

Developmental Problems of Public Parks and Greenery across Garden City of Nigeria

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Abstract: The gatherings and health implications of public parks and greenery is of ultimate significance to the urban and suburb residents. Public parks and greenery surface difficult existing situations owing to inadequate institutional concern and failure to mete out to its roles of maintaining standard and quality public parks. The investigation of public parks and developmental problems could consequently exposed active directions to debase or upgrade of public parks, greenery and welfare of the important population. This research anchored on developmental problems of public parks and greenery across garden city of Nigeria. The study adopted random sampling techniques while data collection was held through environmental observation and validated questionnaire with a reliability value of 0.85 Cronbach alphas. A sample of 300 respondents was drawn although data analysis was based on percentage and inferential statistics of multiple regressions at 0.05 alpha level. The result revealed that public parks and greenery spaces has relative developmental problem. However, the work demonstrated that urbanization had statistical score of ($t = 11.229, p = 0.000 < 0.05$), institutional low resource base ($t = 7.757, p = 0.000 < 0.05$), political instability ($t = 3.982, p = 0.000 < 0.05$), lack of proximity ($t = 7.787, p = 0.001 < 0.05$) and wide corruption ($t = 3.325, p = 0.003 < 0.05$) each have significant relative problem and significant joint problem of $F(5, 295) = 244.133, R^2 \text{Adj.} = 0.718$ on public parks and greenery areas of the city. The research concluded that public parks and greenery in Port Harcourt urban possess higher relative problem while urbanization, institutional low resource base, political instability, lack of proximity and wide corruption constitute the independent and joint problems of public parks. Organisation of conferences, workshops, seminars and discussions at urban, suburbs, regional and national level can decline the problems and establish immeasurably benefits of parkson the environment.

Keywords: Public, Parks, Problems, Greenery, Garden City and Developmental

I. INTRODUCTION

The existences of urban and suburbs environs stand incomplete without functional public parks classified as a segment or component of recreational land uses. The recreational environments considered as public parks consist of spatial arrangement made for such facilities as greenery, parking spaces, playground, nature trail, reservoir, Atlantic field, basketball, tennis court, pedestrian cycle, open spaces, swimming pool, bush bar and other facilities which are publicly provided and indeed to benefit the inhabitant of a particular district or layout under institutional control. The parks and greenery itself are usually quiet conspicuous and do

not present any special difficulty as part of compactible and incompatible land use activity that enhance ecological aesthetics of city scenery (environmental observation 2020) . But in developing nations of the world, environmental observation and other experiences disclosed that public parks and green spaces are declining unlawfully as parks and other green areas are currently occupying minor or non-part of the anthropogenic activities taking place in the built-up environment. However, the concentration of land use activities, urban expansion and land use conversion are some of the major problem responsible for the ugly, substandard and rapid disappearance of public parks in Nigeria. Research studies have also tried to examine the challenges of public parks and greenery paces across the towns and cities of the globe. In Calgary city of Alberta, Yunliang and Jack (2015) considered geographic information system built on multi standards decision making method as a tool for determination of public parks accessibility challenges. Their findings explained that a core-periphery arrangement of public parks accessibility. In furtherance, the research demonstrated that the pattern proved tendency to be more polarized between the year 2006 and 2011. But concluded that the investigation may assist in identifying the need to improve accessibility to public parks and monitor change of the accessible pattern over time and locating new public parks. in the same direction, Collins (2014) developed efficient appraisal method and journals linked to urban green environs across the African sub-region. His research concentrated on nature, challenges, decline, and deprived administration of urban green areas. However, the result confirmed that the flora and location of urban green places in Africa were determined by the ecological areas and temperature conditions of Africa. According to the author, other challenges the study identified are rapid urbanisation, low resource base of institutions on green spaces, lack of priority to green spaces, corruption, uncooperative attitudes of the local people and political instability .The work resolved that green spaces must be handled as the most important expansion itinerary of urban arrangement with appropriate authorities and similar institutions working on green spaces.

