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Research Paper

A Comparative Analysis of Urban Park Provision and Users' Wellbeing in Lagos State Nigeria and Other Major Cities in West Africa

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Abstract
Urban parks play a crucial role in enhancing environmental sustainability and improving the physical, mental, and social well-being of urban populations. However, in rapidly urbanizing regions such as West Africa, the provision, accessibility, and effective management of these spaces remain uneven and inadequate. This study presents a comparative secondary data analysis of urban park provision, accessibility, usage patterns, and user well-being across Lagos (Nigeria), Accra (Ghana), Abidjan (Côte d'Ivoire), and Dakar (Senegal). Data were systematically collected from peer-reviewed studies published between 2020 and 2025 and analyzed using descriptive and comparative techniques. The findings reveal significant disparities in green space availability, with Lagos and Accra exhibiting critically low coverage, while Dakar shows relatively higher but declining green infrastructure. Urban park usage remains generally low across all cities, particularly in Lagos, largely due to poor accessibility, inadequate maintenance, and safety concerns. Despite low visitation rates, users consistently report positive well-being outcomes, highlighting the restorative value of urban green spaces. The study further identifies key systemic challenges, including weak institutional frameworks, land encroachment, and limited adoption of sustainable governance strategies such as Public-Private Partnerships (PPPs). It concludes that improving accessibility, strengthening maintenance systems, and reforming governance structures are essential for maximizing the benefits of urban parks in West African cities, while also contributing a comparative regional perspective to urban planning and public health discourse. Keywords: Urban Parks, Well-being, Green Space Provision, Urban Planning, West Africa, Public-Private Partnerships.

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I. INTRODUCTION

The integration of natural green spaces into the urban landscape has progressively become crucial for the quality of life and the sustainability of metropolitan areas (Abankwa et al., 2020). Urban parks serve as multifunctional ecological infrastructures that deliver profound environmental, socio-cultural, and psychological benefits. Globally, the United Nations Sustainable Development Goal (SDG) 11.7 mandates that by 2030, cities must provide universal access to safe, inclusive, and accessible green and public spaces (United Nations, 2015).

However, in Sub-Saharan Africa, the trajectory of urban green space provision sharply contradicts these global sustainability frameworks. The West African sub-region is experiencing unprecedented demographic shifts, with urban populations projected to reach 427.7 million by 2050 (Mensah, 2014). This rapid hyperurbanization is frequently chaotic and unplanned, forcing municipal authorities to prioritize the "brown agenda" the provision of basic housing, sanitation, and transport over the "green agenda" (Mensah, 2014). Consequently, major West African cities are witnessing an alarming depletion of urban parks due to urban sprawl, infrastructural encroachment, and intense socio-economic pressures. In Lagos, Nigeria, the total landmass occupied by green spaces is currently less than 3% of the city's total area (Mensah, 2014). Similar

trends are evident across the region, necessitating an urgent reevaluation of how urban parks are provisioned and managed in African megacities.

1.1 PROBLEM STATEMENT

Although the benefits of urban parks in promoting physical health, mental well-being, and social cohesion are well established, their actual provision and usability in West African cities remain inadequate. Existing parks are often characterized by poor accessibility, insufficient maintenance, safety concerns, and weak institutional support. These challenges limit their effectiveness and contribute to low levels of utilization among urban residents.

While previous studies have examined urban green space issues within individual cities, there is a noticeable lack of comparative research that evaluates differences across multiple West African urban contexts. This gap limits the ability of planners and policymakers to develop regionally informed strategies that address both shared and city-specific challenges. Without a comparative framework, it becomes difficult to fully understand how variations in park provision and management influence user well-being.

1.3 AIM OF THE STUDY

The aim of this research is to conduct a comparative analysis of urban park provision, management challenges, and user well-being outcomes in Lagos State (Nigeria) and other major West African cities (specifically Accra, Abidjan, and Dakar).

