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The Future of Public Transport: Well-Funded, Equitable and Resilient

Findings from the Mobilize Learning Lab

ITDP

ALCALDÍA MAYOR DE BOGOTÁ D.C. | BOGOTÁ

VREF

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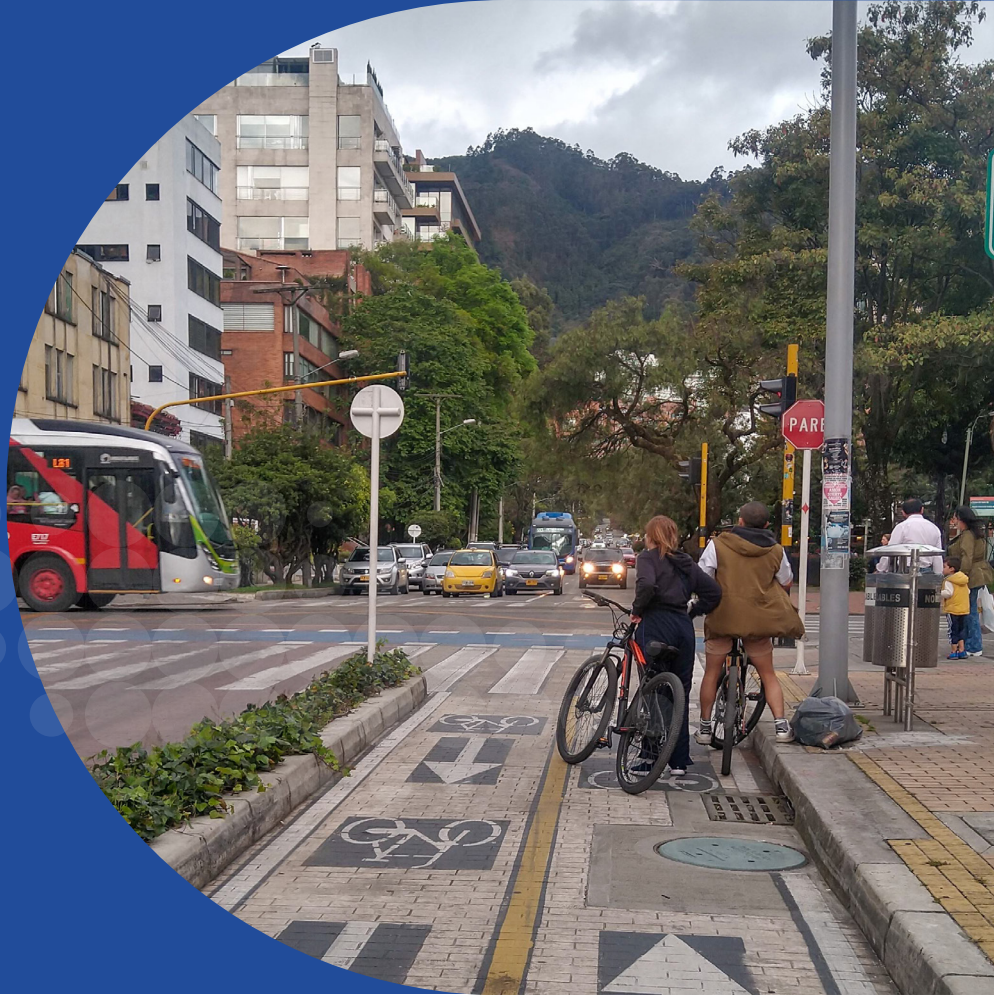


Bogotá's Transmilenio and a network of cycling infrastructure complement travel options. Source: ITDP.

Recent years have emphasized the inadequacy of many cities' transportation paradigms. The status quo of car-oriented development has been worsening inequality, access, and environmental conditions, as well as increasing road crashes, fatalities, and injuries. This has been exacerbated by the COVID-19 pandemic and the climate emergency. Such crises, however, have made the importance of public transport clearer than ever. From ensuring equity and shared economic prosperity to building resilience and lowering carbon emissions, good public transport can radically transform our cities and our future for the better.

In response to these crises, we needed to consider and articulate what the future of public transport should look like and how we can shape it. Over the past year, we have been doing just that. Institute for Transportation and Development Policy (ITDP) and the Volvo Research and Educational Foundations (VREF) convened a Mobilize Learning Lab that gathered transport researchers and practitioners from around the world to discuss the future of public transport, around themes of equity, resilience, and financial sustainability.

Based on this yearlong discussion, we gained five key takeaways:

1. **Public transport is a public service, therefore, it needs public investment and public oversight.** All public transport needs to be well funded and financed and well managed, with informal public transport being considered as part of this public service. For public transport to be a public service, it needs to reach all (coverage) and be affordable.

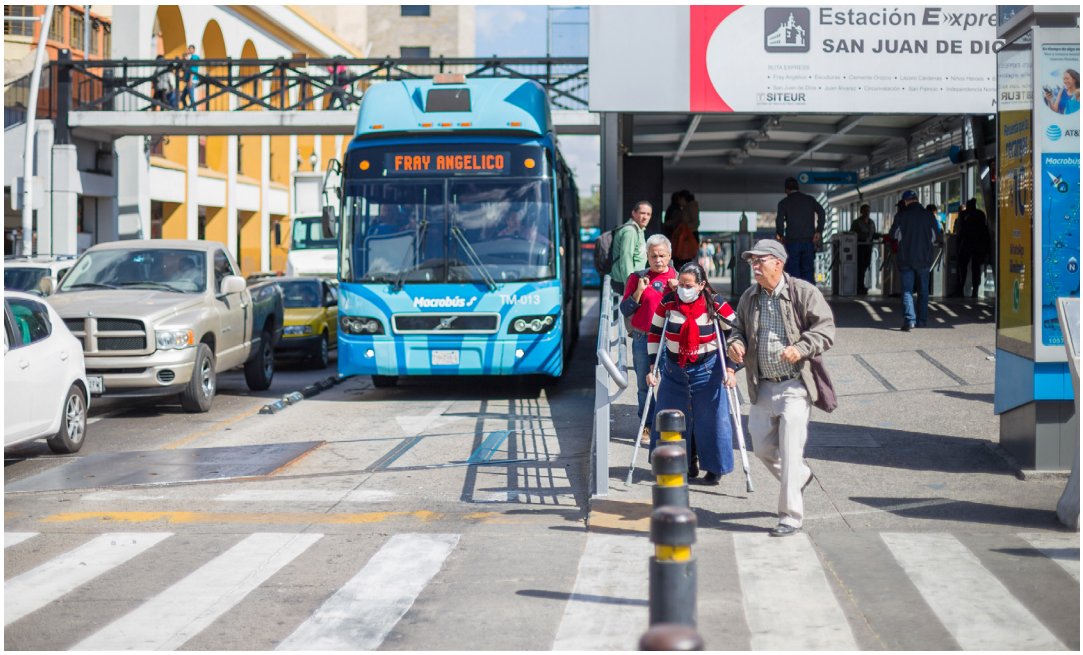
2. **Public transit must provide good service for all.** This is the bedrock for a resilient and equitable public transport system, and it also requires adequate investment. Good service for all begins with frequency, but also means having a diversity of options within the public transport system supported by the first and last mile connectivity options, such as walking and cycling.

3. **Public transport should be built on public participation and community-building.** These are essential to create resilient, sustainable, and equitable public transport. Public transport is not just a technical enterprise, but also a political and social one.

4. **Public transport must be improved and informed by disaggregated data.** At the same time, data is a powerful and political tool that researchers must use carefully.

5. **Public transport planning goes hand-in-hand with land-use planning.** The accessibility, equity, and resilience of public transport is dependent on land-use factors such as density.

Public transport is part of a larger mobility ecosystem together with street activity and land use, and has an integral role in providing access for people. Pictured: Guadalajara, Mexico. Source: ITDP.



Background

Over the course of five virtual events and one in-person conference in the lighthouse city of Bogotá, Colombia, transport experts shared knowledge and ideas on the future of public transport. The virtual events followed three major themes:

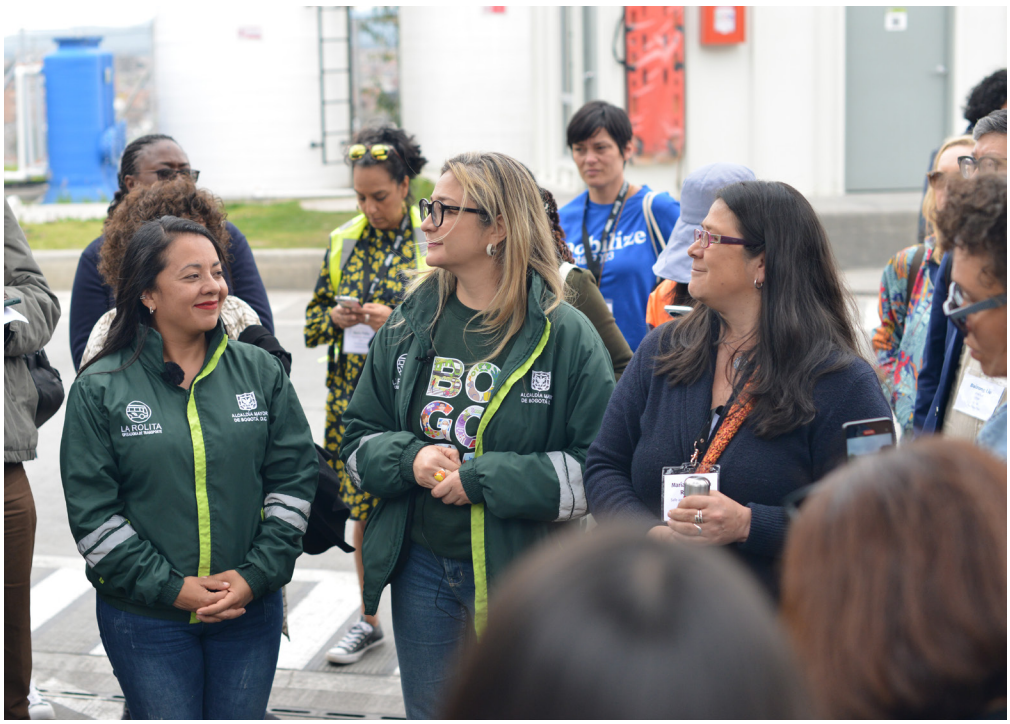
1. Funding and Financing Public Transport,
2. Equitable Public Transport, and
3. Resilient Public Transport.

These three themes were then the structure for the event held in Bogotá. The city was chosen to host the conference as the winner of ITDP's 2022 Sustainable Transport Award and because its programs and progress exemplified the possibilities of the future of transport broadly, as it is a leader in public transport.

The city has implemented an extensive and growing bike lane network; interventions improving road safety and multimodal transport for children; programs improving gender parity and safety on its public transit system, and much more. The city's history of public transport reform, culminating with the latest innovation in contracting for e-buses, is rich with lessons, as well as helping to point people to the future. Bogotá's long history of public transport reform has shown that progress is not linear, static, or guaranteed — it takes continued expansion, care, and innovation. Quality can decline if the system is not tended well, as it did between 2012 and 2019.

"Another flaw in the human character is that everybody wants to build and nobody wants to do maintenance."
— Kurt Vonnegut, Hocus Pocus

The conference invited researchers to experience Bogotá's transport initiatives in-person. Additionally, both the in-person conference and virtual sessions included presentations from experts around the world and deep-dive discussions, in which peers learned from one another's local experiences and expertise. Later, participants convened for a virtual roundtable discussion focused on walking and a final webinar sharing conclusions and best practices from the field.



Participants of the Mobilize Learning Lab experienced multimodal transport in Bogotá and had a chance to interact with transport officials, pictured: Deyanira Ávila, former Secretary of Mobility, and Carolina Martinez, CEO of La Rolita. Source: ITDP.

Key Takeaways on the Future of Public Transport

The events and discussions across the three themes pointed to five additional insights on what planners and researchers need to realize the future of public transport. Below, we discuss these insights in more detail.

1. The Future of Public Transport Is a Well-Funded, Well-Financed, and Well-Managed Public Service.

One of the foundational ideas at the heart of the future of public transport is that public transport is an essential public service and therefore must be supported by the government through oversight and investment.

Currently, financing is mostly focused on big infrastructure projects. This misses the bulk of public transport that people typically use — buses and informal public transport — as well as the walking and cycling environment to reach those big infrastructure projects. In many cities, public transport operations are only funded through fare revenue, resulting in unaffordable fares for some, big gaps in times or places that services run, and low-quality service. Thus, **public funding** and **more financing** for public transport are essential to ensure good coverage and affordability for the user. Currently, many local governments have abdicated their responsibility to provide public transport as a public service. This is most clearly seen in the proliferation of informal public transport that has risen up in the absence of public investment and oversight, but it is also seen in more formal public transport too, as a lack of good service (see next point).

