack of access to public transport has direct consequences on the health of mothers and children (Ludici et al., 2017). Finding revealed the need for patient-centered training for healthcare providers as well as the provision of disability-friendly transport and healthcare facilities (Ganle et al., 2016).

Safety and security have prevailed as main barriers when it comes to women's decisions around their mobility.

A national survey on violence against women carried out in Bangladesh in 2015 revealed that one in five women perceived vehicles, roads, and streets as spaces where sexual violence occurs (Mazumder and Pokharel, 2018). Sexual harassment on public transit in Pakistan was so widespread that women had become accustomed to "routine groping" and worried about the possibility of its escalation to sexual assault (Mansoor and Hasan, 2016). A retrospective longitudinal study with women participating in the National Violence Against Women survey showed that women with severe disability impairments were four more likely to be sexually assaulted than women with no disabilities (Casteel, et al., 2008). Evidence shows that women, including women with disabilities tend to reorganize their life choices by for instance taking longer routes or leaving work earlier (Lucidi et al, 2017). Public transport offers perpetrators both proximity and anonymity, with very little risk of consequence (Neupane and Chesney-Lind, 2013). Jordan is trying to address this by enacting a code of conduct for its public transport system (see Box 7).

Women also feel vulnerable when walking or waiting for transport at night in poorly lit areas. Younger women faced more harassment on the street, in transit, and at stations and terminals (Malik et al, 2020). Existing multi-country research also suggests a significant gender gap in the perception of safety on public transit based on the mode of travel: women are 10 percent more likely than men to feel unsafe in metros and 6 percent more likely to feel unsafe in buses (Ouali et al, 2020).

A study of the SuperVia in Rio de Janeiro, a railway passenger service with a special car allocated for women, highlights the fact that women face a cost related to sexual harassment when using public transport and that they are willing to pay for safer options (Kondylis et al, 2020). It also shows the unintended effects of this kind of policy, as women who decided not to use the safer option were further stigmatized, indicating that segregated transport does not sufficiently address the root cause of the problem, which is rooted in pervasive, harmful gender norms.

BOX 7. DEVELOPING A GENDER-RESPONSIVE NATIONAL CODE OF CONDUCT FOR THE TRANSPORT SECTOR

In Jordan, only 14 percent of women ages 15 and above participate in the labor force, compared to 54 percent for their male counterparts (DSJ, 2021). Evidence from several studies indicates that a major barrier to women's access to labor markets is the lack of a safe public transport system. In one study, 47 percent of women surveyed said that they turned down work opportunities because of a lack of affordable, secure transport options, particularly public transportation (Sadaqa, 2018).

With the support of the World Bank through the [Jordan Second Equitable Growth & Job Creation Programmatic Development Policy Operation](#), the Government of Jordan developed a code of conduct (CoC) for public transport drivers, operators, and passengers to increase the safety of women on public transport and enhance the overall quality of service. The CoC, which covers the entire bus transportation system in the country, identified sexual harassment as one of the key problems. The following measures are underway with the support of the Mashreq Gender Facility (MGF):

- **Development of a mobile application:** The Government of Jordan recently finalized the development of a mobile application to allow users to report CoC transgressions. The app will allow the government to gather valuable intelligence and identify in real time hotspots of GBV and other violations related to public transport. This data can inform data-driven policy and strategy making, with the ultimate goal of providing a safer public transport service.
- **Analytics:** Key performance indicators are being developed to measure public transport performance against the pre-defined areas of the application, using app-generated data to underpin indicator development and monitoring.
- **Training:** Public transport stakeholders, including public transport operators and officials from the Ministry of Transport, Land Transport Regulatory Commission, Police Security Department, and Municipality of Greater Amman have been trained.
- **Communication plan:** After the mobile application is approved, a detailed communication plan will raise public awareness of efforts being made to combat sexual harassment and give greater confidence to women using or considering using public transport.



