

## MANAGEMENT LAPSES AND USER CHALLENGES OF RECREATIONAL SPACES: WAY FORWARD FOR SUSTAINABLE URBANISM IN DOUALA

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### ABSTRACT

Urban recreational spaces remain crucial in enhancing the quality of urban life by offering a wide range of ecological, sociocultural, psychological and economic benefits. Rapid urbanisation of the Douala metropolis has exerted unprecedented pressure on urban land, causing a significant reduction in the quantity and quality of recreational green spaces, especially in the neighbourhood of Bonaberi. The paper examines the management and use challenges of these spaces in all V municipalities. Based on a mixed method approach involving field observation, satellite imagery analysis and stakeholder interviews, findings reveal that recreational spaces in the urbanized area of Douala are severely compromised, with 56.1976 hectares of municipal recreational spaces, making up approximately 0.2676% of the 210km<sup>2</sup> urban surface. This falls severely short of international urban planning guidelines which suggest that at least, 10 to 15% of a city's total geographic area should be dedicated to public green spaces, revealing intense spatial competition with rapid economic growth associated with adverse health conditions. Inadequate implementation of Urban Master and Land Use Plans, discontinuation of administrative functions, poor governance, and poor collaboration between the main stakeholders represent the most severe challenges deterring efficient management of such spaces in Douala. This study concludes that sustainable urban planning requires a shift from passive, top planning to an active, integrated approach that promotes environmental quality and community engagement in the management of these vital assets of Douala. Among other recommendations, it rests on the municipality to promote decentralised co-management strategies and strict reinforcement of penalties against defaulters aimed at fostering a more inclusive, climate resilient and sustainable metropolis, in tandem with SDGs 11.

**Keywords:** Urban recreational spaces, sustainability, sustainable development, management, users' challenges

### 1.0 INTRODUCTION

Urbanisation has precipitated a handful of countless challenges related to environmental degradation and declining quality of urban life. Its intensification linked to rapid industrial growth, modernisation and globalization, has tremendously amplified ecological stressors, particularly in developing cities like Douala, where pollution among other negative effects increasingly jeopardize public health and long-term sustainability (Esson et al., 2021). The

accelerated growth of urban centres over the past years has contributed to spatial disparities, the degradation of natural environment and growing pressure on existing infrastructures like recreational facilities (Angel et al., 2011). In response, there is the growing need and demand for more extensive high quality urban recreational spaces due to their proven abilities above recreation but to combat urban pollution, high temperatures, flooding, urban heat islands effects, and improved health related outcomes, reaffirming their relevance for sustainable urban planning (W.H.O, 2017a, & Lopes et al., 2025).

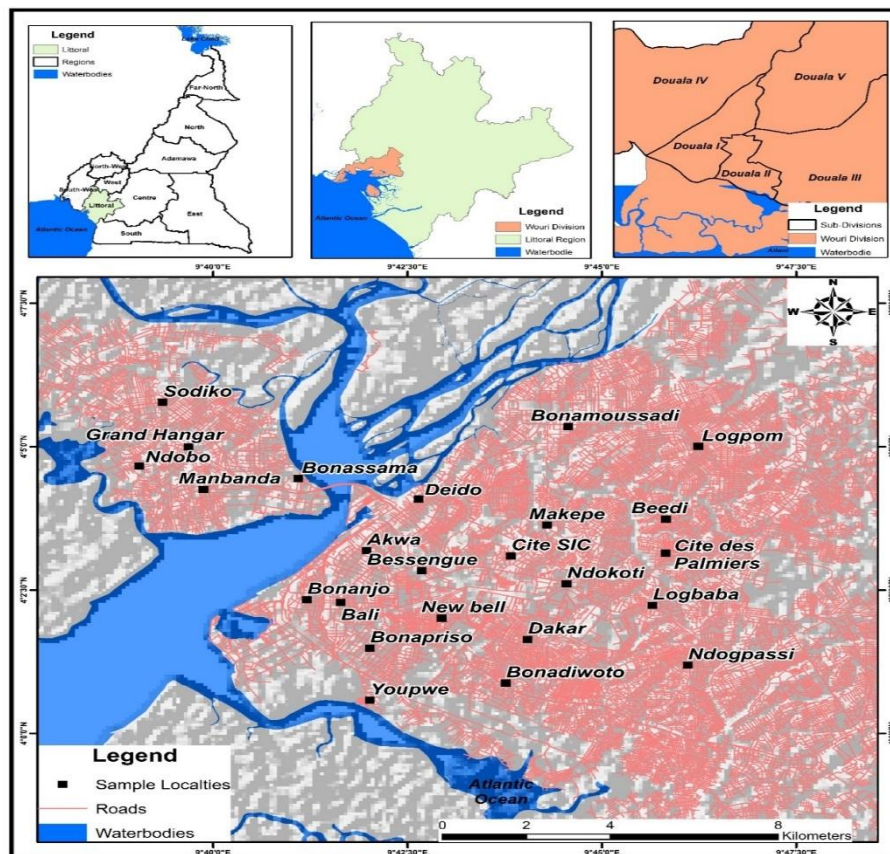
Urban recreational spaces are publicly accessible and planned vegetated areas within urban environments, including gardens, parks, lawns and recreational zones, that offer recreational, and experiential value, mental restoration, physical activities, while improving quality of life of the urban population. Douala as the economic capital of Cameroon has experienced exponential growth, with the population rising from 476, 000 to over 3.66 million (between 1976 and 2026), leading to extensive urban sprawl at the expense of these valuable assets. The process of sprawl in Douala is uncoordinated and also unplanned, encroaching into and dwindling vegetation designated for recreational spaces especially by the urban poor who cannot afford decent housing despite prohibitions by legal framework (Tende, 2018) and (Ngoran &Xue, 2015). This trend of space encroachment extents from the planned section of Akwa, Bonanjo, Deido, Besengue towards the peripheries of the city north, east and south directions (Mbaha & Ndock, 2013).