Prioritizing public transport as a truly public service means having **government oversight**. This allows cities to plan, design, implement, and fund public transport with the entire public in mind (e.g., by **subsidizing** ridership for those who can't pay the fare and funding operations so that the transportation meets the needs of all users at all times of the day).

In the future, public transport will more fully realize its public benefits that include equity (e.g., increasing access to the city for people with disabilities or caregivers) and resilience (e.g., a diversity of options) with increased public support, both in terms of oversight and funding and by more financing available for all forms of public transport that supports investment and expansion.

2. The Future of Public Transport Provides Good Service for All.

Future public transport must provide good service for all the residents of a city. Key aspects of good service are that it is frequent, reliable, accessible, affordable, and safe. This means inclusive infrastructure and service design that accommodates a **diversity of riders**, which in turn requires **integration** with a **diversity of modes**, including walking, cycling, and other forms of public transport. This also means that services must be planned to meet a **diversity of trip purposes, including caregiving trips** as well as commuting.

Achieving this means establishing robust funding and management of all parts of public transport. This is essential to creating both equitable and resilient public transport, because more diverse modes allow for continued mobility in times of crisis and change.

3. The Future of Public Transport Is Built on Community Participation.

Public input on transport planning is essential for several reasons. First, it ensures that projects **consider the needs, desires, and concerns of residents** — including and especially marginalized populations such as caregivers, older people, ethnic minorities, low-income people, informal communities, people with disabilities, women, and children.

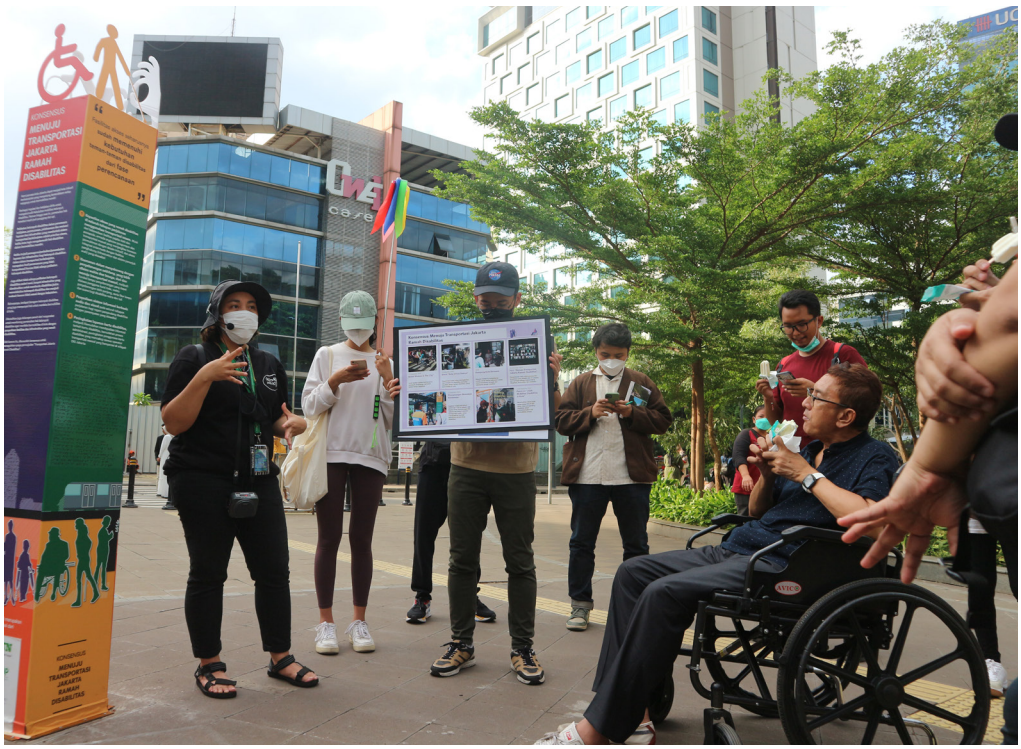
Second, it **builds trust and public support** for transport interventions when people know that planners genuinely care about their opinions and incorporate them into plans. This will help shore up engagement with and support for public transport that can transcend political timelines.

Third, it builds **social capital** that can be leveraged for other purposes, such as community organizing and recovering from crises (i.e., increased resilience).

Public participation can take many forms, and it can change depending on a place's needs and capacity. It can include surveys, interviews, citizen councils, referendums, and public meetings that help residents voice their thoughts on new interventions. It can also include a responsive social media account that gives updates on projects and answers questions.

Research can also be more participatory by inviting the community to share their own knowledge. In such cases, participants should be afforded respect as experts of their own communities and given compensation for their time and labor. This again builds trust, support, and community ownership in a project.

In a more hands-off approach, cities can provide funds to communities so they can take interventions into their own hands (e.g., tactical urbanism). This gives residents even more ownership over their projects and the trust to execute them in ways that are best for the community. It also helps build that social capital and organizing capacity for other, non transport projects.



In Jakarta, disability groups were consulted about the wayfinding solutions in the Jakarta transport system for more inclusive access to transit stops and vehicles. Source: ITDP Indonesia.

4. The Future of Public Transport Is Critically Informed by Data.

More and improved data is essential to the future of public transport. Accurate data helps to make informed decisions. Moreover, data collection can often reveal or highlight problems and mobilize political will toward improvement.

This data has many uses, including but not limited to:

1. Informing decisions and/or showing success or further needs to decision-makers and **finance or funding** institutions;

2. Helping planners **target interventions** equitably, able to respond to the needs of marginalized groups; and

3. Projecting impacts, future needs, and future challenges, as well as modeling changing conditions, to **improve resilience**.

So how do we get data? One route is through digitalization, such as converting fare payment systems from cash to card or mobile app, or by using automated vehicle location (AVL) tracking to update transit schedules in real time. Digitalization, in many cases, also helps systems become more convenient and efficient for passengers, operators, and regulators. It can also help to improve services for informal public transportation and start the transition to formalization.

While such technology makes data more accessible than ever, several challenges remain:

1. **Data collection is political and must be treated as such** (not as entirely objective). Data collection is ultimately about what we value — we value what we measure, and we measure what we value. This can lead researchers to miss vital data, obscure results, or skew conclusions. Agreeing on foundational values is a crucial first step to deciding what data to collect and how to analyze it.

2. **Data collection often necessitates leaving something out because good, comprehensive data collection is expensive.** It is a reality that budgets are limited and it is very difficult to track absolutely everything. However, cities must direct more funds to improve data collection. Digitalization can help lower the costs of data collection, but then cities and operators will need to be ready to analyze and use that data, which may be a different skill set than typical in those institutions.

3. **Data must come from different fields and sources, and it must capture demographic information.** Good and accurate data collection goes beyond collecting surveys and tracking tickets bought. It can include quantitative data (traffic patterns and population density) as well as qualitative data (trips, needs, and concerns as expressed by users and nonusers; user characteristics). Quantitative data can tell you what is happening but not why or sometimes for whom. That comes from qualitative data.

4. **Differences in access to technology between cities, and across different populations within a city,** create a major challenge to inclusive data collection. For example, many data collection strategies rely on mobile phone data. Many groups, including low-income riders and schoolchildren or older people, do not have mobile phones or use the latest technology. Accounting for potential gaps is critical for data collection to inform the planning of equitable and sustainable transportation infrastructure.

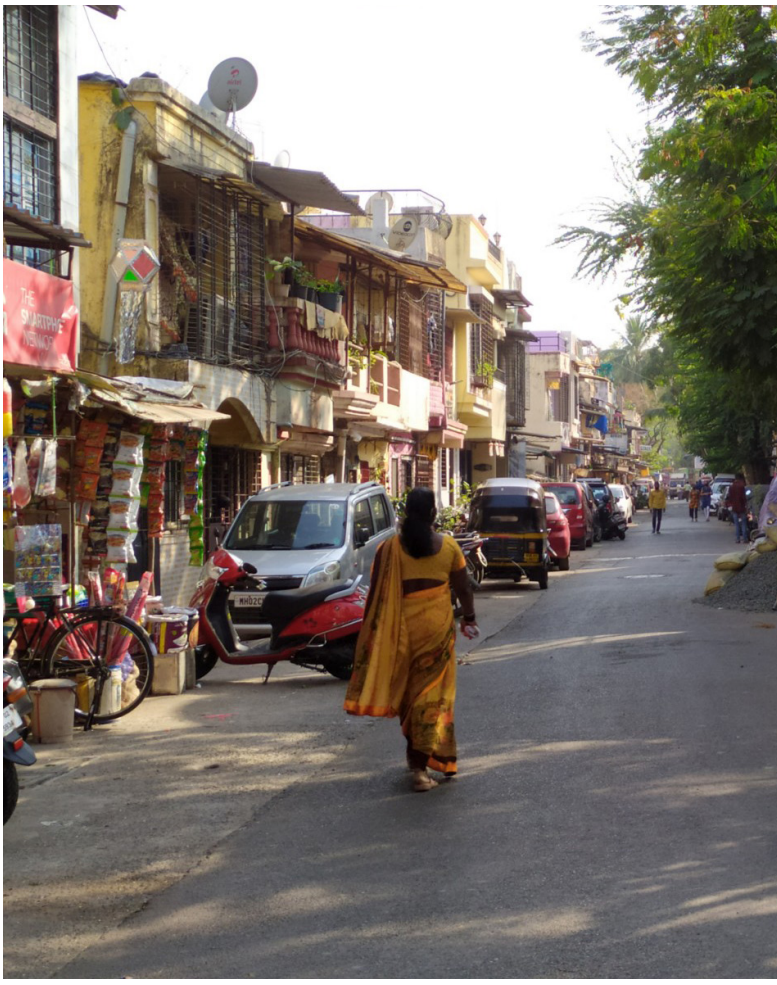
5. The Future of Public Transport Integrates Land-Use Planning.

One of the key factors in financially sustainable, equitable, and resilient transport is density coupled with a mix of land uses. Dense, mixed land use leads to **shorter trip distances and more accessible and affordable services**, supporting all three aspects of public transport: funding, equity, and resilience. Greater densities support more mode options, as people are more willing to walk and cycle for shorter trips but there are also more people close to public transport to ride it for longer distances.

By encouraging shorter trips, dense, mixed-use cities support walking and cycling interventions that are less expensive than buses, trains, and their infrastructure. Moreover, in more compact cities, public transport needs less length for tracks and busways and smaller fleet sizes to provide the services, which also reduces cost. Finally, with more mixed uses, riders on public transport can also have shorter and more varied trips, which allows public transport to meet a higher demand, bringing in more fare revenue. Thus, density coupled with mixed land uses can **ease the funding and financing challenges** of the system.

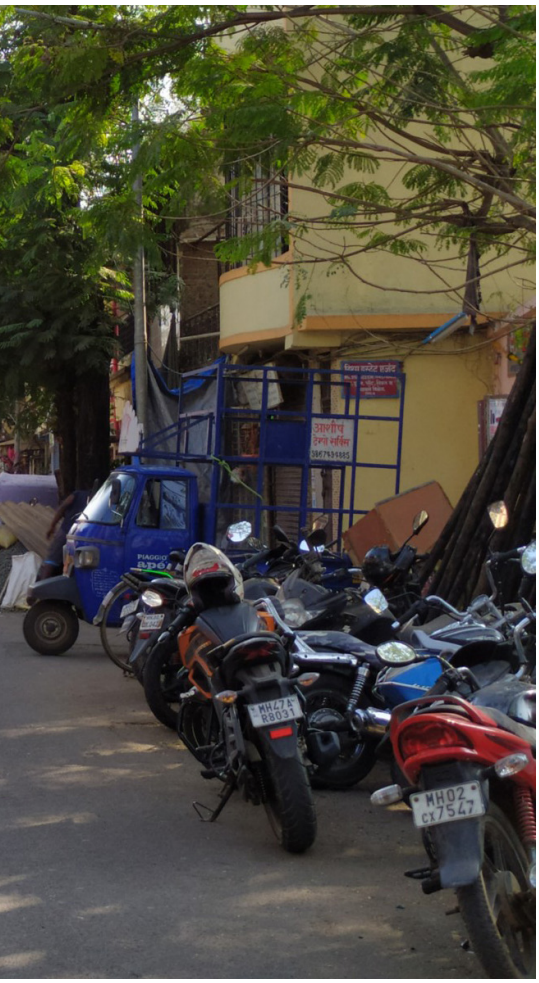
When it comes to equity, **dense, mixed-use neighborhoods can improve local mobility for marginalized communities**, especially for care trips. Low-income communities typically live far from downtowns and commercial districts and more commonly experience long, expensive, crowded trips. For example, a short bike ride to work may be safer and easier for low-income residents than a bus ride with multiple transfers. A short walk or bike ride by children to school on safe, dedicated infrastructure can boost their school performance and free up time for caregivers to meet other needs.