Anna (2009) stressed that socio-economic responsibilities in the framework of non- existing procedures, inadequate capability, funds and wide corruption made public spaces less concern. He maintained that the whole nation has proved the potentials of public spaces as the prominent socio-economic growth with environmental, economic and social advantages

which constantly rejected by public establishments and entire public in the settings of African cities. The work suggested for a societal-driven public space improvement direction that will perfectly handle the prevailing problems and demonstrated a corollary direction for inhabit antarmament and levitation consciousness.

Das and Honiball (2016) engaged household surveys, environmental observation surveys by (digital photography and video grapy) and developed experimental models to access the challenges of public parks in residential areas of South African cities. the result shown that the proportion of route network to pedestrian walk network, quantity of access streets to the parks, size of parks, and glassy of clarification of parks are the accessibility challenges of utilisation of the parks. Meanwhile, the research used Bloemfontein to recognise the key significant accessibility issues that prevent the operation of public parks and the degree of effect on the utilisation of public parks in pure residential areas of South African cities.

Within the urban space of Atlanta, Dajun (2011) analysed the possible spatial accessibility to green spaces in a geographic information systems (GIS) environment and also determine the racial/ethnic and socioeconomic differences. The study considered a Gaussian-based two-step floating catchment area method while ordinary least squares (OLS) model and the spatial lag model for analysis. The work proved that the spatial convenience to green spaces in Atlanta failed to be consistently disseminated. Whereas all the analytical tools demonstrated that districts with greater agglomeration of African Americans detailed importantly less conveniences to green spaces at ($P < 0.05$). His work also concluded that Asian population maintained connexion for poorer access in the ordinary least square model that was not available in spatial lag model and less convenience was found in socioeconomically deprived zone. The studies suggested that these research verdicts may be employed for urban and regional planners for future green space zone development in order to expunge inequalities.

Jasper, Peter, Jens, Mette and Ulrika (2013) considered 1305 Danish citizens while analysing the position of urban green spaces. The study focused on relationship between urban green spaces, outdoor activities participations and nearest urban green spaces. The result revealed that relationship could not exist among outdoor activities participation, size of urban green spaces, distance to green spaces, and quantity of structures in the closest urban green spaces. But on the quantity and location of urban green space in 1 km distant and below, their work showed that strong relationship never existed at all. Whereas activities participation in the closest urban green spaces prove positive connexion between size, walking/cycling routes, wooded areas, water features, lights, pleasant views, bike rack, and parking spaces. The authors added that activities participation in urban green spaces could be courage by availability of the features present. They concluded that intercessions feature or longitudinal

investigations are required in this direction to discover possible contributory association.

In the public forest estate of England, Kieron, Gail, Paul, and Noemi (2013) examined woodland administration and counterpart research into challenges for accessing woodland by examining if the plan and facility of central access facilities may prevent certain user-groups while the findings can be applicable for woodland in places public access is stimulated. According to the authors, the basic discoveries are applicable to other green space types in the same direction as considerations in plan preparation were toughly determined by the functionality and visual of an item – if it was in-reservation with the forest scenery. They maintained that facility availability and maintenance were very important to copse users. The authors concluded that little variations in capability delivery, plus higher deliberations on realistic and countryside designs, establishment of a variety of passage way superficial types and declining of the expansion of woodland, may encourage the request of forest to a broader population.

Catherine, Thomas, Neil, Natasha, Graeme, Anne, Robert and Mark (2013) examined the relationship between the accessibility, greenness, size, and type of public open spaces and clinical danger markers for cardio metabolic diseases and areas such relationship could clarified physical activity and psychological security. The analysis was held through Poisson regression models which detailed for spatial clustering of observations and participants' age, gender, education, income and area-level socioeconomic difficulty. The quantity of public open spaces was not statistically significantly to cardio metabolic health while greenness, size, and type of obtainable public open space were contrariwise linked to cardio metabolic danger. The studies made clear that public open spaces and cardio metabolic health were statistically proved partial mediated by physical activity. As psychological well-being failed to concerned the associations analysed. Therefore, the entire findings submit that the features of locally accessible public open space are linked to cardio metabolic health and, to an extent physical activity. They illustrated that refining the number of locally accessible public open spaces might be a more real urban design method to provide cardio metabolic health as against struggle to upsurge the openness of public open spaces.

