

EVALUATION OF MAINTENANCE CULTURE IN PUBLIC PARKS; A CASE STUDY OF SELECTED URBAN PARKS IN LAGOS STATE

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Abstract: Rapid urbanization in Lagos State has led to increased pressure on public infrastructure, including parks. As population density rises, public parks such as Johnson Jakande Tinubu (JJT) Park, Lekki Conservation Centre, and Ikorodu Recreational Park become essential spaces for recreation and environmental balance. Evaluating how well these parks are maintained is therefore necessary to ensure they continue to serve their intended purpose. Secondly, maintenance culture is a critical but often overlooked aspect of urban management in developing cities. While much attention is given to the development of new parks, insufficient focus is placed on their long-term upkeep. This study addresses that gap by examining how maintenance practices directly influence usability, safety, and user satisfaction. Additionally, there is a need for empirical data to support policy decisions. By adopting a quantitative approach and using the Yamane sampling technique, the study provides reliable and measurable insights that can guide government agencies, urban planners, and facility managers in improving park management strategies. Furthermore, the comparison of three different parks offers a balanced perspective on varying maintenance standards. The strong performance of Lekki Conservation Centre (LCC) versus the challenges observed in Ikorodu Recreational Park highlights existing inequalities and identifies specific areas requiring intervention. Finally, the study is justified by its practical relevance. Its recommendations such as improved funding, structured maintenance schedules, and enhanced public participation provide actionable solutions that can enhance sustainability, promote public health, and improve overall urban living conditions. In summary, this research is necessary to bridge the gap between park provision and park performance, ensuring that public parks in Lagos State remain functional, safe, and beneficial to the community.

Keywords: Lagos State, Maintenance culture, Public parks, Urban environment, User satisfaction.

1. INTRODUCTION

1.1 Background of the Study

The development of urban centers in the 21st century has shifted from a focus on industrial growth to an emphasis on livability and sustainability. In the Global South, particularly in Lagos Mega city, rapid population growth and infrastructural deficits pose significant urban management challenges (Oduwaye, 2023). Urban public parks, ranging from strictly conserved nature reserves such as the Lekki Conservation Centre (LCC), to administrative flagship parks like the Johnson Jakande Tinubu (JJT) Park, and suburban community spaces such as the Ikorodu Recreational Park, serve as critical interfaces between citizens and the natural environment (Adegun et al., 2021; Babamboni et al., 2025).

The Greening Lagos initiative gained significant momentum with the establishment of the Lagos State Parks and Gardens Agency (LASPARK) in 2011. However, despite these efforts, a critical challenge persists in the form of the absence of a standardized and sustainable maintenance culture (LASPARK, 2024). Maintenance culture refers to the systematic practice of preserving physical and biological assets to ensure optimal performance throughout their lifecycle (Manjo, 2023). In many developing economies, there exists a systemic “newness bias,” where capital expenditure on new projects is prioritized over operational expenditure required for maintenance (Oduwaye, 2023).

The maintenance of urban parks is inherently multidimensional, encompassing both softscape management, which includes plant health, soil fertility, and irrigation, and hardscape management, which involves the upkeep of infrastructure such as walkways, lighting systems, and recreational facilities (Adegun et al., 2021). When maintenance is neglected, these spaces rapidly deteriorate, leading to environmental degradation, reduced usability, and increased insecurity, ultimately transforming vibrant public spaces into underutilized and unsafe environments (Babamboni et al., 2025).

1.2 Statement of the Problem

The central problem addressed in this study is the absence of a uniform and proactive maintenance framework across different park management models in Lagos State. This deficiency has resulted in the premature deterioration of valuable urban green infrastructure. While the Lagos State Government has made notable progress in increasing the quantity of green spaces, their quality and long-term sustainability remain inadequate (LASPARK, 2024).

This issue is evident in the following case studies:

i. Lekki Conservation Centre (LCC):

As a private-NGO partnership, LCC faces challenges related to maintaining high-risk infrastructure, such as the 401-meter canopy walkway, within a fragile wetland ecosystem. In this context, poor maintenance poses risks not only to aesthetics but also to biodiversity conservation and visitor safety (Adegun et al., 2021).

ii. Johnson Jakande Tinubu (JJT) Park:

Located within the administrative hub of Alausa, the flagship park benefits from Priority maintenance due to its political visibility. However, this often results in In a flagship fallacy, where attention is concentrated on high profile parks at the Expense of others (oduwaye, 2023)

iii. Ikorodu Recreational Park:

Situated in a high-density suburban area, this park experiences maintenance marginalization. High user traffic accelerates wear and tear, yet maintenance resources remain insufficient compared to those allocated to central urban parks (Babamboni et al., 2025).