Despite being considered as essential for urban sustainability (SDG11), acting as biodiversity hubs and improving health, the rapid and uncontrolled developments in the more urbanized sectors of Douala have turned these ecological assets into a scarce commodity since these spaces are often viewed as luxury and empty land available for new developments. Despite urban planning efforts, the accessibility and full utilisation of the city's recreational sites still remains undermined due to budget constraints of the local authorities and insecurity of residents, uncivil activities of some users, poor maintenance, longer distance to some sites, and a combination of what has failed to attain the standard requirements by World Health Organisation. Consequently, this study seeks to examine the management gaps and users' challenges that limit the sustainability of recreational spaces in Douala urban areas.

## 2.0 THE STUDY AREA AND METHODS

Located in the inter tropical zone in the Gulf of Guinea in the Wouri estuary between latitude 04° 3' and 04° 7' North, and longitude 09° 42' and 09° 48' East, Douala has a tropical humid climate. It experiences warm and humid conditions with an average temperature of 27° C and an annual average precipitation of 3,600mm per year. Its driest month is December, with an average of 28mm of precipitation falls, whilst its wettest period is August to early September, with an average of 700mm of rain falls (Tende, 2018). This high annual rainfall is brought about by monsoon winds that carry humidity and moisture from the Atlantic Ocean into the city, thus, bringing about heavy precipitation as from the month of July to August, necessitating flooding which in turn damages most of the city green infrastructures especially those in hazards prone areas. The hot, humid and equatorial monsoonal climate with over 300mm of annual rainfall, renders the development of the urban green spaces challenging.

Created by decrees No. 095468, Douala (Figure 1) Douala has an estimated surface area of 21, 000 hectares with a population density of 145 persons/km<sup>2</sup> square and has an urban total population of 3.66 million (CUD, 2023).



**Figure 1: Location of Douala in Wouri Division of the Littoral Region of Cameroon**

**Source:** National Institute of Cartography database, OpenStreetMap & Fieldwork, 2023.

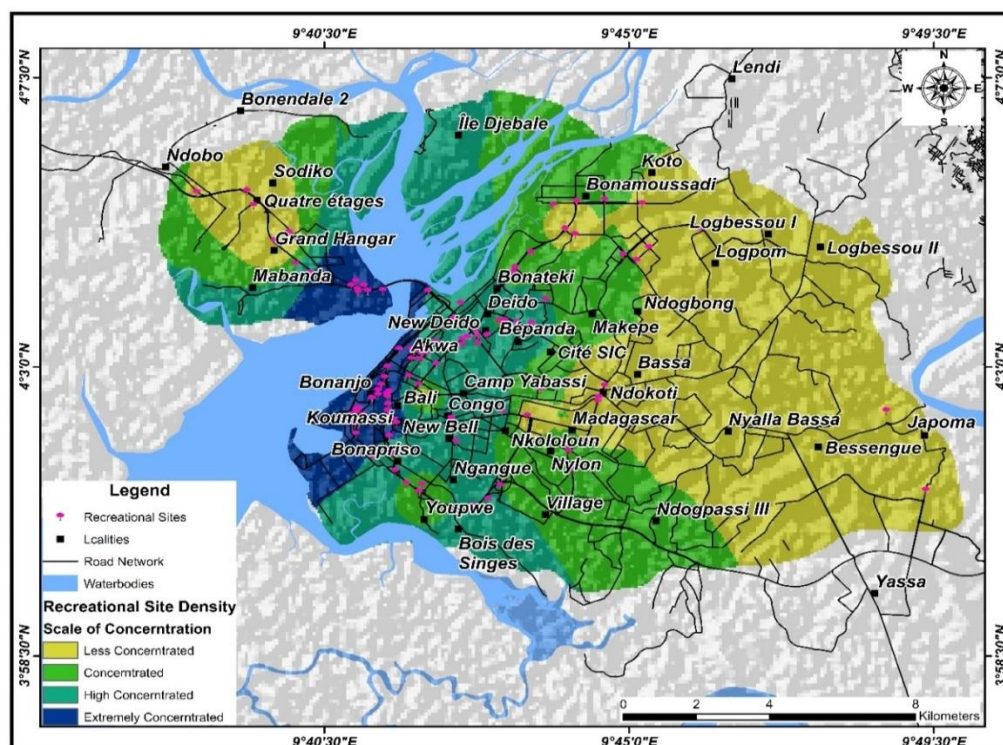
In order to determine the management gaps and user challenges compounding the sustainability of recreational spaces in the urbanised areas, face-to-face open-ended and closed-ended questionnaires, and interviews were used to collect data, targeting a sampled population, with diverse age, social, and economic characteristics. Data generated from the instruments were treated and interpreted through the Microsoft Excel spreadsheets to generate tables for analysis. A total of 385 questionnaires were distributed to the various respondents using municipal recreation sites and 375 effective responses were used to analyse the results. Photographs illustrating human settlement extensions, degradation, and loss of some sites in the study area were taken.