Itzhak (2006) identified house-level accessibility to urban services through land-referenced socio-demographic survey information. His study recognises the context and used it to determine longitudinal equity regarding the human accessibility and community collections to urban parks within Tel Aviv region. the study proved that the presence of house-level information was discovered to be significant for determining discrepancy convenience for social class based on income and national-ethnic personality couple with assessment of the validity of convenience and traditional gathered dimension for the management at district close. In furtherance, the work explained that data applicability

subjects emanating from rural-scale geo-referenced survey information together with possible consequence towards the verdicts on allocation of indigenous urban facilities together with four-dimensional fairness practice and treatise.

With the assistance of geographic information system (GIS) and remote-sensing practices, Xiaolu and Jinki (2013) sought racial/indigenous inequalities in contiguity to parks and tree canopy in six different cities of Illinois. Accessibility index interface (API), integrated classification techniques (ICT), Kernel-smoothing function, ordinary regression and spatial regression were applied for the analysis. The result illustrated that racial/ethnic minorities explained minor tree shade in various districts, though failed to prove important variances in area of entrance to parks. The work similarly detailed that spatial progression explained the operatives and demonstration procedures for the information adopted by the research. That the procedures applied in this investigation may be stretched to explore accessibility to different termini employing dissimilar ways of transit while the consequences may protect interference of policies to support the decline ecological in equality.

On the process of evaluating the greener expansion and varying accessibility to parks in China, Fang (2017) deliberated the Gaussian-based 2SFCA procedure to assess park approachability by double thresholds all over the 41 sub-zone of Hangzhou and high spot on the problems for the varying convenience of parks for the previous years. His findings confirmed that additional parks were established between 2000 and 2010 while the approachability of parks across China gave general and substantial dissimilarities between socioeconomic sets in respect to park accessibility and vagaries in such a way that convenience were not identified. He added that within-urban latitudinal differences were also determined while setting of parks accessibility around diverse ethnic and geographic frameworks in China. But finally, the research improved the present equity theory background by bring together impartiality as a practice and equity as a synchronic occurrence which initiates thereal method for the analysis of the cogency of existing strategies to other urban area sequally in United States and the China.

Hsueh, and Chin (2011) planned a new unified demonstrating basis that subsidises to the determination of public capability delivery for spatial equalities for urban development. The writers offered the work like geographic information system (GIS) and spatial analysis models. But their models deliberated individual circulation on social capabilities and pretend provincial modifications in the spatial impartialities of city parks. Their findings proved that unsatisfactory provincial spatial growth that disturbs disparities between urban park services. Their work also detailed that amassed cost of travel time linked with dissimilar dwellers road traffic movement and urban park setting categories disturb the access chances of residents. The research concluded that integrated model may be a beneficial position to support urban managers examined,

inspect, and regulate the delivery of public facilities in additional reasonable way.

Huilin, Di, Qingping, and Zhang (2017) used accessible natural Green space standards (ANGS) via network analysis in geographic information system (GIS) and multiple regression replicas to analyse the normal weighted walking spells from road connections and neighbourhood survivals to urban park appearances to evaluation of the walking openness to parks located in Shanghai urban spaces. Their findings proved that park service area, walking accessibility, and supply efficiency mixed significantly in unlike districts for dissimilar classes of parks. They added that popular zones with decent park accessibility were found in ancient towns rather than the new areas. They concluded that uniformity amongst park entrance spreading and population delivery failed to explain parity in park stream while encouraging arrangements were required to restore the public imbalance of access towards the significant public health source.