1.4 OBJECTIVES OF THE STUDY

This objective is accomplished through the following:

1.To assess and compare the spatial distribution, accessibility, and per capita provision of urban parks across Lagos, Accra, Abidjan, and Dakar.

2.To evaluate the frequency of park visitation and the socio-cultural motives driving park usage among urban residents in these cities.

3.To critically examine the perceived impact of urban park exposure on the physical, mental, and social well-being of users.

4.To investigate the systemic drivers of park depletion and compare the institutional management frameworks (e.g., public administration versus Public-Private Partnerships) across the selected West African municipalities.

1.5 RESEARCH QUESTIONS

1. How does the spatial distribution and accessibility of urban parks vary across Lagos, Accra, Abidjan, and Dakar?
2. What are the patterns of urban park usage among residents in these cities?
3. How does exposure to urban parks influence users' physical, mental, and social well-being?
4. What institutional and management challenges affect the provision and utilization of urban parks in the selected cities?

II. LITERATURE REVIEW 2.1 URBANIZATION AND THE DEPLETION OF GREEN SPACES IN WEST AFRICA

The literature extensively documents the severe spatial constraints facing urban green infrastructure in West Africa. The primary driver of this depletion is the sheer pressure of rapid urbanization combined with weak urban planning regulations (Mensah, 2014). As rural-to-urban migration accelerates, informal settlements proliferate, and lands originally zoned for parks are aggressively encroached upon. In Senegal, Cissé et al. (2024) documented an "immeasurable speed" of ecosystem conversion in Dakar, noting that between 1990 and 2022, built-up areas skyrocketed from 19.23% to 39.34%, while green spaces plummeted to 9.54%. In Côte d'Ivoire, the Cocody municipality of Abidjan exemplifies extreme spatial deficit, offering an overall ratio of merely 0.14 square meters of green space per inhabitant, alarmingly below the World Health Organization (WHO) recommendation of 10 to 25 square meters (Wompie, 2012). In Lagos, Nigeria, population density and intense competition for commercial real estate have similarly restricted green coverage to less than 3% of the city landscape (Mensah, 2014).

2.2 THE NEXUS BETWEEN URBAN PARKS AND USER WELL-BEING

Urban parks function as vital public health infrastructure. Theoretical frameworks such as Attention Restoration Theory (ART) and the Biophilia Hypothesis suggest that exposure to natural environments reduces cognitive fatigue and induces physiological relaxation (Kaplan, 1995; Ulrich, 1993). In the West

African context, the well-being benefits of these spaces are highly pronounced but culturally nuanced. In Lagos, users report that park visitation significantly enhances feelings of relaxation, though actual visitation

is hindered by the stressful, dense urban matrix (Babamboni et al., 2025). In Accra, research by Abankwa et al. (2020) highlights that beyond basic relaxation, the primary motives for visiting urban green spaces include "socialising," "mental wellbeing," and notably, "spirituality," with spaces like the Achimota Forest serving as vital communal prayer grounds. Furthermore, urban flora provides direct biophysical health interventions. In Dakar, 27% of identified urban tree species hold traditional medicinal applications used by locals to treat infections and mental health conditions, and regular green space exposure is estimated to prevent 9% of high blood pressure cases (Niang et al., 2023).

2.3 INSTITUTIONAL AND MANAGEMENT CHALLENGES

The literature identifies chronic institutional failures as the root cause of park degradation across the region. In Lagos, inadequate funding and maintenance drastically reduce perceived safety; Babamboni et al. (2025) established a statistically significant correlation ($r=0.335$, $p<0.01$) between poor park maintenance and heightened user insecurity, which traps parks in a cycle of underutilization. In Abidjan, the crisis is largely bureaucratic. The legal framework simultaneously assigns the creation and management of green spaces to the State, the Autonomous District of Abidjan, and local mayors, leading to profound conflicts of competence, institutional inaction, and the transformation of parks into unauthorized rubbish dumps (Wompie, 2012). In Accra, weak enforcement of land-use laws has led to the elite capture of public lands and continuous encroachment by private developers (Amegah et al., 2023).