Special in-depth interviews were conducted with key institutional stakeholders, including, officials within the Department of Environment, Health and Living Conditions, the Department of Monitoring Units, Pool of Research Officers to Technical Advisory, sub directors, chiefs of service, and office for recreational space management, contracted managers. Feedback gathered from key stakeholders were first class data that could not be gotten by way of

observation and questionnaires. Data collected were analysed to determine the management and user challenges regarding the development of recreational sites.

### 3.0 RESULTS

In Douala, mitigation strategies to offset the ecological degradation and urban heat island, caused by rapid industrialization, and unprecedented demographic growth have necessitated the implementation and management of municipal, un-specialised recreational spaces such as Sodiko community gardens, Bonassama gardens, Parcours Vita park, Bonapriso, Akwa and Bonanjo Garden, Marche Bonamoussadi Garden, Deido and MAETURE gardens. Despite these interventions, the distribution of these green spaces is highly uneven across the landscape, driven by colonial influence, topographic constraints, and dense concentration of commercial and residential infrastructures in specific districts as indicated in Figure 2.



**Figure 2: Spatial Distribution and density of recreational sites in Douala.**

**Source:** National Institute of Cartography data base, OpenStreet Map & Fieldwork, 2023.

As indicated in Figure 2, spatial analysis reveals a marked unevenness in the distribution of municipal recreation infrastructure across the urbanized sectors of Douala. The south-eastern and south-western sectors exhibit hyper-concentrated and high-quality recreational spaces contrasting sharply with the relatively low concentration observed in the north-western and north-eastern urbanizing zones. This disparity reflects early spatial planning initiatives and vision 2035 development blueprint that prioritised the provision of structured, high-density and high-quality recreational spaces in the administrative and affluent commercial and residential zones of Akwa, Bonanjo, Bonapriso, Bonamoussadi, and Deido. Conversely, rapidly

urbanizing and low status socio-economic settlements of Sodiko Ndobu, Bonassama, Grand Hanger are characterised by a limited number of recreational amenities, featuring only low density, moderate to low-quality sites. While the sites may increase in number, there is a trend of quality degradation driven by informal commercial encroachments, limited accessibility and poor council maintenance, violating Article 9 of the 2004 Law. The available and functioning open spaces are maintained through a multi-stakeholder management approach, that integrates the administrative, contractual and participatory mechanisms, including, the centralized authorities, decentralised municipal entities and private-public partnerships.

### 3.1 Management Challenges of Recreational Spaces

This section analyses respondents' view regarding the management and land use challenges associated with municipal recreational spaces.

#### 3.1.1 Human Challenges

Nine human challenges were presented to respondents to indicate their opinion, or level of agreement stating the most likely human challenge faced by the council in managing recreational spaces. The responses were analysed using a 5-point Likert scale as indicated in table 3.1.

