ANALYSIS OF THE IMPLEMENTATION OF PUBLIC POLICIES FOR SUSTAINABLE URBAN MOBILITY AND ACCESSIBILITY: A PROPOSAL FOR MORE LIVEABLE AND SUSTAINABLE CITIES

Fernanda Marques Caldeira[1], Francislaine Rosa da Silva[2] and Júllia Rosa de Medeiros[3]

ABSTRACT

This article investigates the implementation of public policies aimed at sustainable urban mobility and accessibility, to map existing good practices in Brazil and other countries, and using this diagnosis as a basis for new research and projects. The analysis of efficient public policies aims to provide information that promotes a better quality of life and environmental sustainability in urban areas. The research also seeks to present a replicable model for other cities, encouraging the adoption of public policies that prioritize sustainable mobility and universal accessibility. To this end, the methodology adopted includes a literature review on the subject, an analysis of public policies in different contexts, and the application of a comparative case study. The expected results include the identification of successful policies that can serve as a model for future implementation in other cities.

Keywords: Sustainable Mobility. Urban Accessibility. Public Policies. Environmental Sustainability. Quality of Life.

[1]Federal Institute of Mato Grosso - IFMT Campus Várzea Grande
E-mail: caldeira.fernanda82@gmail.com
[2]Federal Institute of Mato Grosso - IFMT Campus Várzea Grande
[3]Federal Institute of Mato Grosso - IFMT Campus Várzea Grande

INTRODUCTION

Rapid urbanization and the growing demand for increasingly connected, accessible, and sustainable urban spaces have created significant challenges for cities around the world. In particular, urban mobility and accessibility have been central issues in discussions about the future of cities. The implementation of efficient public policies in this area is essential to ensure that cities not only support population growth but also provide a better quality of life for their inhabitants, respecting the premises of environmental sustainability and social inclusion. In this context, this article proposes to investigate how public policies have promoted sustainable urban mobility and accessibility, in Brazil as well as in other countries, mapping good practices that can serve as a basis for new research and projects. The objective is to analyze how these policies impact the quality of life in urban regions and how the lessons learned can be applied in other locations, creating a replicable model that encourages the adoption of sustainable practices. The growing process of urbanization poses significant challenges for urban management, in this scenario, sustainable mobility and universal accessibility emerge as essential elements for the development of more inclusive and environmentally responsible cities. Public policies have the power to shape urban infrastructure, influence the distribution of resources, and promote greener, more efficient, and more inclusive mobility practices. In Brazil, disparities between different regions and budgetary constraints make it even more important to identify good practices that can be replicated in other urban contexts. In developed countries, effective public policies have already demonstrated positive results in terms of accessibility and urban mobility, and international experiences can serve as inspiration for the development of solutions adapted to the Brazilian reality. Thus, this study is justified by the urgent need to advance the understanding of public policies that have been successful in implementing sustainable mobility and accessibility practices. In addition, the research seeks to contribute to the discussion on the creation of models that can be applied in different contexts, promoting more livable and environmentally responsible cities. Initially, the objective was to investigate how public policies for sustainable urban mobility and accessibility are implemented, mapping existing good practices in Brazil and other countries, providing support for new research and projects, and creating a replicable model for other cities. The research sought to analyze public policies aimed at urban mobility and accessibility in different international contexts and Brazil, identify good practices that

promote social inclusion, environmental sustainability, and quality of life in cities, evaluate the impact of these policies on urban regions, considering the aspects of environmental sustainability, urban mobility, and social inclusion and, finally, propose a public policy model that can be replicated in other cities, encouraging the adoption of sustainable and accessible practices.

THEORETICAL BASIS

Urban mobility and accessibility are crucial components for the sustainable development of cities. According to Gehl (2010), successful cities in the field of mobility and accessibility are those that prioritize the needs of pedestrians, cyclists, and public transport users, to the detriment of automobile use. In this sense, environmental sustainability and social inclusion should be seen as essential premises in any public policy aimed at urban development. The theory of sustainable mobility, as explained by Banister (2008), proposes that urban transport should be rethought with an emphasis on reducing pollutant gas emissions, decreasing dependence on fossil fuels, and promoting non-motorized modes of transport, such as walking and cycling. In addition, it is important to consider universal accessibility, which should be guaranteed to all people, regardless of their physical, economic, or social condition.

