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Safe, accessible, efficient and affordable transport systems as enablers of women's economic empowerment

Summary

Access to affordable, safe and efficient public transport is crucial for promoting women's economic empowerment and achieving the Sustainable Development Goals. Although the importance of such access is recognized in international frameworks, women have historically faced many obstacles that limited their ability to benefit from empowerment opportunities, particularly in developing countries.

Assessing and improving women's access to transport requires a multidimensional approach that takes into account the physical infrastructure of transport systems, as well as the economic, social, psychological and digital dynamics thereof. The present document adopts a similar approach to discuss transport from two perspectives: transport as a service leading to women's empowerment and transport as a sector with potential to promote women's employability. It also addresses barriers affecting mobility and gender gaps, and explores economic, social and psychological dimensions and gaps in gender data. The document highlights the role of technology in reshaping transport, while exploring smart mobility, and international and regional good practices. It concludes with actionable policy recommendations aimed at increasing inclusive access to safe and efficient public transport.

The Committee on Women is invited to review the contents of the present document and to comment thereon.

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Introduction

- 1. Transport systems are essential for a healthy urban experience owing to their ability to enhance people's mobility and their access to social, professional and personal opportunities. Multimodal, smart, sustainable, efficient and safe transport systems empower individuals and have the potential to accelerate progress towards the achievement of the Sustainable Development Goals (SDGs).¹
- 2. Throughout history, women have faced many obstacles that have prevented them from achieving full economic empowerment, namely the lack of access to safe and efficient public transport. This has limited their ability not only to obtain and maintain stable employment, but also to benefit from educational opportunities and vocational training, to travel, and to attend cultural events.
- 3. Enhancing women's access to public transport and maximizing their professional potential require a multidimensional approach that includes both the physical infrastructure, and the economic, social, psychological and digital dynamics of transport. Women's mobility is shaped by elements, such as their social and economic contexts, the socially constructed norms surrounding them, and their entry into the labour market. In general, there is a variance between women's and men's movement patterns. Women, for example, tend to combine multiple destinations within one commute, a practice which is also known as trip chaining, for safety and security reasons, and as a result of their professional, childcare and family obligations.²
- 4. The centrality of improving women's access to safe and efficient public transport is contemplated in international agreements and agendas, such as the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), which stipulates the importance of access to transport, housing, water supply and other basic resources in combating gender discrimination; the Beijing Declaration and Platform for Action in 1995, which stresses the importance of empowering women in all dimensions of life, including access to public services and economic growth; SDG 11, which focuses on topics related to access to sustainable transport systems and expanding safe and efficient public transport; and the New Urban Agenda (NUA), which calls for gender equality and articulates the dimensions of safety and inclusion in transport and economic empowerment. Since the adoption of CEDAW in 1979 until NUA in 2016, the multiple dimensions of discrimination against women and girls have been recognized as having a deep impact on access to transport and, as such, on the realization of women's full social, political and economic potential.
- 5. The problem around access to safe and efficient public transport has been particularly acute for women in developing countries, many of whom rely on public transport for their daily commutes to and from work. The lack of reliable transport is considered a major barrier to working outside the home. In fact, unreliable transport can lead to missed shifts and lost wages and productivity. In addition, violence against women in public spaces, particularly harassment, is common in public vehicles and at public transport stops, making transport a daunting prospect.
- 6. The present document explores the centrality of access to safe and efficient public transport for women's economic empowerment. It discusses related gender gaps, the role of technology in reshaping the transport landscape and mobility, and regional and global good practices. The document concludes with policy recommendations aimed at increasing inclusive access to safe and efficient public transport as a prerequisite for women's economic empowerment.

¹ United Nations, Sustainable Transport, Sustainable Development, Interagency report of the United Nations Second Global Sustainable Transport Conference, 2021.

² Heather Allen and Marianne Vanderschuren, Safe and sound: international research on women's personal safety on public transport, FIA Foundation research series, paper 6, 2016.

I. Sustainable transport, mobility and access

- 7. The United Nations Secretary-General's High-Level Advisory Group on Sustainable Transport defines sustainable transport as "the provision of services and infrastructure for the mobility of people and goods—advancing economic and social development to benefit today's and future generations—in a manner that is safe, affordable, accessible, efficient, and resilient, while minimizing carbon and other emissions and environmental impacts".³
- 8. In the present document, transport is understood as a system that facilitates mobility. A public transport system consists of the infrastructure (e.g., bus and train stations, roads and railways, and vehicles) and the services (e.g., transport networks, schedules, and fleets). Legal and financial dimensions are also constitutive elements of the transport system. Mobility is defined as people's ability to move from one place to another to meet daily needs. Accordingly, the transport system facilitates mobility by amplifying individuals' ability to move and widening their scope of action.

