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# Gender determinants in urban mobility policies in Latin America

## Background

The mobility of people and goods is the expression and determinant of productive, social and cultural life for humans, and therefore cannot be examined independently of social transformations and dynamics, or development ambitions.

In relation to gender inequalities, cities and their systems of mobility are not neutral either, as they are bound in space and time by the interwoven relationships of a society, built upon gender-based control and hierarchies, which determines activities, time use and physical territory travelled. These dimensions mediate and determine the mobility of people, especially women, with a decisive impact on when and how they travel, and on their physical, economic and political autonomy.



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This document analyses the mobility and gender policies being implemented in a group of Latin American cities, and highlights the gender considerations that contribute to a more sustainable urban mobility policy.

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Urban mobility thus represents a major opportunity to achieve the Sustainable Development Goals (SDGs), to the extent that it involves initiatives to foster gender equality, better connectivity and social inclusion; to encourage greater public health access and job creation; and to promote development with a smaller environmental footprint. This potential may also favour productive investments that promote an environmental big push, given the high levels of urbanization and private motorized transport in Latin America.

In the urban environments of Latin America and the Caribbean, which reflect multiple inequalities, identifying the challenges and priorities related to progress in women's autonomy is crucial. Given the large environmental impact of the transport sector in the region, many Latin American and Caribbean cities have reached a turning point and are urgently developing mitigation and adaptation strategies for global warming onslaughts. However, only some cities incorporate gender considerations into the formulation of sustainable urban mobility programmes and policies.

Sustainable development and gender equality should be considered to cut across all policies and initiatives that seek economic growth with equality. As it is impossible to differentiate between the human and environmental dimensions, the climate change fight provides a fresh opportunity to address gender equality on new fronts in accordance with the main international agreements relating to sustainable development, climate change and gender equality. Considering the 40-year legacy of building the Regional Gender Agenda and its contents,' and the new challenges arising in the context of the implementation of the New Urban Agenda and of the 2030 Agenda for Sustainable Development, contemplating the role of public mobility policies in the climate change fight is fundamental. It is also important to create positive synergies among the relevant regulatory frameworks with a view to combining forces to drive the Regional Gender Agenda, establishing equality and sustainability as the ultimate goals and avoiding a reversal of the progress made owing to critical structural challenges<sup>2</sup> entrenched in unequal power relations in the region.

Among the efforts to foster an environmental big push in Latin America and the Caribbean, this document seeks to provide a preliminary analysis of gender determinants in urban mobility, with a special emphasis on the initial efforts to incorporate gender considerations in the region with a view to adopting more efficient and carbon-free transport. In particular, it analyses Costa Rica and Mexico in the context of the new decarbonization plan and the e-mobility plan, respectively.

At the thirteenth session of the Regional Conference on Women in Latin America and the Caribbean, held in Montevideo in 2016, the governments of the region adopted the Montevideo Strategy for Implementation of the Regional Gender Agenda within the Sustainable Development Framework by 2030 (ECLAC, 2017).

ECLAC has identified four structural challenges entrenched in unequal power relations: socioeconomic inequality and the persistence of poverty in the framework of exclusionary growth; the sexual division of labour and unfair social organization of care; discriminatory, violent and patriarchal cultural patterns and the predominance of a culture of privilege; and the concentration of power and hierarchical relations in the public sphere (ECLAC, 2019)

#### Gender and mobility against the backdrop I. of the environmental big push

ECLAC has proposed progressive structural change based on an environmental big push<sup>3</sup> as a requirement for sustainable development with equality, in line with the 2030 Agenda for Sustainable Development and the Paris Agreement under the United Nations Framework Convention on Climate Change. In this context, a proposal has been made to coordinate policies, low-carbon investments, regulations and tax regimes to achieve —along with harmonized and decisive action by multiple stakeholders from the public and private sectors and civil society— significant change in the development model. The aim is to guarantee, at the same time, economic growth, the adoption of technological innovations, job creation, the expansion of markets towards goods less intensive in carbon and natural resources, and public investment over a prolonged period, until such a time as private investment is able to sustain the expansion (ECLAC, 2016).