The mobility barriers that disproportionately affect women do not act in isolation, and there are clear linkages between them, as in the case of safety and affordability. Being forced to pay for taxis and other private transport due to the lack of reliable or safe public transport options, a phenomenon known as the “pink transport tax,” is reported in many contexts and imposes additional costs on women and other transport-disadvantaged groups, such as seniors

and people with disabilities (Dandapat and Maitra, 2020; Mejía-Dorantes and Villagrán, 2020). For example, in Nepal women university students reported pooling money to take taxis, which are significantly more expensive, to avoid the harassment they faced on public buses (World Bank, 2013). These linkages between mobility barriers require holistic solutions, as seen in a project to improve urban mobility in Quito, Ecuador (see Box 8).

BOX 8. A HOLISTIC APPROACH TO PREVENTING AND RESPONDING TO SEXUAL HARASSMENT IN PUBLIC TRANSPORT

[The Quito Metro Line Project](#) sought to improve urban mobility in Quito, Ecuador to serve the growing demand for public transport. Data from Quito shows a 10 percent higher use of public transport by women. While women are more dependent on public transport to access economic opportunities, the level of sexual harassment they experience in transit adds additional barriers to accessing these opportunities.

The project collected data on the prevalence of sexual harassment, and found that in Quito, over 91 percent of women have experienced verbal and physical harassment in public spaces, and 63 percent finish their activities no later than 6:00 p.m. because of safety and security concerns. Women also reported modifying their mobility strategies to feel safer, for example, by changing their routes to avoid transfers and to reduce the risk of violence, even if this means longer journeys.

A modal choice analysis carried out by the World Bank reveals that women would pay significantly less than men to switch to articulated buses from conventional buses. The reasons for this are unclear without further data, but one possible explanation is that articulated buses run along trunk lines, which happen to be more crowded, and data shows that sexual violence is more frequent in crowded vehicles.

The project put into place several measures to prevent and respond to sexual harassment in the metro, including the following:

- Prevention and Response Protocol developed and implemented by the metro operator to provide different entry points for women to report cases of harassment and to be referred to different support services that take a survivor-centered approach.
- Installation of communication system to facilitate reporting incidents of harassment and to link to the different entry point for prevention and response.
- Gender sensitization and capacity building of Quito Metro staff and operators at all levels, as well as requiring transport operators and platform employees to implement the protocol,
- Internal and external communication strategy to inculcate a culture of non-violence within the metro organization and among users

Additionally, given the existing gender employment gap in the transport sector, together with the potential for increased perception of safety and gender responsive planning from the addition of more female operational staff and women in technical and decision-making positions, the contract between the Quito metro and the operator included a quota of 20 percent for women. The implementation of an Organization and Employment Plan with a gender perspective allowed to significantly surpass the initial employment targets by achieving a 40 percent female workforce, including 50 percent representation of women in management roles, 35 percent in technical positions, and 22 percent as metro operators. Within the “Cero Harassment Strategy”, the municipality has also installed an interinstitutional space to enhance governance and coordination that includes the Municipal Passenger Company, the Quito Metro Metropolitan Public Company, the municipality, the Secretary of Inclusion and the Secretary of Mobility.

Evidence is emerging on the role that gender norms play in facilitating or inhibiting women’s mobility. Research on commuting differences between working women and men stemming from both the gendered division of household labor and socio-economic class (as signified by access to public or private transport) has been conducted in a few settings. A study conducted in Amman, Jordan, finds that female bus and shared-taxi commuters are

likely to leave home as early as 6:30 a.m., whereas their male counterparts leave home much later. Both women and men who commute via bus and shared-taxi tend to carry out household maintenance activities after work. In contrast, both women and men who commute by private car left for work much later in the morning and did not combine household maintenance trips with work commutes (Hamed and Olaywah, 2000).