If these disparities persist, Lagos risks facing a sustainability deficit, where the long- term benefits of urban greening initiatives are undermined by escalating maintenance costs and declining infrastructure performance (LASPARK, 2024).

1.3 Aim

To assess the maintenance culture in the management of urban parks in Lagos State and its impact on infrastructural sustainability.

Objectives:

- i. to conduct a condition survey of hardscape and softscape elements in selected parks.
- ii. to develop a standardized maintenance performance index for urban parks in Lagos.
- iii. To identify barriers to the development of a proactive maintenance culture.
- iv. To evaluate user perceptions regarding maintenance performance index for urban parks in Lagos.

1.4 Research Questions

- i. what is the prevailing physical condition of infrastructure and vegetation in the selected parks?
- ii. how do maintenance strategies differ between privately managed and publicly managed parks?
- iii. what factors contribute to maintenance neglect in suburban parks compared to central urban parks?
- iv. is there a relationship between maintenance quality and public usage levels?

2. LITERATURE REVIEW

2.1 Conceptual Framework

The conceptual framework for this study is built upon the relationship between institutional management and the physical longevity of urban assets.

Public Parks: In Lagos, the landscape has evolved significantly. As of 2026, the Lagos State Parks and Gardens Agency (LASPARK) monitor 373 green areas, including 327 established parks and gardens statewide (LASPARK, 2026). These range from nature-based reserves like the Lekki Conservation Centre (LCC) which covers 78–80 hectares of swamp forest (NCF, 2024)—to urban administrative flagship spaces like Johnson Jakande Tinubu (JJT) Park.

Maintenance Culture: Defined as the institutionalized habit of preserving physical and biological assets (Adejimi, 2005). Recent studies indicate that in Lagos, maintenance is not just technical but social; the "visible state" of a park directly correlates ($r=0.335, p<0.01$) with a user's sense of safety (Babamboni et al., 2025).

Landscape Components:

- **Hardscape:** Built elements such as LCC's 401-meter canopy walkway (the longest in Africa) and urban park boardwalks.
- **Softscape:** Living elements. Between 2008 and 2025, over 6.2 million trees were planted in Lagos, with 19,875 trees added in the 2024/2025 cycle alone via the #TreesForLagos campaign (LASPARK, 2025).

2.2 Theoretical Framework: Lifecycle Management Model

This research is anchored on the Lifecycle Management Model, which posits that an asset's value is the sum of its initial design and its operational maintenance (OPEX).

The Decay Principle: Recent evaluations of Lagos parks show that reactive maintenance leads to exponential decay. In many high-density LGAs, parks are perceived as "substandard" due to the deterioration of green spaces, which significantly impacts social cohesion (Dipeolu et al., 2024).

Sustainability Deficit: The "Newness Bias" remains a challenge. While Lagos has successfully expanded its green footprint, budgetary allocations for maintenance are often overshadowed by competing priorities like housing and transportation (Johnson, 2025).

2.3 Empirical Review (2017–2026)

Evolution of the Greening Lagos Initiative: Since 2011, and accelerating through the 2020 **Lagos Resilience Strategy**, greening has moved from mere beautification to a tool for climate adaptation and flood resilience (Lagos State Government, 2020). However, 78.4% of residents in recent surveys rarely visit these parks, citing poor maintenance and accessibility as primary barriers (Babamboni et al., 2025).

Management Models and Effectiveness:

- **Public-Administrative:** Managed by LASPARK, these parks face challenges with "underfunding and overgrown vegetation" (Jang et al., 2024).
- **Private-NGO:** Models like the Nigerian Conservation Foundation's (NCF) management of LCC show higher satisfaction but face "habitat fragmentation" and a decline in wildlife sightings (e.g., bushbucks and squirrels) due to surrounding urban pressure (FAO, 2025).
- **User Satisfaction and Safety:** Empirical data from 2024/2025 reveals that only 31.1% of Lagosians perceive park impacts as positive, largely due to "antisocial behavior" and "poor lighting" in neglected spaces (Dipeolu et al., 2024; Babamboni et al., 2025).