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- 9. A broader definition of public or semi-public services might include alternative or informal transport networks.⁶ In some contexts, for example, taxis are considered part of the public transport system, serving as door-to-door alternatives in individual or shared vehicles.⁷ In the present document, taxis form part of the public transport system.
- 10. Safe public transport is understood as a network of vehicles that primarily serve the general public's mobility needs and provide a safe space for all. Transport efficiency is related to public transport systems that provide reliable and affordable services with optimized vehicle options, capacities and frequencies, to minimize travel time through regular routes and timetables.
- 11. While the efficiency of the transport system is of particular importance, it is equally critical to factor in other elements of urban infrastructure, such as street safety, public lights, noise pollution, well-equipped bus and train stations, and public toilets, among many others. As such, access to safe public transport should be considered a multidimensional issue, whereby physical access to the transport system's infrastructure and services represents only one dimension thereof, partly explaining the barriers to women's mobility and economic empowerment. Economic, social, digital and psychological dynamics constitute another dimension that maximizes barriers to women's use of public infrastructure, and prevents them from realizing their full potential.
- 12. The definition of accessibility is not set in stone. Thus, it is crucial to find conceptual cohesion for appropriately designing, implementing and monitoring policymaking in this area. Accessibility can be understood as a multidimensional process encompassing components, such as land use (e.g., characteristic of origin and destination points), transport (e.g., standards of transport networks), temporal elements (e.g., availability during a time period), and individual elements (e.g., idiosyncrasies and opportunities).⁸

³ United Nations Secretary-General's High-Level Advisory Group on Sustainable Transport, Mobilizing sustainable transport for development, 2016.

⁴ Martin Stucki, Policies for sustainable accessibility and mobility in urban areas of Africa, Sub-Saharan Africa Transport Policy Programme working paper, No. 106, the World Bank, 2015.

⁵ United Nations Conference on Housing and Sustainable Urban Development, Habitat III policy papers: policy paper 1: the right to the city and cities for all, 2016.

⁶ UN-Habitat, SDG indicator 11.2.1. training module: public transport system, 2018.

⁷ Corinne Mulley and John D. Nelson, Flexible transport services: a new market opportunity for public transport, 2009.

⁸ Christo Venter, Developing a common narrative on urban accessibility: a transportation perspective, 2016.

II. Role of public transport in sustainable development

- 13. Sustainable public transport is essential for driving socioeconomic development and reducing inequalities. Sustainable transport provides individuals with access to employment, health and education as well as to other individuals. It enables trade and connects businesses to markets. In rural areas, access to all-weather roads has been proven to reduce maternal and infant mortality rates, increase literacy rates and girls' school enrolment, and raise farmers' incomes. Sustainable public transport solutions are particularly vital to reduce inequalities, through the increased mobility of vulnerable populations who are unable to afford private transport.
- 14. Sustainable public transport can also play a pivotal role in reducing gender inequalities and driving women's economic empowerment by expanding women's access to employment, health, education and other individuals. The role of sustainable transport in women's economic empowerment is particularly relevant in rural areas, where there may be limited access to quality health and educational services. Sustainable transport options can thus enhance access to quality health and education, providing rural women with opportunities to access university or technical and vocational trainings that enhance available employment opportunities.
- 15. In addition to the economic benefits, access to sustainable transport can enhance women's social and political engagement. It can enable women to collectively travel to meetings, rallies, and other political events, where they can rally for supportive policies and legislations that provide for equal opportunities, including but not limited to, access to decent work.

III. Women are acutely excluded from accessing transport systems

- 16. While a lack of transport options contributes towards massive rural-urban inequalities that affect both men and women, women are acutely affected by this deficiency, which is compounded by economic, social and psychological inequalities. A digital divide and lack of data also exacerbate women's exclusion from accessing sustainable transport systems.
- 17. It is crucial to explore the economic, social and psychological dynamics that impact women's ability to access public transport services, including gender pay gaps, unequal social expectations and gender fear gaps. The present chapter discusses the existing challenges in addressing women's access to transport. It should be noted that designing effective public transport policies presents a complex issue owing to the lack of sex-disaggregated data. Without these data, it is difficult to understand the specific needs and preferences of different groups of users, and to design policies that effectively address those needs.