ECLAC has highlighted equality as a fundamental ethical principle that underpins the conceptualization of sustainable development. Thus, there is a need to move towards progressive structural change that promotes the diversification of production structures to make them learning- and innovation-intensive and ensure that they generate skills and quality employment and that they enable a more equitable distribution of productivity gains between capital and labour, and also between men and women. Equality also involves full ownership and exercise of rights, and women's autonomy is vital to this (ECLAC, 2019). This change is necessary because Latin America and the Caribbean is facing a complex —and increasingly uncertain— regional and international context, where there have been advances in and obstacles to the achievement of women's autonomy and gender equality (ECLAC, 2019).

Urban mobility harbours considerable potential for the gradual adoption of policies to achieve this goal. Simultaneous coordination of many factors and initiatives in multiple sectors is required —with due consideration of the needs of the different groups of users, including variables relating to gender, age, ethnicity and persons with reduced mobility, for example— along with productive and social transformation in favour of more sustainable and equal mobility for all.

The transport sector is the main source of CO<sub>2</sub> emissions, owing to the considerable use of fossil fuels, inefficient automotive technologies and high levels of private motorized transport, which have been increasing year after year in Latin American countries. Along with the adverse effects of global warming, this pattern of private mobility creates other local negative externalities such as congestion, road accidents and considerable negative impacts on air quality and pollution levels (ECLAC, 2018b, 2015). Moreover, these adverse effects have a greater impact on the population groups with the lowest incomes —notably women— and thus with fewer resources for adaptation (Casas, 2017).

Mitigation efforts in the transport sector are based primarily on supporting public transport efficiency and coverage, disincentivizing the use of private transport, and encouraging forms of active transport and use of low emission technologies. At present, thanks to the increasing penetration of renewable energies at competitive prices in the region, conditions are favourable for investments in propulsion technologies that generate fewer negative externalities (such as e-mobility or hydrogen), which not only reduces the emissions associated with urban mobility considerably, but also facilitates structural change that

<sup>&</sup>lt;sup>3</sup> The big push proposed by Rosenstein-Rodan (1960) is an economic growth strategy that consists of the coordination of a large number of investments that need to be undertaken simultaneously in different sectors, as part of a coordinated and investment-driven public process. One of their arguments is that there are indivisibilities in production functions —in either the inputs or the outputs— which means that there is a minimum scale for producing the goods in question. Within a framework of multiple investments that must be carried out simultaneously in order to be viable and whose scale requires broad markets, the returns to be had from the combined set of actions depend on their complementarity (ECLAC, 2018a).

goes hand in hand with design, infrastructure construction, and provision of value-added services. With regard to climate change adaptation, the transport sector urgently needs to examine the conditions in which cities and communities manage the risks associated with climate variability, which poses challenges for existing modes of transport and road networks, and the design and planning of future systems (Cob Barboza, 2018). Lastly, there is a dual objective to considering and incorporating the role of women in public policies and initiatives: first, ensuring the economic efficiency of projects (social and labour-related co-benefits) and second, adopting a human rights-based approach to fighting poverty and to climate justice.

Achieving an environmental big push requires the integration of disparate visions of the city and the search for efficient responses to the growing demand for transport services. This would mean establishing an approach which encourages



However, in order to foster sustainable mobility through an environmental big push, new urban mobility systems must consider the social dimension (greater overall accessibility and physical and road safety) —along with economic impacts (faster and cheaper) and environmental impacts (smaller environmental footprint)—, and take into account gender criteria in planning as a means of achieving the 2030 Agenda for Sustainable Development.

#### Mobility patterns differentiated according Ш. to gender

Most findings on the relationship between gender and mobility show that men's and women's movements are differentiated and guided by the same roles attributed socially to each sex: men's movements are "pendular" (from the point of departure to the point of arrival; generally, from home to work) while women's movements are "polygonal", meaning that they involve multiple trips with different focal points between journeys. Although in Latin America the differences related to gender issues are declining and women's mobility is increasingly similar to that of men (CAF, 2011),4 travel "choices" and their sustainability are still shaped by gender inequalities (UN-Women, 2018). Thus, gender roles strongly determine mobility patterns in the region, in terms of the purpose of travel, the distance covered, the number of stops and other elements of the journey, as shown in table 1.

In Norway, one of the countries with the lowest levels of inequality, married women work closer to home. The link between mobility and empowerment is not directly proportional as greater mobility may mean greater equity in some situations, but not necessarily all. In order to avoid this oversimplification, it is important to consider the specialization of that mobility and thus its social, cultural and economic characteristics (Svab, 2016).