In a broader context, smart and sustainable cities have been one of the main themes in discussions about the future of urban areas. The UN 2030 Agenda for Sustainable Development (2015) establishes the need to promote sustainable cities and communities, including improving urban mobility and promoting accessible infrastructure for all. This principle is fundamental since the integration between mobility and accessibility directly contributes to improving the quality of life of citizens and to the environmental sustainability of urban regions.

Sustainable urban mobility, the central theme of this study, is a multidimensional concept that involves not only transportation efficiency but also the reduction of environmental impacts, the promotion of social inclusion, and the improvement of quality of life in cities. Several authors have discussed the impact of public policies and mobility models in cities, reflecting on the development of greener and more accessible urban solutions, based on the three main pillars of sustainable urban mobility: reduction of environmental impact, social inclusion, and economic efficiency.

In addition to the examples of public policies already implemented, or in the process of being implemented in Brazil, several Brazilian scholars have dedicated themselves to the theme of urban mobility and sustainability. According to Lima (2012), the integration of public transportation, non-motorized transportation, and the creation of infrastructure for pedestrians and cyclists are essential elements for the construction of more sustainable cities.

Some researchers have dedicated themselves to analyzing the Brazilian urban context and public policies aimed at sustainable mobility, with an emphasis on accessibility and social inclusion. According to Almeida (2015), it is essential that public mobility policies are not limited to transportation issues, but also integrate urban planning, safety, and the environmental quality of cities. José Goldemberg, one of the most important Brazilian scholars in the area of energy and sustainability, approaches the issue of urban mobility from the perspective of environmental sustainability. According to the author, sustainable transportation systems are essential to reduce the carbon footprint of cities and improve air quality. He also advocates the implementation of public policies that integrate public transportation, active mobility, and the reduction of the use of private vehicles, Goldemberg (2013). The relationship between Public Policies and Environmental Sustainability in Brazil regarding mobility issues has advanced, although unevenly between regions. According to Moura (2017), policies to encourage public transportation, encourage active mobility (such as walking and cycling), and promote accessible transportation infrastructure have shown positive results, but they need to be complemented with education on the use of sustainable means of transportation and the implementation of innovative technologies.

The National Urban Mobility Policy (Law 12,587/2012), for example, was a milestone in Brazil, establishing guidelines for the promotion of more sustainable transportation systems. The law proposes the creation of exclusive corridors for public transportation, the expansion of spaces for pedestrians and cyclists, and encourages intermodality, which aims to integrate different means of transportation in an efficient and sustainable manner.

Thus, it is clear that sustainable urban mobility is a complex issue that requires an integrated approach, involving not only the implementation of efficient transportation solutions, but also urban planning that favors social inclusion, environmental sustainability, and the reduction of dependence on individual motorized transportation.

METHODOLOGICAL PROCEDURES

The methodology used in this study is qualitative and exploratory, to analyze and compare different public policies focused on sustainable urban mobility and accessibility. Initially, a comprehensive review of the literature on sustainable urban mobility, accessibility, and public policies was carried out, to identify the main theories, models, and good practices that have been adopted in different cities around the world mainly in Brazil.

After structuring a reference base, some cases of cities that stand out for their successful public policies, both in Brazil and in other countries, were selected. The analysis of these cases allowed the identification of effective strategies that can be replicated in other urban contexts. For the analysis, official documents, reports, and plans of public policies on urban mobility and accessibility from different cities were used, in order to map the practices adopted and their impacts and to enable a comparison between public policies and the studies found.

ANALYSIS

The analysis was conducted by comparing public policies on urban mobility and accessibility adopted in different urban contexts, observing the effectiveness of these policies in improving quality of life and promoting sustainable and accessible practices.

In the Brazilian context, the country has stood out, especially in its large cities, for the implementation of some innovative practices of sustainable urban mobility. Notable examples include public transportation systems and infrastructure projects that encourage a reduction in dependence on individual transportation. Motorized.

The city of Curitiba is recognized worldwide as a reference in urban planning and sustainable transportation. The implementation of the Integrated Transportation System (SIT) was a milestone in the city's urban mobility model. The express bus system, with exclusive lanes, was created to ensure a fast and efficient flow of public transportation, in addition to allowing integration between different modes. According to Goldberg (2013), the Curitiba model presents as fundamental principles the integration between transportation modes and the prioritization of public transportation, seeking to reduce dependence on private cars and promote sustainable mobility. The city also invests in shared bicycle systems and public spaces that favor mobility on foot.