And finally, when it comes to resilience, **dense, mixed-use neighborhoods allow people to access essential goods and services in their communities** (including social support systems) during times of crisis. By making connections easier and quicker, cities can more efficiently deploy aid and institute changes. Additionally, because density expands mode options, residents have more transport choices in case any modes fail during a crisis.



A dense network of streets in the Charkop neighborhood of Mumbai allows simple detours and easy access to services. This is thanks to the “sites and services” approach, where the street network was created before urban development. Source: ITDP India.

Next Steps



The Future of Public Transport series has provided insights for the transport community worldwide, not only on public transport but also on connected topics like walking, cycling, and dense land-use planning. We hope it inspires cities to recognize public transport as a critical piece of social infrastructure and thus see the importance of their role in investing in it. The information shared here lays the groundwork for continued collaboration, research, policy, and interventions.

As we face increasingly dire and intertwined crises around the world, we must focus on improving public transport so that it serves and adapts to our uncertain future. Public transport is the backbone of cities, especially for marginalized communities. It helps more people access destinations, goods, services, and social infrastructure that are essential to individual and collective thriving. This makes a city healthy — not just in the bodies and minds of its residents but also in its economy, its political life, and its environment. To that end, we must continue to work together to ensure that the future of public transport is financially sustainable, equitable, safe, and resilient.

The following sections dive more deeply into the ideas discussed across the three themes: funding and financing, equitable public transit, and resilient public transport. They detail best practices, conclusions, and concerns raised under each theme, as well as sharing case studies that show these themes in practice. Finally, we conclude with the major challenges and opportunities ahead.

I. Funding and Financing Public Transport

TransMilenio is the integrated public transport system of Bogotá that began operations in 2000 with its bus rapid transit system. Source: ITDP.

Securing funding and financing is critical to maintaining, improving, and growing any public transit system. **Funding**, from sources such as grants and fare revenue, usually covers operational expenses like fuel, tires, and drivers. **Financing**, for example through loans and bonds, includes ways of borrowing money to pay for capital expenses such as building stations, bus ways, or rail lines.

As ridership and fare revenue have fallen in recent years, the inadequacy of the existing funding and financing models have been revealed, forcing transport systems to reconsider their funding and financing strategies. At the same time, cities are grappling with new challenges and opportunities, such as leveraging funds equitably and looking to a wider variety of sources for funding. To fund good public transport that delivers shared benefits to all residents, cities and public transport systems can look to these best practices:

1. Treat public transport as a public service by providing service to all, no matter their ability to pay (i.e., with subsidies).
2. Rethink public transport so it is seen as an integrated system and as inclusive of all of its co-benefits in ways that build support for it and open up resources.
3. Improve and integrate paratransit and informal services.
4. Cultivate partnerships to access new options for funding and financing, such as with other levels of government.
5. Pursue novel funding and financing strategies, such as asset management and congestion pricing.

Below, we explore these ideas in more detail, with examples from Bogotá and other cities.

1. Treat Public Transport as a Public Service and Provide Access for Everyone Through Investment, Including Subsidies.

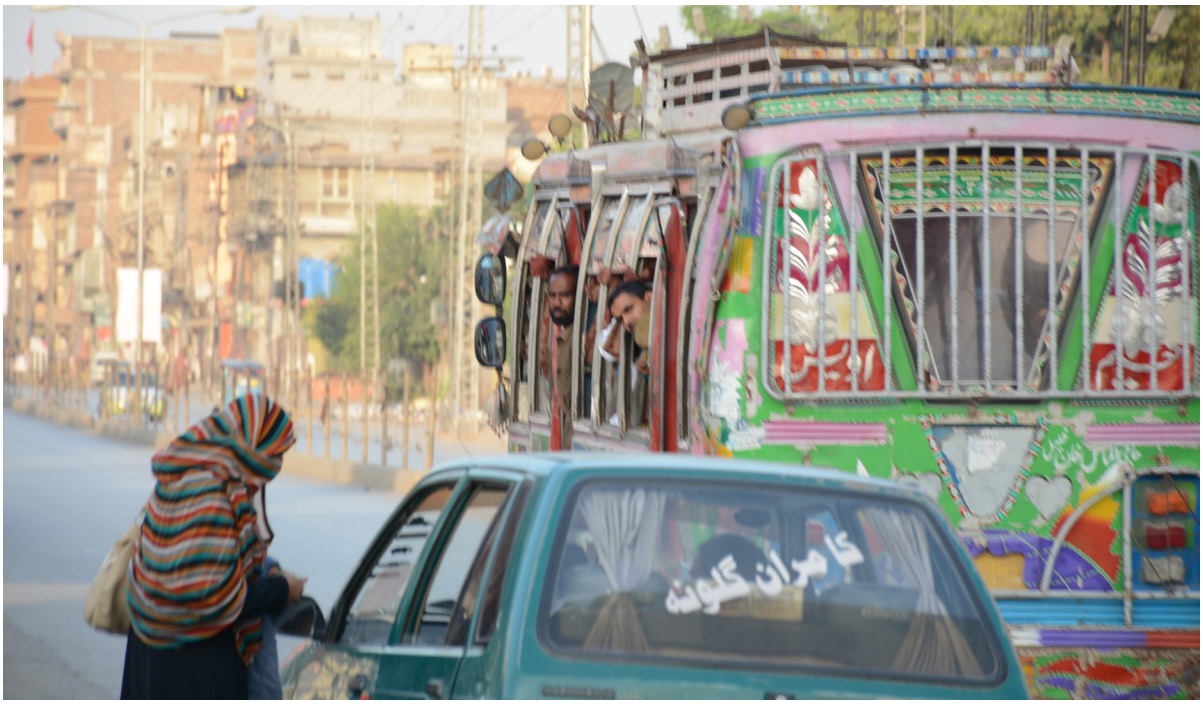
Public transport in many cities is seen as a **private good**, where the private sector is solely responsible for supplying it. Where there is public investment, it is often insufficient, resulting in poor service and a poor reputation in many cities. This has made it difficult to summon the political will needed for funding.

Many cities think of public transport as something people must pay for themselves or as something that must recover most if not all of its costs from the fare. Because of that, some cities may depend on the market and on companies to deliver transport at whatever level people can afford. For example, those with money can ride good public transit in their neighborhood or drive cars; those without must walk on dangerous roads or ride cramped, unsafe buses.

Not only is the user-pays model inequitable, making quality public transport inaccessible to those of low-incomes or from otherwise marginalized communities; it's also often financially unsustainable. With few exceptions, fares alone cannot generate enough revenue to completely fund public transport systems, especially when it comes to capital costs.

To combat these issues and deliver good public transport for all, cities must start framing public transport as a **public service or utility**. It has benefits that apply not just to users but to the whole city (such as boosting economic productivity, better road safety, and pollution reduction). Given the political nature of these benefits, public transport must have political oversight.

Peshawar's public transport system before implementing the ZuPeshawar BRT included different types of vehicles that were often not safe or convenient for women or transgender people. Source: TransPeshawar.



Bogotá, for instance, created the public **TransMilenio system** to manage formal private bus and cable operators and to replace the informal transport that had so far dominated the city's transport. Because TransMilenio is public, it has allowed the City "year after year to follow the same path." Political decisions came from the mayor's office, ensuring that the system prioritized public interest.

Framing public transport as a public service and as a right also strengthens the case for **government investment**. Additionally, this framework would help governments support public transport for those who cannot afford to pay, helping to solve the problem of equitable access: If public transport is treated as a right and a public service, then it must be delivered to everyone.

Bogotá has made this a priority for its system by creating a **Tariff Stabilization Fund (FET, or Fondo Estabilización de Tarifas)**. This fund is mainly supported through the City's general revenue (with some contributions from the national government) to offset the gaps in the contract remuneration. This helps to keep the transport fare low for the users, who pay about half of the cost per user for city buses. The earnings from the concessions are funneled to the fund to help recover the needed costs to operators.

However, Bogotá's subsidy system still needs improvements to ensure that all residents can access bus services. Though the City has introduced subsidies that specifically target low-income riders, the impact of these systems has not met expectations, and the program has since been reduced.

2. Rethink Public Transport in Ways That Open Up Resources.

Some of the problems we face to fund and finance public transport come from the way people — governments, researchers, planners, and the public — imagine public transport. Participants in the earning lab identified two perspective shifts we can make that will not only improve PT but also help open the door for more resources, support, and funding.

a. Focusing on smaller-scale projects instead of large infrastructure

Many governments and transport systems have focused on large, flashy infrastructure projects. However, these are most expensive, take a long to build, are inflexible, and are sometimes not even what residents want or need.

More cost-effective interventions are often smaller and more nimble (for example, improving bus service through increased supply, improving BRT, integrating informal transit into bus systems, or making temporary bike lanes). These take less capital and less time (which allows residents to see results more quickly and build public support), and they can be changed more easily as travel patterns and needs change. Refocusing from larger projects to smaller ones can help cities achieve goals without spending as much time and money or resources.

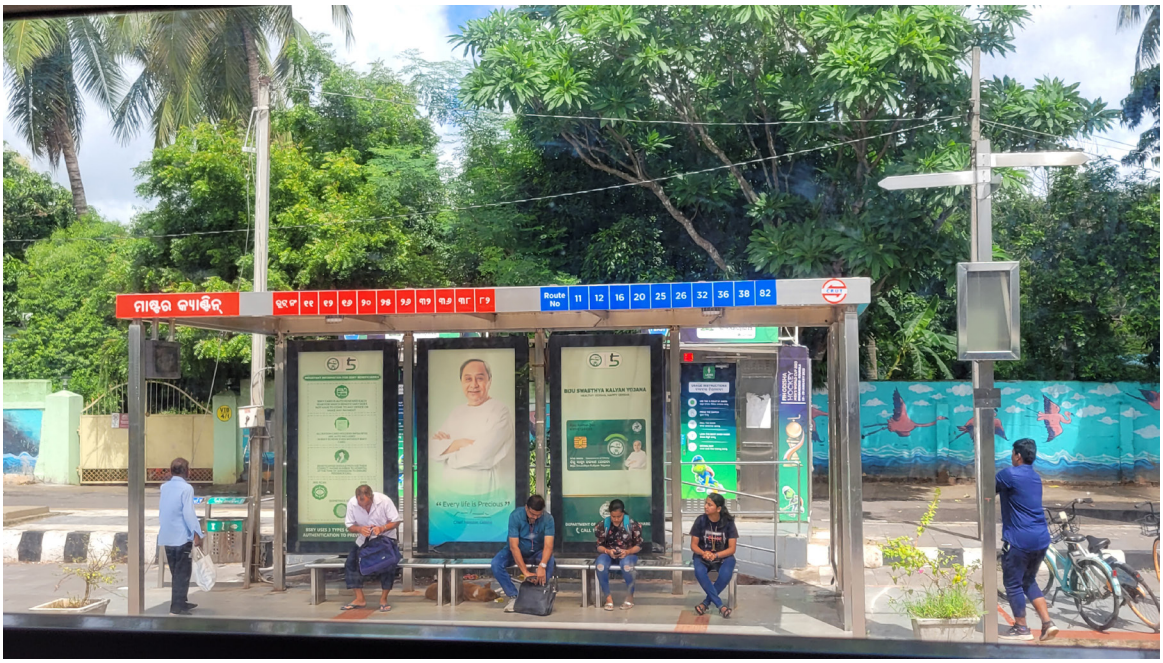
b. Changing how the public see public transport to build support

In many cities, public transport has a bad reputation that impacts ridership, which translates to less public and political support. In many cities, people see private cars as more luxurious and public transport as dirty, slow, and inconvenient.

These are often based on material realities — the public transport system is slow and inconvenient. However, by improving both the system itself and its public image through marketing and messaging, cities and systems can open up new avenues for funding. For example, participants emphasized how policymakers can clarify public transport's intertwined benefits for the public (e.g., how good public transport improves public health, residents' access to essential services, and laborers' options for work).

This helps to build political and public support for public transport as a public good and a right. This in turn fosters the political will needed to make public transport a priority in budgets. Additionally, such efforts can give cities more options in the grant and financing opportunities they pursue. For example, cities can make the case for public transport as a sustainable/climate intervention to access green bonds. This would also help make public transport an attractive asset class for investors (e.g., in Mexico City).

