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Attaining liveability through participatory urban planning: a comparative study of two Brazilian cities

Abstract:

This research study examines the influence of participatory approaches in urban planning on the livability of cities, focusing on the cases of Brasília and Curitiba in Brazil. Brasília, once hailed for its modernist design, experienced numerous challenges that compromised its livability, primarily due to the absence of a participatory approach in urban planning. In contrast, Curitiba emerged as a notable example of a livable city, primarily attributed to its successful implementation of participatory design principles. This research delves into the reasons behind Brasília's failure and explores how Curitiba's adoption of participatory urban planning practices contributed to its enhanced livability. By analyzing both cases, this study highlights the importance of citizen engagement, community involvement, and inclusive decision-making processes in shaping urban environments that prioritize the needs and aspirations of residents. The findings of this research offer valuable insights into the significance of participatory approaches in achieving liveability goals and provide guidance for urban planners and policymakers in creating more sustainable, inclusive, and livable cities in Brazil and beyond.

Keywords: Liveability, Participatory Urban Planning, Brasilia, Curitiba

1. Introduction:

Urban planning is a complex process that shapes the physical, social, and economic aspects of cities. Over the years, various approaches have been employed to guide urban development, with the aim of creating sustainable and livable cities. One approach that has gained significant attention is participatory urban planning, which involves actively engaging citizens, communities, and stakeholders in decision-making processes. This approach recognizes the importance of local knowledge, values,





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and aspirations in shaping the urban environment. By fostering inclusivity, transparency, and collaboration, participatory urban planning holds the potential to create sustainable cities that meet the needs of present and future generations.

The history of participatory approaches in urban planning can be traced back to various movements and initiatives that sought to democratize decision-making processes and challenge the dominance of top-down planning. One notable example is the concept of "neighborhood units" proposed by Clarence Perry in the 1920s, which emphasized community involvement and self-governance in planning residential areas. Similarly, the ideas of Jane Jacobs in the 1960s advocated for citizen engagement, mixed-use neighborhoods, and vibrant street life as essential elements of urban vitality.

2. Rise of participatory urban planning:

The participatory approach gained further momentum with the rise of the environmental movement and the growing recognition of the need for sustainable development. The 1972 United Nations Conference on the Human Environment in Stockholm emphasized the importance of public participation in decision-making processes, leading to the inclusion of participatory principles in international agendas and frameworks for sustainable development. Subsequently, participatory approaches were incorporated into the discourse and practices of urban planning, focusing on addressing social, economic, and environmental challenges at the local level.

One of the key rationales behind adopting participatory urban planning is the belief that local communities possess valuable knowledge about their own contexts, needs, and aspirations. Engaging residents and stakeholders in decision-making processes helps planners gain a deeper understanding of the specific challenges and opportunities within a particular urban context. By involving diverse voices and perspectives, participatory planning allows for more inclusive and equitable outcomes, reducing social disparities and promoting social cohesion. Furthermore, participatory urban planning enhances transparency and accountability in decision-making. Traditional top-down



approaches have often been criticized for excluding marginalized communities, leading to unequal distribution of resources and exacerbating social inequalities. In contrast, participatory processes provide opportunities for open dialogue, collaboration, and negotiation, ensuring that decisions are made in a more democratic and equitable manner.

The future of urban planning lies in embracing and advancing participatory approaches. As cities face complex challenges such as rapid urbanization, climate change, and social inequities, the need for inclusive and sustainable solutions becomes ever more crucial. Participatory processes enable a broad range of stakeholders, including residents, businesses, community organizations, and governmental agencies, to collectively envision and shape the future of their cities. This collaborative approach can lead to innovative solutions, adaptive strategies, and effective implementation of sustainable urban development goals.

To support the argument for the future of participatory urban planning, numerous studies and examples showcase its successful implementation. For instance, this study brings out a comparative study of two Brazilian cities namely Brasília and Curitiba. Brasília, a futuristic modern planned city could not live up to the test of times and in parallel Curitiba, a city which transformed into a sustainable and livable city, over time, has been attributed to its participatory approach in transportation planning, waste management, and public space design.

3. Case Study: Brasília

Brasília, the Brazilian capital built in the

mid-20th century, continues to fascinate architecture enthusiasts around the world. Designed by Lúcio Costa and Oscar Niemeyer, the city was hailed as a modern utopia, embodying Brazil's progressive power. However, despite its initial acclaim, Brasília has struggled to maintain its original identity and faces numerous challenges in the present day.