In rural settings, cultural norms can constrain women to use solely non-motorized transport (NMT), whether for personal or business use (Mulongo, Porter, and Tewodros 2020). Despite their growing use, bicycles, scooters, and motorcycles, for example, remain almost exclusively assets owned by men in rural settings in Asia and Africa (Rao, 2001). Even if there is still missing evidence on what works to address constraints around gender norms in both the use of and employment in transport systems, ongoing World Bank interventions are beginning to respond to these challenge. For example, projects are building or improving childcare facilities close to transport hubs, facilitating communitarian approaches to promote women's employment in road construction, and promoting women's usage of NMT in rural areas in Africa through behavioral interventions.

Lastly, when we assess the challenges and opportunities to enhance women's mobility, we must recognize the role the technology platforms play as well as the risks and opportunities they bring. The ride-hailing industry is playing an increasingly important part in the transportation ecosystem of many countries and in closing the gender gap in mobility and economic participation. For example, in Sri Lanka, in the IFC study (2020), 64 percent of women riders of a local ride-hailing platform PickMe, said that they can access more or better jobs thanks to ride-hailing, and 88 percent said ride-hailing gives them access to new places. Yet, ride-hailing is not free of challenges. Women's financial and digital exclusion are some of the barriers preventing many women from using ride-hailing apps. Also, women riders often report a lack of women drivers as a safety concern and one of the reasons they do not use ride-hailing

apps, highlighting an opportunity within this challenge: by increasing the proportion of women drivers, ride-hailing can become a more attractive option for women riders, potentially leading to a virtuous cycle where both riders and drivers could reinforce safety. Under the right circumstances, the ride-hailing sector can boost women's income potential while also providing a broader section of female passengers a safer transport option and access to places underserved by public transportation, covering the needs of first and last-mile connectivity currently unmet by mass transit systems.

Employment

Bringing women into the transport sector can contribute to addressing employment segregation, reduce wage gaps, and promote gender-responsive transport services.

Data around the world reveals that, even in countries where gender gaps in employment are closing, occupational segregation still exists. Employment segregation depresses wages for women in markets (Das and Kotikula, 2019) and can lead to non-sustainable transport policies, the absence of women's priorities in transport planning, and the perpetuation of the gender employment gap in the transport sector (OECD, 2020).

A study from the OECD (2020) reveals, for instance, that there is a significant positive correlation between the proportion of women managers in the transport sector and the total female participation in the transport workforce. Transport policies and operations can contribute to addressing the barriers that women face in accessing low, medium and high-skill jobs in be the transport and infrastructure sectors (see Box 9). Evidence also reveals that

women in decision making positions can improve financial performance, innovation, employment retention, service delivery and promote safer working environments. In addition, companies with greater parity in senior leadership better manage environmental, social and governance risks (Schomer and Hammond, 2020). To level the playing field for women, different interventions can address constraints

that start in the education sector, including measures to attract more girls and women in science, technology, engineering, and mathematics (STEM) and to ease the school-to-work transition. Activities can also support measures to bring a gender perspective into recruitment, retention, and promotion processes (World Bank, 2020c).

BOX 9. AN OVERVIEW OF WOMEN'S EMPLOYMENT IN THE TRANSPORT SECTOR

On average, women make up only 16 percent of employees in the transport, storage, and communication sector across the world. Many of these women hold low-paying jobs, often among administration, sales, catering, and cleaning, while men dominate engineering, managerial, and driving roles. The barriers to women's employment in the sector are many and layered. In some countries, there are laws that specifically bar women from doing certain jobs in the transport sector. For the most part, though, it is invisible factors, such as passive or hidden resistance to change, and harmful gender stereotypes, that convey the idea that certain work is not appropriate for women.

The absence of women from careers and decision-making positions in the sector means women are largely excluded from this vital sector of economic, social, and environmental development. It limits their job opportunities and affects their income-generating capacity as many highly paid jobs can be found in the sector. Also the lack of women employees in the sector prevents women from shaping, planning, and helping to design transport services. The lack of women at all levels, and particularly in operations, prevents decision makers in the sector from connecting with the needs of women as passengers.