A. Economic dynamics

- 18. Sustainable public transport systems must be safe, affordable, accessible, efficient and resilient. Poverty, gender pay gaps, and limited female labour force participation negatively affect the affordability of transport systems for women, thereby reducing their access to public transport and limiting any potential economic empowerment.
- 19. Female poverty rates are higher than male poverty rates in all regions of the world, including the Arab region. ¹⁰ UN-Women estimates that there are over 59 million women in the Arab region living in poverty, or half a million more women than men (measured at national poverty lines). These conditions disproportionately affect the affordability of public transport for women.

⁹ World Bank, Transport: Overview, 2019.

¹⁰ UN-Women, Poverty deepens for women and girls, according to latest projections, 2022.

- 20. The gender income gap (both in hourly and lifetime income metrics)¹¹ directly impacts the affordability of transport systems for women. While women play a significant role in economies including in paid or unpaid domestic and care work they are still underrepresented in higher-paying and leadership positions and disproportionately employed in low-paying and insecure jobs.
- 21. Globally, women's participation in the labour force tends to be lower than men's. The Arab region has the lowest female labour force participation in the world (at 28.8 per cent), and the largest gender gap between male and female labour force participation (men's labour force participation averages 73.3 per cent). ¹² Unemployed women, or women who have exited the labour force altogether, become entirely dependent on another being, frequently a male family member, to be able to afford transport.
- 22. Most diversified, specialized and high-paying job opportunities are concentrated in major cities, which, in the absence of sustainable public transport systems, can prevent highly educated women living in remote areas from fulfilling their earning potential, and can perpetuate gender inequalities in employment.
- 23. A 2018 study in Jordan reported that 47 per cent of women surveyed had turned down a job opportunity owing to a lack of availability or affordability of public transport or to the risk of harassment therein. ¹³
- 24. The relationship between women's employment dynamics, poverty and access to affordable transport can form a vicious cycle. For instance, when economically dependent or low-paid women are not able to afford access to transport, they will not have access to improved, or higher-paid, economic opportunities. In the absence of sustainable transport systems, women can become trapped in low-paid jobs or be excluded from the labour market altogether. In other words, the limited capability of women to be mobile not only maximizes barriers to their entry into competitive job markets but also narrows their geographical reach when looking for jobs, thus widening the gender pay gap.

B. Social dynamics

- 25. Negative social and cultural norms and attitudes often limit women's access to safe and accessible public transport systems, thus aggravating women's economic disempowerment. Women's ability to move freely and independently in public spaces in the Arab region is severely limited by negative social practices and attitudes, often portrayed as traditions and religiously sanctioned beliefs. In some societies, for example, it is considered unacceptable for women to drive or leave the house without a male companion.
- 26. Caregiving is another social dynamic that shapes women's agency. Women bear 80–90 per cent of domestic care responsibilities, including domestic chores and care for family members. These responsibilities place an additional burden on women and restrict their mobility by anchoring their social positioning and perceived role to the household. Lengthy trips, for example, can make it difficult for women to balance their work and family responsibilities, directly impacting their professional decisions.

C. Psychological dynamics

27. Violence against women severely reduces the safety of public transport systems and limits women's access to sustainable public transport. Violence against women can be psychological (e.g., humiliation and intimidation), physical (e.g., dragging, beating and gun-point threats), or sexual (e.g., exposure to sexual acts). The Egypt Economic Cost of Gender-Based Violence Survey¹⁴ presents exceptionally high rates of violence against women in public spaces and on public transport, which strongly impacts women's decisions in utilizing

¹¹ UN-Women, Tackling the gender pay gap: From individual choices to institutional change, 2016.

¹² ESCWA, The Arab Gender Gap Report 2020: Gender Equality and the Sustainable Development Goals, 2019.

World Bank, Addressing women's safety concerns in the public transport in Jordan, 2020.