**Table 1 Perceived Human Challenges Compounding the Management of Recreational Spaces within the Douala Metropolis.**

| Human challenges                                             | N   | Min | Max | Mean | Std Deviation | Agreement\Severity level    |
|--------------------------------------------------------------|-----|-----|-----|------|---------------|-----------------------------|
| Inadequate implementation of Planning policies/greening Laws | 375 | 1   | 5   | 4.96 | 0.941         | Very strong\highly severe   |
| Lack of continuity in administration                         | 370 | 1   | 5   | 4.69 | 0.789         | Very strong\highly severe   |
| Poor coordination between the stakeholders                   | 367 | 1   | 5   | 3.78 | 0.684         | High / severe               |
| Poor governance/Miss-management                              | 373 | 1   | 5   | 3.57 | 0.898         | High / severe               |
| Cultural factor.                                             | 375 | 1   | 5   | 3.34 | 1.121         | High / severe               |
| Unskilled/inadequate expertise                               | 370 | 1   | 4   | 2.12 | .944          | Low\very low                |
| limited council budgets                                      | 367 | 1   | 4   | 1.85 | .833          | Low\very low                |
| Rapid urbanisation                                           | 373 | 1   | 4   | 1.66 | .825          | Strongly disagree\very low  |
| Limited urban land                                           | 373 | 1   | 4   | 1.25 | .511          | Strongly disagreed\very low |
| Valid N. (listwise)                                          | 356 |     |     |      |               |                             |

Source: Fieldwork: 2023

**KEY:** Mean results of 1.00-1.80=Strongly Disagree, 1.81-2.60=Disagree, 2.61-3.40=neither nor/ Agree, 3.41-4.20=Agree and 4.21-5.00=Strongly Agree.

Data in table 1, revealed that inadequate implementation of urban development planning policies ( $M=4.96$ ,  $SD=0.941$ ), and lack of continuation of administrative functions ( $M=4.69$ ,  $SD=0.789$ ) represent the most severe challenges deterring efficient management of public spaces in Douala. Weak implementation of the legal instruments and the city's plan documents stem from prolonged sluggishness and administrative delays, conflicting interests, institutional negligence and lengthy bureaucratic procedures in securing legal land and building permits from the relevant ministries. The finding mirrors the feedback gathered from key institutional stakeholders, including, officials within the Department of Environment, Health and Living Conditions, the Department of Monitoring Units, pool of research officers to technical advisers, sub directors, chiefs of service, and office for recreational space management that, "inadequate implementation of municipal master and land occupation plans, combine with regulatory environmental oversights and administrative discontinuity severely constrain the successful realisation of recreational infrastructure development projects of the city." These institutional failures results in severe spatial degradation, environmental injustices, diminished public health and socioeconomic disparities within urban communities.

Furthermore, poor collaboration and coordination between the council, contracted and related ministries ( $M=3.57$ ,  $SD=.684$ ), poor governance, ( $M=3.78$ ,  $SD=.898$ ) and culture ( $M=3.34$ ,  $SD=1.121$ ) also registered high values, reflecting administrative challenges in managing the existing open spaces of the city. Poor governance is manifested through political favoritism, power tussle, mismanagement and overlapping responsibilities between the supervisory authorities, the city councils and its constituent districts and chiefdoms. Poor collaboration is witnessed in the seemingly limited public participation in shaping the success and long-term efforts of the spaces. Thus, "fragmented governance framework among municipal authorities, relevant state ministries and local communities significantly impede the strategic planning and sustainable management of leisure sites in Douala urban areas." This systemic lack of policy coherence creates major obstacles to optimizing urban recreational infrastructures that has caused the local residents to frequently visit neighbouring streets, unpaved terrain, coastal or river front margins (the Wouri river banks), as well as high end private spaces (Games Arenal 237, Canal Olympia and Emune water park) to exercise, socialise and host community events.

More so, inadequate expertise ( $M=2.12$ ,  $SD=.944$ ), rapid urbanisation ( $M=1.66$ ,  $SD=.825$ ), limited council budget ( $M=1.85$ ,  $SD=.833$ ) and limited land for green expansion were perceived as the least restrictive barriers. The municipal council serves a relatively low population of 3.66 million when compared to neighbouring African cities like Cape Town, Johannesburg, Lagos and Accra that are heavily endowed with sustainable green spaces. Beyond the annual municipal allocation of 1 Billion ( $>1.7m$  USD), the council leverages diverse national sources of income (Additional council tax, business license fees, land rents, market dues) and external financing and international partners (French Development Agency, World Bank, FEICOM). These diverse funding sources empower the administration to establish and maintain extensive network of gardens and parks, effectively meeting the recreational needs of the city's rapidly expanding demographic growth. Also, the council has unused land for the expansion of public spaces but the challenge is the multiplicity of actors such as, the Ministry of State Property and Land Tenure, the city council, and chiefdoms that

create regulatory hurdles, preventing proactive land reserve's and the conversion of environmentally vulnerable lands into manageable urban public spaces.

Conversely, municipal administrators; specifically, the sub directors, chiefs of service, and officers of recreational space management argue that “the central government’s failure to meet the 15% yearly financial assistance requirement stipulated by Article 25 of the 2019/024 decentralisation framework, and the persistent bureaucratic interference by the state appointed authorities, undermines the councils’ autonomy and capacity to scale and sustain recreational amenities.” Fiscal limitation of the council, compounded by topographic constraints often render the conversion of environmentally vulnerable lands of Bonaberi, Kotto, Maképé into manageable public urban spaces challenging.