There is, thus, a connection between getting more women into the transport sector and improved mobility for women. Several World Bank-financed transport and logistics projects around the world are creating opportunities to promote women's employment in the sector through partnerships, while helping drive talent and bring new perspectives to the sector (see Section 4). These efforts are particularly important in the context of climate breakdown and the need to rapidly decarbonize transport, as bringing women's voices into important policy discussions on subjects like sustainable transport could help drive a more inclusive and resilient future for the sector and the wider economy.

Lastly, when we assess the opportunities for women's employment in transport, we must recognize that today's transport sector is evolving to encompass jobs beyond the "traditional" employment in the sector, which has involved the recognized transport modes by road, rail, air, sea, along with inland waterways and the necessary infrastructure—from design and manufacture to operation and maintenance. For example, the use of intelligent transport systems, or ITS, that harnesses technology to make our transit systems safer and more efficient, has been growing steadily in the sector since the early 1980s. These systems cover a multitude of services to provide information, management, and control of transport systems. The role of ITS in the transport sector is expected to expand even further and require qualified workers with technical expertise and multi-disciplined skills to fill planning and management positions, which is an opportunity women should not miss. Beyond the formal economy, many women have found new job opportunities in the shared transport economy. Benefits of working as a driver in the ride-hailing (also called ridesharing) sector include the flexibility it provides for women to work on their own schedules, low entry barriers via the rideshare app that make it relatively easy for women to begin working in an industry few have traditionally pursued, and the income and contacts to support their other entrepreneurial activities.

The transport profession globally has been almost totally male dominated and presents a male face to the public, which many women can find uncomfortable when using transport services. Harassment by transport staff of women and girls is not uncommon. Even as women enter the transport profession to provide a female face to services, they face barriers and prejudices, including sexual harassment. Women transport entrepreneurs, a growing group that includes, for example, women's taxi

services in parts of Africa, face harassment from their male competitors. Harassment and other barriers related to the glass ceiling remain prominent in many transport organizations for women who seek promotion to senior decision-making levels. However, this situation is beginning to change, with some promising practices emerging. Boxes 10 and 11 highlight examples from World Bank operations in Europe and Central Asia and Tonga.

BOX 10. MAKING WAY FOR WOMEN IN TRANSPORT AND LOGISTICS

On average, women make up 23 percent of employees in the transport, storage, and communication sector in the Europe and Central Asia (ECA) Region, with many engaged in low-paying jobs, often in administration, sales, catering, and cleaning roles, while men dominate engineering, driving, and managerial roles. With support from the World Bank, several countries in the region are taking steps to turn this around (World Bank 2023).

For example, at the end of 2022, the Republic of Azerbaijan repealed 674 job restrictions on women's employment, working with the World Bank to show that these roles (such as driving a large bus or laying asphalt) posed no specific threat to women's health.

As part of the [Turkey Rail Logistics Improvement Project](#), the Ministry of Transport and Infrastructure is running a female internship program, which has accepted 70 interns since 2021. The program involves a 20-day paid internship in roles across the ministry, and provides both whole-of-department training and project experience.

In Armenia, through the [Lifeline Road Network Improvement Project](#), the Ministry of Transport, Communication, and Information Technologies has built a program offering women six-month paid internships in engineering, design, and road safety, enabling interns to be immersed in a project life cycle. Similar initiatives are also underway in Albania and Serbia.

Early reviews of these initiatives show that they are already contributing to better gender equality outcomes in the sector and having other positive impacts, including the following:

- Increasing women's capacity and interest in transport and logistics
- Improving women's employability, with employers more confident that these women have professional experience in the sector
- Opening pathways to engineering and related roles, defying anecdotal evidence that women are often guided into back office roles in the sector
- Strengthening links between public bodies and universities
- Opening the sector to new perspectives, driven by women's different lived experiences

Despite the appetite for change in the ECA region, without strong support at senior levels, women's internship programs risk being scaled down or discontinued. Realizing the benefits of legal reform and efforts to attract women to the sector will require a deeper commitment and cultural change within agencies, the private sector, and the wider public. In doing so, these types of initiatives will help revitalize the transport sector, while improving the lives of women across the region.