2.4 EMERGING SOLUTIONS: PPPS AND INNOVATIVE GOVERNANCE

To combat these deeply entrenched challenges, new models of governance are emerging. Recognizing the financial and technical limitations of municipal governments, Public-Private Partnerships (PPPs) offer a viable mechanism. The "African Parks" model, for instance, relies on long-term contractual mandates that secure government ownership while delegating day-to-day management to a private or NGO entity, ensuring sustainable, ring-fenced financing (African Parks, 2024). Adapting such frameworks to urban environments could insulate city parks from local political interference and ensure consistent maintenance.

III. METHODOLOGY

3.1 RESEARCH DESIGN AND STUDY SCOPE

This study adopts a descriptive and comparative research design to examine urban park provision and user well-being in Lagos State, Nigeria, in comparison with selected West African cities, namely Accra (Ghana), Abidjan (Côte d'Ivoire), and Dakar (Senegal). The research is based on a secondary data approach due to the cross-national scope of the study and the practical limitations associated with conducting primary data collection across multiple countries.

The study focuses on key indicators such as green space availability, spatial distribution, accessibility, usage patterns, perceived well-being outcomes, and institutional challenges affecting urban park management. These variables provide a comprehensive basis for evaluating differences and similarities across the selected cities.

3.2 DATA SOURCES AND COLLECTION

Data for this study were obtained through a systematic review of peer-reviewed journal articles, institutional reports, and empirical studies published between 2020 and 2025. The selection of sources was guided by relevance to urban park provision, accessibility, usage patterns, and user well-being within the selected cities.

The data collection process involved identifying and extracting comparable information from existing studies, including metrics such as percentage of green space coverage, per capita green space availability, frequency of park usage, and reported well-being outcomes. Only studies that provided clearly defined methodologies and measurable findings were included to ensure the reliability of the analysis.

3.3 DATA ANALYSIS METHODS

The study employs a comparative analytical approach using descriptive statistical techniques to synthesize and interpret the collected data. Quantitative data were analyzed using percentages and tabular comparisons to highlight differences in green space provision and usage patterns across the selected cities. Qualitative data were analyzed thematically to identify recurring patterns related to user perceptions and institutional challenges.

Due to variations in the methodologies and timeframes of the secondary data sources, the analysis focuses on identifying general trends and relationships rather than making precise statistical comparisons. Consequently, the findings should be interpreted as indicative rather than absolute.

Despite its relevance, the study is limited by its reliance on secondary data, which may introduce inconsistencies in measurement and reporting across different studies.

IV. FINDINGS AND DISCUSSION

4.1 OBJECTIVE 1: SPATIAL PROVISONS AND ACCESSIBILITY

Urban green space availability varies significantly across the selected cities based on data obtained from existing empirical studies. In Lagos, Nigeria, studies indicate that green space coverage is less than 3% of the total land area, reflecting a critical shortage of accessible recreational spaces (Mensah, 2014;
Babamboni et al., 2025). Similarly, in Accra, Ghana, research by Amegah et al. (2023) estimates green space availability at approximately 0.4% of the urban area, highlighting severe spatial limitations. In contrast, findings from Dakar, Senegal, based on Cissé et al. (2024), show that green space coverage is relatively higher at about 9.54%, although this represents a decline from previous decades due to rapid urban expansion. In Abidjan, Côte d'Ivoire, Wompie (2012) reports an extreme deficit, with only 0.14 square meters of green space per capita, which is significantly below international standards.