### 3.1.2 Accessibility Challenges and Use of Recreational Spaces

To further compliment the opinion of space users relating to the aforementioned perceived challenges, another concern expressed by users was linked to challenges encountered in the course of accessing and using the spaces (table 3.2).

**Table 3.2. Challenges in the Use of Recreational Public Spaces within the Metropolis**

| Accessibility-Related Challenges      | N   | Min | Max | Mean | Std. Deviation | Agreement/Severity Level  |
|---------------------------------------|-----|-----|-----|------|----------------|---------------------------|
| Poor management\ maintenance          | 370 | 1   | 5   | 4.69 | 0.789          | Very strong\highly severe |
| Safety and security                   | 373 | 1   | 5   | 4.03 | 0.944          | Strong\very severe        |
| Lack of social interaction            | 373 | 1   | 5   | 3.82 | 0.664          | Strong\High problem       |
| Limited amenities/services            | 367 | 1   | 5   | 3.78 | 0.684          | High\ severe problem      |
| Inaccessibility/non-inclusiveness     | 370 | 1   | 5   | 3.71 | 0.809          | High / severe             |
| Limited parking spaces                | 373 | 1   | 5   | 3.64 | 0.647          | High / severe             |
| Unhealthy activities within the sites | 373 | 1   | 5   | 3.58 | 0.849          | High /severe              |
| Low income levels                     | 373 | 1   | 5   | 3.57 | 0.898          | High /severe              |
| Limited facilities within the spaces  | 373 | 1   | 5   | 3.45 | 1.280          | High/ severe              |
| External factors                      | 373 | 1   | 5   | 3.46 | 0.961          | High /severe              |
| Size of designed spaces               | 375 | 1   | 5   | 3.41 | 0.941          | High / severe             |
| Location of spaces                    | 373 | 1   | 5   | 3.41 | 1.108          | High /Severe              |
| Obsolete state of the site            | 367 | 1   | 5   | 2.79 | 0.635          | Neutral                   |
| Natural elements                      | 365 | 1   | 5   | 2.76 | 0.649          | Neutral                   |
| Cultural heritage                     | 375 | 1   | 5   | 2.66 | 0.753          | Neutral                   |
| Health issues                         | 365 | 1   | 5   | 2.60 | 0.903          | Disagreement\low extent   |

**Source:** Fieldwork: 2023

**Key:** Mean of; 1.00-1.80 = Strongly Disagree, 1.81-2.60 = Disagree, 2.61-3.40=Neither/Nor agree, 3.41-4.20 = Agree, 4.21-5.00 = Strongly Agree

Based on the descriptive analysis conducted to evaluate the perceived challenges in utilizing recreational spaces in the urbanised area of Douala (table 3.2), results reveal that the most significant challenges encountered by users at recreational spaces was poor management and maintenance ( $M=4.69$ ,  $SD=0.789$ , approximately 93.8%). This assessment resonates closely with the view of the key officials, specifically the sub directors, chiefs of service, and office for recreational space management that systematic constraints, including labour shortages, financial deficits, equipment limitations, obsolete state ( $>39$  years) of some field workers and their frequent absenteeism significantly impede the constant maintenance of recreational sites. Consequently, this operational inefficiency at times compromises the health of ground workers linked to prolonged exposure to high solar radiation (UV Index 3-7), atmospheric pollutants and particulate matter (AQI of 101-150) generated during extended maintenance operations hours, rather than just the aesthetic quality of the city. However, Avenue Ahmadou Ahidjo, Parcours Vita, Bonanjo, and Bonassama which are the most recognized parks demonstrate significant management failures. At times, local council spaces are clouded with dust, emissions from various transport systems, as well as offensive odour caused by irregular collection of waste generated by park users and street hawkers. Respondents also highlighted issues of poor drainage, which at times result to mild flooding, particularly, spaces like roundabout Petit Pays and part of Parcours vita park, exposing the local residents to unsanitary conditions. Figure 3 illustrates poorly maintained seats and a non-functional water fountain at Bonassama and Douche.



**Figure 3.1 Poorly maintained seats in Bonassama Garden (A), and a non-functional water fountain at Place de Douche (B)**

**Source:** field work, 2023

Poor safety and security measures of most sites ( $M=4.03$ ,  $SD=.944$ , approximately 80.6%), was also of concern. Limited patrols by guards, lack of surveillance cameras, lack of enclosures and poor lighting systems contributed to the decline in use of most spaces due to fear of drug addicts, mentally deranged persons and the homeless, especially during evening hours, More

than 15% of respondents attest to the fact that, on several occasions, they have been attacked by pick-pocketers while using the space at Parours vita, Bonassama, Besseke, MAETUR, and Marche Bonamoussadi, in the evening or late hours. The Management resonates with this constrain and advice from a respondent; “the fact that, entry into these public sites is free, the spaces are not fenced, and coupled with their compromised locations, thieves can easily make their way into the functioning park, and gardens as normal visitors. As a result, it becomes difficult to distinguish users with evil motives from those who came purposely for fun. In such a case, the population is advised to use the spaces during the day and in company of other space users for their safety. Also, space users should stick to well-lit areas if they visit the sites at night or better still, the use of spaces at late hours should be avoided.”