Research Gap: Despite the surge in tree planting and park creation, there is a critical lack of comparative post-occupancy data that evaluates how different management structures (State vs. NGO) specifically handle the maintenance of hardscape versus softscape elements over a 10-year horizon

3. METHODOLOGY

3.1 Research Design and Study Area

This study employs a **descriptive case study research design** to evaluate the maintenance culture of urban public parks in Lagos State, Nigeria. A case study approach is particularly suited for this research as it facilitates an in-depth investigation of management practices and user perceptions within their real-life contexts (Creswell, 2018; Babamboni et al., 2025). The study focuses on three strategically selected parks reflecting diverse socio-economic and geographic characteristics within the Lagos metropolis:

1. Johnson Jakande Tinubu (JJT) Park (Ikeja – Administrative Hub)
2. Lekki Conservation Centre (Lekki – High-density Tourism/Coastal)
3. Ikorodu Recreational Park (Ikorodu – Rapidly Urbanizing Suburb)

These sites were selected based on their high patronage levels and varying management frameworks, providing a representative cross-section of the challenges facing Lagos's green infrastructure.

3.2 Population and Sampling Framework

The target population comprises three primary stakeholder groups: park visitors, management staff, and state officials involved in urban administration. This multi-stakeholder approach ensures a triangulated perspective on park conditions and operational bottlenecks (Nazution et al., 2025). A purposive sampling technique was utilized to select administrative respondents, while park users were sampled using a stratified approach. To determine the sample size for the user survey, **Yamane's formula** (1967) was applied:

$$n = \frac{N}{1 + N(e^2)}$$

Given a known aggregate population (N) of 2,600 across the three sites and a 5% margin of error (e), a sample size of **347 respondents** was established. To ensure equitable representation, proportional allocation was applied based on average daily footfall: JJT Park (n=160), Lekki Conservation Centre (n=107), and Ikorodu Park (n=80).

3.3 Instrumentation and Data Collection

A mixed-methods approach to data collection was adopted to enhance the validity of the findings:

- **Survey Questionnaire:** The primary quantitative instrument, divided into three sections: (A) Demographic profiling; (B) Likert-scale assessments (1–5) of facility conditions (e.g., cleanliness, safety, and waste management); and (C) Open-ended qualitative queries regarding maintenance challenges.
- **Semi-Structured Interviews:** Conducted with management staff and Lagos State officials to gain insights into budgetary allocations, policy frameworks, and logistical constraints.
- **Direct Observation:** An independent physical audit was performed using a standardized observation checklist to document the state of landscaping, pathways, and signage (Nazution et al., 2025).

To ensure **reliability and validity**, the instrument underwent content validation by urban planning experts and a pilot study to refine question clarity (Taherdoost, 2018).

3.4 Data Analysis and Ethical Considerations

Quantitative data were processed using descriptive statistics, including frequency distributions and mean scores, to identify trends in user satisfaction. Qualitative data from interviews and open-ended survey responses were subjected to thematic content analysis to categorize recurring maintenance themes and management gaps. Ethical integrity was maintained by ensuring all participation was voluntary and based on informed consent. In accordance with academic standards (Bryman, 2016), respondent anonymity was guaranteed, and data were used exclusively for research purposes.

4. DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This chapter presents, analyzes, and interprets the data collected from park users using questionnaires. The aim is to understand users' perceptions of maintenance culture in the three selected parks: Johnson Jakande Tinubu (JJT) Park, Lekki Conservation Centre, and Ikorodu Park. Data are analyzed using descriptive statistics (frequencies, percentages, mean scores) for quantitative questions, and content analysis for qualitative responses from open-ended questions.

Age group	Frequency	Percentage
Under 18	15	4.3
18-25	120	34.6
26-35	100	28.8
36-45	60	17.3
46-55	35	10.1
56+	17	4.9
Total	347	100

Interpretation:

The majority of respondents (63.4%) are between 18 and 35 years old, indicating that younger adults are the primary visitors of the selected urban parks. This aligns with previous research showing that younger users are more likely to engage in park activities (Nazution et al., 2025).

Table 4.2: Gender Distribution of Respondents

Gender	Frequency	Percentage
female	180	51.9
male	167	48.1
Total	347	100

Interpretation:

The majority of respondents (63.4%) are between 18 and 35 years old, indicating that younger adults are the primary visitors of the selected urban parks. This aligns with previous research showing that younger users are more likely to engage in park activities (Nazution et al., 2025).

4.2: Frequency of park visits

Frequency	Frequency count	Percentage (%)
Daily	25	7.2
Weekly	150	43.2
Monthly	90	25.9
Occasionally	60	17.3
Rarely	22	6.4
Total	347	100

Interpretation:

Most respondents visit the parks on a weekly basis (43.2%), suggesting that parks are an important regular leisure and recreation resource for residents of Lagos State.