BOX 11. EMPOWERING WOMEN TO BECOME COMMERCIAL TRANSPORT DRIVERS

With support from the Tonga [Second Climate Resilient Transport Project II](#), the Government of Tonga has launched a program to encourage women to become qualified commercial driver's license holders and take on commercial driving roles.

As part of the project preparation, a study was conducted on improving the safety and resilience of the country's transport infrastructure. In Tonga, women do not have equal access to economic opportunities in land transport-related industries. Analysis revealed cultural barriers in the country that discourage women from developing an interest in training and working in male-dominated professions. Only 0.5 percent of valid commercial driver's license (CDL) holders are women. Without a CDL, women are excluded from a range of driving jobs, such as those in the trucking industry and the operation of commercial vehicles, such as buses or taxis.

In this context, the Commercial Driver's License Training Program began. A 2019 survey of potential female candidates found interest among women who already possessed a regular driver's license and wanted to advance to the level of a commercial driver's license. The project will support the Tongan Institute of Technology and the Ministry of Infrastructure in promoting the program, which will offer recognized and accredited commercial driving courses with qualified and well-trained local instructors to approximately 45 women per year.



Transport stakeholders, almost by definition, link with stakeholders across many other sectors at the country, community and individual levels (see Figure 1). Governance processes and institutional structures can place formidable barriers to the progress of the transport agenda (CEPAL, 2018), affecting the design and implementation of gender-responsive solutions. The best transport solutions are the ones that are fully inclusive of the needs of all stakeholders across sectors. Working partnerships between transport professionals and professionals in sectors, such as health, education, and economic development, have become more common over the last 20 years, as has coordination with non-governmental organizations (NGOs) and local community bodies. However, interaction between transport professionals and those developing gender strategies and measures is a relatively recent phenomenon. The World Bank and other international financial institutions have been making important strides to rectify this situation, working with stakeholders at all levels (Kurshitashvili et al, 2022b).

National governments issue critical top-level legislation on gender equality. Such legislation establishes the framework and principles that local administrations adopt. It can remove direct and indirect gender discrimination embedded in current laws and professional practices. While these broad gender equality laws apply to women employed in the transport sector (in terms of working conditions and worker's rights), they do not address the wider transport issues that relate to accessibility. However, in some countries, local Mobility Laws, Prevention and Response Protocols to prevent and respond to violence against women, and Codes of Conduct have been specified at the national level as guidance for local administrations on implementing their gender-based policies and measures. Many of these codes of conduct have been developed with the assistance of the World Bank Transport GP's Gender Taskforce to specifically address gender and transport issues, with positive impact (see Box 8).

In addition to top-down initiatives, stakeholders are working from the bottom up to improve the traveling environment for women and girls. Recent years have seen a proliferation of gender NGOs around the world, such as the Nana Girls in Abuja, Nigeria, whose efforts are leading change in the transport sector from the grassroots level (Adamu, 2022). More transport stakeholders at both the macro and meso levels are engaging directly with women and girls, collecting essential data and their stories to open the eyes of transport professionals to the acute mobility problems these

women and girls face every day. Many community gender-based initiatives now exist across all regions and respond to local problems, such as access to medical facilities or the need to transport produce to local markets.

Private sector stakeholders have a major role to play in transport and gender issues. Through design-build and operating concessions, the private sector has been able to provide needed financial investment to upgrade failing transport infrastructure and services, and to innovate and introduce new ideas. In recent years, private sector stakeholders have become engaged in discussions on transport and gender, as awareness of travel issues faced by women and girls has increased. In formal public transport, the competitive environment and the availability of subsidies for some operations provide strong incentives for operators to improve their gender credentials to both win contracts and increase their female market share. In contrast, women cite many problems using informal public transport services, and engaging this sector has proved more problematic. However, some promising practices are now emerging for engaging and organizing with these stakeholders in the informal sector (Durant et al, 2023).

