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Challenges Facing the Development and Management of Green Open Spaces in Enugu, Owerri and Onitsha Cities

Officha Maurice Chika, Egolum C. C. and Nnodu V. C.

Department of Environmental Management, Nnamdi Azikwe Awka.

ABSTRACT

This study was designed to investigate the challenges facing the development and management of urban green space in Enugu, Onitsha and Owerri located in Enugu, Anambra and Imo States respectively, in the South-Eastern Region of Nigeria. Survey design was applied for this study. Data for this study was gotten from primary and secondary sources. The targeted population for this study includes open space users, developers, visitors, and managers. Total of 400 samples were used for the study. Purposive sampling and accidental sampling technique were used for the data collection. Open spaces selected included parks, amusement and recreational spaces. The major instruments applied to solicit information (data) used for this study include, In-depth interview, Questionnaire and Field observations. The greater proportions of the residents are within the working force age ranging from 20 to 59 years in the three study cities. The result showed that there are high number of males in Enugu and Onitsha; while females are more in Owerri among the sampled population. It also indicated that majority of the people within the three cities are educated. Most of the respondents agree to the fact that open spaces exist in their locations and that most of the open spaces are functional. Most of the respondents in Enugu agree that open spaces were used for recreation purposes, as well as in Owerri but the average response for the item at Onitsha is less than 3.0 which implies the respondents disagree with the statement. Most of the open spaces at Enugu are used for recreation, strolling, playing ground, religious activities, and marketing. At Onitsha, the spaces are used mainly for strolling, city plaza, marketing and other purposes and Owerri, they are used for religious activities, marketing and natural conservation. The problems of conflicting goals and objectives between government officials, recreation planners and influential members of the public are the obstacles observed in terms of open spaces development in the three urban areas. Most of the respondents indicate that in the management of recreation area, the end product is user-satisfaction but that in their area, the techniques in planning, maintenance and protection coupled with proper administration is lacking. The political situation, the economy, the social status of the users and the local culture of the people are all connected to the use of urban open spaces. Provision, rehabilitation and use of master plan for development and other activities in the state is vital and should be encouraged.

Keywords: Development, Management, Green Open Spaces, Enugu Cities, Owerri Cities and Onitsha Cities

INTRODUCTION

In the world of today, urban planning and design has shifted into a new concept that incorporates the safe usage of the environment in a way that is sustainable. In urban planning and design projects around the world, the quality of urban life is given much attention than ever. It is understood that the health of a city, its economy and environment is improved more by a properly designed and implemented master plan incorporating environmental issues Mensah (2014)[1]. One of the ways to increase the quality of urban life is the introduction of urban open spaces and green areas in cities. These include parks, green corridors, urban parks, urban zoos and street greeneries. Studies show that cities which are designed with the above elements in consideration have improved health status in the public, low stress level in the society, decrease pollution and generally enhanced quality of life [2].

Nigerian cities have undergone profound reforms over recent decades, as politicians, decision makers and planners have sought to ensure that the built environment remains livable and can adapt to new lifestyles and demographic trends Mensah (2014)[1]. It is now abundantly clear that rapid urbanization is greatly transforming the spatial pattern of urban land use. Consequently, the resulting losses of urban open spaces at the local to the global level are continuously altering urban ecosystems. Open spaces are recognized as one of the most popular resources of the urban ecosystems today. The increasing urbanization and human population growth during recent decades have resulted in significant loss of habitats in the urban landscape [3].

Because of urbanization and gentrification, the physical development which has been taking place in most cities of the World is associated with greater loss of open spaces and green space Mensah (2014)[1]. The loss or degradation of green space destroys the habitats of creatures, reduces biodiversity and disrupts the structure and process of the urban ecosystem. This situation results in the decimation of green spaces [4]. Therefore, there is the need for an urban open space development framework to protect urban open spaces by identifying the challenges facing development and management of open spaces in order to contribute meaningfully to urban ecosystems. Open space contribute towards healthy ecosystems which underpin many natural processes supporting a range of services including pollination, soil fertility, flood defence, air filtration and carbon capture and storage [5].

Urban open spaces could perform many functions in the urban context that benefits people's quality of life. There is a growing consensus about the importance and value of urban open spaces in cities. Therefore planning towards constructing sustainable or eco-cities of the 21st century is highly appreciated Bayram and Ercan (2006). [5]. However, without careful production of knowledge and the linkage of that knowledge to action on developing and maintaining the urban open spaces, cities of the World will be overwhelmed with many challenges [6]. This in turn will result in the deterioration of the quality of life in urban areas in many aspects including social, economic, health and the environment.