Another well-known example is São Paulo, the largest city in Brazil, which has also invested heavily in sustainable urban mobility alternatives. The construction of cycle paths and cycle lanes throughout the city has been one of the main strategies to promote non-motorized mobility. The São Paulo Cycle Path Plan, implemented over the last few years, seeks to encourage the use of bicycles as a means of daily transportation, reducing pollutant emissions and relieving traffic congestion from motorized vehicles. For Teixeira (2016), cycle paths are an example of how urban mobility can be rethought with a focus on sustainability, safety, and accessibility for the population.

The city of Rio de Janeiro has also implemented innovative solutions for sustainable urban mobility. The BRT (Bus Rapid Transit) system, implemented on the city's main avenues, prioritizes fast and efficient public transportation, ensuring that large flows of people move more quickly, without compromising the fluidity of traffic. In addition, water transportation, through ferries and boats in Rio, has also been an alternative to road transportation, contributing to reducing traffic and increasing connectivity between different areas of the city. These projects are examples of how urban mobility can be diversified and sustainable, respecting the geographic and environmental particularities of each city.

In Florianópolis, recent municipal administrations have focused on creating urban spaces designed for pedestrian mobility, encouraging walking, and the use of public transportation. The city has developed sustainable urban planning initiatives by integrating leisure and commercial areas into public transportation networks. According to Almeida (2015), Florianópolis has invested in walkability as a way to ensure that citizens can easily get around on foot, without having to resort to private vehicles.

In Brazil, some cities such as Curitiba and São Paulo have adopted more efficient public transportation measures, such as the use of a large number of bi-articulated buses and integrated transportation systems. In other parts of the world, cities such as Copenhagen and Amsterdam stand out for encouraging the use of bicycles and creating infrastructure adapted for pedestrians and cyclists.

Furthermore, as a complementary part of this research, the impact of these policies in terms of environmental sustainability, reduction of carbon emissions, and promotion of social inclusion will be analyzed later, in addition to the analysis of quality of life indicators, such as reduced mobility, access to public transport and traffic safety, which will be crucial to understanding the effects of policies on the daily lives of urban inhabitants.

FINAL CONSIDERATIONS

Urban mobility and accessibility are essential themes for the planning and development of more livable and sustainable cities. The implementation of effective public policies can transform the dynamics of urban areas, providing a better quality of life, greater social inclusion, and environmental sustainability.

This study thus seeks to contribute to the understanding of best practices and public policies in the field of mobility and accessibility, identifying models that can be applied in different urban contexts. It is expected that the research will provide a solid basis for the development of new public policies, aimed at building more sustainable and inclusive cities.

Ultimately, creating a replicable model for other cities will be an important contribution to promoting the adoption of public policies that prioritize sustainable mobility and universal accessibility. The lessons learned from the cases analyzed can serve as a basis for transforming cities into healthier, more accessible, and sustainable environments for all citizens.

REFERENCES

1. Almeida, M. F. (2015). Planejamento urbano e mobilidade sustentável: Um estudo de caso sobre a acessibilidade nas cidades brasileiras. São Paulo, Brazil: Editora USP.

2. Banister, D. (2008). The sustainable mobility paradigm. Transport Policy, 15(2), 73–80. https://doi.org/10.1016/j.tranpol.2007.10.005

3. Gehl, J. (2010). Cities for people. Washington, DC: Island Press.

4. Goldemberg, J. (2013). Mobilidade sustentável e transporte coletivo no Brasil. São Paulo, Brazil: Editora Hucitec.

5. Lima, C. H. F. (2012). Mobilidade urbana e sustentabilidade no Brasil. Rio de Janeiro, Brazil: Editora FGV.

6. Moura, M. L. (2017). Desafios da mobilidade urbana no Brasil: Políticas públicas e sustentabilidade. Brasília, Brazil: Editora UnB.

7. Teixeira, L. (2016). O impacto das ciclovias na mobilidade urbana: Estudo de caso em São Paulo. São Paulo, Brazil: Editora Senac.

8. United Nations. (2015). Transforming our world: The 2030 Agenda for Sustainable Development. https://sustainabledevelopment.un.org/post2015/transformingourworld