Table 1 Characterization of men's and women's mobility patterns

	Women	Men
Purpose of journey	Diverse, depending on work and social tasks and related to household tasks	Mainly work-related
Distance	Concentrated journeys, covering short or medium distances, often near the home	Medium to long distances
Stops	Multiple stops during the journey	Limited, generally work-related
Origin-Destination	Fragmented, zigzag trips	Direct return journeys for work
Hours	Variable	During peak hours
Accompanied trips	Frequently accompanied by children, older persons or persons with reduced mobility	Less than women
Load	Baby strollers, packages or shopping	No particular load

Source: A. Jaimurzina, C. Muñoz Fernández and G. Pérez, "Género y transporte: experiencias y visiones de política pública en América Latina", Natural Resources and Infrastructure series, No. 184 (LC/TS.2017/125), Santiago, Economic Commission for Latin America and the Caribbean (ECLAC), 2017.

Modes of travel must also be considered along with the specific conditioning of a city model where private cars dominate the roads (car-dependence) which poses problems for shared mobility involving other active modes of transport (walking, cycling) or a preference for public transport which uses space more reasonably in terms of the passengers transported.

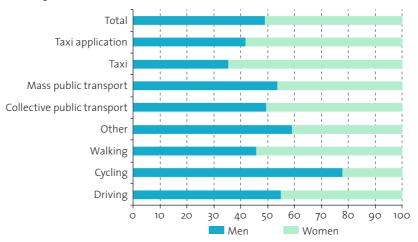
The weak encouragement of and investment in active mobility also creates a perception of insecurity, resistance and fear when choosing an alternative means of transport to cars (FES-ILDIS, 2018). These themes play a crucial role in the decisions on modes of transport and directly affect women's physical autonomy and mobility. According to data for different cities of the region, women are less inclined to use cars and motorcycles than men and tend to use public transport more frequently or to walk, even though it exposes them to different situations of physical violence in public spaces (Rozas and Salazar, 2015), for example street harassment, which is widespread. Women are also more likely to opt for carpooling (United Nations, 2015), even if they have a car at their disposal (Alber, 2011).

Gender differences thus show unequal contributions from men and women in the mitigation of negative externalities, with women tending to follow a more sustainable travel pattern with the aim of protecting the environment (Svab, 2016). Meanwhile, existing studies show the masculinization of private car use (OECD, 2008; Johnsson-Latham, 2007), whereby men, in accordance with the role of masculinity assigned to them in society, tend to opt more frequently for cars as means of transport (Stock, 2012) and thus consume

more energy and generate more carbon emissions than women. Moreover, in their role as caregivers within the family, women work closer to home and use private transport less than men, which results in fewer CO<sub>2</sub> emissions.

In Latin America, women walk distances that are between 11%-16% longer than men to complete their daily tasks, and take more complicated routes (Umaña and San Gil, 2017). In Costa Rica, although women travel more than men, they have more limited access to private transport (20% of women compared with 34% of men). Roughly 44% of women in the metropolitan area walk or cycle, compared with 31% of men (AC&A/Gensler, 2017).5 Another recent study on the country also suggests that 60% of men use taxis (both traditional services and mobile applications) to go to work or school, compared with 39.8% of women. That said, when it comes to providing care, 31.2% of women use taxis compared with 18.6% of men (Cob Barboza, 2018). The situation is similar in Mexico City, where women walk considerably more than men, although taxis (both traditional services and mobile applications) are increasingly used by women compared with previous years (CAF, 2018), as shown in figure 1.

Figure 1 Journeys made according to sex and mode of transport in Mexico City, 2017 (Percentages)



Source: Prepared by the authors, on the basis of data from the origin-destination survey of households in the Valley of Mexico, 2017.

The same occurs with bicycles, for which the frequency of use differs considerably among men and women. In San José, Costa Rica, 15.2% of men and 6.0% of women surveyed said that they cycled, although a larger proportion of men did so only for recreation or physical exercise (Cob Barboza, 2018). Cycling accounts for no more than 12% of journeys made by women in Sao Paulo, Brazil (Kohler Harkot, 2018) and for 24% of women's journeys in Mexico City, as shown in figure 1. As mentioned previously, the decisions relating to means of transport are linked to an individual's upbringing and gender roles associated with learning and use of these modes. Mobility of care, which normally involves women, evidently limits the use of the bicycle to carry out various tasks.