¹⁴ United Nations Population Fund, The Egypt Economic Cost of Gender-Based Violence Survey, 2015.

public transport systems to access education or employment opportunities. The dominance of male workers in the transport sector perpetuates these gendered dynamics.¹⁵

- 28. Older women and women with disabilities also face specific challenges when it comes to accessing public transport. These include significant physical barriers to accessibility, such as low-floor vehicles, ramps, and designated seating, and social barriers, such as discrimination and a lack of awareness of the needs of older women and women with disabilities. Sustainable public transport systems need to be inclusive to drive socioeconomic development.
- 29. Women in general, and female survivors of harassment in particular, bear the negative effects of a constant state of vigilance. Even when they are not directly harmed, they suffer the impacts of fear perception. A World Bank study¹⁶ indicates that, due to fear of harassment in transport stations, women often choose not to wait for the most efficient transport option for their itinerary, and, instead, use the first available option.
- 30. Studies show that the built environment strongly impacts the gendered perception of safety, and public space and transport infrastructure are no exceptions. Poorly lit stations, empty connection paths, or crowded vehicles impact women's perception of safety and, consequently, their decisions, shaping travel patterns and hindering their right to mobility. Women tend to select perceived safer times to commute and avoid moving during the night or on weekends, which constrains their mobility and reduces the opportunities available to them.¹⁷
- 31. These constraints are further exacerbated for older women and women with disabilities. Not only does the lack of an accessible and safe transport system create a physical barrier to mobility, but it also exposes them to being targeted by sex offenders and criminals. Thus, women with disabilities and older women find themselves reorganizing their lives to avoid possible exposure to danger by using inaccessible and unsafe public transport systems. ¹⁸ This affects their access to health services, education and job opportunities.

D. Digital divide

- 32. Technological innovations and the internet have the capacity to drive sustainable development, promote inclusion, and improve individual's well-being. The internet offers enormous potential to sustainable public transport systems by increasing one's ability to plan a journey, buy tickets digitally, and remain safe while travelling. However, if a divide emerges in the access to and usage of the internet and new technologies, technological innovations may contribute towards aggravating existing inequalities instead.
- 33. In many countries, women are underrepresented in the digital field and have limited access to technology owing to a lack of resources and education.¹⁹ In the Arab region, the significant gender gap in the usage of information and communications technologies implies that women underutilize the opportunities offered by the internet when compared to men.²⁰ The 2022 International Telecommunication Union (ITU) report²¹ examines gender parity in the access to technology and highlights that in poorer countries, women are

¹⁵ Marie Thynell, The quest for gender-sensitive and inclusive transport policies in growing Asian cities, 2016.

¹⁶ Lamis Aljounaidi, Gender and transport in MENA: case studies from West Bank Gaza and Yemen, 2010.

Sahar Aloul and others, Gender in public transportation: a perspective of women users of public transportation, 2018.

¹⁸ Antonio Iudici and others, The "invisible" needs of women with disabilities in transportation systems, 2017.

¹⁹ United Nations Children's Fund, What we know about the gender digital divide for girls: a literature review, 2021.

²⁰ ESCWA, Information and Communication Technologies: Prospects for Promoting Gender Equality in the Arab Region, 2019.

²¹ ITU, Global Connectivity Report, 2022.

particularly less likely to use the internet. Digital literacy is a common reason for women's underutilization of the internet.²²

- 34. The cost of using the internet can widen the gender digital gap, given the economic inequalities women already face. More affordable and accessible internet and reliable Wi-Fi provision in public spaces are central for empowering women's access to public transport.
- 35. Digital ticketing is becoming increasingly common in the shift towards cashless payments. Consequently, the digital gender divide risks excluding women from using public transport if they are unable to purchase tickets.

E. Data gap

- 36. The gender data gap emerges from biased and/or incomplete data, and negatively impacts women's access to public transport systems. The data gap could lead to an inadequate understanding of how women use transport services. Without these data, it is difficult to assess the transport needs of women and how they differ from those of men. As a result, transport planners may overlook women's needs when designing services and infrastructure, leading to inadequate services, such as an insufficient number of safe stops and routes that do not account for women's safety concerns, routes that are too long or too expensive, or services that do not operate at times when women need to travel.
- 37. Gender-disaggregated data enable the identification of potential safety and security issues that disproportionately affect one gender, and allow transit systems to design initiatives that address these issues, such as gender-based awareness campaigns or additional security personnel. It is therefore necessary to refine data collection practices and mainstream gender therein, so as to develop a transparent, traceable and granular process that enables policymakers to make better-informed decisions.²⁴

IV. Employing women in the transport sector

- 38. Increasing women's employment within the transport sector can contribute to reducing the existing inequalities. Greater female employment in the sector would not only reduce the perpetuation of gender norms and attitudes, but would also increase transport safety for other women and promote women's economic empowerment.
- 39. The transport sector, which includes land, air and water transport, provides over 2 per cent of global employment, or 60 million direct jobs.²⁵ Females, however, represent only 20 per cent of the global transport workforce.²⁶ Women are most strongly represented within the aviation sector, accounting for 40 per cent of employment. However, only 5 per cent of pilots globally, 3 per cent of airline chief executive officers, and 2 per cent of the world's seafarers²⁷ are women. In the Arab region, the transport, storage and communications sector provides 7.1 per cent of total employment, and yet it is estimated that women's representation in the sector is drastically lower than the global averages.²⁸

²² Rong Chen, A demand-side view of mobile internet adoption in the global south, 2021.