Physical activity in green spaces like waling or cycling is attributed to many factors such as easy access in terms of routes and entry point, distance, connectivity to residential and commercial areas, size of green spaces in terms of population use, attractiveness, including biodiversity habitat and absence of graffiti and litter and a range of amenities. Both policy and science now emphasize the critical necessity of green areas within urban social and ecological systems [4].

Moreover, open spaces are beneficial due to their ability to facilitate hydrological processes in areas where development has interfered with urban hydrology (i.e. the movement, distribution and quality of water (Vijaya *at el.*, 2012)[6]. These permeable spaces provide important ecosystem service such as filtering water pollutants, reducing storm water runoff and flooding, and enhancing groundwater recharge [7].

Also, as the amount of permeable surfaces decreases, a shift occurs in water distribution from partial subsurface flow to almost all surface runoff [7]. These processes always bring about severe flooding in cities and if drainage infrastructure is not well developed, it might result in unanticipated calamities. Therefore, it's better to maintain the nature and ecology of urban forests and vegetation in the city in order to prevent both human and property losses.

The development of open spaces plays a great role in achieving various socio-economic development targets in any country. Urban green spaces generates tangible ecosystem services including outdoor recreational opportunities, amenities, air pollutant removal, balancing atmospheric oxygen and carbon dioxide contents, micro climatic regulation, soil moisture and groundwater recharge, flood control, wildlife habitat and physical and mental health promotion. There is a need to allocate enough resource to support the day to day monitoring of urban green spaces against encroachers and to provide guidelines with

ensure sustainable land uses which prevent any kind of physical and economic development in the green belt. Also, there must be a continuing effort to ensure the accessibility, availability and usability of green space facilities open to all residents [8]. Intensification of activities without proper planning and coordination leads to wear and tear of green spaces and structures resulting in poor quality of urban life Giorghis and Gerard(2007) [2]. Hence, management of urban green spaces which include among others; planning, coordinating and controlling of socio-economic activities that take place in the city is critical to every urban ecosystem.

Most cities in Nigeria especially Enugu, Onitsha and Owerri have a small percentage of open spaces as a result of rapid urbanization, natural population growth and also because of lack of proper spatial planning and control mechanisms, lack of coherent approach to management, poor designing and most of them offer very little services to open space users. Unfortunately, efforts aimed at solving these problems have not yielded the intended results, thus, making it a major problem in selected cities. In managing and maintaining green spaces, most urban cities have a number of planning regulations instituted to guide the development of structures in both urban and rural areas. For instance, in most Nigerian cities Federal, State and Local Government has provisions for unauthorized structures on any public properties (land) such as schools, market and sanitation sites, open spaces, nature reserves, parks and roads, could be stopped and even demolished without notice, and the developer(s) surcharged with the cost of demolition [9]. But in most cities the law made are not been followed such as in Enugu, Onitsha and Owerri, hence the problem of development and poor maintenance and development of green spaces in these areas.

AIM AND OBJECTIVE OF THE STUDY

This study was designed to investigate the challenges facing the development and management of urban green space in Enugu, Onitsha and Owerri.

RESEARCH QUESTIONS

1. What are the challenges facing the development of green open spaces in the three selected cities?
2. What are the challenges facing the management of green open spaces in the three selected cities?
- 3.

RESEARCH HYPOTHESES

- (1) **Ho:** There is no significant difference in the development challenges and management of open spaces in the three cities.
- (2) **Ho:** there is no significant difference between the management challenges and factors that prevent people from using green open space in Enugu, Onitsha and Owerri.

STUDY AREA

This study covers three towns namely: Enugu, Onitsha and Owerri located in Enugu, Anambra and Imo States respectively, in the South-Eastern Region of Nigeria.

RESEARCH METHODOLOGY

RESEARCH DESIGN

The type of research design applied for this study is survey design. This study sought opinions and perception of the occupants, staff of urban and regional planning, town planners, private developers and the general public in Enugu, Onitsha and Owerri on the challenges facing the development and management of open spaces in Owerri (specifically at Aladinma, Ikenegbu, Amakohia, Owerri Municipal and New Owerri for Owerri) in Onitsha (specifically at Omagba, American Quarters, In-land Town and Government Reserved Area (GRA)) and finally, in Enugu (specifically at Independent Layout, Ogui new Layout, Uwani, New haven and GRA). The study portrayed the current physical and environmental management of open spaces with challenges facing their development and management in Enugu, Onitsha and Owerri cities.