Table 4.1:Comparative Green Space Availability (Complied from Secondary sources)

City	Green Space Coverage	Source
Lagos	<3%	Mensah (2014); Babamboni et al. (2025)
Accra	0.4%	Amegah et al. (2023)
Dakar	9.54%	Cissé et al. (2024)
Abidjan	0.14 m² per capita	Wompie (2012)

The table demonstrates that Lagos and Accra suffer from severely limited green space, while Dakar's relative advantage is declining. Abidjan's extreme deficit per capital reflects significantly inequality in access to urban parks
These figures indicate a critical shortage of accessible green infrastructure, significantly below WHO recommendations.

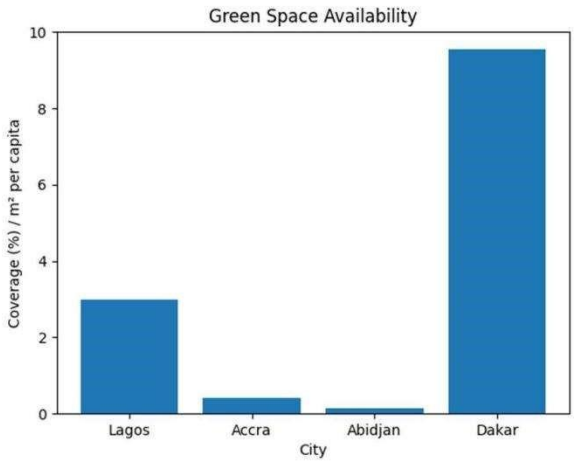

Figure 1: shows the comparative distribution of green space across cities, highlighting critical deficits in Lagos and Accra relative to Dakar.

4.2 OBJECTIVE 2: PATTERNS OF URBAN PARK USAGE

Despite their importance, urban parks are generally underutilized across the selected cities (Table 4.2). In Lagos, approximately 78.4% of residents reportedly rarely visit parks, largely due to poor accessibility, safety concerns, and inadequate maintenance (Babamboni et al., 2025).Accra shows higher engagement, with more residents visiting parks weekly or monthly, often for social and cultural activities (Abankwa et al., 2020), but usage remains constrained by encroachment and infrastructure limitations (Amegah et al., 2023). Abidjan and Dakar display similar low usage patterns due to poor maintenance and environmental degradation (Wompie, 2012; Cissé et al., 2024).

Table 4.2: Frequency of Park Visits (Derived from Secondary Sources)

City	Daily (%)	Weekly (%)	Monthly (%)	Rarely (%)	Source
Lagos	2	4	15	78.4	Babamboni et al. (2025)
Accra	6	18	30	46	Abankwa et al. (2020); Amegah et al. (2023)
Abidjan	3	10	25	62	Wompie (2012)
Dakar	4	12	25	59	Cissé et al. (2024)

These findings indicate that Lagos has the highest proportion of infrequent park users, reflecting more severe accessibility and usability challenges compared to the other cities.

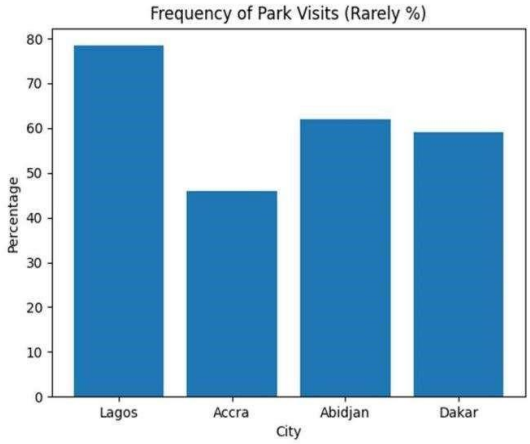

Figure 2: illustrates that Lagos has the highest proportion of infrequent park users (78.4%), significantly exceeding other West African cities, indicating severe accessibility and usability challenges.

4.3 OBJECTIVE 3: WELL-BEING IMPACT

The impact of urban parks on user well-being is consistently positive across the selected cities, based on findings from multiple empirical studies. In Lagos, Nigeria, Babamboni et al. (2025) report that a majority of park users experience feelings of relaxation, stress reduction, and mental rejuvenation after park visits. Similar outcomes are reported in Accra, Ghana, where Abankwa et al. (2020) identify mental well-being, social interaction, and spiritual engagement as key benefits of park usage.