The roots of Brasília date back to 1789 when the idea of moving the capital from Rio de Janeiro to a centralized location was proposed. It wasn't until 1956 that President Juscelino Kubitschek initiated the plan, inspired by the concept of planned communities seen in countries like the United States and Australia. Costa's winning design, the Plano Piloto, featured a unique curvaceous layout centered around a hub of government structures, residential blocks, and green spaces. Niemeyer's striking white structures, influenced by Le Corbusier, added a sense of futurism to the city, with the iconic Cathedral of Brasília as a prime example.

Despite its status as a modernist icon, some critics argue that Brasília deviated from modernist principles. The isolated monumentality of the government center contradicted the modern movement's aspiration for egalitarianism. Moreover, the city's rigid, car-centric design no longer aligns with contemporary urban planning principles that emphasize mixed-use, walkable areas.

As a UNESCO World Heritage Site, Brasília also faces restrictions on redevelopment, hindering its ability to adapt to the needs of its growing population. Today, Brasília's population exceeds 2.5 million people, but less than 10 percent reside in the original Pilot Plan



area. Most residents live in satellite towns that developed organically outside the city's core. These satellite towns, akin to favelas, highlight the socioeconomic disparity present in many major Brazilian cities. The disparity between the affluent nucleus and the surrounding suburbs poses significant challenges for Brasília's urban development and social integration.

3.1. Lack of Participatory Approach:

One of the primary reasons for the failed urban planning of Brasília is the absence of a proper participatory approach. The decision-making process was dominated by a small group of architects and politicians, while the input and perspectives of the local population were largely disregarded. This exclusion resulted in a lack of diverse ideas, neglected societal considerations, and limited ownership among residents.

3.2. Car-Centric Design:

Brasília's urban planning placed a heavy emphasis on the automobile, with extensive road networks and wide highways dominating the city's layout. This car-centric approach, while innovative at the time, failed to anticipate the negative impacts of excessive reliance on private vehicles, such as traffic congestion, air pollution, and a lack of walkability. The over-prioritization of cars hindered the creation of pedestrian-friendly spaces and sustainable transportation options.

3.3. Social and Economic Disparities:

The original urban plan for Brasília focused predominantly on the

development of the central Pilot Plan area, catering primarily to the upper middle class and politicians. This led to the marginalization of a significant portion of the population, who were pushed to the outskirts of the city into satellite towns. These areas often lack adequate infrastructure, services, and amenities, resulting in social and economic disparities within the city.

3.4. Limited Adaptability:

The rigidity of Brasília's urban design has hindered its ability to adapt and respond to the changing needs of its residents. As the city has grown and faced new challenges, the predetermined layout and restrictions imposed by the UNESCO World Heritage Site designation have made it difficult to introduce necessary changes and implement modern urban planning practices. This limited adaptability has hindered the city's ability to evolve and meet the demands of a dynamic and diverse population.

3.5. Environmental Considerations:

The urban planning of Brasília paid insufficient attention to environmental considerations. The extensive use of concrete, lack of green spaces, and inadequate urban greening strategies have contributed to issues such as heat island effects and limited ecological sustainability. The original vision did not adequately account for the importance of environmental conservation and the integration of nature within the urban fabric, resulting in a missed opportunity to create a more environmentally friendly city. These factors collectively contributed to the failed urban planning of Brasília,



leading to social disparities, limited adaptability, and a disregard for participatory decision-making processes. These factors were also an outcome of lack of participatory approach by the planners of the city.

4. Case Study: Curitiba

Curitiba, the capital city of Paraná in southern Brazil, has emerged as a shining example of sustainable urban planning. While many cities in South America struggled with chaotic growth, traffic congestion, and environmental degradation, Curitiba took a different path under the visionary leadership of Jaime Lerner. Curitiba transformed from a city replicating the car-centric Brasília model to becoming a global model for sustainable urban planning. Curitiba's journey towards sustainability began in the 1970s when Lerner, a young architect, and his team at the Curitiba Research and Urban Planning Institute (IPPUC) challenged the prevailing vision of a car-dominated city. They recognized the importance of preserving the city's history and identity, leading them to resist the addition of new lanes and the demolition of historic buildings. Instead, they sought to integrate various urban functions and prioritize the well-being of residents. Lerner's approach emphasized taking action and making adjustments along the way. This philosophy was exemplified when he proposed transforming Rua Quinze de Novembro, a major road, into a pedestrian mall. Despite resistance from shopkeepers, Lerner moved quickly, completing the transformation within 72 hours. The success of this project not only revitalized the city center but also won over skeptics, demonstrating the value of immediate

action in urban planning.