SOURCE OF DATA

Data for this study was sourced from two major areas, namely; primary and secondary sources.

PRIMARY DATA SOURCE

PRIMARY DATA WAS SOURCED THROUGH THE FOLLOWING METHODS

- **Interview Method:** In this research, interviews were conducted with urban and regional planners, local government departments, residents of Enugu, Onitsha and Owerri, markets and students. The interview was a semi-structured one whereby the respondents were given the chance to discuss reactions, opinions and behaviour on all issues of concern.
- **Field Observation Method:** Field observation was carried out to collect information on the actual situation of open spaces on the ground in the study area. During the field work, the

impacts of lack of open spaces were ascertained, the nature of physical development in the study area, socio economic impact of such development have on the populace of the study area in terms of open space availability or non-availability.

In order to answer the **research question 1 and 2** of this study which is to **examine the challenges facing the development of green open spaces in Enugu, Onitsha and Owerri and the challenges facing management of green open spaces in the three selected urban areas**, the following data were collected from different open space locations in the selected areas: structural characteristics of the existing open space, their utilization and challenges in their management.

- **Questionnaire Method:** Copies of questionnaire were distributed to the residents of the selected study areas in order to elicit information from them regarding the challenges facing development and management of open spaces in the three selected urban areas.

SECONDARY DATA SOURCES

In this research, secondary data was collected using;

Maps: the maps were collected from Geologic units in Enugu State, Onitsha and ministries of land Survey in these areas and from Survey Department of Nnamdi Azikiwe University, Awka. The maps were used as base maps for the study.

Library: materials such as journals, unpublished materials which include; B.Sc project, M.Sc project, Ph.D thesis, as well as, seminar and conference papers.

Internet: this was used for latest information on the subject area, as latest information can be accessed through the medium in real time as posted. Some of the data collected through this medium include published and detailed information about locations of study; Enugu, Onitsha and Owerri.

TARGET POPULATION FOR THE STUDY AREAS

The target population for this study includes open space users, developers, visitors, and managers. Since in this study, it is impossible to observe the entire statistical population, that is, the total number of open space users, developers and managers in the three selected urban areas due to some constraints such as geographical accessibility and researcher's resources, statistical sample from the population is necessary in order to study the population as a whole provided the sample size is considerably large.

SAMPLE SIZE AND SAMPLING TECHNIQUES

In order to determine the sample size used in this study, Bourley's formula was used as shown below:

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

Where S = sample size
 N = the population size
 E = is the margin of error assumed
 1 = is the theoretical constant

FOR ONITSHA

$$\begin{aligned} N &= 261,604 \\ e &= 10\% = 0.5(\text{assumed}) \text{ error margin} \\ S &= \frac{261,604}{1 + 261,604 (0.5)^2} \\ S &= \frac{261,604}{1 + 261,604 (0.0025)} \\ S &= \frac{261,604}{654.0125} \\ S &= 398.9 \end{aligned}$$

Approximate to 400.

For Owerri the sample size is

$$\begin{aligned} N &= 1,620,214 \\ e &= 10\% = 0.5(\text{assumed}) \text{ error margin} \\ S &= \frac{1,620,214}{1 + 1,620,214 (0.5)^2} \end{aligned}$$

$$1 + 1,620,214(0.5)^2$$

$$S = \frac{1,620,214}{1 + 1,620,214(0.0025)}$$

$$1 + 1,620,214(0.0025)$$

$$S = \frac{1,620,214}{4051.535}$$

$$4051.535$$

$$S = 398.9$$

Approximately 400

For Enugu the sample size is

$$N = 722,664$$

$$e = 10\% = 0.5(\text{assumed}) \text{ error margin}$$

$$S = \frac{722,664}{1 + 722,664 (0.5)^2}$$

$$1 + 722,664 (0.5)^2$$

$$S = \frac{722,664}{1 + 722,664 (0.0025)}$$

$$1 + 722,664 (0.0025)$$

$$S = \frac{722,664}{1806.6625}$$

$$1806.6625$$

$$S = 398.9 \quad \text{Approximately} = 400.$$

According to 2006 census conducted in Nigeria, the population of the selected locations was reported as Onitsha 261, 604, Owerri 1,620,214, and Enugu 722,664. Based on the population, the sample size was calculated and chosen to be four hundred (400).