Bruno and António (2018) opined that urban green space (UGS) directories are progressively employed but were stated by countless researchers. Though, the guides linking to the quantity of urban greenery intergalactic are prevalent, as additional significant evidence regarding the urban green spaces proved that proximity come what may was ignored. According to the authors, the same result was evident in the Iberian Peninsula, aimed at researches connecting to closeness of public parks and gardens were not simply established. However the goal of their investigations anchored on calculated closeness.

Hong, Jun, Li, and Dong (2016) Urban park accessibility is an important indicator to measure the level of urban modern development, and the harmonious relationships between people and land. It is meaningful for efficiently increasing urban park accessibility, fully providing services functions of urban park and promoting healthy development of cities to understand objective influencing factors of urban park accessibility and its extent of impact. The service area and service efficiency of urban parks in three-ring area of Shenyang City were evaluated basing on ArcGIS 9.3 software platform and network analysis methods. The regularity of the service area and service efficiency of urban parks changing with the urban park area, urban park shape and road network density were analysed. The results showed that urban park area had significant positive correlation with service area and significant negative correlation with service efficiency. Urban park shape had significant positive correlation with service area and service efficiency. That road network density had significant negative correlation with service area of urban parks, but had no significant correlation with service efficiency. Based on the extent of impact on urban park service area, the importance of three influencing factors was in the order of urban park area road network /density urban park shape. Based on the extent of impact on urban park service efficiency, the importance of three influencing factors

was in the order of urban park area/ urban park shape / road network density. However, they added that urban park area was the most important influencing factor for the service area and service efficiency of urban parks.

II. RESEARCH METHODOLOGY

The research used random sampling techniques for selection of six (6) neighbourhoods suitable for examination of public parks and greenery spaces in Port Harcourt urban. From each of the selected layout, at least one (1) of the existing public parks was selected for investigation. Therefore a total of six (6) live parks and greenery spaces were surveyed for the entire study while data collection was possible through questionnaire direction. In designing of the questionnaire, cognizance was taking of the fact that there are convinced variables, which are likely to be the factors or challenges that may restrain the improvement of public parks and green spaces. Some of such variables identified are rapid urbanisation, law resource, lack of political will and instability, wide corruption and proximity. Each of this challenge or problem was further broken down in to three sub factors. For example urbanisation was broken into (a) population pressure (b) cost accessing public parks (c) time cost and (d) incapacity to afford for alternative park. However, environmental variables were also expanded into (a) inadequate space (b) not accessible by good road and (c) outdated and underserviced facilities.

Having, expressed all these factors into questionnaire, a total of 300 sets of questionnaire were distributed to the management and users of the sampled public parks. 50 arrays of questionnaire were distributed in each of the public parks in a particular neighbourhood. Wholly, 250 research questionnaires were duly completed and returned for analysis. see table 1 below for analysis.

Table 1: Investigated Public Parks and Greenery in Port Harcourt Environment

| S/ N | Neighbourhood | Public Parks | Questionnaire | % |
|------|------------------------|-----------------------------|---------------|------|
| 1 | Abacha Road GRA 3 | Delight Zone Amusement | 45 | 13% |
| 2 | Rurome-Rezigbu GRA 1 | Garden City Park | 57 | 22% |
| 3 | Bori Camp Area | Port Harcourt Please park | 55 | 20% |
| 4 | Abuloma Port Harcourt | Spring Garden | 43 | 11% |
| 5 | Orogbum, Port Harcourt | Issac Boro Park | 50 | 17% |
| 6 | Old Port Harcourt Town | Port Harcourt Tourist Beach | 50 | 17 % |

III. RESULTS AND DISCUSSION

Relative Problems of Public Park in Garden City of Nigeria Urban Environment

Considering the relative challenges of public parks and greenery spaces in urban environment of Nigeria, the

regression analysis revealed that all the independent variables proved significant problems public parks and greenery spaces cross the zone. The research finding shown that urbanization (t =11.229, P=0.001 <0.05) has the most significant problem of public parks and greenery spaces in garden city of Nigeria. Other problems the research considered include institutional low resource base (t = 7.757, P =0.00<0.05), political instability (t =3.982, P =0.001), lack of proximity (t = 7.787, P = .001) and wide corruption (t =3.325, P =.003).