The City of Bhubaneswar in India launched its MoBus transport service during the pandemic, and it worked hard to appeal to the public and elevate system ridership through advertising and the design of facilities and infrastructure. Source: ITDP India.



3. Support Improving and Integrating Informal and Paratransit.

For many cities, informal transport is both integral to movement and problematic. Informal systems often involve poor labor conditions for drivers and outdated, polluting vehicles, and may present higher road safety risks than formal transport. Many governments don't consider it a legitimate form of public transport. As a result, formal and informal public transit are often seen as separate and competing systems. For example, in Cairo, riders who use informal and formal transport must pay fares for both, which in turn reduces access.

At the same time, in many cities around the world, informal transport is a significant, if not the sole, form of public transport. What's more, informal transport often has wider coverage, higher frequency, and more affordable fares than formal public transport.

Therefore, governments must consider informal public transport as a vital part of the public transport system and work together with operators to improve it (as opposed to ignoring or working against them as competition). As one Learning Lab participant put it: "We have to recognize informal transport as transport, not as an alternative or a mistake."
Governments should provide support to informal public transport through funding and financing to improve the quality of services and address the issues noted above.

Going further, governments can even transition the informal transport services to formal operations. This is the route that Bogotá took: From 2012 to 2022, the city integrated its paratransit operators into the formal system. It created several incentive models that paid operators for opting out from the industry, and as of 2023, Bogotá no longer has informal public transport. In 2023, the city is spending about 700 million USD a year in supporting its formal system, more than 80% of it going to normal bus service. The BRT is close to being self-sufficient.

4. Build and Leverage Relationships to Help Fund and Finance.

Relationships with different partners can help leverage otherwise inaccessible resources. For example, in a partnership with a **university**, academics could undertake transport research that informs city planners. **Development banks** can provide concessional rates that make funding and financing projects feasible (for example, Peshawar's Sustainable Transport Award–winning BRT system was financed by the Asian Development Bank, Agence Française de Développement, and the government of Khyber Pakhtunkhwa).

However, financing is often directed through national and state governments and is less accessible to subnational governments and operators. Cities often can't borrow directly from development banks, and operators have trouble getting commercial loans. Additionally, smaller cities and operators often lack good credit, which is another barrier to financing.

In Bogotá's case, the City has circumvented this problem with a strong partnership with the national government. In a recent development,

the national government will finance much of Bogotá's operational costs (e.g., collection equipment). Moreover, the President's National Development Plan includes financing for cities that meet Colombia's complete requirements. This synergy between national and city governments on transit as a priority enabled Bogotá's massive strides, even as the subsidy pool fell because of the pandemic's falling ridership.

While this model is working for Bogotá, it's important to note that many national governments do not have the political will, stability, or resources to follow in Colombia's footsteps. Moreover, participants in the virtual session cautioned that outside funding (including from national governments) can have broader or nonlocal agendas. This can lead to outcomes that do not reflect local needs and input.

5. Pursue Novel Strategies for Funding and Financing.

As funding and financing needs change, new strategies and opportunities are emerging. The Mobilize Learning Lab participants provided several ideas, including:

a. Land value capture

Maximizing land value and use around infrastructure and stations may increase ridership, thereby increasing the revenue from fares while also increasing accessibility. That often means creating density and focusing on transit-oriented development (TOD), which also has the benefit of increasing tax revenue and decreasing costs by reducing the coverage of the system. This requires clear legal and policy frameworks, as well as capacity in the government to administer them.

b. Transport asset management

Using transport assets to bring more revenue into the system includes the use of real estate, development deals, air rights, advertisements in trains and stations, and retail in stations and terminals, such as newsstands (e.g., São Paulo, Brazil).

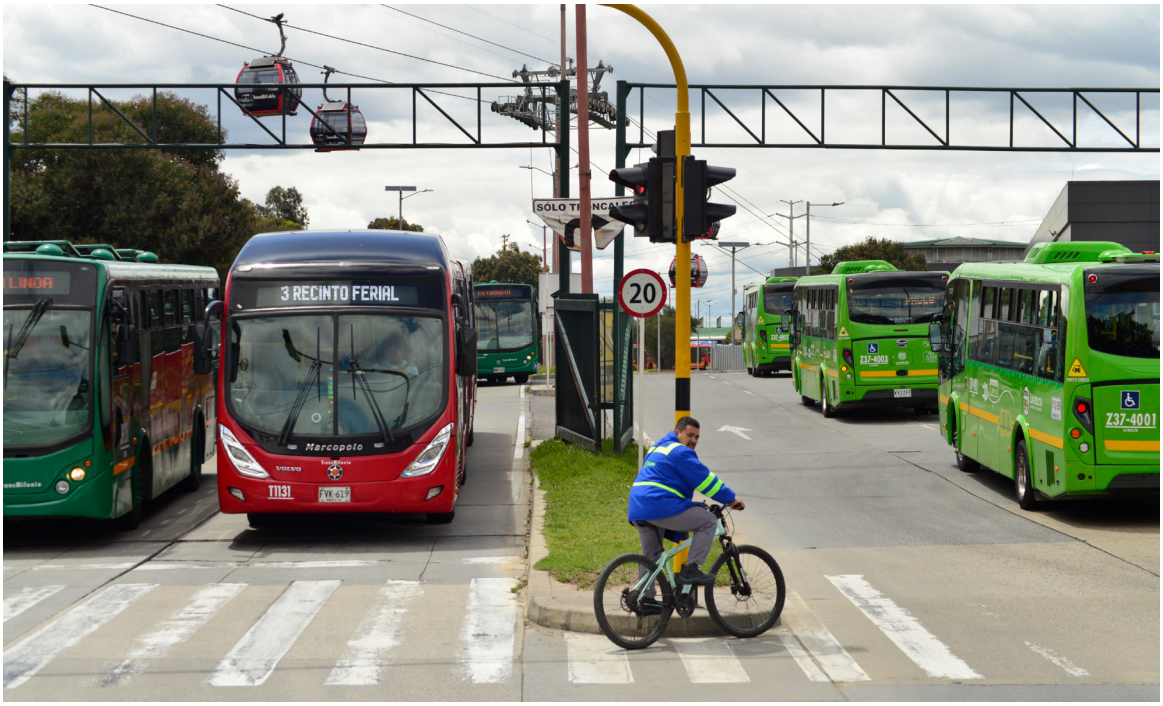
c. Demand management, tolls, parking fees, and congestion pricing

With congestion pricing, private vehicle drivers pay for the use of public space and the externalities they impose, especially on the road during peak hours (e.g., Singapore, London, Stockholm). Congestion pricing in particular requires a political shift away from prioritizing cars. In many cities, people see cars as a luxury item to be enjoyed by the wealthy, which makes it difficult to enact policies discouraging their use. Reframing public transit as socially desirable for all economic classes helps decenter car use.

d. New forms of contracting and financing capital and operations

Operators have traditionally been responsible for purchasing the vehicles and typically have lacked access to financing. This is in part why using smaller vehicles owned primarily by individuals is the main model for informal public transport. Cities like Jakarta, Indonesia, or Bogotá have proven that working with private operators can unlock the opportunity for new contracting schemes and financing for operations. Thinking creatively about how to structure contracts and enable access to credit is still needed.

Case Study: Bogotá's Model for Contracting and Financing BRT



An intermodal connected public transport system can enhance service for users and better distribute maintenance costs for stakeholders. Source: ITDP.

When Bogotá began the journey of converting TransMilenio to an electric fleet, the City also made changes to contracting and bidding (following the lead of Santiago de Chile). While diesel buses have lower up-front costs but higher operational and maintenance costs, electric buses are the other way around (high capex, lower opex).

In the previous model, provision and procurement were part of the same contract as service and operations. Bogotá split those into two contracts, resulting in more and different stakeholders, diversification of risk, and lower interest rates. In the new model, the operator covers maintenance after training with the manufacturers, who serve as supervisors. Both parties assume responsibility for the care and condition of the vehicles.

The success of these changes depended on collaboration with many different stakeholders — structuring agents, legislators, manufacturers, suppliers, operators, financiers, and distributors.

The City also incentivized operators to purchase electric fleets by offering longer concessions for e-buses.

II. Equitable Transport

Children can ride to school independently on ZuPeshawar because the system is a safe and convenient alternative to informal transport options. Source: TransPeshawar.

As many cities grapple with widening socioeconomic gaps and sociopolitical crises, practitioners are also becoming aware of the differences in resources, attention, and support directed to different demographics in the population.

Women, children, caregivers, people with disabilities, poor and working-class people, ethnic minorities, and other such groups have been excluded from conversations in transport infrastructure planning. As a result, many systems fail to serve them — even though people from these groups are often more likely to use and depend on public transport to access essential destinations, goods, and services.

Transport connects people to all parts of their lives and of the city, including cultural events, religious spaces, educational institutions, employment, and health care. As such, inaccessible and inequitable transport denies people all these essential services that they have a right to. Public transport is instrumental in realizing fundamental rights. Therefore, how transport enables or restricts access to those rights for different groups is inherently political.

Participants in the learning lab identified essential aspects of equitable public transport systems, including:

1. Government oversight (because equity is a political aim and public transport is a public service).
2. Equity focus in all parts of transport planning, including fare policies, infrastructure, service design, and land-use.
3. Equitable workforce development.
4. Equitable and inclusive data collection and public participation.

Below, we discuss these aspects in more detail and explore how they've been pursued in practice in Bogotá and other cities.

1. The Key Role of Government in Equitable Public Transport.

Since equity and human rights are political issues, the government must be involved in ensuring equitable public transport. Government participation ensures that the system remains accountable to the residents, not shareholders or those most able to pay fares. Governments can also use levers such as policy and budget allocations to work toward equitable outcomes.

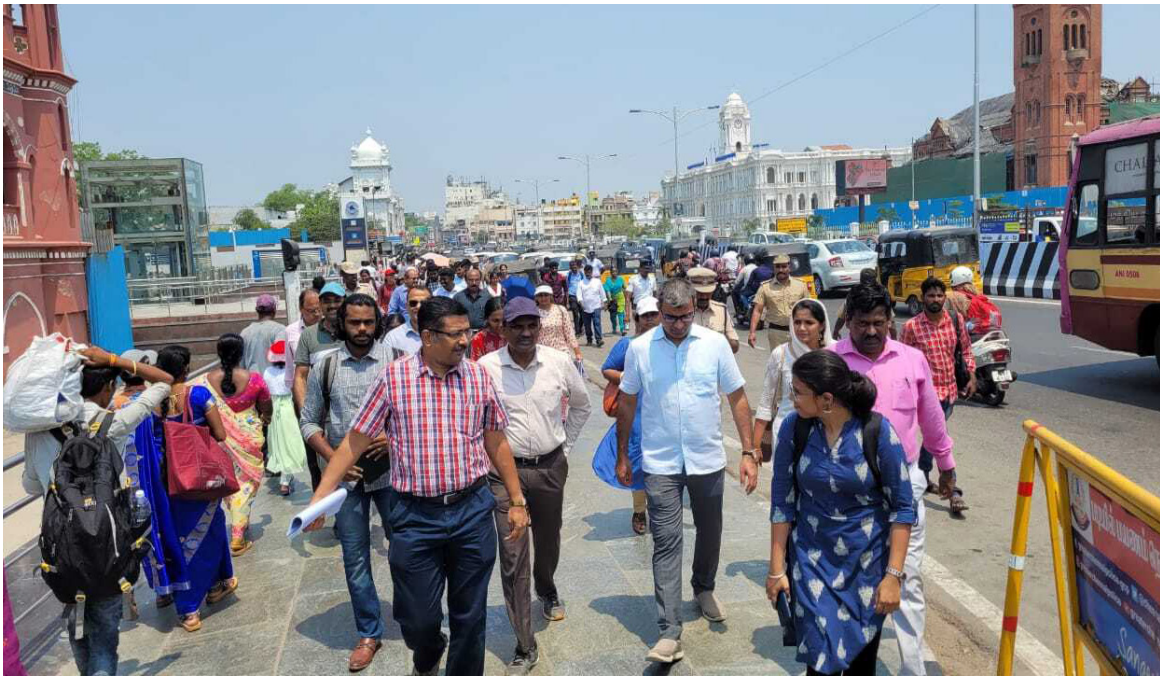
Government involvement in public transport can take many forms depending on the context. It may mean that the government owns the entire system or partners with private actors. For example, Bogotá's TransMilenio BRT system runs with private operators, while the government covers planning, infrastructure, and monitoring.