Therefore, it is important to consider that more or less sustainable mobility for women at certain income levels stems more from the economic and social adjustments that they face than individual decisions on mobility (Jirón, 2016). As a result, alternative modes are fundamental to meet the different needs of each type of user (Cob Barboza, 2018) and to move beyond quantitative variables and characteristics of urban infrastructure and consider the perceptions, emotions and attachments that shape an individual's relationship with the city (Kohler Harkot, 2018).

 $<sup>^{5}</sup>$  However, considering only the segment that uses the bicycle as a means of transport, most are men with an average age of 25.

These considerations should be taken into account by public policymakers in the region, as population and economic growth, along with technological changes and growing concerns about the environment, indicate strong growth in demand for transport services and significant changes in passenger itineraries and characteristics, affecting traditional models of daily mobility and worsening existing inequalities. The plan is to offer better quality of service in public and non-motorized transport (pedestrians and bicycle users), to cover not only the journeys of those with fewer resources, but also of those with higher incomes. Only then will it be possible to break the vicious cycle that takes place when the quality of public transport worsens and more people, including more and more women, use private cars, increasing road traffic and exacerbating pollution. For example, in Mexico City, the use of cars among women of a higher socioeconomic status is five times that of women of a lower socioeconomic status, which represents a 50% reduction in journeys that could be made on foot (UNAM, 2017).

A public policy of sustainable mobility should avoid public transport users switching to private transport when their income increases, which means that there should be a strengthening of public transport networks, connectivity, safety and accessibility in relation to other means of transport, through an intermodal network (combined use of different modes, public and private).

An intermodal public network also favours women's mobility as their transport needs change throughout the day. One good example is the Ecobici public bicycle sharing system in Mexico City, which is highly complementary to other modes of transport, and in which 40% of users are women, four times the figure seen among women using their own bicycles (SEDEMA, 2018).

#### Mobility of care: challenges and opportunities III. for women's autonomy

Daily mobility has mixed implications for individuals. Urban experiences vary depending on gender and differences in age, life cycle, ethnicity, income and skill, for example (Jirón, 2015). Examining mobility from a gender perspective shows that it is not only a social practice but also a social relationship and, as a result, it is political because it expresses, enables, produces or protests against power relations (Jirón and Zunino Singh, 2017).

As previously mentioned, women have been relegated historically to the home or to tasks relating to the family and the household. Although they have gained access to better opportunities on the labour market, this progress has not been accompanied by greater shared responsibility for men in the home, and as a result, women are still responsible for domestic and care obligations in a large share of households.

As the household composition changes, so do the travel requirements (SUTP, 2018) of its members, and gender roles and the associated expectations influence travel decisions and responsibilities (CAF, 2018). Women's mobility needs are not limited to commuting for work, but may also include (to a larger extent and depending on family arrangements) travel specific to inherited gender roles: picking children up from school, shopping for the home and all the activities relating to helping other people whose care has been entrusted to them historically, without taking into account their free time, appropriate organization of cities, or the types of journeys required to fulfil the various care tasks. As a result, urban mobility is one of the biggest barriers of access for women within male-oriented urban scenarios. Thus, a perspective of daily life must be included in public mobility policies, with the aim of recording the series of tasks carried out regularly and periodically in the use of the city (Jirón, 2015).

Proponents of feminist economics have talked about the care economy, 6 which is conceived as an economic system that takes into account women's productive and reproductive

<sup>&</sup>lt;sup>6</sup> Care refers to goods and services and activities that provide people with food, education, good health and a favourable environment. Thus, it includes material care that involves a job, economic care that involves a cost and psychological care that involves an emotional tie (Batthyány, 2004)

labour, and say that the recognition and redistribution of this labour are essential to achieve socioeconomic and gender equality in the countries of the region. Against this backdrop, Carrasco and Tello (2013) analyse the sustainability of human life through five logical and historical links: natural systems, domestic care work, communities, State public administration and markets. This classification establishes the problem of the sexual division of labour as the historical basis of unpaid work done by women which "sustains life" and, nonetheless, has been hidden and at the same time exploited by the traditional economy and the financial world (Carrasco and Tello, 2013). This subordinate role played by women also ensures the minimum "maintenance" of housing, transport (movement of people and goods) and cities' public infrastructure (Feagin and Castells, 1979), representing value added exploited by the State, which should be responsible for providing these services.

In this regard, care work is generally related to the household and social institutions providing care such as schools, soup kitchens (Esquivel, Faur and Jelin, 2012), health centres and other public services. This indicates that, when planning inclusive transport systems, location and connectivity must be adapted to women's transport needs.

