

CASE STUDY

TransMilenio



Center for
Inclusive Growth

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GLA2062: Public-Private Solutions to Global Inequality

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1.1 Background: Colombia's economy and pathways to more equitable economic environment

TransMilenio, the world's largest bus rapid transit (BRT) in Bogotá, Colombia, has shown how investment in urban infrastructure can be a gateway towards equitable development.¹ TransMilenio was the dream project of Bogotá's mayor Enrique Peñalosa, who envisaged an equitable and sustainable mobility system that would decongest the city's chaotic streets and allow the rich and poor to move with equal ease.² Currently, over 2 million people in Bogotá and the neighbouring city of Soacha use this system every day and pay less than \$1 for the service.³

Two decades since its launch, TransMilenio has made Bogotá's streets safer, improved air quality, and improved the quality of life of its residents.⁴ Though the BRT needs an upgrade to tackle the city's growing population,⁵ its implementation shows how collective action in building a public good can help future generations. It has also opened the conversation on ways to achieve equitable societies through shared public resources.

In Colombia, the drive to build an equitable economic environment is more of a necessity than a choice. The country is rated as the most unequal society among the OECD nations; the COVID-19 pandemic has pushed 18.5 million people into poverty in 2021 as compared to 17 million the previous year.⁶ Unemployment is growing, leading to unrest among the large section of the population.⁷ In this context, urban infrastructure projects such as TransMilenio are seen as ways to tackle barriers to economic opportunities. The positive spillovers from such large public transport systems (like better air quality) are also seen as ways to achieve sustainable growth.⁸

TransMilenio is not perfect, yet the wide adaptation of the system across Latin America offers lessons to governments and policy makers in the global south that there are ways to build inclusive and safe urban spaces — a move that could take countries a step closer towards an equitable society.



2.0

Built for All: Applied



2.1 Pillar One: Collective stewardship of shared resources for future generations

The new system was motivated by a clear need to upgrade the previous system, which was informal, prone to criminal activity, underused and offered poor service to its customers. This investment into a strategic multiphase plan to bring an upgraded transportation system to the city has helped improve citizens' quality of life, the city's air quality and increase economic productivity.⁹

Improved Infrastructure and Safety for Citizens: The new transit system consists of trunk corridors, feeder zones, terminal stations, pedestrian overpasses and sidewalks.¹⁰ In the areas where TransMilenio operates, there has been a 92% reduction in accident-related deaths and a 75% decrease in injuries. There was also a 79% decrease in collisions in the city because of the reduced number of private cars and taxis on the roads.¹¹ Furthermore, robberies at bus stops reduced by 83% as a result of increased safety measures and better lighting at bus stops.¹²

Cyclical Self-Reinforcing System for Citizens: TransMilenio has benefitted both high- and low-income communities and strengthened economic success within Colombia. Average commute times have reduced by 32% and travel speed increased from approximately 12 km/hour to 26 km/hour.¹³ The increased use of public transit has also reduced traffic congestion and increased the speed of travel for other vehicles. Increased efficiency allows for commuters to get to work faster and be more efficient at work as a result.

Better Air Quality and Less Pollution: By transporting more passengers in less time and the use of more energy-efficient buses compared to the over 2,100 old public buses, the air quality in Bogotá has improved drastically. There has been a 40% reduction in emissions and TransMilenio has reported 47% in fuel savings.¹⁴

Equality and equity at the core of TransMilenio

TransMilenio's success can be attributed to several factors. First, embedded at its core is the concept of equity. The transition to an efficient transport system 'became a socially oriented policy that reduced socio-spatial urban inequalities via improving access to diverse urban opportunities.'¹⁵ These equity considerations ensured that low-income populations could utilise these services to improve their standards of living and achieve their full potential. These considerations align with SDG 10: Reduced Inequality, which asserts that in order for countries to build equitable societies, equality must be available to everyone regardless of personal characteristics.¹⁶ Second, the use of robust public-private partnerships contributed to the success of the transport system.¹⁷ Public institutions such as the Bogotá Mayor's office, Fondo de Educación y Seguridad Vial - The Fund for Education and Road Safety of the Secretary of Transit and Transportation focused on implementing the infrastructure, while the private sector focused on maintaining and operating the buses.¹⁸