Government participation may also include broad, **top-down policies** like standards that facilitate equitable treatment. For example, the U.S. has the American Disabilities Act that ensures people with disabilities have accessible public transport options.

However, government participation in planning and implementation comes with many challenges. Many governments face competing priorities, a lack of capacity and knowledge, and tight budgets that limit their participation. Some lack the political will and skilled workforce to prioritize public transport.

Universal design can be one of the key features of public transport mandated by governments. Pictured: Bogotá, Colombia. Source: ITDP.

Case Study: ITDP India Uses Walking Tours to Galvanize Local Officials Toward Non-Motorized Transport (NMT) Improvements



Officials, teachers, and women in Chennai, India, participate in the walking and transport tours to gauge the mobility challenges for different users. Source: ITDP India.

Walking is a vital component of a public transport system — people often walk to reach the station or stop. To help build decision-makers' understanding of the reality of walking in their city, ITDP India started by hosting a roundtable on walking.

At that Walk Roundtable, ITDP India's Smritika Srinivasan spoke on working with local governments to improve NMT programs in cities. Road deaths across the country make up 16% of road deaths globally. But ITDP found that showing local officials statistics did little to sway them.

Instead, ITDP took local officials from Chennai (including planners and staffers working on equity across the government) and school teachers on tours that mirrored different trips children might take — to school, walking, on public transport, etc. These tours had decision-makers experiencing what children and other system users experience every day, mobilizing them to prioritize NMT, and especially road safety for children, in policy and programs.

This is related to data collection and the importance of different types of data collection. While the cities had the quantitative data, that was not enough — they had to experience the problems for themselves to mobilize political will. (See later section on data collection and public participation on page 27.)

Moreover, transport is a cross-government issue, and planning ideally should have participation from **all levels of government** (from municipal to national) and **across government** (planning, economic, health, sustainability, equity, as well as transportation departments).

These governments and departments all have differing goals, capacities, and authorities. This complexity presents another challenge to public transport improvements.

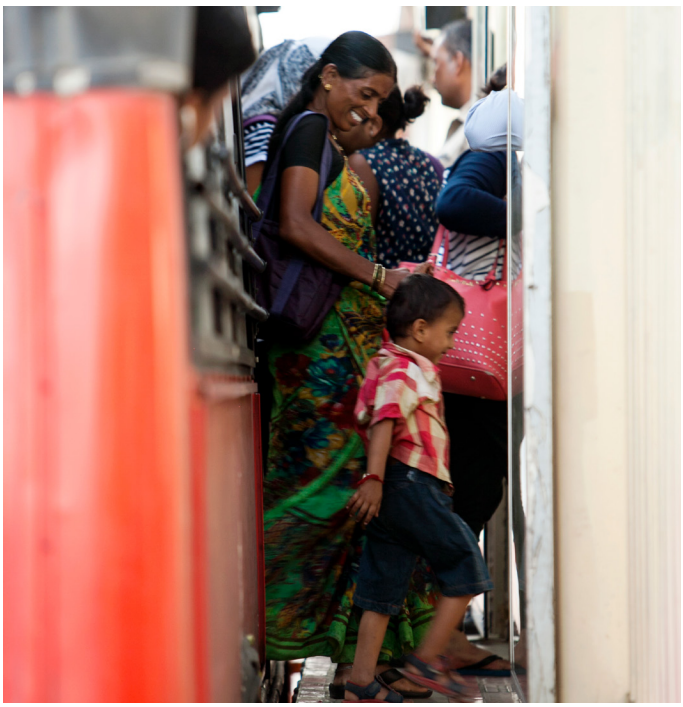
2. Pursuing Equity in All Aspects of Public Transport.

a. Service and infrastructure design

Most public transport has so far been designed and planned focusing on a very narrow category of users: nondisabled men commuting to work.

Across the world, researchers and planners are learning about the diverse needs of different populations, particularly those who are vulnerable or marginalized.

These studies have illuminated that many groups who depend on public transport are not being planned, including:



A caregiver and her child alight the BRT vehicle in Pune, India, with ease because of the level-boarding feature. Source: ITDP India.

1. **Low-income users:** Walking, cycling, and public transport are often the only options for people with low incomes, yet public transport systems often do not provide safe, reliable, or frequent service in their neighborhoods.

2. **Caregivers:** The travel patterns for caregivers are much different from those of workers (e.g., trip-chaining, traveling not at rush hour but throughout the day), and caregivers often carry parcels, strollers, and children, which limits their mobility.

3. **Women:** Concerns about safety and fear of harassment and gendered violence often mean women use transportation systems differently or don't use them at all. Safety and perception of safety are crucial for their use of public transport.

4. **People with disabilities:** Public transport is often inaccessible for people with disabilities. Universal access seeks to eliminate barriers in the environment so that all people can use the system.

5. **Children:** Often children need accompaniment, and they certainly cannot drive a motorized vehicle. They are physically smaller, making it harder for them to be seen, slowing their pace, etc. Their environment also affects their cognitive development. Road traffic crashes are the leading killer of children and adolescents in the world, making a safe walking and cycling environment critical.

To serve all residents, including the populations listed above, public transport must **serve all areas**, not just rich or high-traffic ones. It must be **frequent and reliable** all day, which expands access for more people. It also needs to have **infrastructure** that accommodates the limitations of all types of passengers (e.g., older, disabled, caregivers). Finally, it must be multimodal, as low-income residents are more likely to depend on walking and cycling to get around.

Similar interventions are occurring around the world. For instance, in Peshawar, Pakistan, separate spaces on buses for men and women have allowed women to feel safer and more comfortable and have boosted female ridership from just 2% in the old informal transport to 26% in ZuPeshawar BRT system.

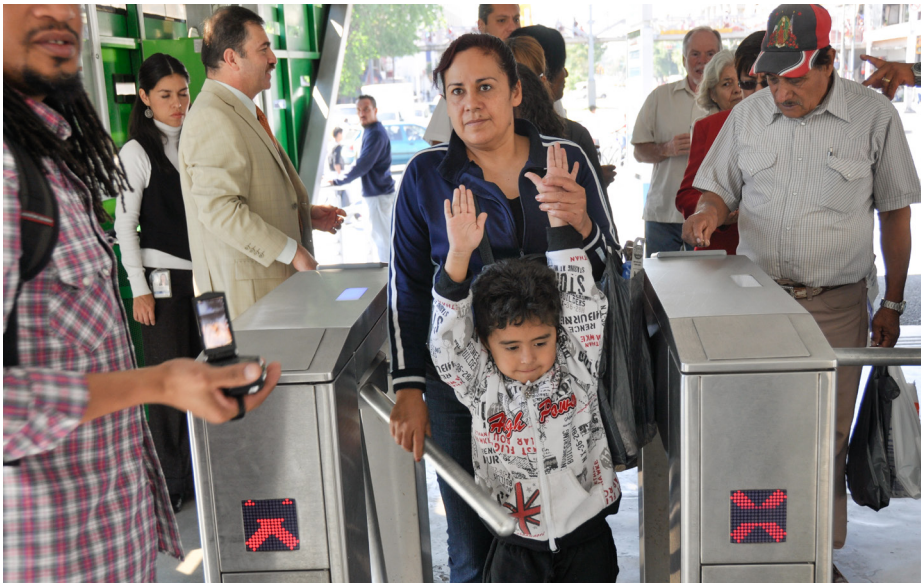
However, conversations at both the virtual and in-person Bogotá deep dives emphasized that the ultimate goal for the transport system should be shared spaces where everyone feels safe. This underscores the fact that issues of gender need not just technical fixes but also **political and cultural shifts.** In many places, society blames women for bringing violence onto themselves, or such violence is normalized. Transport policies can help shift this culture by making sure public spaces like streets, stations, and buses are safer for women and that women feel supported and empowered to call out bad behavior. Transport systems can also model better behavior toward women — in the workplace and institutions, in communications campaigns, and by what it prioritizes in planning and design.

b. Fare policies and subsidies

Equitable fare policies are critical to enabling access. But that doesn't just mean having subsidies (see previous section on transport as a public service on page 14) to support low or no fares for low-income riders; cities must also make the system **easy and convenient** for both riders and operators to use.

For example, if elderly people ride for free with government subsidies but the process for operators to get their payments from the government is complicated, drivers will simply avoid taking on elderly passengers. In contrast, a system in Guadalajara, Mexico, makes it easy for vulnerable women to get subsidized fares. The program provides personalized electronic cards that work seamlessly with existing transportation providers.

Additionally, **integrating** fares, starting with the fare media, makes transit easier to use, which widens access. In Bogotá's Integrated Public Transport System, which includes TransMilenio, TransMiCable, and other public transit, all fare is integrated. This especially helps residents access TransMilenio from the peripheral areas.



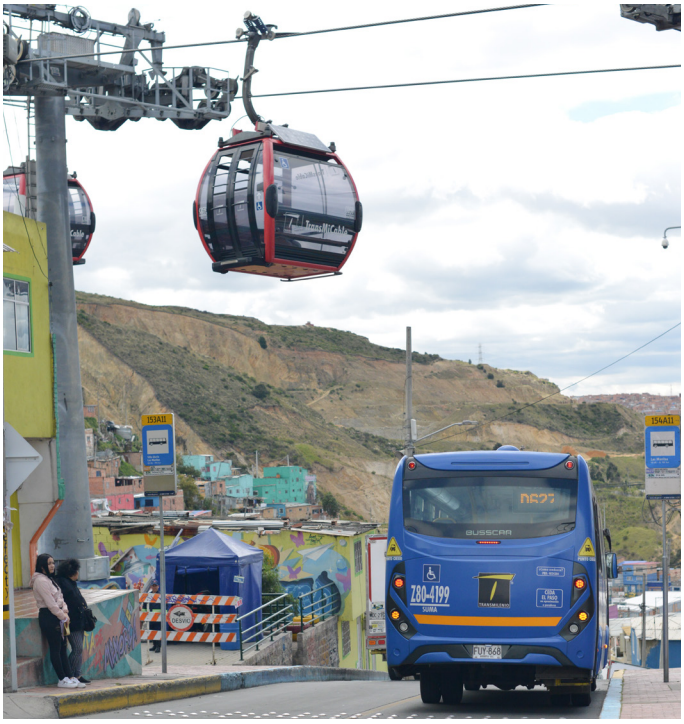
The BRT system in Guadalajara has significantly improved the quality of life for its residents through a series of enhancements like integrated fare system that has led to a 50% reduction in travel costs, and fare subsidy for women, children, students, elderly and teachers. Source: ITDP.

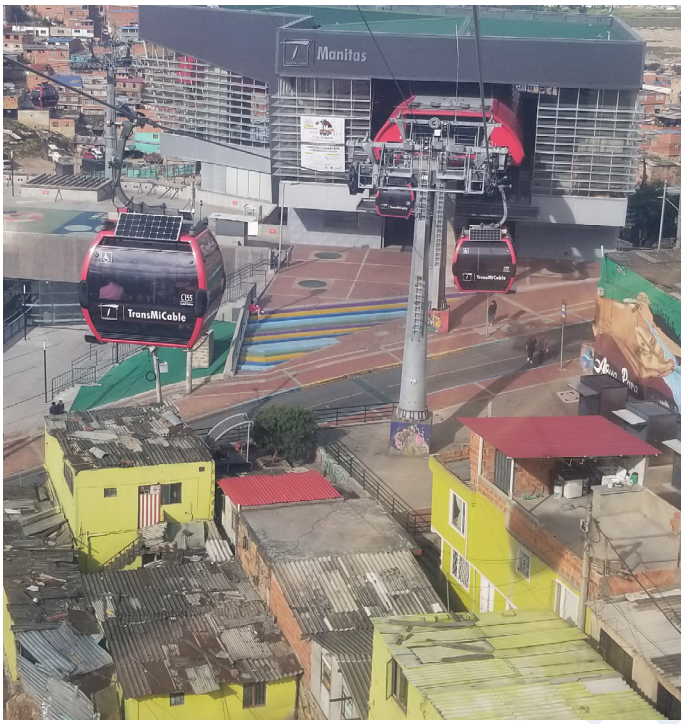
c. Land-use planning

Delivering accessible transport becomes easier with **density**. Denser cities make for shorter trips and widen the mode options available. People are more likely to walk and cycle shorter distances than they are to take a bus or drive a car. As public transit is less expensive (and walking is free) than car ownership, density also helps low-income residents to travel more freely. Moreover, density makes trips more accessible for residents with low mobility, including people with disabilities, children, and older people.

In Bogotá's case, the City passed a **Public Policy for Women and Gender Equality** that focused especially on women's mobility.