The innovative concept of the mobility of care provides a perspective for "recognizing and revaluing care work" and helps to better appreciate the trips that women and men make when caring for others (Sánchez de Madariaga, 2009 and 2016), conceptualizing mobility from a perspective that incorporates the need for journeys that are not related to work (IDB, 2016) as the data reveal significant travel patterns otherwise concealed in data collection variables (Sánchez de Madariaga, 2009 and 2016). In general, men account for more work-related journeys (mobility for productive purposes) while women's travel patterns, characterized as mobility of care, differ. As mentioned previously, women tend to take more and shorter trips, travelling to more disperse locations.8 They use public transport and walk more than men and tend to make more non-work-related trips (SUTP, 2018) (see table 2).

Table 2 Mobility for productive purposes versus mobility of care

Mobility for productive purposes	Mobility of care
Trips previously made mainly by men and now increasingly made by women	Trips made mainly by women
From home to work and from work to home	More varied trips (disperse destinations or trip chains)
Long trips in terms of time and distance	Shorter trips in terms of time and distance
Mainly in public transport and by car	Mainly on foot, public transport or by car (depending on socioeconomic status)
	Tends to involve more than one person
	Heavier load (e.g. bags and care equipment)

Source: C40 Cities Finance Facility (CFF), Lineamientos para desarrollar un plan de acción de género para el Eje 8 Sur, Mexico City, 2018.

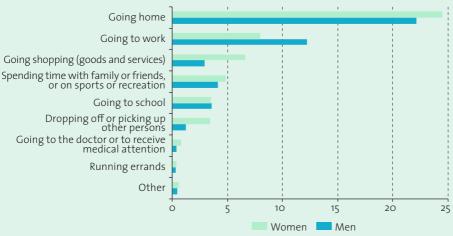
Many trips women have to make on a daily basis, especially trips to accompany children to and from school, are fixed in space and time and therefore restrict the possibilities of women to take on (formal) work, since it pre-structures their day and only leaves timewindows of a few hours (Mark, 2017). Moreover, in light of their care responsibilities, women are often less willing to travel further distances for work (IDB, 2016), although, if they did, this could mean more opportunities to earn higher salaries (Herrera and Razmilic, 2018).

<sup>&</sup>lt;sup>7</sup> According to studies on the mobility of care in different contexts (Germany, Italy, Spain, United Kingdom) women account for a larger percentage of trips for the purpose of providing care (Zucchini, 2015). For this reason, the notion of mobility of care is considered essential in the analysis of gender and mobility. Understanding the characteristics of journeys relating to care is fundamental to improving women's mobility and fostering transport systems that meet women's travel needs.

Women are more likely to be employed as part-time and informal workers than men, so their destinations are not necessarily concentrated in the central business district or in one or two main areas of employment, but also in residential areas. As they need to organize their days around their own work and their children's timetables, their travel times can be much earlier or later than the typical work day around which most transit is planned (SUTP, 2018).

In Mexico, as in other Latin American countries, women assume the largest share of reproductive labour within the home and in society,9 and thus make most of the trips relating to mobility of care. As shown in figure 2 on Mexico City, of the total trips reported, shopping accounts for 6.63% of the trips made by women, compared with 2.96% of the trips made by men. Similarly, dropping off or picking up others accounts for 3.4% of the trips made by women, compared with 1.25% for men.

Figure 2 Breakdown of trips by purpose, Mexico City (Percentages)



Source: Prepared by the authors, on the basis of data from an origin-destination survey of households in the Valley of Mexico, 2017.

Although the "Going shopping (goods and services)" category does not provide specific information on trips relating to care, because there is no indication whether shopping is for the household, it can be deduced that most trips in this category could be related to care, thus reflecting the over-representation of women in that respect. Similarly, the "Dropping off or picking up other persons" category, in which women outnumber men, does not indicate whether trips are strictly related to care, since they could be for other purposes; it is, however, possible to deduce this more accurately than the previous category. This suggests considerable room for improvement in the formulation of survey questions to allow for a more precise analysis of women's participation in trips relating to care.

The analysis of journeys relating to care requires significant changes in the way statistical data on mobility is collected, as the existing process usually incorporates a number of biases that lead to undervaluation. As a result, the statistics do not accurately account for the short trips made on foot or trip chaining, which are both more frequent among women than men. They also fail to correctly distinguish trips relating to care from other types of travel, and thus many journeys relating to reproductive work are classified as travel for personal reasons, shopping, errands and leisure, and in many cases are placed in other categories (Zucchini, 2015). Correctly visualizing care trips in one dedicated category recognizes the importance of care work and allows transportation engineers to design systems that work well for all segments of the population and improve urban efficiencies (SUTP, 2018).