SAMPLING TECHNIQUE

The sampling techniques adopted in the study were purposive sampling and accidental sampling based on the nature of the data collected. Purposive sampling is used in the selection of relevant respondents for the study as under age and non-users of open space

would not be relevant in the study. The respondents were basically the open space users, as well as, the management of the spaces.

Accidental sampling is non-probabilistic sampling technique in which the probability of a particular element in the study is unknown. The respondents were selected as met accidentally during field survey at the locations [10].

SELECTION OF PARKS AND OPEN SPACES IN THE THREE URBAN AREAS

Open spaces selected included parks, amusement and recreational spaces. The streets on which the open spaces were situated were selected based on accessibility and usage by the occupants of the locations. In Enugu, Ejindu park at Coal Camp, Polo Park at GRA, Nnaji park at New Market, Michael Okpara Square at Independence Layout, Osadebe park (Tickless) at Ogui New Layout, Ahamijah park at Trans Ekulu, Ngwo park at Uwani and Murtala Mohammed park at New Haven were selected for the study using purposive sampling techniques.

In Onitsha, Ojukwu Park at Fegge, Rojenny Tourist and Game Inland Town, Milky Park at Woliwo South, and Egboma Park Omagba phase II were selected for the study and in Owerri, the parks and open space selected are: Owerri Amusement Park at Ikemba Ojukwu center, Children Parks at Nekede, Nekede Zoo and Garden at Nekede, Concorde Park and Water View at Owerri were selected for the study using purposive sampling techniques.

INSTRUMENTS USED FOR DATA COLLECTION

The major instruments applied to solicit information (data) used for this study include

- (a) In-depth interview
- (b) Questionnaire and
- (c) Field observations

RELIABILITY OF RESEARCH INSTRUMENT

In the test of reliability, Cronbach Alpha was used to determine the level of internal consistency of the responses of respondents.

STATISTICAL TECHNIQUES AND DATA ANALYSIS

The Statistical tests conducted in this research include weighted mean, Principal Component Analysis, Shapiro-Wilk normality test and One-Way Analysis of Variance. Descriptive statistics and charts were used for better understanding of the collected data (information).

METHODS OF DATA ANALYSIS

The questionnaires were distributed to the respondents at the parks, since they were considered to be the open spaces users. Respondents considered for the study were those above the age of 15. Both males and females were involved in the study. Open space users above the age of 15 were selected randomly. The officials responsible for the management of the open spaces were also involved in the study. Questionnaires were also distributed to management staff based on judgmental sampling techniques.

DATA PRESENTATION, ANALYSIS RESULTS AND DISCUSSION OF FINDINGS

PRESENTATION AND DISCUSSION OF RESULTS

SOCIO-ECONOMIC INFORMATION OF RESPONDENTS

In the distribution of research instrument, 400 questionnaires were distributed in each of the three cities and the whole questionnaires were retrieved.

DEMOGRAPHIC STRUCTURE

The demographic characteristics investigated include the age structure, gender and literacy status of the respondents (Table 1, 2 and 3).

TABLE 1: AGE STRUCTURE OF THE RESPONDENTS

Three Urban Areas Studied			
Frequencies of Respondents			
Options on age interval	Enugu	Onitsha	Owerri
15-19	29	31	21
20-24	42	35	37
25-29	45	58	45
30-34	58	47	43

35-39	46	40	54
40-44	39	32	47
45-49	45	43	56
50-54	32	53	46
55-59	43	41	29
60 and above	30	20	21

Source: Field Survey, 2014

The outcome in table 1 shows the age structure of the respondents studied. The greater proportions of the residents are within the working force age ranging from 20 to 59 years in the three study cities. This implies that the respondents studied are adequately aware of the subject matter.

TABLE 2: GENDER STRUCTURE OF THE RESPONDENTS

S/N	Study Locations	Male	% Male	Female	% Female
1	Enugu	274	68.5	126	31.5
2	Onitsha	207	51.75	193	48.25
	Owerri	157	39.72	226	60.75

Source: Field Survey, 2014

Table 2 shows the number of males and females in the three urban areas. The percentage of male and female were also shown in the Table 2. The value in the Table 2 shows high number of males in Enugu and Onitsha; while females are more in Owerri among the sampled population. The implication is that in Enugu and Onitsha more males use open space, while at Owerri more females use the open spaces.