Opportunities for expanded and continued inclusivity

TransMilenio is a scalable model that can be adapted to metropolitan areas of less than 1 million inhabitants across developing countries in Latin America, Asia, and Africa.¹⁹ TransMilenio provides a base that global south governments can adapt to suit their social, political and economic landscapes. For example, Santiago, Chile, modelled and adapted its transit system Transantiago on TransMilenio's system and is now considered the most 'ambitious transport reform undertaken by a developing country.'²⁰ The push for inclusive and socially conscious urban transportation systems has the power to influence 'wider aspirations, ideologies and positioning of global south cities' that contribute to social systems that are truly built for all.²¹

Lessons for action

While the TransMilenio system offers a pathway for social inclusion for Bogotanos, it contributes to the 14,000 tonnes of CO₂ from transportation emitted into the city's atmosphere.²² A shift towards greener buses will be imperative as the world shifts to a net-zero future.

2.2 Pillar Two: Equitable access to resources and opportunities

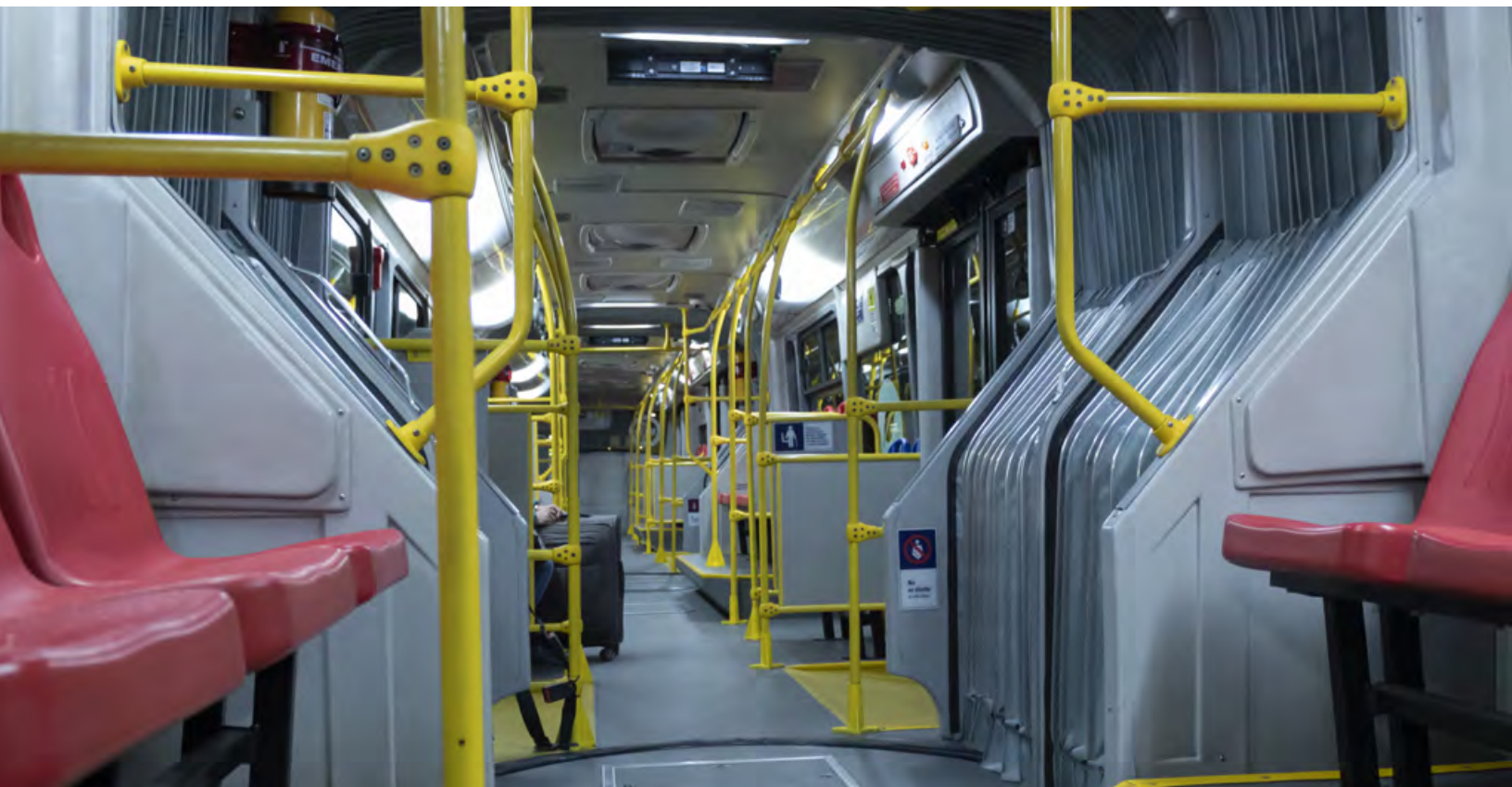
Strengths of the TransMilenio approach

Current TransMilenio infrastructure is a direct response to the population mobility issues posed by Bogotá's rapid expansion due to informal settlements.²³ By providing feeder buses that go from periphery neighbourhoods into head stations, TransMilenio mitigates transportation inequities present in the urban-rural divide. The system also covers the majority of Bogotá through 440 kilometres of feeder lines and 112 kilometres of bus lines, providing Bogotanos with more convenient options for transport.²⁴ Researchers observed that there was a correlation between the presence of TransMilenio and the size of the labour market in some areas of the city, suggesting that TransMilenio increases the probability for more people to access economic opportunities.²⁵

TransMilenio users also experience a 32% reduction in travel times. This increase in efficiency has led 37% of commuters to state that they can spend more time with their families as a direct result of a faster commute.²⁶ 83% of users state that increased speed is their main reason for using TransMilenio.²⁷

Opportunities for growth and enhancing inclusion

Most informal settlements are in the southern part of the city, which are further away from the city centre, but most job opportunities are in the northern part of the city. While feeder lines are a way forward, they are still inadequate due to lower frequency operations and longer travel times. Families who live further away from the city centre are also more likely to have fewer financial resources, and the cost of travel can be a barrier for them. There is an opportunity for TransMilenio to increase infrastructure to these informal settlements on the periphery, as well as opportunities for the government to subsidise travel for low-income families.²⁸