In order to carry out a gender analysis on the basis of origin-destination surveys, these must consider the family structure, including the presence of children and other dependants in the home or whether the head of the household is a woman or man. There is also a need for more detailed information on trips. For example, the questions raised should reveal whether the journey was made with someone, identify intermediate journeys, origin, destination and purpose, and integrate legs of the journey made in the same modes of transport (CAF, 2018).

<sup>&</sup>lt;sup>9</sup> In Mexico City, women spend an average of 39.76 hours per week on unpaid work, compared with just 15.61 hours for men. Women from the highest income quintiles in this city spend less time on this type of work, probably because their household income allows them to pay for domestic and care services (Pérez Fragoso, 2016).

This is clear in Mexico City, for example, where, along with the typical deficiencies of transport services in Latin America (inadequate safety, speed and comfort), part of the problem stems from the fact that planning is traditionally oriented to men's needs, with the predominance of radial services from the city's outskirts to the centre, scarce local services adapted to the coverage of short distances, low frequency of services in off-peak hours, and generally, units that are not designed for the comfortable and safe transport of dependants (Díaz, 2018), which, as shown in this document, falls mainly to women.

Rethinking urban transport systems in the spirit of equality and sustainability is essential for the transformation of the current gender order and redistribution of unpaid work (domestic, reproductive and care work), not just between men and women, but also between families, the State, the private sector and the community, freeing women from this exclusive responsibility. An analysis of who provides care and how requires consideration of the supply of care services as well as the existing infrastructure, and as a result combines the "traditionally" private sphere involving care relationships with the public sphere of urban development and transport to contribute to women's autonomy (Pérez Fragoso, 2016).

Thus, the link between the transport sector and gender is central to the achievement of the SDGs as transport services in Latin American and Caribbean countries currently reproduce socioeconomic and gender inequalities. In turn, corresponding plans and policies do not consider inclusion or equality, assuming that men's and women's mobility patterns are uniform without recognizing their diversity or identifying or addressing the multiple needs, demands and experiences of all users (Jaimurzina, Muñoz Fernández and Pérez, 2017). This continues to hamper the resolution of the main structural challenges of gender inequality which stem from patriarchal Latin American and Caribbean societies.

# Initiatives to incorporate the gender perspective into mobility policies

Integrating the gender perspective into mobility policies implies the consideration of women as active agents in production and in the improvement of the urban environment in general and the transport system in particular. Women would play a proactive and evaluative —albeit not instrumental— role, thus contributing to their growth and development as citizens in the exercise of their rights (Bonino and Bidegain, 2011).

Although most initiatives to include the gender perspective in the transport sector focus on eradicating violence against women and girls in public spaces and on public transport, which ECLAC has shown to be a priority (Rozas and Salazar, 2015), it is important to bear in mind that this is not the only issue relating to the cross-cutting and essential link that should exist between gender and mobility. Currently, transport policies seek to resolve the problem of insecurity, but do not consider the daily transport needs or demands of women, whose travel patterns, as shown previously, are considerably different from those of men.

With a view to correcting gender imbalances and inequalities between men and women as relates to transport systems and urban design, with a focus on inclusion, accessibility and sustainability, women and gender considerations must be incorporated into all planning processes and transport policy frameworks (and not as an afterthought). The gender agenda must be mainstreamed in the sector, through awareness-raising and training in gender and equality between men and women, across all sectoral institutions and organizations at all levels, and independently of the themes of harassment and violence.

One example of this is the Government of Costa Rica's sustainable urban mobility project within the framework of the decarbonization commitments adopted by the country. Using the existing right of way, an electric train will connect the main cities of the four provinces of the greater metropolitan area over 73 km and across 15 cantons, and will have an innovative design that will favour connected cities and allow passengers to travel to their

destinations effectively, with no noise or air pollution. Although the main aim of the project is to foster the transition to an electric vehicle fleet, public institutions will implement initiatives to improve quality of life and the efficiency of public service to reduce emissions and road congestion, incentivize the use of public transport, generate fuel savings and better address the needs of the different types of users of the service.