²³ UN-Women, Gender data: understanding impacts and gauging results, 2020.

²⁴ UN-Women, Gender statistics and sex-disaggregated data, 2022.

²⁵ International Labour Organization (ILO), Greening the transport sector in the post COVID-19 recovery could create up to 15 million jobs worldwide, 2020.

²⁶ International Transport Forum (ITF), The gender dimension of the transport workforce, 2020.

²⁷ International Maritime Organization (IMO), Women in maritime: IMO's gender programme, 2020.

²⁸ ESCWA, The Arab region may be missing the Fourth Industrial Revolution: Arab skills are still stuck in the past, 2022.

- 40. Barriers that limit women's participation in the transport workforce are mostly related to the conditions of work, such as total working hours, place of work, lack of family-oriented practices, lack of facilities and safety. One of the biggest obstacles is the lack of access to resources and training.²⁹ Many women do not have access to the necessary skills, knowledge and experience needed to pursue a career in the transport industry. This is mainly because traditional gender roles mean that women are often discouraged from becoming transport operators and entering fields, such as engineering or mechanics. The lack of attraction and promotion from within schools, families or local communities heavily affects women's participation within the transport sector.³⁰
- 41. Another barrier is gender stereotyping. According to ILO,³¹ there is a strong prevalence of prejudices about what women can and cannot do, especially within male-dominated sectors, such as transport. There is also the issue of unsafe working environments. Women in the transport industry are often at risk of physical and sexual harassment, especially when they work alone or late at night.³² The pervasiveness of this phenomenon may have resulted from the absence of political commitment by the corresponding authorities to existing labour laws, and in some cases, legal laxity.

V. Technology can reshape sustainable public transport

- 42. In recent years, technology has revolutionized the way people access transport, making it easier and more accessible than ever before. This is especially relevant for women, who are often underserved in terms of traditional transport services. Well-planned technology-driven solutions, such as real-time transit tracking, online ticketing, and mobile applications, have the potential to enhance women's overall user experience and make transportation more accessible and efficient. For example, technology can be utilized to promote the use of mobile applications to plan journeys and access up-to-date information about timetables and disruptions. Additionally, some cities have introduced applications that allow women to track their journeys and alert friends and family if they feel unsafe. By leveraging technology and innovation, Governments and transport providers have the potential to reshape sustainable public transport for women, making it more reliable, secure and convenient.
- 43. Smart transport can support sustainability in public transport by integrating advanced technologies into the transport system. Public transit systems, bike-sharing programmes, ride-sharing services, and automated vehicles are all examples of smart transport. If properly implemented, smart transport has the potential to improve the safety, reliability and affordability of public transport, as well as its accessibility for older women and persons with disabilities.
- 44. Connectivity infrastructure, internet of things (IoT), big data and open data, cloud computing, global positioning systems (GPS), and geographic information systems (GIS) are all examples of advanced technologies that can support sustainable public transport, along with interoperability and cross-border cooperation. These technologies can benefit women's access to public transport and provide an opportunity for greater mobility and better access to resources.
- 45. In terms of connectivity infrastructure, internet access and mobile phones can support women in accessing information about transport services more easily, such as real-time updates on routes, schedules and fares, as well as in making payments. Women can also benefit from the safety advantages that mobile phones provide; they can use them to call for help in emergency situations or keep family and friends informed of their whereabouts.

²⁹ ITF, The gender dimension of the transport workforce, 2020.

³⁰ ILO, Promoting the employment of women in the transport sector, 2013.

³¹ Ibid.

³² ITF, The gender dimension of the transport workforce, 2020.