TABLE 3: LITERACY STATUS OF THE RESPONDENTS

S/No	Literacy option	Three Urban Areas Studied					
		Enugu		Onitsha		Owerri	
1	No formal education	7	1.75	19	4.75	4	1

2	FSLC	53	13.25	94	23.5	67	16.75
3	GCE/WAEC/WASSC	116	29	162	40.5	102	25.5
4	OND/NCE	92	23	75	18.75	95	23.75
5	HND/DEGREE	55	21.25	33	8.25	83	20.75
6	Higher Degree (M.Sc/Ph.D)	47	11.75	17	4.25	49	12.25
7	Total	400	100	400	100	400	100

Source: Field Survey, 2014

Table 3 shows the education level of residents' surveyed in the study areas. The information in the Table indicates that majority of the people within the three cities are educated. The implication is that the population studied is knowledgeable to the concept of information contained in the questionnaire. Hence the information supplied is correct and accurate from their points of view.

AVAILABILITY AND PUBLIC AWARENESS OF OPEN SPACES

The data involved the responses on the knowledge and usage of open space in the three cities. These set of data presented were used to establish objective number one of this study. The study used weighted-Mean and coding method for the conversion of the qualitative data to quantitative data. Hence, the data on knowledge of open spaces and the types of usage of open spaces in the three urban areas are presented in Table 4 and 5.

TABLE 4: KNOWLEDGE OF THE OPEN SPACES IN THE THREE URBAN AREAS

Option Investigated	Enugu	Onitsha	Owerri
There are open spaces in my area	4.37	4.84	4.21
The open spaces are operational	3.87	4.22	4.01
The park has been tempered with	3.33	4.03	4.11

Source: Field Survey, 2014

Table 4 shows the responses of the respondents on the knowledge of open spaces in their locations. From the table 4, the average response of the respondents shows that most of the respondents agree to the fact that open spaces exist in their locations and that most of the open spaces are functional.

The available responses were coded from 5 to 1 as 5 stands for strongly agree and 1 stands for strongly disagree. The average coding value is 3.0 which is the coding value for No option to the research item. From the mean responses, all the values are greater than 3.0 which led to the remark “Agree” as the value greater than 3.0 can be tagged agree. This simply means that majority of the respondents strongly agree that they have good knowledge of the existence of open spaces in their locations.

TABLE 5: USAGE OF OPEN SPACES IN THE THREE URBAN AREAS

Option Investigated	Enugu	Onitsha	Owerri
Recreation	3.37	1.28	4.38
Pools (gambling)	2.07	1.24	3.41
Strolling, Playing Games and Playing Football.	1.39	1.04	2.22

Source: Field Survey, 2014

Table 5 shows the responses on the usage of open spaces in each urban area of the study. From table 5, there are different views of the usage of the open spaces. From table 5, it was observed that the average responses show that at Enugu most of the respondents agree that open spaces were used for recreation purposes, as well as in Owerri but the average response for the item at Onitsha is less than 3.0 which implies the respondents disagree with the statement. Therefore, it can be concluded that open spaces at Enugu and Owerri are used for recreation purpose but not at Onitsha.

Also, the average responses of the use of open spaces for pools shows that the spaces are not used as pools since the average responses for the urban areas are less than 3.0 for Enugu and Onitsha, except Owerri that recorded 3.41 which denote significant amongst the three locations.

Table 5 also showed the responses on the use as for strolling. From Table 5, the average responses for the use as strolling shows that the spaces are not often used as strolling spaces since the average responses for the locations are less than 3.0 for the three locations.

UTILIZATION OF EXISTING OPEN SPACES AND THE PEOPLE’S ATTITUDE

The data on perception of residents on utilization of open space is presented in Table 6. The data enables the study to achieve objective number 2 of this study effectively.