One result of that policy was the creation of a **District System of Care (SIDICU)**, a holistic program to support young children, people with disabilities, the elderly, and caregivers. As part of the SIDICU, Bogotá began creating **blocks of care** through the City's land use plan, designed to provide services (e.g., education, healthcare, housing) anchored around a public transport station in dense districts that are physically accessible and walkable. These care blocks are also centered around a Neighborhood Community Development center.





Blocks of care in Bogotá integrate land use and mobility solutions to facilitate care trips and childcare duties for women and caregivers. Source: ITDP.

3. Developing an Equitable, Inclusive Workforce.

Workforce development in the transit sector provides an opportunity to recruit workers from marginalized populations and build their skills and economic opportunities. This is especially true for women, who typically have been encouraged to be drivers, mechanics, planners or engineers. Many women are not given access to learn how to drive private vehicles, so this will need to be encouraged.

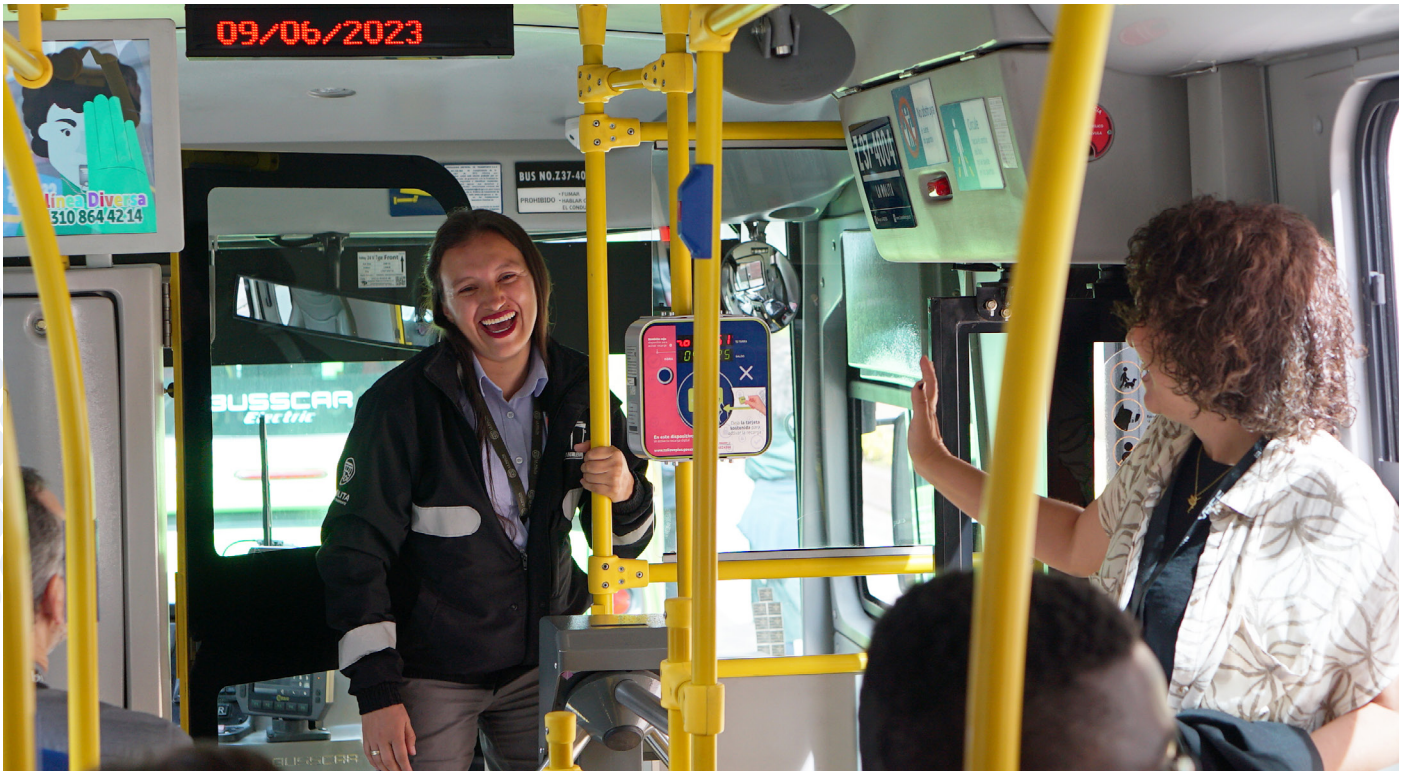
For example, as Colombia transitioned from gas to electric BRT, the country laid the groundwork so its cities could train a new workforce to operate and maintain the new buses. With funding from the German Development Cooperation (GIZ), the country embarked on a gender-gap analysis and found that the transition to e-buses would also be an opportunity to bring more women into the workforce.

The study looked at the barriers to increasing gender parity in this workforce and noted that:

1. The influence of families was strong against women joining this field. In many cases, it was not generally accepted for women to become bus drivers.
2. The field itself has not been friendly to women.
3. The private sector needs to be in line with public goals of increasing gender parity.

Bogotá worked to change this with the introduction of La Rolita in 2022. La Rolita is a District Transportation Operator and the first public operator in the city's new Integrated Transport System. Out of its 600 drivers, 300 are women. They received training to drive buses and earned licenses. The program also encouraged nonbinary people to apply.

Fifty percent of the La Rolita personnel are women. Source: ITDP.



4. Using Equitable, Inclusive Data Collection and Public Participation.

Data collection is imperative for equitable transport. We cannot know where there are inequities and issues if we aren't collecting data. This data needs to be disaggregated and a combination of quantitative and qualitative.

In Colombia, GIZ and the Ministry of Transport developed an **Active Mobility National Strategy** that began with a survey of 38 territories. The design of this survey helped the project tackle specific questions of equity and guided the Active Mobility National Strategy to focus on projects that would target marginalized groups. As one example, it found that women use public transport and walk more than men, and women have unique concerns about safety in public spaces.
Along with data collection, we need public participation. As opposed to data collection, which is often one-way — residents provide data, researchers take data — quality public participation is a collaborative process in which residents can shape a project or plan. For example, Bogotá's land-use policies were developed with women's input through councils, roundtables, and working groups.

Best practices for data collection and public participation include:

1. **Anonymize data.** With the convenience of many new technologies, it may be more tempting to let anonymity fall by the wayside. But anonymity is essential to ethical data collection; it's also helpful for making participants feel more comfortable and willing to give honest feedback.

2. **Disaggregate data by demographics.** We cannot pinpoint inequities if we are not disaggregating data and seeing how needs, desires, and concerns differ between groups as well as which groups are being underserved and how.

3. **Don't just bring groups to the table, bring the table to them.** Different people are more or less comfortable in different places (e.g., government buildings vs. community centers). Marginalized groups often can't join meetings at certain times or in particular places because of limited transport or other factors in their lives. Different people may be more comfortable with written or oral communication. **Flexibility and diversity in methods** are key to connecting with more people.underserved and how.

4. **Go beyond the survey to really engage people.** Participation should be deliberative and transformational, involving a back-and-forth exchange with participants — not just a one-off event.

5. **Ensure participants feel appreciated for their engagement.** That involves paying them for their expertise and showing them how the plan has progressed and where their feedback was incorporated. This builds **trust** with participants, which helps foster buy-in and will keep people engaged in future projects.

6. **Use mixed methods,** both qualitative and quantitative, which allows us to triangulate across different types of data and be more thorough in our investigations. In general, a **transdisciplinary approach** allows for data from different perspectives (e.g., economic, environmental, social) that are all elements of good transport systems.

7. **Collect data throughout the length of the project,** not just at the very beginning or very end. This also applies to public participation. Including public voices and collecting their feedback should not feel like an afterthought or a box checked; rather, it is ideally a continual collaborative process.

8. **Collaborate with partners on the ground,** which can include civil society organizations, neighborhood groups, and NGOs. Such partners often already have built rapport and trust with communities.

A convening by UN Women and ITDP Africa brought a disability group from Cairo to discuss mobility challenges in the public transport system in order to make recommendations to Cairo BRT. Source: ITDP Africa.

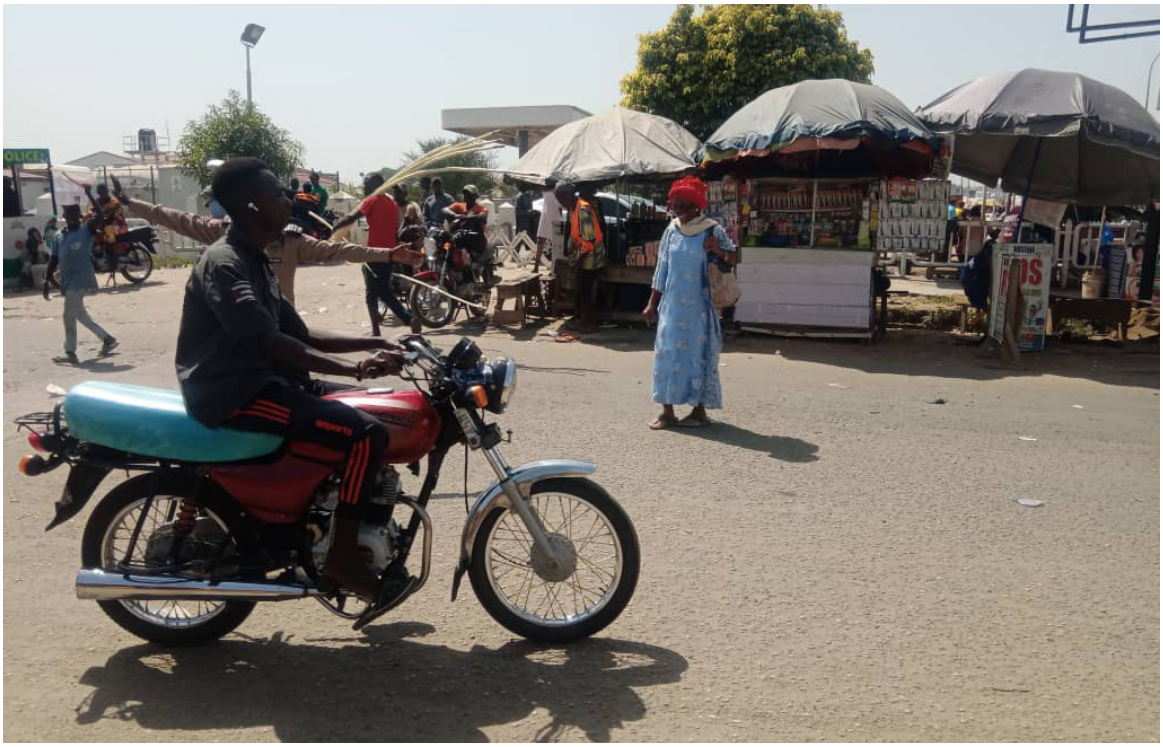
Data collection is clearly valuable and essential, but researchers must be wary of several **ethical and methodological issues**. Sometimes data can result in misleading conclusions if it is (1) not collected well, (2) doesn't include the context, or (3) misses confounding variables. For example, an analysis in Winnipeg found that pedestrian accidents happen most in low-income neighborhoods. However, the model failed to show that low-income neighborhoods had many more pedestrians to begin with.

Questions of data collection, ethics, and methodology will become more salient as technology grows and big data becomes a greater force in research. Researchers must be mindful of matching data collection and analysis approaches with questions they need to be answered.

However, good, thorough, and even ethical data collection is **expensive**. It takes more time, effort, and resources to go into a community and build relationships rather than simply to issue a single survey. It takes time to ensure that data is thoroughly anonymized and then disaggregated and aggregated in ways that are useful for assessing equitable outcomes.

The same is true for good public participation, which can include widespread marketing campaigns to solicit survey responses, organizing public meetings and Q&A sessions, and creating citizen councils and other methods of bringing people into the planning process.

Case Study: Studying Mobility Patterns and Needs for the Elderly in Nigeria and Uganda



Understanding the navigation challenges elderly pedestrians experience in the streets of Abuja, Nigeria, was essential to start the transformation of the adverse conditions they face. Source: Chinebuli Uzondu.

As an example of data collection method measuring access needs, Chinebuli Uzondu and colleagues studied older people's transit needs in Nigeria and Uganda. They found that older people often need more assistance and have limited physical mobility. Since many are retired, they also have limited income.

By engaging with older people and hearing their concerns, Uzondu's team found that the way public transit operated was uniquely challenging for older riders and people with disabilities.

For instance, as the paratransit's economic model incentivized drivers to make as many trips as possible in a day, many would not even come to a complete stop, which made it near impossible for elderly people and people with disabilities to board.