- 46. IoT provides women with better access to public transport data, including public transport routes, traffic conditions and areas where transportation services are needed.³³ This information can also be used to improve the efficiency of public transport services and inform decisions about where additional resources are needed.
- 47. Big data and open data are being increasingly used in the field of public transport. Open data can be used to develop initiatives that benefit women, such as identifying areas where additional coverage is needed or providing incentives for using public transport. Big data can be used to analyse trends in public transport usage and identify points of potential improvement.³⁴
- 48. Cloud computing can provide women with access to a variety of applications and services related to the use of public transport.³⁵ For example, cloud-based map services can help women plan trips and locate public transport services. Furthermore, cloud-based applications can provide real-time updates on public transport services, allowing women to stay informed and make better decisions.
- 49. GPS and GIS can also be used by women to improve their access to public transport. GPS technology can be used to track the location of public transport vehicles, providing women with more reliable information on the availability of services. GIS can be used to analyse public transport networks, enabling decision-makers to identify areas where additional services are needed and to optimize existing services.³⁶
- 50. Interoperability and cross-border cooperation are essential for providing women with access to public transport across different regions. By establishing international standards, Governments and organizations can facilitate the sharing of data and resources between countries, allowing for better coordination of public transport services.³⁷ This can increase the efficiency of public transport operations and reduce costs for users.
- 51. Smart transport has the potential to improve women's access to and usage of sustainable public transport by promoting its safety, affordability, accessibility, efficiency and resilience. Smart transport initiatives should be developed and implemented to ensure that women have safe and reliable access to sustainable public transport.
- 52. Despite the existing digital divide, the deployment of smart transport systems provides a unique opportunity to empower women in the Arab region with greater digital access. The innate requirement of digital interface in smart transport systems necessitates users to interact with technology. Therefore, initiatives that promote digital literacy are crucial to explore the full potential of digital solutions in the transport system.

VI. Sustainable public transport initiatives

53. There are several examples of good sustainable public transport initiatives that exist worldwide and within the Arab region to promote women's access to transport. The new metro system within Dubai accommodates women and children only, to ensure safe public transport. Beirut's "Harass Tracker" application allows victims and witnesses to report incidents of harassment in public spaces, which provides a map of highrisk areas for women.³⁸ Saudi Arabia's "Wusool" programme offers reduced charges on ride-hailing applications for working women, thus improving the affordability of public transport for women.³⁹ The Extended Fund Facility of the International Monetary Fund (IMF) provided \$12 billion to support Egypt's

³³ S. Geetha and D. Cicilia, IoT enabled intelligent bus transportation system, 2017.

³⁴ Timothy F. Welch and Alyas Widita, Big data in public transportation: a review of sources and methods, 2019.

³⁵ Xing-Gang Luo and others, A new framework of intelligent public transportation system based on the internet of things, 2019.

³⁶ Leni Fitriani and others, Mapping-based using geographic information systems for smart transportation, 2021.

³⁷ Johann Marquez-Barja and others, Enabling cross-border tele-operated transport in the 5G era: the 5G blueprint approach, 2021.

³⁸ Lesley Brown, Transport and mobility in the Arab world, 2018.

³⁹ Arab News, 20,000 women benefit from Saudi Arabia's Wusool program, 2021.

economic reform programme,⁴⁰ aimed at correcting external imbalances and restoring competitiveness. One of the key elements related to structural reforms in this programme is maximising women's access to the labour market through direct investment in the safety of public transport.