Through an online survey carried out on train services (and also applicable to bus services) women felt that they were unsafe (26.7% compared with 1.7% of men) and more women than men said that they were not accessible for persons with reduced mobility (20.6% versus 15.6% of men). Other difficulties that could be considered significant are the lack of service up to destination points (65.8%), the distance of stops (34.2%), the discomfort experienced while travelling owing to passenger overloading (33.6%) and poor connectivity with other modes of transport (29.4%) (Cob Barboza, 2018). Likewise, the preliminary findings of the Costa Rican Association of E-mobility (ASOMOVE) show that women account for a larger share of persons interested in switching to an electric vehicle fleet. As a result, and bearing in mind that women use buses and trains more frequently for purposes of providing care (23.8% of women compared with 9.7% of men), initiatives must encourage the transition to gender-responsive e-mobility.

Gender equality criteria were also incorporated into documents relating to calls for tenders<sup>10</sup> and into system financing." Feasibility studies, in particular, reflected the need for population perception surveys disaggregated by sex and based on usage preferences, in order to identify specific measures for the design of the vehicle fleet that would have a positive impact on gender gaps in the sector.

In light of the need for objective data to manage more concrete initiatives, a gender analysis of the overall transport sector in Costa Rica was completed recently. The aim of the project, dubbed Mitigation of Emissions in the Transport Sector (MiTransporte), was to support the Government of Costa Rica in the implementation of measures to reduce greenhouse gas emissions in the transport sector. The "Analysis of gender in the transport sector in Costa Rica" was developed against this backdrop, and examines the conditions of access and use of the transport system in the greater metropolitan area. It takes account mobility needs and patterns according to gender with the aim of balancing the historically unequal relationship between men and women in the governance and use of public space —including transport.

Both studies offer guidelines for action with proposals that address the country's agenda for transport modernization, inclusion and mainstreaming of gender for decarbonization and climate action in the sector, taking into account the experiences and challenges facing users and particularly, the contributions made by women leaders that have helped to break down barriers to access to public spaces and governance. Table 3 shows some of the actions taken to promote gender equality within the framework of e-mobility in Costa Rica.

Efforts are also being made in some cities in Mexico to factor the gender perspective into e-mobility projects. The study "Lineamientos para desarrollar un Plan de Acción para el Eje 8 Sur" (CFF, 2018) was developed under the C40 Cities Finance Facility, and included the participation of the Ministry of Mobility (SEMOVI), the Ministry of the Environment (SEDEMA) and the Electric Transport Service (STE) to analyse an Eje 8 Sur zero emissions corridor on the basis of women's specific needs.<sup>12</sup> In particular, the categories examined were land use, urban amenities, housing, modal transfer centres (transport infrastructure), mobility patterns for future users, areas that are hazardous or where violent incidents occur and the potential impacts of the corridor on these variables. A proposal of guidelines for the preparation of a gender action plan based on the foregoing analysis of the corridor was then presented.

 $<sup>^{10}</sup>$  On the basis of interviews with Ms. Andrea San Gil, Advisor to the First Lady and director of the Centre for Urban Sustainability of Costa Rica, and with Ms. A.L. Moya Mora, advisor to the Ministry of the Environment and Energy of Costa Rica.

One of the requirements of the Central American Bank for Economic Integration (CABEI) for the development of this study is the inclusion of gender to factor in specific conditions for the implementation of this means of mobility in the greater metropolitan area (Cob Barboza, 2018).

<sup>&</sup>lt;sup>12</sup> Available [online] at https://cff-prod.s3.amazonaws.com/storage/files/nmYhMutg5C55hKEzbnHljoAbuFt7CW7zfv5K5h8C.pdf.

Table 3 Activities included in the operating plan of the MiTransporte project

Activity incorporating the gender perspective	Complementary targets
Support in the implementation of initiatives to reduce the use of private cars and the increase in public transport and non-	Mainstreaming of the gender perspective in initiatives. Equal or priority participation of women in the management and development of the pilot project.
motorized traffic.	Women's specific demands and needs addressed in the service provided by the pilot project (safety, comfort, more space for the persons in their care).
	Prevention and care measures implemented for situations of harassment and violence committed during journeys, at transport stops and in units.
Participation in international networks and exchanges with experts on sustainable mobility, climate protection and innovation.	Spaces created for sharing knowledge in pursuit of equity and gender equality, implemented.

Source: G. Cob Barboza (coord.), "Análisis de género del sector transporte en Costa Rica: informe final", San José, MiTransporte, 2018.