Lerner's vision extended beyond transportation. He implemented innovative programs to address social and environmental challenges. The Green Exchange program encouraged residents to trade recyclable trash for tokens, promoting recycling and reducing landfill waste. Curitiba also focused on expanding green spaces, creating numerous parks and protecting the city's main river from channelization. These initiatives improved the quality of life for residents and fostered a sense of environmental responsibility. Curitiba's achievements in sustainable urban planning have gained international recognition. The city's success lies not only in its physical transformations but also in its civic engagement and collective ownership. Despite changes in leadership and evolving challenges, the population of Curitiba remains committed to preserving the city's unique character and sustainable practices. The pedestrian streets and historic buildings are cherished, reflecting the city's continued dedication to its collective dream.

4.1. Integrated Transportation System:

Curitiba's renowned Bus Rapid Transit (BRT) system is a prime example of successful participatory planning. The city involved citizens in the decision-making process, seeking their input and feedback to develop an efficient and accessible public transportation network. The BRT system integrates buses, dedicated lanes, and innovative station designs, making it one of the most efficient and sustainable transportation systems in the world. Citizens' involvement ensured that the system met their needs and contributed to



reducing congestion and pollution.

4.2. Green Spaces and Urban Planning:

Curitiba's participatory approach to urban planning has resulted in a significant emphasis on green spaces. The city has established an extensive network of parks, squares, and tree-lined streets, creating a harmonious balance between urban development and environmental preservation. Citizens were actively engaged in the planning and design of these green areas, ensuring that they were accessible, well-maintained, and contributed to the overall quality of life in the city.

4.3. Waste Management and Recycling:

Curitiba's innovative waste management system is another testament to participatory planning. The city implemented a highly successful recycling program that involved citizens at its core. Through educational campaigns and incentivized recycling initiatives, Curitiba achieved a high recycling rate and reduced waste sent to landfills. Citizens were encouraged to participate in separating and recycling their waste, contributing to the city's sustainable waste management practices.

4.4. Participatory Budgeting:

Curitiba has been a pioneer in participatory budgeting, involving residents in decisions regarding the allocation of public funds. Through participatory budgeting processes, citizens have a direct say in how public resources are allocated, allowing them to prioritize and fund projects that meet their community's needs. This approach has

empowered citizens and promoted transparency and accountability in the city's financial management.

4.5. Sustainable Urban Development:

Curitiba's participatory planning approach has also been instrumental in promoting sustainable urban development. The city has implemented zoning regulations and urban design guidelines that prioritize mixed-use development, pedestrian-friendly streets, and compact urban form. Citizens have actively participated in the formulation of these policies, ensuring that the city's growth is balanced, preserves its cultural heritage, and enhances the overall livability and sustainability of neighborhoods.

Through its participatory planning initiatives, Curitiba has successfully engaged citizens in shaping the city's transportation system, green spaces, waste management practices, budget allocation, and urban development policies. By involving residents in decision-making processes, Curitiba has been able to create a city that is known for its sustainable practices, efficient transportation, high quality of life, and strong sense of community ownership.

5. Conclusion

In conclusion, this research study highlights the significant impact of participatory urban planning on the livability of cities, as evidenced by the comparative analysis of Brasília and Curitiba in Brazil. Brasília's failure to achieve livability can be attributed to its lack of a participatory approach in urban planning, leading to social disparities, a car-centric design, limited adaptability,



and a neglect of environmental considerations. On the other hand, Curitiba's transformation into a sustainable and livable city can be largely attributed to its successful implementation of participatory design principles. The city's integrated transportation system, emphasis on green spaces, innovative waste management practices, participatory budgeting, and sustainable urban development policies have not only improved the quality of life for residents but also fostered a strong sense of community ownership and environmental responsibility.

The findings of this research emphasize the importance of citizen engagement, community involvement, and inclusive decision-making processes in shaping urban environments that prioritize the needs and aspirations of residents. Participatory urban planning allows for a more democratic, transparent, and equitable approach to urban development, reducing social disparities and promoting social cohesion. By actively involving diverse stakeholders, including residents, businesses, community organizations, and governmental agencies, cities can collectively envision and shape their future, leading to innovative solutions, adaptive strategies, and effective implementation of sustainable urban development goals.

The experiences of Brasília and Curitiba serve as valuable lessons for urban planners and policymakers in Brazil and beyond. They highlight the need to move away from top-down planning approaches and embrace participatory processes that integrate local knowledge, values, and aspirations. The future of urban planning

lies in fostering collaboration, inclusivity, and sustainability. As cities face complex challenges such as rapid urbanization, climate change, and social inequities, the adoption of participatory approaches becomes crucial in creating more sustainable, inclusive, and livable cities.

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