- 54. The Jordan Public Transport Diagnostic and Recommendations report⁴¹ assesses the current state of public transport in Jordan and identifies important challenges and pressing actions to be taken in priority areas, while integrating technology in proposed solutions. The report stresses that the public transport system is not calibrated for the specific needs of women, and explores issues related to infrastructure, affordability and safety. A survey demonstrates high levels of discontent among women towards public transport, exposing their preferred policies, such as bigger female representation among drivers and operators, designated seating, less crowded vehicles and improved surveillance. The report recommends mainstreaming gender-sensitive policies and targeted initiatives related to education. At the local level, the Gender Action Plan for Equitable Mobility in Amman⁴² suggests conducting an insightful investigation to expose important trends in female mobility. By creating an experiment and using an evidence-based approach to the topic, the study indicates that certain transport services (i.e., the Bus Rapid Transit model) have a positive impact on decreasing women's levels of stress in their commutes. This action-oriented approach suggests clear pathways for future planning, financial mobilization and policymaking, and advocates for equitable, resilient and gender-sensitive smart mobility systems.
- 55. Jordan is exploring technological innovations that target women's access to public transport. During the 2023 ESCWA meeting on addressing barriers to women's economic participation in the Arab region, Wissam Tahtamoni, Secretary-General of the Ministry of Transport in Jordan, announced the development of a dedicated mobile application for public transport, which provides the opportunity to report any infringement of the transport safety code of conduct by bus drivers, conductors or users.⁴³
- 56. The code of conduct of Amman, signed by all bus line providers, is an important initiative in the region. 44 It sets forth guidelines and identifies responsibilities of different stakeholders, aiming to improve the transport experience. The initiative focuses on safe services, through CCTV monitoring, and journey planning, through a dedicated mobile application, which are crucial for improving women's access to transport in Amman.
- 57. The Madinah Smart City Strategy is a project implemented by Al Madinah Region Development Authority to plan for the development of smart mobility systems. It puts forward a series of smart solutions for the transport system, such as smart parking systems, which use sensors and other technologies to monitor the availability of parking spaces in real time; predictive road maintenance, including predictive analytics to identify potential maintenance issues before they become a problem; and assistive technologies, aimed at improving the overall experience for persons with disabilities. The strategy also contemplates the creation of a companion application for multimodal transport, to allow people to plan and pay for trips using multiple modes of transport, such as buses, trains and ride-sharing services.
- 58. Civil society organizations (CSOs) have also launched initiatives related to mobility. In Lebanon, for example, a CSO created the country's first digital public transport platform and launched a series of initiatives related to women's accessibility, 45 such as #HerBus project. The project creates a tool for women to share their bus riding experiences, and provides users with a space to gain insights and voice their ideas.

⁴⁰ IMF, IMF executive board approves US\$12 billion extended arrangement under the Extended Fund Facility for Egypt, 2016.

⁴¹ World Bank, Jordan Public Transport Diagnostic and Recommendations, 2022.

⁴² Ahmad Abu Hussein and others, Gender Action Plan for Equitable Mobility, 2021.

⁴³ Jordan News Agency, Ministry to launch smart mobile app to enhance transportation, 2023.

وزارة العمل في الأردن وآخرون، مدونة قواعد السلوك الأخلاقي والمهني للمستخدمين والمشغلين والعاملين في مرافق ووسائط النقل العام، 2019

⁴⁵ Rider's Rights, About us.

- 59. Companies have also made commitments to ensure that the Women's Empowerment Principles are implemented within their frameworks, promoting gender equality and equal opportunities. ⁴⁶ Additional efforts are needed by companies to enhance work conditions, by including flexible working arrangements, paid maternity leave, and equal pay policies. ⁴⁷ Furthermore, the platform "Women in Transport EU Platform for Change" was created in 2017 to promote female participation in transport. The platform acts as a forum for organizations to discuss and exchange good practices. A declaration was also adopted to ensure equal opportunities for men and women in the transport sector, and was signed by member organizations, pledging to collect disaggregated data to monitor progress, and eliminate any form of discrimination or intimidation. ⁴⁸
- 60. Innovative initiatives have reshaped the transport landscape in many countries around the world. In Saudi Arabia, for example, ride-sharing applications have enhanced women's mobility by limiting their waiting time on the streets, reducing negative perceptions of safety, and providing cheaper alternatives to taxis. It is important, however, to ensure sufficient safety regulations for such applications. Saudi Arabia is also implementing initiatives related to improving taxi fleets, by enforcing a uniform, signature look for taxis, as well as a standard pricing system and GPS technologies. These technologies improve the safety of taxis; the drivers can be registered and reviewed, the routes can be tracked and shared live with family members, and incidents can be reported.
- 61. Outside the Arab region, there are many initiatives that were implemented to ensure women's safety in public spaces and transport. The initiatives include women bus request stops in Lyon and Strasbourg, new inclusive public buses in Chile, and inclusive scooters by the manufacturing company Voi. Chile's new public buses were designed to be inclusive for all, by including wider seats, anti-slip floors and grab rails at different heights. The new buses also include contactless payment, eliminating the need for cash in public. ⁴⁹ In 2019, the cities of Lyon and Strasbourg announced that they were implementing a public transport system that allowed women to be dropped off between stops, to decrease their walking distance in the dark, making them less vulnerable to attacks or harassment. ⁵⁰ Voi's newly designed scooters accommodate women by introducing features, such as small, more ergonomic handlebars that are closer to indicator switchers. ⁵¹

VII. Policy recommendations

62. Member States should recognize that women's access to sustainable public transport is a key factor in their economic empowerment and should therefore take measures to ensure that women have access to safe, affordable and reliable transport. To improve women's access to public transport in the region, policies must be implemented to promote gender equality and create an environment that is conducive to the participation of women in all areas of society. Member States are encouraged to take action in the following areas:

Optimize planning for public transport systems

• Adopt a people-centred approach to urban planning which captures the needs of all people, including women, girls and persons with disabilities to improve urban infrastructure responsiveness to their needs and enhance safety and accessibility (e.g., public lights, proper crosswalks and sidewalks, ramps, bus stops equipped with sun and rain shelters, etc.).