Under normal circumstances, physical development plans or spatial distribution of land use activities gave room for accessibility of parks and greenery spaces in the garden cities of the world. But this analysis acquiesced that the problems or factors militating against the accessibility of public parks in Nigeria and indeed garden city of Port Harcourt hindered some of the importance such as embracing physical activities, public health wise and environmental improvement. In all ramifications, the developmental and operational problems of public parks in many developing nations will continue to be a perpetual issue since the government of region failed to recognize institutions and professionals in that direction especially the ministries in charge, urban planners and architect strained for such purposes. Collins (2014) who researched the nature and challenges, decline, and deprived administration of urban green areas in Africa and proved that the flora and location of urban green places in Africa were determined by the ecological areas and temperature conditions of Africa and identified rapid urbanisation, low resource base of institutions on green spaces, lack of priority to green spaces, corruption, uncooperative attitudes of the local people and political instability as the problems while green spaces should be handled as the most important expansion itinerary of urban arrangement with appropriate authorities and similar institutions working on green spaces. In furtherance, the analysis also demonstrated that the problem of public parks among the cities of developing nations is relatively higher. Therefore, the higher level of problems are linked with the social problems that the residents experiences while public parks in garden city of Nigeria remains inadequate as plans available are problematic.

Table 2: The Relative Problems of Public Parks and Greenery Space in Garden City

| Model | Unstandardized Coefficients | | Standardized Coefficient | | |
|-------------------------------|-----------------------------|------------|--------------------------|--------|------|
| | B | Std. Error | Beta | T | Sig. |
| (constant) | 53.941 | 2.438 | | 22.115 | .000 |
| Urbanisation | .549 | .048 | .495 | 11.229 | .000 |
| Low Resources of institutions | .719 | .094 | .666 | 7.757 | .000 |
| Political instability | .190 | .063 | .356 | 3.982 | .000 |
| Lack of Proximity | .662 | .087 | .432 | 7.787 | .000 |
| Wide corruption | .671 | .203 | .219 | 3.325 | .000 |

Sources: environmental field work 2020

Table 3: Joint Problems of Public Parks in Garden City of Nigeria

| Model Summary | | | | | |
|---|----------------|-------------------|---------------------------|---------|------|
| R | R Square | Adjusted R Square | Std.Error of the Estimate | | |
| .857 | .721 | .718 | 1.43571 | | |
| ANOVA | | | | | |
| | Sum of Squares | Df | Mean Square | F | Sig. |
| Regression | 2532.654 | 5 | 448.757 | 244.113 | .000 |
| Residual | 1010.015 | 295 | 2.061 | | |
| Total | 3542.669 | 300 | | | |
| Problems/Prediction: (constant) URBANIZATION, INSTITUTIONAL LOW RESOURCEBASE, POLITICAL INSTABILITY, LACK OF PROXIMITY AND WIDE CORRUPTION | | | | | |
| b. Dependent Variable : PUBLIC PARKS AND GREEN SPACES | | | | | |

Researchers survey 2020

Joint Problems of Public Parks and Greenery Spaces in a Garden City of Nigeria

The analysis on relative problems of public parks and greenery spaces in the regression table above showed that the joint problems or factors (urbanization, institutional low resource base, political instability, lack of proximity and wide corruption) also predicted significantly on public parks and greenery space everywhere in port Harcourt urban .

The R value at 0.857 showed that there is a strong and encouraging association between the joint problems or factors and public parks and greenery areas thus suggesting that improvement in this direction will encourage the existence and location of quality, accessible and operational parks in the garden cities of Nigeria. In other words, the R^2 Adj. at 0.718 showed that 71.8% of the variance experimental in the problems of public parks among the residents is owing to the joint problems of the independent variables.