The second phase of the project is expected to include the implementation of the proposal at the intersectoral level, developing it further by incorporating new institutions and extending recommendations to the cities of Hermosilla, Monterrey and Guadalajara, where the C4o-CFF programme is also joining forces to continue advising local governments on the bankability of their respective e-mobility projects and the incorporation of the gender perspective into these projects.<sup>13</sup>

#### Recommendations for decision makers V

The differences between the mobility patterns of men and women, as described in the document, must be incorporated into the design of transport systems and associated infrastructure. Thus, it is important to consider not only the participation of actors related to public transport systems and urban development, but also the involvement of those who manage public spaces and social development, including machineries for the advancement of women in the design and development of statistical instruments that measure inequalities in gender and transport. This will not only result in more inclusive and sustainable transport services, but also in mobility which is better suited to urban development, duly addressing the needs of the entire population.

There is an urgent need for more women in both executive and technical positions in transport agencies, which have traditionally been managed by men whose perspectives and needs with regard to travel have consciously or unconsciously permeated the sector's policies. Data production and the filling of gaps in data on gender and transport are also crucial, with periodic interdisciplinary studies that improve understanding of travel patterns and gender-specific needs through the maintenance of systematic and comparable information on discernible mobility patterns, mobility of care and the impact of the measures implemented. It is important to explore the limitations of the use of origindestination surveys to carry out a gender analysis, especially given the lack of detailed information on journeys that are non-linear and not related to work, and to standardize data in all surveys and avoid the fragmentation of data in the different institutions.

Several countries of the region, as shown in the document, are beginning to reformulate their mobility policies, focusing on the decarbonization of their fleets. Encouraging a development policy focused on sustainable mobility can facilitate not only access to better services and a reduction in pollutants, but also a collective effort to organize actions and investments that favour an environmental big push. This requires the coordination of diverse initiatives across the public and private sectors to foster a productive transformation, more sustainable mobility and gender mainstreaming. For example, there were coordinated actions including a comprehensive land-use policy fostering development in public transport and its proximity to services such as health and education

<sup>&</sup>lt;sup>13</sup> Information obtained from the interview with Ms. M. Monterrubio (GIZ-C40 Mexico)

centres in Curitiba, Brazil and recently in Quito, where childcare centres and other social or citizen-focused services are located at major transfer points in the city, facilitating access. Similarly, incorporating the gender perspective and mobility of care into studies on integrated fares should reduce the economic burden of multiple journeys, which are generally made by women for care purposes.

The use of technology would improve the experience of users, especially women, in terms of prevention, reporting and assistance in situations of harassment and violence of different kinds, and the understanding of their travel patterns. Utilizing the information available in mobile phones and the opportunities provided by big data would help to improve the use of public transport systems, provide better quality services according to the needs of each user and incorporate quantitative factors relating to mitigation and emission reduction. Moreover, a strategy could be developed to ensure that all public spaces are equipped with suitable lighting and signage, Wi-Fi access and other technological services, thus providing safe and good quality infrastructure for all users, promoting public transport and its use along with other modes of transport.

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#### Género y transporte: experiencias y visiones de política pública en América Latina

Azhar Jaimurzina Cristina Muñoz Fernández Gabriel Pérez

The link between the transport sector and gender is central to achievement of the Sustainable Development Goals, as transport services in the countries of the Latin American and Caribbean region currently reproduce its hallmark socioeconomic and gender inequalities. Although most public policies on gender equity or equality in the region include an explicit mandate to consider the gender perspective in all government policies, gender has yet to be mainstreamed in transport policies, plans and programmes. In general, most actions focus on eradicating violence against women and girls in public spaces and public transport. Although this is a priority issue, as ECLAC has shown, it is not the only one that needs addressing in relation to the cross-cutting and crucial link between gender and transport.

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# Violencia de género en el transporte público: una regulación pendiente

Patricio Rozas Balbontín Liliana Salazar Arredondo

This exploratory document brings together the backgrounds to sexual assault on public transport in some of the main metropolitan areas of the region, based on the studies and research carried out in each country. Specifically, it analyses the characteristics of acts of gender-based violence perpetrated on public transport and in access infrastructure, reviews the corresponding legal and regulatory frameworks, and describes the policies adopted in each country to address this problem. Based on this background, the document puts forward a set of ideas that is intended to form the basis of an integrated policy on the subject.

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