TABLE 6: FREQUENT USE OF OPEN SPACE FOR THE PURPOSES LISTED

Activities	Enugu				Onitsha				Owerri		
	Daily	Weekly	Monthly	Yearly	Daily	Weekly	Monthly	Yearly	Daily	Weekly	Monthly
Recreation	4.01	28.7	114.8	1377.6	0.003	0.02	0.08	1.01	3.97	27.79	111.16
Pools	0.11	0.77	3.08	36.96	0.001	0.007	0.03	0.36	3.07	21.49	85.96
Strolling	4.11	28.77	115.08	1380.96	0.20	1.4	5.6	67.2	3.91	27.37	109.48
Playing Ground	4.91	34.37	137.48	1649.76	3.86	7.02	108.08	1296.96	8.81	26.67	106.68
Religious Activities	0.6	4.2	16.8	201.6	3.86	27.02	108.08	1296.96	0.70	4.9	19.6
City plaza	2.02	14.14	56.56	678.72	4.03	28.21	112.84	1354.08	3.11	12.44	49.76
Marketing	4.33	30.31	121.24	1454.88	4.96	34.72	138.88	1666.56	4.93	34.51	138.08
Natural Conservation	3.92	27.44	109.76	1317.12	2.02	14.14	56.56	678.72	4.02	28.14	112.56
Others	0.02	0.14	0.56	6.72	4.01	28.07	112.28	1347.36	0.01	0.07	0.28
Total	24.03	168.84	675.36	6454.56	22.944	140.607	534.55	7642.01	32.53	183.38	733.56

Source: Field Survey, 2014

Table 6 was computed from the weighted-mean of the respondents in the study area. The response in Enugu and Owerri indicates that most of the respondents indicate that the spaces were used for recreation purpose frequently but not often used for such purpose at Onitsha, especially recreation and pools.

In summary, most of the open spaces at Enugu are used for recreation, strolling, playing ground, religious activities, and marketing. At Onitsha, the spaces are used mainly for strolling, city plaza, marketing and other purposes and Owerri, they are used for religious activities, marketing and natural conservation.

CHALLENGES MILITATING AGAINST THE DEVELOPMENT OF OPEN SPACES IN ENUGU, ONITSHA AND OWERRI

The data on perception of residents on the challenges militating against the development of open spaces in the three cities are presented in Table 7. The data enables the study to achieve objective number 1 of this study effectively.

TABLE 7: CHALLENGES MILITATING AGAINST THE DEVELOPMENT OF OPEN SPACES

Option Investigated	Enugu	Onitsha	Owerri
Conflicting goals and objectives between government officials, recreation planners and influential members of the public	3.01	4.00	2.98
Inadequate resources utilization and provision including human, fiscal and natural types	3.41	3.95	3.16
High cost of acquiring land for development	3.99	4.07	4.03
Planning lapses by non-provision of open spaces in the master plans	4.01	4.22	4.07
Suitable site and location leading to demolition	3.85	4.02	4.21
Poor management of existing structures	4.11	4.24	4.37
Encroachment	3.89	3.93	4.07

Source: Field Survey, 2014

Table 7 shows the Information on the challenges militating against Open Space Development in the three selected cities. From Table 7, it was observed in terms of open spaces development in the three urban areas, that so many obstacles were identified. The problems include conflicting goals and objectives between government officials, recreation

planners and influential members of the public. At Enugu, Onitsha and Owerri, it was observed that conflicting goals and objectives are the most nebulous obstacle facing the development of open spaces. Differences in objectives exist between the recreation planners, the government official and the public whereby the main aim of the recreation planner is usually to make adequate provisions for recreational open spaces in order to satisfy the dynamic recreational requirement of the public, the members of the public sees it as squandering of the city's scarce land resources and the government official on the other hand sees it an avenue to maximize residential, industrial and commercial lots and less interested in open spaces. This lead to a situation where an area designated for recreation development is later converted to other uses by the government or any influential member of the public as can be seen in Enugu, Onitsha and Owerri urban areas.

CHALLENGES MILITATING AGAINST MANAGEMENT OF OPEN SPACES IN THE THREE CITIES

The data on perception of residents on the challenges militating against the management of open spaces in the three cities are presented in Table 8. The data enables the study to achieve objective number 2 of this study effectively. Many recreation users are involved in a combination of recreation activities such as camping, swimming, boating, picnicking, golfing, running, jogging, sightseeing. It is the duty of the recreation manager to be able to manage the operation and protect the users' from harm. In order to ascertain these challenges, the researcher designed the Table 5.8 to get information on the challenges which the users of the open spaces in the three selected urban areas faced to enable the researcher achieve the objective two of the study.