Another key finding of this study is the failure to provide socially interactive ( $M=3.82$ ,  $SD=.849$ ) and accessible services and facilities for all residents ( $M=3.71$ ,  $SD=.809$ ), particularly those with physical impairments. The administrators admitted that to render some of the sites inclusive, they often create collaborative platforms for partnership with non-governmental organizations, to implement targeted, annual rehabilitation programs for the visually impaired and disabled persons at Parours Vita Park. Integrating impaired individuals into the broader community make them feel as part of the society.

There were also concerns regarding economic hardship and marginal incomes of the urban population ( $M=3.57$ ,  $SD=.898$ ). Given the minimum wage rate of 42,000CFA (<75.00USD), over 70% of the sampled visitors (mean 3.57) highlighted low incomes as a constraint in utilising the preferred recreational facilities, especially where entry fees and transportation costs are required. Some users complained of the expensive nature of consumptive amenities, food, sports equipment/dresses, coffee, natural tea within most renown spaces like Parours Vita Park and Bonanjo gardens. This affects their purchasing power and use of the sites.

The participants further identified lack of amenities ( $M=3.78$ ,  $SD=.684$ ), and limited infrastructure/facilities ( $M=3.45$ ,  $SD=1.28$ ) as other major constraints in utilizing the spaces in Douala. Respondents expressed their dissatisfaction regarding inadequate seats, toilets, water supply among other services within the visited sites. According to key informants, a successful public space must transcend mere aesthetic appeal to offer physical interaction and health promoting environments, which require well maintained and modern amenities. However, Parours Vita which is the most recognized state park demonstrates significant safety failures and has recorded approximately four fatalities, the most recent in 2022, when a woman was electrocuted by an exposed electrical wire. Furthermore, the population suffers from numerous injuries linked to equipment malfunction and insufficient emergency preparedness.

Similarly, infrastructural deficiencies are evident as the fewer onsite benches, seats, toilets in Parours Vita Park, Besseke and Bonassama gardens amongst others are in a state of disrepair, and rusty. In sites where functional restrooms exist, monetary charges restrict access, disproportionately impacting the economically disadvantaged users (the restrooms in Bonanjo and Sodiko gardens). Consequently, financial barrier fosters defecation on the spaces and severely compromising their sanitation. Among the sampled sites, only Parours Vita Park featured an active free access water supply facility for its users. However, this infrastructure remains insufficient to sustain the high demand, particularly during peak influx on weekends, leading to over-crowding and filth.

Interestingly, limited parking spaces within the sampled localities were considered a challenge hindering their full accessibility. Approximately 72.8% of respondents expressed concern for not being able to access the desired spaces using personal vehicles because of the absence or limited parking space. The social concerns of “tips” perpetuated by some patrolling municipal guards to secure a parking space for “special users” demonstrates weakness in management. Field data revealed that, commuting families incur weekly public transportation costs exceeding 2,000FCFA (3.5USD) being a direct consequence of limited parking space and consequently, ownership of a personal vehicle necessitates a tip for the guards to guarantee a parking spot.

The administrators confirmed this structural constraint, noting that “these facilities accommodate over 20,000 monthly users, driven by an influx of intra- and inter-urban visitors. Consequently, the high demand renders these limited spaces congested, noisy and environmentally compromised. This equally outweighs the sites carrying capacity thereby, orchestrating more pressure and degradation.”

Conversely, to mitigate localised parking deficits, the council has repurposed recreational spaces for vehicular storage, including utility vans, bikes, and waste bins (figure 4)



**Figure 4: A Poorly placed trash can, confiscated bikes, and trucks on the green space at Salle du Fete (A) and a poorly parked council van in Bonassama gardens (B)**

**Source:** Field work, 2023

Results equally indicate health issues ( $M=2.60$ ,  $SD=.903$ ), cultural heritage ( $M=2.66$ ,  $SD=.753$ ), natural elements ( $M=2.76$ ,  $SD=.649$ ), and obsolete sites ( $M=2.79$ ,  $SD=.635$ ) as the least prominent barriers hindering the utilisation of recreational spaces in the study area. Furthermore, participants lamented that contemporary cultural heritage and national identity which should serve as foundational elements for the city’s unique historical and educational tourism, are conspicuously absent in lieu of sociopolitical and economic interests.