It is essential that the public sector work closely with the full range of local private sector stakeholders in addressing gender and transport issues. Such issues may also involve local employers, or parts of the commercial sector not directly involved in transport per se, but that could be an important part of the solution. In this context, mobility management practices between local authority stakeholders and local private employers are now widespread in developed countries to initiate gender-friendly transport measures for women workers and their families. Employers can subsidize transport measures and achieve win-win solutions for their women employees and for their recruitment potential. In turn, land developers, working with public planning agencies, are providing investments into new mixed-use, more sustainable settlements that are more conducive to women's activity patterns and needs.

Stakeholder engagement involving both the public and private sectors on transport and gender issues will be essential going forward. Ensuring a consistent approach between government and local-level actions is also essential. Responding to grass-roots pressure from women and girls with good data and front-line experiences will allow stakeholders at all levels to build evidence-led policies, strategies, and measures.



BOX 12. INTERSECTORAL AND INTERINSTITUTIONAL COLLABORATION TO MEANINGFULLY SUPPORT WOMEN'S MOBILITY

Not all the barriers hinder women's mobility are directly related to the transport sector. For instance, gender norms play a key role in defining mobility patterns, including in the decision to travel outside home (Dominguez-González et al, 2020). Intersectoral collaboration can lead to policy interventions that meaningfully address the mobility barriers that women face in a more holistic way. Some examples include the following:

- Planning for transport hubs that are accessible to daycare facilities
- Prioritizing hospital or school locations for road rehabilitations
- Coordinating strategies to prevent and respond to sexual harassment with existing referral pathways and services for survivors of violence
- Working with the private sector to include procurement clauses in contracts to employ women or train operators on appropriate response to violence
- Collaborating with universities to match the demand and supply of women in STEM for successfully implementing internship programs within transport agencies
- Getting support from civil society to implement tested methodologies on community participation and behavioral change interventions to support, for instance, women's use of intermediate modes of transport in rural areas
- Linking targeted transport subsidies for low-income women to cash transfer programs

These kinds of innovative approaches will require creativity and collaboration with non-transport stakeholders, such as the Ministries of Social Protection, Women, Youth, Health, Education, as well as universities, NGOs and the private sector.

**Transport, and the mobility it offers, are not gender neutral.**

The last 10 years have seen rapidly increasing concern for the ways in which transport provision, low mobility, and unsafe traveling environments are significantly reducing the life chances for women and girls globally. While gaps in data do exist, on some issues in some developing countries, the overall position is now clear.

Transport should be an important cross-cutting dimension of the World Bank Gender Strategy 2024–2030.

The impact of transport further reduces choice and life-quality across all the strategic objectives and outcomes of the proposed Gender Strategy, exacerbating the inequalities that persist within each domain. In many countries, the lack of affordable, available, and safe transport options prevents women from accessing jobs, education and health services. Transport initiatives to reduce gender constraints can bring together stakeholders linked to each of the strategic objectives to co-create win-win solutions. In this context, this paper has suggested an approach that can be used to capture all these cross-cutting impacts within a single assessment (see Figure 1).

Gender-role differentiation influences and is influenced by available transport opportunities.

Women have different activity and travel patterns from men, and women's access to and use of travel modes differs significantly from that of men, particularly in car use. In countries where stronger gender-role differentiation exists, this difference is greater. Taken together, the impact of transport-gender constraints force many women and girls to lead their lives in local areas with limited experience of a wider world, while also shouldering the primary caregiver role. Taking this to the macro level, gender roles combined with gender-responsive transport policies markedly reduce GDP and the ability of countries to maximize their human endowment potential.

This paper has shown the gravity of the situation through the work of the World Bank's Transport Practice Group, its Gender Task Force, and other key initiatives.