The findings added that the joint problems of the factors gave an F (5, 295) value of 244.133 and a p value of $0.000 < 0.05$. On the other hand, urbanization revealed the largest problem on public parks and played significant role in coping strategies of public parks while every public park must have one or more problem while institutional low resource base was also found to be significant problem on public parks. It affects many parks positively or negatively and also plays crucial role in the operation and other wellbeing of the public parks. In the same vein, Political instability which has been found to play a prominent role than other problems confronting the established and proposed public parks was proved significant factor militating against existing public parks and the importance of it development across the urban centres of Nigeria.

Additionally, lack of proximity is another critical factor that plays a conspicuous role in accessibility, function and location of public parks and was also proved to be significant problem by this research. That is to establish that parks with proximity constraints suffer poor social support from residents in form

of social contact, collaboration and environmental ties. While lack of proximity is concerned with the distance locations that have denied many residents the importance of public parks since there is no institutional framework to address such issue.

Considering institutional framework and wide corruption, the research explained that lack of institution for proper development of public parks and wide corruption within the available institutions are responsible for the little development recorded in public parks and stand as an indispensable challenge in that direction while all the challenges make it important to consider strategies targeted at improving public parks in Nigeria and beyond.

IV. RECOMMENDATIONS FOR PUBLIC PARKS PROBLEMS

Public parks and greenery spaces in Nigeria and indeed Port Harcourt metropolis are under menace both in urban and suburb zones. In urban and suburb settings, these parks and greenery areas have been greatly worn-out, demolished by anthropogenic activities and has become the thoughtful abandoned environment for solid waste and destination of humanoid bodies. Given to the existing level of urbanization, institutional low resource base, political instability, lack of proximity and wide corruption problems of public parks in Port Harcourt urban, Present and future residents would be left with environment without standard parks, if nothing is done immediately about reversing the situation. This may imply that all the gigantic benefits and functions associated with public parks would be deprived to upcoming members of Port Harcourt metropolis. To decline the possibility of accomplishing the end-of- opinion condition; immediate techniques is required in the direction of not only retreating urbanization, institutional low resource base, political instability, lack of proximity and wide corruption problems of public parks but also in assessing the way forward for renewing public parks where ever achievable in Port Harcourt. To essentially realise maintainable administration of public parks in Port Harcourt metropolis of Nigeria, the research made the following suggestions.

1. For the fact that slight is known about the environmental, ecologically, economic and recreational significance of Port Harcourt public parks, conferences, workshops and seminars should be carryout while discussions should also be held at urban, suburbs, regional and national level to reduce the challenges and consider the immeasurable crucial role of public parks in the environment.
2. For the problems of public parks and greenery spaces to decline in Nigeria and indeed Port Harcourt settings, cooperate bodies involved in development and management of public parks should be mandated to involve vigorously in government decisions about public parks. So that the sustainable management of public parks of economic, health and environmental benefit is highly gained and protected.

3. Compulsory regulations ought to be conceded to protect the public parks and greenery spaces of global, national and regional significance. The regulations shall assist in defence, maintainable use and controlling of public parks and greenery zones for the advantages of the urban and suburb environment and the profit of numerous progressions that will continue the sphere and components that constitute urban and suburb land use activities.
4. For public parks problems/ challenges to be diminished or curtailed, there is need to conduct broad assessment and re-assessment of all the existing public parks across the strata of Port Harcourt environs. Accomplishing this exploit required the complete concern of state government and communal organisations. However, the broad evaluation is necessary because it capacity can bring more sighting of new environmental, economic, recreational welfare of the residents.

V. CONCLUSION

Based on the verdicts of this research, it is concluded that challenges or developmental problems of public parks and greenery spaces in Port Harcourt metropolis are relatively higher. It is also settled that the sizes, location and operation of these public parks contrasts while urbanization, institutional low resource base, political instability, lack of proximity and wide corruption are the joint problems or challenges that proved lost and decline of public parks across the garden city of Nigeria.

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