## 4.0 DISCUSSION

Previous scholarly discourse on urban planning in west and central Africa aligns closely with the findings of this study. Literature identifies rapid urbanisation as an overarching driver of public space degradation (Mensa et al., 2015) and Esson et al., (2021). This article highlights that while urbanisation mounts high pressure on land, residents in Douala perceive marginalisation, poorly maintained spaces, and poor governance as constraints of space management. The exceptionally high mean score of 4.96 for weak implementation of the legal instruments and the city's plan documents stems from prolonged sluggishness and administrative delays, conflicting interests, institutional negligence and lengthy bureaucratic procedures in securing legal land and building permits from the relevant ministries. An assessment of the spatial configuration of municipal green spaces in the urban center of Douala reveals that the total urbanized surface area has less than 2% of municipal public spaces which falls below the national planning standard for urban areas and lags behind other major African cities. This, indicates that the city's recreational provisions are not well factored into the local planning framework and does not align with SDGs 11 goal, law No. 2004 that considers gardens as a distinct land use category, and Article 33 of law No. 1994 which mandates that district land use plans should include description and measurement of 800m<sup>2</sup> of public spaces for every 1000 inhabitants.

The overwhelming 85% (M=4.69, approximately) of respondents in favour of lack of continuity of urban functions suggests a systemic disruption, likely due to lack of sustainable municipal budgeting and shifting municipal priorities such as the non-execution of the 2012 city's forest in Besseke neighbourhoods (2.6 ha). This corroborates with the findings of Gerald et al., (2025), and Priso Oliver (2014), which emphasised that urban master plans in developing cities like Accra and Douala frequently fail at the execution stage due to regulatory loopholes and land speculations.

Furthermore, the Douala 1983, and 2015 Master Plans, and Plans of Land Occupation have shown their limitations over the years as they were designed without taking into consideration the rapid population growth of the city and their demands, resulting to encroachment of public spaces in a laissez-faire manner. This contradicts the building regulations of Decree No.2016/3058/PM of 28 July 2016, laying down the rules for land-use and construction, Decree No. 2008/0740 of 23rd April 2008, laying down the system of sanctions applicable to infringement of town planning rules, sanctions, prescription, and the methods of control by the city Mayor of Douala (Olinga, 2021 & Tende, 2018). Demographic projections further intensify this spatial inequality, given that by 2035, the population is expected to have risen from 3.66, to 5 million, creating additional need for public sites that the current supply cannot attain and will be far below international benchmarks of the World Health Organisation of 9m<sup>2</sup>, European Union's 26m<sup>2</sup> and United Nations' 30m<sup>2</sup>. This coincides with the results of Ahmed et al., (2017) who indicated that only 2.47% of Nowshera city total area was dedicated to recreational sites, which falls below the national planning standard of at least 5% for urban areas and its users. Such a challenge is further fueled by institutional overlap between the city council and supervisory authorities. It thus leads to enforcement gaps, and contradictory goals such as the privatisation of Base Elf green space in Bonassama by the central government for Dangote industrial plant, which resulted to a decrease in the total surface area by 0.14km<sup>2</sup> (Ndula et al., 2024).

In pursuit of municipal revenue generation, and to enhance public space maintenance, the local government has increasingly commercialised prominent and highly accessed spaces through private-public partnerships (PPPs). Conversely, these partnerships frequently prioritise revenue collection and commercial viability over adequate maintenance and high public use. Consequently, previously free public open spaces are being transitioned into “closed-paid spaces”, a shift that exacerbates socio environmental injustices, transforming urban recreation from universally accessible public spaces into exclusive luxury privates’ spaces. The Sodiko Amusement Park, and about 70% of Parours Vita’s Parks in Douala exemplify this trend, where entry and participatory fees for children range from 1,000 FCFA (\$1.75 USD) to 5,000FCFA (\$8.75 USD) and adults, 20,000 FCFA (\$35 USD) to 35,000FCFA (61.25 USD) for fitness equipment. This effectively restrict access, particularly for the urban underprivilege because of their low incomes, forcing them to frequently appropriate neighbouring streets, unpaved terrains, coastal and river fronts for informal football pitches, and sociocultural events. Whilst the affluent access the high-end private spaces such as the Games Arena 237 (Yassa districts), Emune water park (Bonendale), Canal Olympia (Bessengue Railway station) among others for socialization. Note that the growth of high end private ‘third spaces’ highlights a shift towards paid purpose-built leisure centers in the metropolis. The situation became dire in some African countries such as South Africa, with less than 10 per cent of its land occupied by green spaces and Lagos, Nigeria with less than 3 per cent of recreational spaces (Mensa et al., 2015 & Adedeji et al., 2015).

While international scholars like Elinor Ostrom (1990) argue that community led initiatives can compensate for municipal deficits, ‘cultural factor’ identified in this paper (M=3.34) suggests that local traditional and communal priorities also complicate straightforward western models of recreational space utilisation in Douala.