Through this study, Uzondu and colleagues could make concrete recommendations that would improve access for older people. Without making an effort to hear from these groups, researchers may never have realized they were being excluded.

III. Resilient Transport

Transport decarbonization plays an important part in building system and city resilience. Bogotá has 1400 e-buses in its fleet. Source: entre}{acto.

As the climate crisis becomes increasingly dire and cities around the world face economic, political, and public health shocks, the importance of city resilience has also become increasingly clear. For many cities, the COVID-19 pandemic was a trial balloon for them to understand their capacity to address extreme events and how transport can adapt.

Transport is an integral part of improving city resilience. It allows residents to participate in social and economic life in the midst of crisis and access vital and life-saving services. It connects people, helping them to recover and rebuild after a disaster. It can also help the city and its residents to adapt and even thrive in quickly evolving conditions.

So what does it mean for a transport system to be resilient? Resilient transport can sustain quality operations even in times of shocks and stress, while positively adapting to them. It is responsive, flexible, and diverse — in other words, multimodal, which helps a system stay operational even when a certain aspect is nonfunctional because of a crisis.

For example, when Hurricane Sandy flooded New York City's subway system, the City would quickly respond by changing and increasing bus routes and creating cycle lanes to help people continue navigating the city.

However, in a political environment that prioritizes cost-cutting and efficiency, building resilience is hard. Resilience requires **diversity, detailed risk management, and long-term thinking**. While all of these are incredibly valuable in the long-term or in the case of an unlikely but devastating disaster, they lack the clear short-term benefits often prioritized in politics and budgets. Therefore, creating resilient transport is often a political challenge, and fostering political will and building political partnerships is crucial.

During the Future of Transport series, participants outlined best practices for creating resilient public transport:

1. Decarbonize transport to improve resilience;
2. Balance short- and long-term planning;
3. Leverage data to understand current needs and predict future ones; and
4. Foster resilient communities to build resilient transport and build resilient transport to foster resilient communities.

Below, we detail these ideas and give examples from Bogotá and other cities that are putting them into practice.

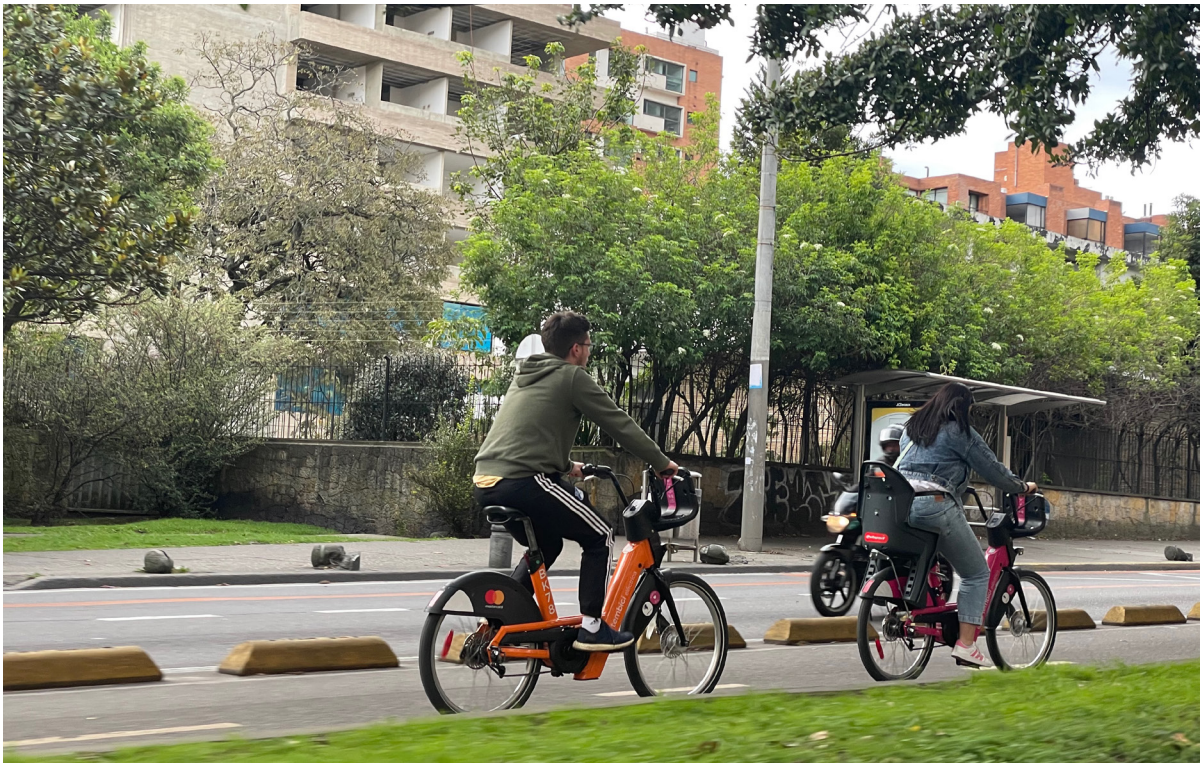
1. Decarbonization and Overall Resilience Go Hand-in-Hand.

Transport intersects with all sorts of health and environmental crises. From road safety to air pollution to carbon emissions, better transport can provide solutions. Luckily, what is good for health is often good for the climate, the environment, and overall resilience, as well. For example, electric or non-motorized transit reduces pollution and does not emit greenhouse gasses. These modes are often safer than cars (with the right regulations and infrastructure). Moreover, growing support for all these different kinds of transport will create a multimodal, diverse system that can serve people better in times of crisis.

In the case of Bogotá, the City has passed a **zero-emissions policy** on its roads for vehicles, trucks, and motorcycles. The goal of the policy is to reduce fatalities from air pollution (currently 2,000 per year) while also mitigating climate emissions. The City also recently deployed a new fleet of more than 1,400 e-buses.

Bogotá is combining electrification with other policies and projects that support complementary modes of transport, especially cycling. The City has one of the most extensive cycle lane networks in the world. It also recently passed policies like **Acuerdo 804** and the **Public Policy of the Bicycle**, which prioritize cycling infrastructure and cultivating a culture of cycling. The latter also includes mandates for gender considerations in all programs and projects related to the law.

Case Study: How Bogotá Deployed Temporary Cycle Lanes During the Pandemic



Carrera Septima in Bogotá became a major cycling thoroughfare and a mobility option for the residents. Source: ITDP.

When the pandemic hit, Bogotá turned its focus to transport and found opportunities for cycling. It accelerated its improvements and expansions to infrastructure, and quickly deployed 84 km of new cycle lanes, 34 of which still remained after lockdowns ended.

To make the network even more useful, lanes often followed Bogotá's BRT system to better connect people to both BRT and other cycle lanes. As a result, bike usage has grown in Bogotá; for example, in the city's once-car-dominated Avenida Séptima, 17.7 km of protected bike lanes have increased rush-hour traffic from 35 cyclists to 1,800.

Moreover, the temporary bike lanes allowed planners to maintain an open-minded approach as they experimented with new routes, which helped when the City decided to make many permanent.

The cycling network allowed the city residents to keep moving at a time when many felt unsafe on buses. It had the added benefit of expanding access for low-income populations, who bike more frequently to employment and city services.

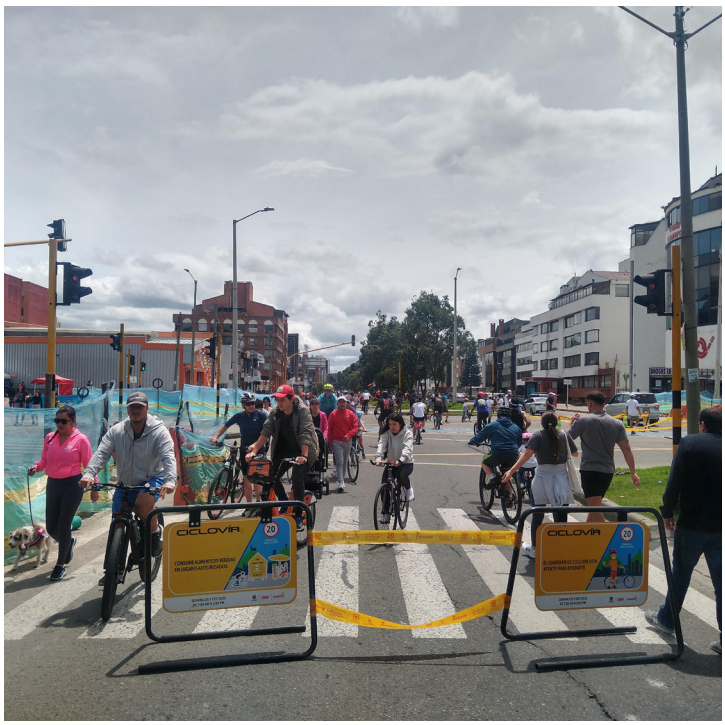
Non-motorized transport such as walking and cycling is especially key for creating multimodal, resilient transport systems. Walking and cycling are not only modes of transport in and of themselves but they are used for first- and last-mile connections, making them essential for accessing train and bus systems.

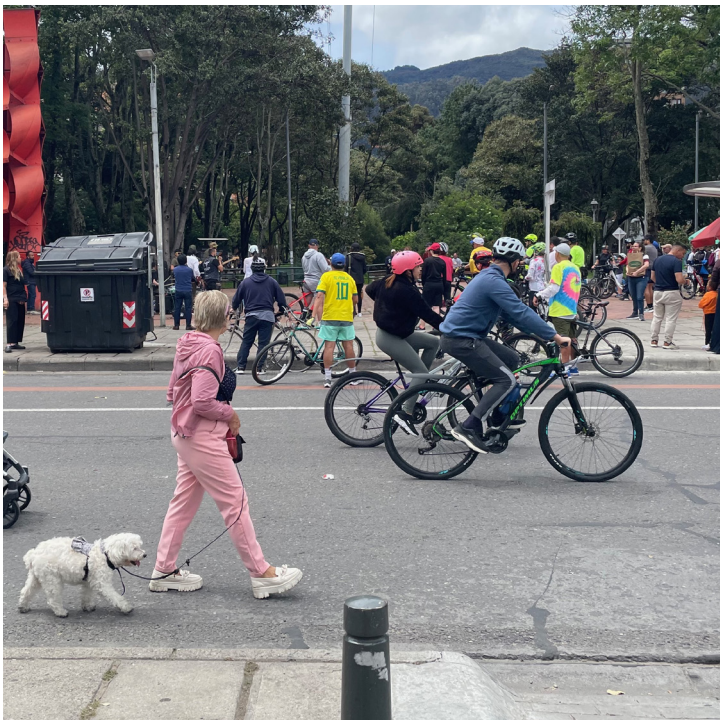
Cities can foster NMT through policy, such as with **policies** that prioritize NMT planning and funding. Cities must also enforce these policies (for example, in some African cities, planners have built designated and protected pathways, but motorcycles and cars encroach on these spaces).

Additionally, **infrastructure improvements** make NMT safe and pleasant to use, encouraging walking and cycling. It can include smooth, wide sidewalks, good lighting, connections to other modes of transport (e.g., walking paths that lead to BRT stations), street trees, and benches.

Cities must also encourage a **cultural shift** so residents see the value of cycling and especially walking. In many Global South cities, residents consider walking as something that is low-class, as is the case with public transport.

To that end, Bogotá has many programs that other cities can learn from. The city has had an annual **Open Streets** event for more than two decades, shutting down main thoroughfares for car traffic to encourage people to cycle and walk. These programs are also supported by policy; for example, Acuerdo 552 permits new uses, while Bogotá's Land Use Plan creates a comprehensive vision for new land-use interventions.





Every Sunday, Bogotá opens up its streets to walking, cycling, and rolling, so people of all ages and abilities have space to safely walk and cycle. Source: ITDP.

2. Balancing Short- and Long-Term Planning.

Many cities struggle to choose between prioritizing short-term and long-term planning: Adapting and responding to needs and crises now versus planning to adapt to crises or changes (some of which may or may not happen) in the future. There is always a **trade-off of scarce resources** between current and future needs.

Many planning paradigms are based on predicting the future or deciding what we want the future to look like. But such **predictive approaches** have created problems when we get it wrong — for example, Brasilia, Brazil, was long-planned around car dominance, and that has created its current congestion and mobility problems.

In addition, many cities do not have the resources or have too many current crises to do any long-term planning at all. Carrying out predictive approaches often assumes that planners have more power than they actually do (whether it's because they lack resources, political support, or legal authority).

However, ultimately some long-term planning is necessary, because it can mitigate the harms and costs of entering a crisis completely unprepared. Being adaptive and resilient in part means to "be prepared for the unexpected."