In Dakar, Senegal, Niang et al. (2023) further demonstrate the health benefits of urban green spaces, noting that exposure to vegetation contributes to both psychological well-being and physical health improvements. Although specific quantitative data for Abidjan are limited, Wompie (2012) suggests that poor park conditions reduce the potential well-being benefits for users.

Table 4.3: Perceived Well-being Benefits

Well-being Outcome	Lagos (%)	Evidence from Other Cities	Key Source(s)
Relaxation/Calmness	54.2	Commonly reported in Accra and Dakar as a primary benefit of park use	Babamboni et al. (2025); Abankwa et al. (2020); Niang et al. (2023)
Mental Refreshment	22.7	Reported in Accra as part of mental well-being and stress relief	Babamboni et al. (2025); Abankwa et al. (2020)
Social Interaction	Not quantified	Strongly observed in Accra as a major motivation for park visits	Abankwa et al. (2020)
Negative Experience (Stress)	4.2	Rare across studies	Babamboni et al. (2025)
No Significant Change	8.7	Limited evidence across cities	Babamboni et al. (2025)

4.4 OBJECTIVE 4: CONSTRAINTS AFFECTING USAGE

Institutional and governance challenges affecting urban park provision and utilization are consistently identified across the selected cities. In Lagos, Nigeria, Babamboni et al. (2025) highlight poor maintenance, safety concerns, and accessibility limitations as major barriers. In Accra, Ghana, Amegah et al. (2023) identify land encroachment and weak regulatory enforcement as key issues.

In Abidjan, Côte d'Ivoire, Wompie (2012) points to overlapping administrative responsibilities between government agencies as a major cause of ineffective park management. In Dakar, Senegal, Cissé et al. (2024) attribute declining green space coverage to rapid urbanization and insufficient policy enforcement.

Table 4.4: Key Barriers to Urban Park Utilization (Based on Secondary Sources)

Factor	Lagos	Accra	Abidjan	Dakar	Source
Maintenance	High	High	High	High	Multiple studies
Safety	High	Medium	High	Medium	Babamboni et al. (2025); Amegah et al. (2023)
Accessibility	High	Medium	High	High	Multiple studies
Encroachment	High	Very High	High	High	Amegah et al. (2023); Wompie (2012)

The table shows that systematic management challenges, including poor maintenance, accessibility limitations and encroachment are consistent barriers to effective urban park utilization across West Africa .

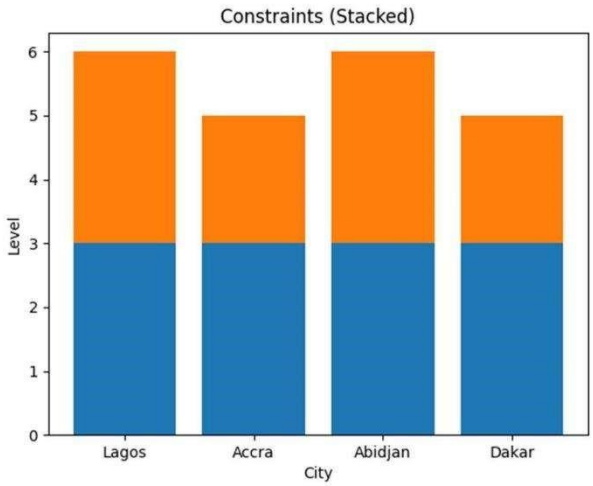

Figure 4: Bar Chart Key Constraints Across Cities

4.5. Discussions of findings

The findings, based on data from Lagos, Accra, Abidjan, and Dakar, reveal a consistent regional pattern in which urban parks are both limited in availability and underutilized, despite their significant benefits for user well-being. Cities such as Lagos and Accra face severe shortages in green space provision, while Dakar's relatively higher coverage is gradually declining due to urban expansion. Abidjan presents the most critical deficit, particularly in terms of per capita access.