Findings regarding the accessibility and use of public spaces reveal that administrative and social barriers severely overshadow physical and natural barriers. The exceptionally high mean and percentage scores for poor maintenance (approximately 93.8%) suggest operational failures in municipal infrastructure management rather than just architectural limitations. Respondents wish basic facilities, particularly cultural heritage are integrated in all the spaces, especially within the administrative unit, Akwa, and major roundabouts at Maképé, MAETUR and Bonamoussadi, as the case with Deido roundabout monument, an iconic “La Nouvelle Liberte” Monument that serves as a symbol of the city’s resilience, uniqueness, and historic relic. This coincides with one of the reasons for the revision of the city’s 2015-2025 master and land use plan. The finding supports the argument of Shamsuddin, (2011), Mehta (2017) and Oliveira et al., (2015), which recognised the integration of “cultural heritage”, historic buildings among other facilities in public recreation facilities for public consumption as prove of successful urban livelihood.

Furthermore, the prominent absence of municipal police, CCTV cameras, poor lighting, fear of illicit and anti-social activities within Besseke garden, Avenue Ahmadou Ahidjo in Akwa and Bonassama public spaces highlight crucial environmental risks that render the sites unattractive and unsafe to users. Extensive portion of the public spaces are crisscrossed by multiple informal pathways, heavily trafficked by motorists, pedestrians and street vendors. The structural neglect of these areas has facilitated their conversion into informal settlements or “secondary homes” for vulnerable populations, including drug addicts, delinquents,

mentally deranged, and the homeless. Consequently, the resulting insecurity discourages municipal investments in maintenance. This further contradicts SDGs 11.7 goal to “provide universal access to safe, inclusive and accessible green and public spaces to all especially to women, the elderly and children” and SDGs 11.6 goal to “reduce the adverse per capita environmental impact of cities, by paying particular attention to air quality, Municipal and other waste management.” This corresponds to the findings of Bolund et al., (1999), Neal et al., (2015), Seeland et al., (2009), Jim and Shan (2013), who acknowledged poor location, security problems, fear of crime as barriers limiting the full use of public spaces in most cities. This indicates that unmonitored and poorly lit recreational spaces often become hubs for illicit activities.

While distance and proximity influence and encourage the accessibility and use of urban open public spaces in Douala, 43.2% were more willing to travel as far as it pleases them (between 10km to over 15km). Residents use more of non-sustainable transportation services to access Parcours Vita Park, Pond Joss, Bonapriso garden, Marche Bonamoussadi, and Sodiko gardens with larger and higher surface areas, better park amenities and desired facilities, for biking, swimming, boating, aerobics, basketball, and table tennis. This, contradicts WHO guidelines which suggest that public recreational spaces of at least 0.5-1 hectares should be accessible within a 300-metre distance to all city residents, SDGs 3 goal to ensure healthy lives of users from non-communicable diseases, SDGs 1 goal, to reduce poverty, and SDG 4 goal to ensure inclusive and equitable quality education and SDGs 5 goal to ensure gender equality.

## 5.0 CONCLUSION

Recreational spaces in the urbanized area of Douala are severely compromised, acting like collateral damages to rapid economic growth. Despite being described as “oases”, and “green living and nature-conservation partners of the city” space and urban planning efforts, the accessibility and full utilisation still remains undermined. This is due to budget constraints of the council and users, insecurity, uncivil activities of some users, poor maintenance; a combination of what has caused the city not to attain the standard requirements by W.H.O. This, indicates that the city’s public spaces are not fully integrated into the city’s planning program and if the council and supervisory authorities continue to prioritise macro-economic and commercial interests over localised recreational needs of the urban poor, the complete privatisation of public spaces remain highly likely. Failure to address the conflicting interests of stakeholders represents a critical policy oversight with severe implications for urban equity.

## 6.0 RECOMMENDATIONS

Decentralisation should be practical whereby the local authorities are fully empowered to exercise administrative authority on issues of regional and local interest such as the implementation and maintenance of the city recreational spaces. Improving community competencies through capacity building and participatory green space design instills a robust sense of stewardship. This process reframes spatial management as a collaborative governance mechanism between local leaders and the state, rather than a set of externally imposed laws. This is because the challenges involved in planning and management of the city’s public spaces has more local character which the state alone cannot singlehandedly supply.

Realising a sustainable and climate resilient green city by 2035 demands the consistent implementation of municipal environmental policies. Foundational to this vision is a human rights-based approach that requires transparent land conversation, strict deterrence of encroachment and dedicated financial streams to safeguard urban green infrastructures. While it might be challenging to resolve the issues of insecurity and crime, the council can improve accessibility of the spaces by installing CCTV Cameras, more lighting systems, entry fees and enclosures for all the spaces to control entry and exit points, check against vandalism and theft among other vices on the spaces. This could enhance a sense of ownership among the users.

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