Women and girls experience reduced access to educational opportunities and job training, reduced access to job markets, reduced ability to engage in society and, prominent in the research, reduced access to health services, particularly relating to childbirth and early diagnosis. In summary, while transport is not explicitly defined as a human right, it is an essential element in ensuring that women can exercise their human rights to the same extent as men. Emphasizing transport as a key cross-cutting element in the new WB Gender Strategy will help draw attention to the human rights dimension of transport.

Gender-based violence, including sexual harassment, has been an issue of the greatest concern when discussing the ability of women and girls to get around.

Studies conducted globally have identified the gravity of the situation, which leads most women to avoid traveling alone, at certain times of the day, in certain places, or all together. Furthermore, where women are employed in the transport sector, the incidence of sexual harassment is commonplace. It ranks as one of the biggest transport problems globally, yet, until recently, the transport industry has not seen it as its problem.

Professional training in transport has been slow to acknowledge the need to embrace gender issues in planning, design, and operations.

In many countries, formal and informal barriers persist that prevent or discourage women from taking up employment in the transport industry. This issue is gaining prominence, and there is now a strong movement to rectify this gender blindness, such as the initiatives being undertaken by the World Bank in partnership with national governments, the transport industry, transport professionals, local communities, and private sector stakeholders.

Data collection can also move beyond disaggregated data.

As more and more data collection efforts on mobility start to disaggregate data by sex, it is time to methodologically move forward to ensure that gender differences in mobility barriers are fully captured to inform transport planning. This can only be done by combining qualitative and quantitative methods to incorporate at the outset questions that capture gender differences in terms of affordability, availability and safety and security of public transport. More impact evaluations have to be designed and implemented to measure what works and what doesn't to address gender inequality in mobility and employment in the transport sector. There is also a need to invest in cognitive analysis to ensure that questions capture what is intended and to disaggregate data in a way that captures intersectionalities, such as income levels, sexual and gender minorities, or disability.

Technology solutions for data collection can better capture gender differences in mobility and accessibility.

Innovative approaches for data collection can be used to capture difference in mobility patterns, for example through smart cards or mobile applications that can map red spots located in routes and public spaces accessed by public transport. Mobile applications can also be used to anonymously and effectively report cases of sexual harassment in public transport. Technology should not be assumed as an immediate or perfect solution, as there are

other elements that need to be considered when using technology, such as privacy, data use, and gender gaps in access to smart technology.

As awareness of gender and transport issues has gained prominence, so has the gravity of the climate emergency and the need for greater sustainability and resilience in the way people travel. Transport is the largest producer of GHGs and the sector with the slowest mitigation progress. By default, the current transport use of women and girls is more environmentally sustainable—for the wrong reasons. Men as main users of private transport modes are main contributors of the carbon footprint. Little has been done to address the behavioral aspects that lead to the use of private cars. The transition pathways to more sustainable mobility and a zero-carbon future must also underline the need for gender equality. This will also be an important element of incorporating transport as a cross-cutting dimension of the new WB Gender Strategy.

Diversity is also an important component of the transport influence on gender. Not all women and girls are the same, and the limitations on mobility that impact women also affect other mobility disadvantaged groups, such

as dependents, older generations, poor households, the disabled, ethnic minorities, migrants, gender minorities, and others. Women experiencing the worst transport disadvantage are likely to be facing challenges stemming from gender norms in combination with several of these other social constraints. Conversely, gender-responsive transport measures will have knock-on benefits to all transport-disadvantaged groups in the community. Gender-responsive transport is socially inclusive transport.

This paper has highlighted range of promising practices that are now being implemented globally. With proper adaptations, strategies and measures are potentially exportable from country to country, or region to region. These measures often involve packages of smaller locally based investments, rather than the larger strategic infrastructure investments common to many IFI transport-related actions. While the number of initiatives has grown exponentially in recent years, diffusion remains low. There is a vital need going forward to continue these efforts and to assist governments, cities, and regions to invest in gender-responsive transport measures to achieve the ambition of the World Bank Gender Strategy.



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