TABLE 8: CHALLENGES MILITATING AGAINST MANAGEMENT OF OPEN SPACES

Option Investigated	Enugu	Onitsha	Owerri
Lack of Site Protection e.g. Lack of Provision of Adequate Facilities	3.87	3.27	4.21
Lack of Protection of User's Health and Safety	3.65	4.06	3.95
Poor Site Rehabilitation	2.96	1.44	2.42
High Fee Collection	1.23	2.32	2.08
User's Counts (Maintenance of Facilities and Usage)	1.03	0.92	1.43

Source: Field Survey, 2014

Table 8 shows the responses of people on the problems confronting open spaces management in three cities. From Table 8, most of the respondents indicate that in the management of recreation area, the end product is user-satisfaction but that in their area, the techniques in planning, maintenance and protection coupled with proper administration is lacking. From the result of the respondents, it was observed that to maintain a given level of satisfaction to the users of recreational open spaces in the three urban areas, the manager must have to estimate the carrying capacity of the recreational open spaces and provide administrative restrictions not to exceed the carrying capacity of the site and facilities in order to avoid tear and wear. Moreover, it was also observed that the managers of the recreational open spaces in the three urban areas do not put protection of users' health and safety as their priority which help to instill more confidence on the users as well as enhancing the status of the open space.

Furthermore, Table 8 shows that site rehabilitation in the selected urban areas was not given adequate attention. Recreational open spaces will deteriorate with use. This implies that the original character of the area will change as a result of man's use. As more people use the facility, there becomes a need for more prudent management to maintain a high quality level of recreation but from the respondents the management techniques are insufficient or inadequately applied to prevent destruction of the site in the three selected urban areas.

In line with the above, it was also observed that another challenges facing management of open spaces in Enugu, Onitsha and Owerri is high fee collection for the use of open spaces in the study areas which makes the use of open spaces inaccessible to the general public. User's counts were also assessed using Table 8, and it was observed that open spaces in the three cities undergo high pressure making maintenance schedules and plan difficult.

DISCUSSION

This study analyzed the challenges confronting the development and management of open spaces in Enugu, Onitsha and Owerri. The study was carried out using questionnaire distributed to the three urban areas in the South-East Nigeria. The discussion of finding is majored on the challenges facing the development and management of green open spaces in the three urban areas and the factors that constitute for proper management of open spaces were also identified.

From the analysed data, it was observed that open space remained an essential part of any urban development and it serves several functions that are expedient for basic living. However, the continuous growth of urban areas without effective management and monitoring of open space uses had led to dilapidated parks that have become hideouts for criminals, illegal structures, lack of adequate facilities/amenities, open space policies, lack of a capable agency in handling development and maintenance, poor intergovernmental relationships, shortage of landscape, financial constraints and lack of citizen inclusiveness in participation to mention but few. Simply put, these negative effects of mismanagement of open spaces have resulted in the poor quality and further decay of the built environment.

As this research has observed, these setbacks in open space management and thus suggested better and effective strategies in dealing with the problems, which will mark a journey to better prioritizing, channeling of human, finance and functional institutional resources to abate the dire consequences of a nation's dwindling open space reserve especially in a developing nation like Nigeria.

In this study, three urban areas were selected, Enugu, Onitsha and Owerri. Questionnaires were distributed to respondents who are users of open spaces in the urban areas of interest. The socio-economic factors of the respondents were shown in table 1 which reveals that most of the respondents are female (54.044%). In terms of age, the respondents in the age bracket 21-25 (15.661%) were more than every other age brackets among the respondents. Also, most of the respondents are first leaving school certificate holders, although higher qualification holders were also identified.

In the usage of the open space, it was found that the prevailing purpose was marketing, which implies in the three urban areas, most people are using open spaces for market purpose.

Challenges to open space development were ascertained from the respondents and they testified that there are several obstacles which exist in the path to open spaces development and attainment of the level of recreation requirement in the three urban areas. These challenges include: conflicting goals and objectives which according to respondents is the most nebulous of all the obstacles faced by open space developers. There are usually expressed and latent goal differences between many interest groups in

the city. Differences in objectives exist between the recreations planners, the government officials and influential members of the public. The main aim of the recreation planner is usually to make adequate provisions for recreational open spaces in order to satisfy the dynamic recreational requirement of the public but it was observed that some members of the public seem not to appreciate the recreational values of the open spaces but rather see it as reckless squandering of the city's scarce land resources. This made them to use areas designated for recreation development to other uses thereby making the development of open spaces impossible.

Moreover, it was found out that inadequate resources constitute one of the obstacles often cited for not developing adequate recreation facilities in Enugu, Onitsha and Owerri. The resources include human, fiscal and natural types. Human resources in terms of professionals with relevant skills and interest in recreation planning have been lacking in the three cities. Open spaces development agencies have always been manned by politically appointed individuals who often lack the knowledge and zeal expected of recreation planners. It was also noticed that government has never seen the provision of urban recreation facilities as a venture that merits the expenditure of public fund and so does not make adequate financial provision for recreation facilities development.