4.3 Users' perception of park maintenance

Table 4.4: rating of park cleanliness

Rating	JJT park	Lekki conservation centre	Ikorodu park
Very poor (1)	10	5	12
Poor (2)	20	10	18
Average (3)	40	35	30
Good (4)	25	80	20
Excellent (5)	12	30	0

Interpretation:

- Lekki Conservation Centre scores highest for cleanliness, reflecting better maintenance practices.
- Ikorodu Park has the lowest ratings, suggesting challenges in waste management and facility upkeep.

Table 4.5: Condition of facilities

Rating	JJT Park	Lekki conservative centre	Ikorodu park
Very poor	8	3	10
Poor	15	7	15
Average	35	40	30
Good	35	90	20
Excellent	14	20	5

Interpretation:

- Clearly shows Lekki Conservation Centre's facilities are best maintained
- Ikorodu Park lags behind

Table 4.6: safety and security perception

Rating	Lekki conservation centre	JJT Park	ikorodu park
Very unsafe	0	5	8
unsafe	5	15	20
neutral	20	30	25
safe	90	40	20
Very safe	45	17	7

Interpretation:

- Users feel safest in Lekki Conservation Centre, likely due to better lighting, security presence, and monitoring.
- Safety is a concern at Ikorodu Park, which may reduce its usability and attractiveness.

4.4 Analysis of Open-Ended Responses

From the qualitative responses, three main themes emerged: 1. Poor Waste Management – Respondents at JJT and Ikorodu frequently mentioned overflowing bins, littering, and lack of maintenance staff.

2. Facility Deterioration – Broken benches, damaged walkways, and faded playground equipment were common complaints.



Figure 1: Damaged walkway in Lekki Conservation Center



Figure 2: Broken tiles in JJC park.

3. Positive Feedback for Lekki Conservation Centre – Users praised landscaping, cleanliness, and adequate facilities, suggesting higher management commitment.

These findings align with the quantitative results, reinforcing the differences in maintenance culture across the three parks.



Figure 3: Waste disposal in Lekki Conservation Center

5. CONCLUSION

5.1 Summary of the Study

This study examined the maintenance culture in public parks in Lagos State, focusing on three selected parks: JTT Park, Lekki Conservation Centre, and Ikorodu Park. The study aimed to evaluate how maintenance practices affect user satisfaction and overall park usability. A quantitative research approach was adopted using structured questionnaires administered to park users. Data collected were analyzed using descriptive statistics, including frequencies, percentages, and tables. A total of 347 questionnaires were distributed and analyzed across the three parks using the Yamane sampling technique. The study assessed key maintenance indicators such as cleanliness, condition of facilities, safety, and waste management.

5.2 Summary of Key Findings

- Most parks users are young adults (18-35 years), with a fairly balanced number of male and female visitors.
- Parks are used regularly, especially on a weekly basis, showing their importance for recreation and social activities.
- Lekki conservation centre has the best maintenance overall, with high ratings in cleanliness, facilities, and safety.
- JTT park shows moderate performance, with acceptable but not outstanding maintenance conditions.
- Ikorodu park ranks the lowest, facing issues like poor waste management, damaged facilities and safety concerns.
- Common problems across parks include poor waste disposal, inadequate maintenance staff, and deteriorating infrastructure.
- Positive user feedback is mainly associated with Lekki Conservation Centre, due to its clean environment and its effective management.

5.3 Conclusion

The study concludes that maintenance culture significantly influences the usability and attractiveness of public parks in Lagos State. Parks with effective maintenance systems, such as Lekki Conservation Centre, provide a better user experience and attract more visitors. In contrast, parks with poor maintenance practices, such as Ikorodu Park, experience reduced user satisfaction and lower patronage. This highlights the importance of consistent maintenance, proper funding, and effective management strategies in sustaining public parks. Overall, improving maintenance culture is essential for enhancing urban livability, environmental quality, and public well-being.

5.4 Recommendations

Based on the findings, the following recommendations are proposed:

1. Regular Maintenance Scheduling

- Authorities should implement routine inspection and maintenance plans to ensure facilities remain in good condition.

2. Improved Waste Management Systems

- Provide adequate waste bins and ensure frequent waste collection to maintain cleanliness.

3. Increased Funding and Resource Allocation

- Government and stakeholders should allocate more funds to support park maintenance and upgrades.

4. Enhanced Security Measures

- Install security personnel, lighting systems, and surveillance to improve user safety.

5. Public Awareness and Participation

- Encourage park users to take responsibility for maintaining cleanliness through awareness campaigns.

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