Women's Empowerment Principles, Equality means business, 2021.

⁴⁷ ITF, The gender dimension of the transport workforce, 2020.

⁴⁸ European Commission, Women in Transport – EU Platform for Change.

⁴⁹ ITF, Gender equality and the role of women in decarbonising transport, 2022.

⁵⁰ The Connexion, Strasbourg and Lyon to trial women bus request stops, 2019.

⁵¹ ITF, Gender equality and the role of women in decarbonising transport, 2022.

- Engage local communities in identifying transport needs and concerns, and in guiding the design of an inclusive public transport system that leaves no one behind.
- Strengthen the capacities of gender focal points in ministries and commissions of transport in relation to gender mainstreaming.
- Advocate for mainstreaming safe and efficient transport infrastructure and services in gender equality strategies and frameworks.
- Design public transport systems that allow for flexible working hours and routes to ensure that women have access to the modes of transport they need to reach their destinations. This includes providing access to transport at all times, and providing routes that are accessible to women's workplaces, such as in rural or informal settlements, in accordance with the principle of leaving no place behind.
- Regularly monitor, evaluate and enhance the effectiveness and efficiency of the public transport system, following an inclusive engaging process. This will ensure that transport systems remain safe, accessible and responsive to the changing needs of women and girls over time.
- Harness the use of smart and digital solutions to increase the safety and security of women and girls
 in the public sphere and enhance their safe access to public transport services. This would contribute
 to the shift towards smart mobility, which constitutes a main dimension of the smart sustainable
 city.

Advance inclusive access to public transport systems

- Design safe and efficient public transport systems that consider the needs of all people, including
 persons with disabilities, older women and pregnant women, in accordance with the principle of
 leaving no one behind.
- Address the digital gender gap by providing women and girls with access to smart and digital solutions, and increasing their digital literacy, so as to enable them to use the latest technology needed to access public transport services, such as mobile payments to use mass transit systems.
- Ensure that transport options, such as public transport and ride-sharing services, are available outside of traditional working hours, to allow women to travel to work or other important destinations at any time of the day.
- Promote the use of technology to enhance women's mobility, such as through the development of mobile applications that provide real-time information about public transport, safety and navigation.
- Provide accessible broadband through progressive taxation mechanisms and reliable public Wi-Fi hotspots.
- Develop micro-transport options, such as electric scooters or shared electric bicycles, that are specifically designed for the use and comfort of women in urban areas, in addition to being convenient and accessible for short trips.

Increase the affordability of public transport systems

- Ensure that public transport is affordable to women who may not have access to financial resources.
 Special discounts or rates could be introduced during peak times when women primarily commute, such as for school drop-offs, pick-ups or market visits. It is essential to base these rates on data-driven insights into how and when women predominantly use public transport.
- Promote affordable alternative modes of transport, such as car-sharing and ride-sharing programmes.

- Encourage the use of electric, hybrid and fuel-efficient vehicles, as well as mass transit, so as to reduce the overall cost of transport.
- Foster the development of smart transport infrastructure, such as intelligent traffic systems and smart parking, to reduce traffic congestion, travel times and costs associated with transport; and promote the use of smart lighting for increased safety and security.

Increase the employment of women in the transport sector

- Encourage diversity and inclusiveness in recruitment and hiring practices to ensure that women are considered for transport jobs on an equal basis with men.
- Promote flexible working arrangements, such as flexible hours, part-time work and telecommuting, to enable women to balance work and caregiving responsibilities.
- Address safety concerns and provide personal safety training to female workers to increase their sense of security while performing their duties.
- Encourage public-private partnerships to support women-owned transport businesses and increase the participation of women in the transport sector as entrepreneurs.
- Encourage the creation of transport cooperatives owned and operated by women, to provide safe, affordable and culturally sensitive transport services, taking into account childcare responsibilities and flexible work arrangements for women.
- Highlight female role models in the transport sector to break stereotypes around the sector and encourage women to work therein.