2.3 Pillar Three: A level playing field for work and competition

Strengths of the TransMilenio approach

TransMilenio helps to eliminate barriers to employment and ensures that traditionally discriminated communities have equal opportunities to find and keep work. The transportation system is 'fully accessible for users with disabilities, elderly, youngsters and pregnant women', which make up about '1% of the users (63,000 persons) per day'.²⁹ TransMilenio has also implemented initiatives, such as the 2019 Gender Equity and Inclusion Policy, to 'improve safety for female passengers and promote equity for women working on the network'.³⁰ Not only does increased accessibility improve the inclusiveness of the labour market and provide support for all to succeed in finding work, but it also increases the number of people who are able to pursue a job. Increasing access to different parts of the city and sectors through inclusive transportation supports a more vibrant economy and promotes a fair and competitive marketplace.

Opportunities for growth and enhancing inclusion

Since TransMilenio was launched in 2000, the population of Bogotá has nearly doubled from 6.2 million to 11.2 million in 2021.³¹ The increase in the number of people and increased use of the TransMilenio has resulted in several recurrent issues that impact the sustainability and inclusiveness of the system. In 2000, '90% of Bogotanos supported the new system, more recently that support has declined', due to long wait times of over 20 minutes, overcrowding and low frequency of service.³² These challenges may deter people, particularly those with disabilities and elders, from using and taking full advantage of the transportation service. Both the public and private sectors can strengthen TransMilenio by advocating for and investing in infrastructure to expand the service beyond buses to include and connect the underground subway.

Lessons for action

TransMilenio covers 80% of Bogotá, providing a valuable service to many.³³ However, such a system needs sustained commitment and upkeep, which requires partners and stakeholders to continually invest in infrastructure and new solutions to recurring issues. Such solutions may include adding more buses, addressing the 20% of the city not reachable by TransMilenio or implementing policies to further tackle passenger-on-passenger, gender-based violence and sexual harassment on public transportation to encourage women's participation in the workforce outside of the home.³⁴

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