Sometimes long- and short-term planning are not an either/or — sometimes you can do both. For example, walking and cycling infrastructure are interventions that can be done relatively quickly and cheaply but will have long-term impacts on city resilience.
Bogotá serves as a great case study of how short-term planning can have long-term effects. Decades of smaller short-term transport interventions (including Open Street events dating back to the 1970s) built the foundation of public support that helped Bogotá to make larger and faster changes during the pandemic.

Additionally, Bogotá's **flexible** planning approach, especially with its cycle lane expansions, made it easier to respond to the crisis. Planners did not get stuck in a single vision of where the lanes should be: they treated the intervention as an **experiment**, knowing they wouldn't get it right on the first try, allowing them to nimbly change in response to feedback.

3. Leveraging Data Toward Resilience.

Data can help transport systems become more resilient as it allows researchers to better understand current and future demands, patterns, challenges, and external circumstances. This helps systems maintain quality service even during times of crisis and change, and to better adapt to change in general. More specifically, data helps build resilience because it:

1. Helps gauge and predict demand;
2. Helps us understand the relationships between different modes of the system and how failures in some parts affect others;
3. Allows for real-time trip planning for passengers;
4. Can improve communication between governments and residents;
5. Can empower communities to communicate problems with decision-makers; and
6. Supports political decisions with empirical evidence.

a. Strategies for data collection

The Mobilize Learning Lab participants focused on two strategies to improve data collection. First, **digitalization** —such as via electronic fares and GPS tracking — often makes data collection easier, more efficient, and faster, providing more up-to-date information. However, digitalization may present equity problems, as different socioeconomic groups have varying access to technology, such as smartphones.

Second, **integrating data** between different parts of the system allows researchers to see dynamics and patterns more thoroughly and comprehensively, which translates to other benefits. For example, in Fortaleza, Brazil, the city began using bus fare cards that provided data on travel patterns, which identified areas that needed immediate help for more service, as well as where the system could reallocate labor from over services areas that helped cut costs.

b. Data to collect for building resilience

Participants also identified several kinds of data that would help build resilience, such as:

1. Data from informal systems;
2. Social demographic information;
3. Data on vulnerable and marginalized communities;
4. Emissions data;
5. Data on pedestrians and cyclists;
6. Data on those informally employed;
7. Integrated data from different fields (e.g., economic data, such as job concentration)
8. Aggregated data (though disaggregated data is necessary for targeting specific groups);
9. Data from multiple sources and means of collection;
10. Secure data, with robust cybersecurity; and
11. Data on land use and urban sprawl.

c. Using data strategically

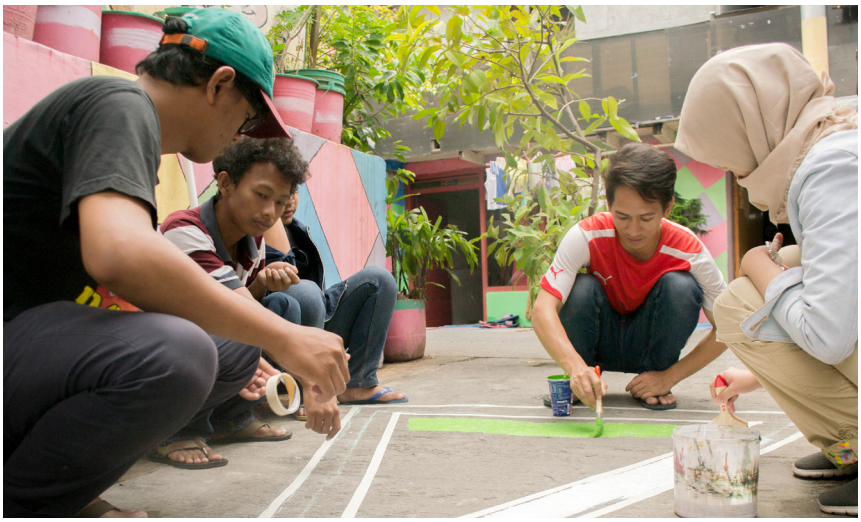
Data use comes with many ethical and methodological caveats, as discussed in previous section on data and participation on page 27. **Data and data collection are inherently political**, because they require making decisions about what counts and what doesn't, what to look at and what not to look at.

Researchers and planners must **establish values and priorities**, such as resilience, that guide data collection and analysis, otherwise they risk collecting data that leads them to misleading or unhelpful conclusions. For example, practitioners may look to INRIX's Global Traffic Scorecard to assess a city's transport. However, the Scorecard prioritizes the experience of car drivers, which will not be relevant for many residents on the move. In Bogotá, for instance, cars make up only 14% of trips.

4. Resilient Transport Means Resilient Communities and Resilient Cities.

Resilient cities start with resilient communities, and quality public transport builds such communities by creating safe public spaces and increasing people's access to their neighbors. Mobility and connectivity are essential to building **social capital**, the networks people can rely on in times of hardship.

Additionally, community participation in transport projects can be a powerful tool to activate and grow social capital. It can empower communities as organizers and advocates for their own well-being. For example, cities can give communities funds to deploy tactical urbanism strategies to improve their own streets. Resilient communities and resilient transport are mutually reinforcing. Improved transport strengthens communities; conversely, strong, well-organized communities are better able to shape transport planning and policy to be more resilient and better serve them.



Community-based planning and design in Jakarta's urban villages transform once traffic overrun environments into pedestrian and cyclist-friendly spaces. Source: ITDP.

IV. Challenges, Opportunities, and Conclusion

Public transport is stronger when well integrated with cycling, walking and land use. Here in downtown Bogotá, a transit mall prioritizes sustainable modes of transport and because of that, ensures a better performance and experience for users. Source: ITDP.

This white paper laid out best practices and case studies regarding the future of public transport. It established that the future of public transport is resilient, equitable, and well-funded. Across three themes, it came to five conclusions that should further shape future transport policy and planning:

1. Public transport is a public service that needs public investment and oversight.
2. Public transport must provide good service equitably through a diversity of modes.
3. Quality public transport is built on public participation and community-building.
4. Public transport should be improved and informed by data, with careful consideration of methodology.
5. Public transport should be planned alongside land-use planning and policy.

To conclude, we present cross-cutting challenges we must address to build the future of public transport and opportunities to look forward to as we continue this work.

Challenges: What Hurdles Do We Face?

a. Shifting away from entrenched car-oriented development

Many cities have long prioritized travel by car and other private vehicles. As a result, roads are unsafe for pedestrians and cyclists; air pollution threatens public health; and congestion slows down public buses as well as private vehicles. And the distances driven are getting longer and longer as cities sprawl. Some cities have tried to solve these problems by enlarging and improving roads for car travel, which leads to more sprawl and traffic, without a critical eye toward car-oriented development in general.

Residents will be safer, suffer less pollution, and spend less time in traffic with an integrated public transport system. Public transport is more resilient and more equitable than car travel, as well. Nevertheless, one of the major challenges for the future of public transport is shifting from decades of car-centered infrastructure and policy to fostering resilient, equitable public transport.

b. Adapting best practices across different contexts

Best practices differ between cities, countries, government departments, and types of transport. Practitioners work in vastly different contexts (e.g., Global North vs. Global South, local planning departments vs. national transportation department). These different contexts may call practitioners to identify different funding and financing strategies, communications and marketing strategies, research methods, etc. Practitioners will need to continue learning from each other and other best practices, while experimenting to see how to apply and adapt those best practices for their own context.

For example, many participants noted a challenge that hasn't existed so far in many Global North cities that have been the focus in the transport field: the rising use of motorbikes, which has led to less-safe roads for all users. Addressing this challenge may involve novel policy or regulatory approaches.

Additionally, many recommendations assume a level of political organization, civil society, or systems of governance that doesn't exist in many cities. Moreover, lack of trust in government, sociopolitical tensions, and extreme inequality can impede public buy-in and the implementation of interventions generally. Notably, it can hamstring efforts to devote resources and funding into public transport.

c. Scarce resources, crises, and competing priorities

Many cities are challenged because they have scarce resources (including labor, expertise, and funding) and competing political goals that block efforts to support equitable, resilient transport. In many cases, cities prioritize policies and interventions that are efficient and have immediate, quantifiable, and economic benefits.

However, many of the best practices for public transport have powerful long-term consequences but no instant or quantifiable economic results (e.g., ethical, equitable data collection). This makes securing budget/funding for these best practices more challenging.

Relatedly, many cities struggle to balance short- and long-term planning. Long-term planning has many benefits, especially for resilience and equity, but amid mounting crises and limited resources, cities may have to invest more in short-term planning and crisis management over long-term planning. Moreover, the urgency of many crises often means faster processes that may exclude voices, especially from groups who have been historically excluded. This threatens equitable processes and outcomes for many transport systems.

One key tool to confront this challenge is the deeper analysis of politics, stakeholders, and power dynamics around public transport projects. Transport involves compromise and trade-offs between priorities among actors. Understanding these dynamics will help stakeholders from transport planners and civil society to strategically work toward equity, resilience, and funding goals within governments and political systems.

Opportunities: What Can We Look Forward To?

a. The many benefits of reframing public transit as a public service

One of the key takeaways from this series was that public transport is a public service or utility. This framing sheds light on all the intertwined public benefits of transport: residents' health and well-being, cleaner environments, economic flourishing, furthering equity, access and inclusion, and making cities more resilient. This framing also emphasizes how public transport is essential for realizing human rights and is indeed a human right in and of itself.

Such framing puts public transport squarely in the domain of government, encouraging supportive policies and budget allocations. It also improves public perception around public transport, turning it from an undesirable mode of transport to a benefit that all residents should be able to use and enjoy.

b. New possibilities for research methods and approaches

The future of public transport presents an exciting opportunity to pursue new interdisciplinary approaches that will help public transport become more resilient, equitable, and well-funded. Transport planners, researchers, and practitioners can combine lessons and methods from economics, grassroots organizing, environmental science, and more.

Additionally, participatory public transport initiatives offer a great opportunity to bring community organizations and leaders into projects. Improving public transport has a direct impact on people's lives, and it may also mean challenging adjustments for some (e.g., changing car-centric mindset or learning a new payment system). Community partnerships are essential for building buy-in and will help improve transport to suit the needs of residents.

c. Boosting economic activity and well-being

Building good public transport can include workforce training and job creation, as we've seen in the case of Bogotá and other cities. This improves city resilience by improving economic well-being, and equity by including more residents from marginalized groups in a thriving economy running on public transport.

Better public transit will also improve resilience and equity by boosting local economies and connecting people with more business and job opportunities across sectors and across the city.

d. Coordinating efforts across departments and governments

Throughout the Future of Public Transport Mobilize Learning Lab series, participants shared examples of projects that were greatly advantaged by different parts of government working together — all levels, not just local, and all different departments, not just transport. For example, Bogotá's transport programs include participation from not only transport planners and departments but also the Secretariat of Citizens Security, Justice and Coexistence, and the Secretariat of Women.

Coordinating efforts across these diverse actors brings together their different authorities, responsibilities, resources, and expertise. It can also solve and account for future barriers (e.g., having a local zoning authority in the planning committee early in a project may make permitting for a new station easier later on).

e. Looking beyond large infrastructure projects

Cities can pursue more flexible, low-cost interventions (e.g., temporary bike lanes in Bogotá) to experiment with relatively low stakes and build public buy-in. Compared to large-scale infrastructure projects like metro stations, this helps cities to make progress without requiring as many resources (funding, financing, labor, etc.).

Along those lines, supporting first- and last-mile connectivity, especially through walking and cycling infrastructure, is an essential part of public transport. It makes trains and buses more accessible, on top of being valuable modes of transport in and of themselves.

Concluding Remarks

As cities around the world face multiple, intersecting crises, governments can and must support the future of public transport. Public transport is key to improving mobility and access in a city for all residents. It connects them with basic needs like food and medicine, as well as economic opportunities, political life, education, culture, and community. Thus, quality public transport helps cities and their residents thrive.

Public transport is the backbone of many cities, especially for marginalized communities. It helps more people access destinations, goods, services, and communities that are essential to individual and collective thriving. This makes a city healthy — not just in the bodies and minds of its residents, but also in its economy, its political life, and its environment.

As we face increasingly dire and intertwined crises around the world, we must focus on improving public transport so that it serves and adapts to our uncertain future. To that end, the future of public transport must be financially sustainable, equitable, safe, and resilient.

In the Future of Public Transport series, ITDP and VREF investigated how governments, planners, and researchers can bring this future to fruition. The information shared here lays the groundwork for continued collaboration, research, policy, and interventions. We look forward to continuing this work with our partners and colleagues.

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