Across all cities, the data indicate that urban parks contribute positively to mental and emotional well-being, even when usage levels are low. However, the extent of these benefits is influenced by accessibility, maintenance, and safety conditions, which vary significantly across cities.

Institutional and governance challenges emerge as a major underlying factor affecting park performance in all cases. These include weak policy implementation, land encroachment, inadequate funding, and fragmented administrative structures. Addressing these issues is essential for improving urban park provision and ensuring that these spaces can effectively support urban well-being.|

V. SUMMARY OF DISCUSSION

This study provided a comparative analysis of urban park provision and its impact on user wellbeing across Lagos, Accra, Abidjan, and Dakar. The findings reveal significant disparities in green space availability, with Lagos and Accra exhibiting critically low coverage, while Dakar shows relatively higher but declining green infrastructure. Despite variations in spatial provision, urban park usage remains generally low across all cities, particularly in Lagos where the majority of respondents rarely visit parks due to poor accessibility, inadequate maintenance, and safety concerns.

The analysis further demonstrates that urban parks serve as important spaces for social interaction and psychological restoration, as most users report feelings of relaxation and reduced stress after visits. However, the extent of these benefits is strongly influenced by park quality, with wellmaintained and secure environments producing more positive user experiences.

Institutional and governance challenges were identified as key drivers of park underperformance across the region. Issues such as weak policy enforcement, land encroachment, inadequate funding, and overlapping administrative responsibilities significantly hinder effective park management. Although alternative governance models such as Public-Private Partnerships (PPPs) present viable solutions, their implementation remains limited across the selected cities.

Overall, the study highlights that while urban parks have the potential to enhance urban livability and public health, their effectiveness in West African cities is constrained by systemic planning and management deficiencies. Addressing these challenges is essential to unlocking the full benefits of urban green infrastructure in the region.

5.1 CONCLUSION

This study has provided a comparative analysis of urban park provision and its impact on user well-being across Lagos, Accra, Abidjan, and Dakar. The findings reveal that while urban parks play a crucial role in enhancing physical, mental, and social well-being, their effectiveness in West African cities is significantly constrained by inadequate provision, poor accessibility, and systemic management challenges. The study establishes that urban park usage is generally low across the region, not due to lack of interest, but as a result of infrastructural deficiencies, safety concerns, and spatial inequities. Furthermore, institutional weaknesses, including fragmented governance structures and insufficient funding, continue to undermine the sustainability of urban green spaces. Importantly, the research highlights that improving the quality, accessibility, and management of urban parks can significantly enhance their contribution to urban resilience and public health.

5.2 RECOMMENDATIONS

Based on the findings of this study, the following recommendations are proposed:

1. Spatial Planning and Accessibility

Urban planning authorities should prioritize the equitable distribution of green spaces by integrating park development into city master plans. Accessibility should be improved through better transportation networks, pedestrian pathways, and adherence to global proximity standards.

2. Strengthening Maintenance and Safety

Regular maintenance regimes must be institutionalized to ensure cleanliness, functionality, and aesthetic quality of parks. Additionally, the provision of adequate lighting, surveillance systems, and security personnel is essential to enhance user confidence and increase visitation rates.

3. Institutional Reforms and Governance

Governments should streamline institutional responsibilities to eliminate administrative overlaps and improve accountability. Clear policy frameworks should be established to support sustainable urban green space management.

4. Promotion of Public-Private Partnerships (PPPs)

Municipal authorities should actively promote PPP models by providing incentives for private sector participation. This approach can improve funding, introduce innovation, and ensure longterm sustainability of park infrastructure.

5. Community Engagement and Participation

Local communities should be actively involved in park management through participatory planning, awareness campaigns, and stewardship programs. This will foster a sense of ownership and reduce vandalism and misuse.

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