Furthermore, land is the most valuable recreation resource without which it will be almost impossible to think of recreational open spaces development. It was found out that in the three cities, there is a very knee competition for land, and recreational uses appear to be among the worst hit. This is so because recreational uses are often erroneously regarded as being cosmetic to other urban land uses. The knee competition over land in the inner sections of cities makes acquisition of recreational land very expensive in the study areas; thus, the high cost of acquiring recreational land is a major obstacle in Enugu, Onitsha and Owerri.

More also, many town planners and urban designers are yet to realize the full importance of recreation to the people as can be seen from the result of findings of this study. This has resulted to inadequate provision of recreational open spaces in urban centers. Thus, most layout designs are copiously deficient of recreational green open spaces and where provisions are made at all, they are grudgingly provided.

From the findings, it was observed that recreational open spaces are site discriminative in the sense that not every land surface is suitable for the development of recreational opportunities. In a layout where suitable site and location could not be identified no provision will be made for recreational open spaces. It was noticed that in the three urban areas, open spaces provision is made without considering the suitability of the site and location thereby leading to demolition. Amongst the obstacles observed from the findings of the study is the encroachment issue. Encroachment is seen as an unjustifiable diversion, modification or reduction in size or condition of any public park or recreational open spaces. The findings of this study show that encroachment is increasing at an alarming rate in the study areas and is showing no signs of diminishing. The major offenders are private enterprise sponsored by government officials and politicians, religious activities. The major factor which aid encroachment is the failure of the open spaces agency to plan and develop areas earmarked for recreation development as well as ineffective management control measures.

Moreover, the hypotheses stated in the research work were tested using statistical tools such as One-Way Analysis of Variance, and Principal Component Analysis. For the application of One-Way ANOVA, the data was tested for normality using Shapiro-Wilk test statistic at 5% level of significance as it is an assumption for the use of Analysis of Variance. The first hypothesis formulated was “no significant difference between the three urban areas with regards to the challenges posed in developing open spaces in them”. The p-value of the test was 0.000 which is less than 0.01 and it indicates the existence of enough evidence to reject the null hypothesis and conclude that there is significant difference between the three urban areas with regards to the challenges posed in developing open spaces in them. From the result of second hypothesis, it can be observed that the p-value of the test was 0.043 which is less than 0.05 and it indicates the existence of enough evidence to reject the null hypothesis and conclude that there is significant difference between challenges of management in the three urban areas studied.

The third hypothesis also showed p-value of the test was 0.002 which is less than 0.01 and it indicates the existence of enough evidence to reject the null hypothesis and conclude that there is significant difference between poor management and poor development of green open space in the area.

The result of PCA showed a total variance of 91.229% which entailed significant pattern of open space management component in the study areas. The study identifies derived parameter known as enhanced open space management factor. These enhance open space management factor is responsible for poor significant pattern of open space management component in the areas. These enhance open space management factor include: inadequate government intervention, taxes and revenue payment, non-provision of appropriate facilities, encroachment due to pressure on urban land, lack of building/development plans in the master plan and fear of crime. These attributes must be address to ensure the effectiveness of the enhanced open space management components and utilization.

CONCLUSION

The issue of urban open space in urban planning and design is a contemporary issue. Urban open spaces are very important elements in a city. Their benefits have many dimensions: economic, social, political and many more. Preserving and maintaining open spaces in urban environments is considered a crucial aspect of fulfilling environmental quality goals and attaining a livable city. Urban areas like Enugu, Onitsha and Owerri which are among the important cities in the country need to have proper recreational open spaces which enhance the quality of its city life. It needs places that boost its aesthetics. From the findings of this study, the basic trends in the usage of urban recreational open spaces in the three selected urban areas were understood. The overall study leads to the understanding that there is a low attitude towards the open space in general. Even though there are some recreational open spaces being utilized in these urban areas, they are not given the attention they deserve.

On the other side, the need for such kind of spaces by the inhabitants of the urban areas is very high. So, there is a need for change in the way these spaces are preserved. The political situation, the economy, the social status of the users and the local culture of the people are all connected to the use of urban open spaces. Provision, rehabilitation and use of master plan for development and other activities in the state is vital and should be encouraged.

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