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Analysis of Public Recreational Needs by User Population in South-Eastern Nigeria

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ABSTRACT

This paper examined the recreational needs of the user population in South-eastern Nigeria. The study considered educational status, public awareness, degree of awareness, public recreational options, extant open space services, and reasons for low usage of available recreational facilities. The study was carried out using descriptive statistics, use of weights and relative mean scare analysis. The study showed a general loss of interest in the available public recreational facilities and services, thus leading to disregard of public recreational open spaces. This fact prompts a high rate of conversion of public recreational spaces in South-Eastern Nigeria for other uses. There is therefore the need to provoke users' interest through classical advertisements, posting of bills and publication in both local and national dailies, particularly on the implication of converting recreational spaces in the areas being advertised. This calls for the need for public enlightenment plans in the likes of orientation programs, seminars, symposiums, recreation outreach courses and educating the masses at various levels, on the need to recreate and participate actively on public open space activities.

Keywords: Recreation, open space services, public recreation, users, recreational facilities.
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INTRODUCTION

Worldwide, open space is considered indispensable in urban development (Akintola-Arikane, 2020; Olufemi and Udo, 2017). Their relevance is particularly conspicuous in a residential land use environment. Not only do public spaces enhance property value and preserve several natural features of an area, but public spaces also increase the market value of any housing unit, and reduce the cost of site grading and landscaping. Public space can distort monotony that emanates from the arrangement of plots and buildings (Alabi, 2019; Orieji, 2020; Thompson, 2019). It also enhances an area's aesthetic value through flexibility in design and project development.

The premium on public space development is well-defined in the developed countries of the world. For instance, in the United States of America (USA), the percentage of land area reserved for residential public space activities is conventionally kept at 25 percent (Anderson and West, 2016; Transik, 2014; Winikoff, 2018; Learner and Williams, 2016). However, in the general provision of the USA master plan, as much as 30 percent of land area is reserved for open space development. From the 30 percent, 15 percent is for public uses, 10 percent for common uses and 5 percent for residential areas (Worpole, 2018; Berry, 2017; Cooper, 2019). The existing ordinance specifies that, at any time, an open space should be kept open, especially if that open space serves the public. Besides, the developmental process ensures that the desire to develop an open space be first expressed in design, scrutinized and approved before implementation is actually effected.

In developing countries, the benefits accruable to a well-planned and managed open space are not fully tapped. In ancient towns of Indonesia, Morocco, Brazil, India, and China, for instance, open spaces existing in some parts of the city were converted to commercial and small-scale industrial activity areas. A similar experience is shared in South Africa, Ghana, Pakistan, Karachi, Nigeria, Bangkok, Jakarta and Manila (CABESpace, 2019). In Nigeria, for instance, with the exception of private, institutional and corporate (club-house) open

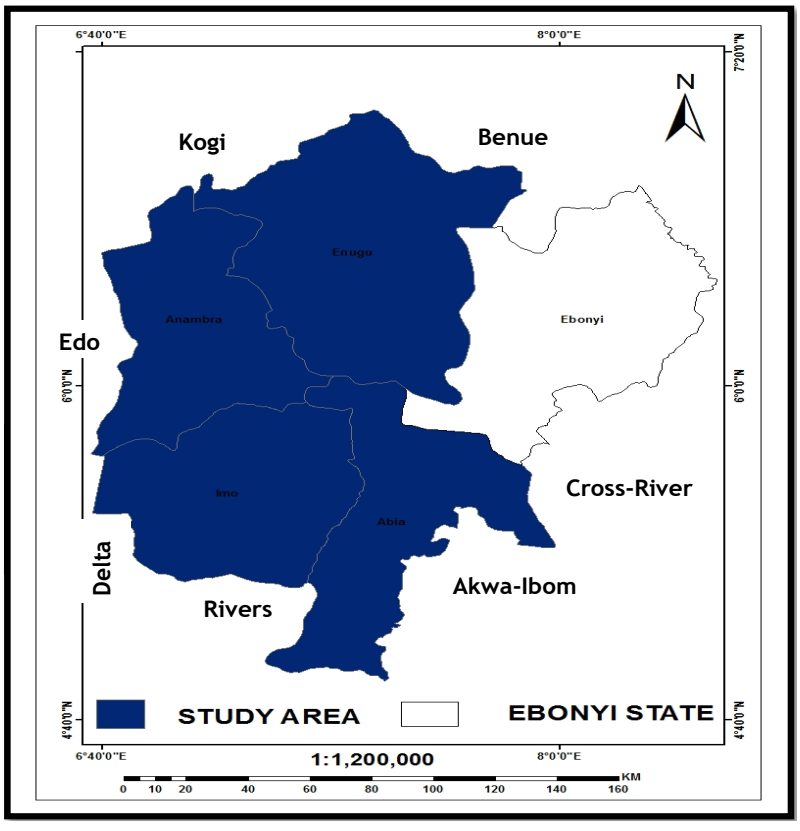

Figure 1: Map of South-Eastern States of Nigeria showing the Study area. Source: Atlas Map of Old Imo State (1991).

spaces, other forms of public spaces are either poorly managed or they are left uncontrolled to an extent of being used as open dump grounds for solid waste items. As it stands now, urban land spaces available for public space service operations in South-eastern Nigeria have been conditioned to corridor spaces existing in the frontage of private, commercial, and industrial land use developments (that is, where setback rules have been adhered to). In some cases, open spaces are being constantly reduced to inconceivable spaces, which range from 5 x 5 sq m – 15 x 20sq m (Carmona et al., 2016; Wald and Hostler,2020). These space dimensions, as far as the eye could perceive, are not merely substandard, but preposterously incongruous to existing principles of open space management operations and provisions.

One of the pressing issues that require urgent attention in Aba urban of South Eastern Nigeria is the alarming rate of public open space conversion. According to Compton et al. (2019), the conversion of public spaces often results in the general loss of public interest in recreation and open space activities, yet the scale of loss is, in most cases undetermined.

It is common in South-Eastern Nigeria to observe people play football, jog, skate, cycle, and engage in night-life activities on some of our roads and streets carriage-way. These incidences attract denigration and sometimes result in accidents and untimely deaths especially among children, youths and teenagers. To this point, one might wonder what has gone wrong with extant public recreational open space centres in the urban areas of South-Eastern Nigeria (Figure 1). Therefore this study aims to examine the recreational needs of the sampled population in a bid to procure the needed recreational facilities acceptable to the people.

MATERIALS AND METHOD

Some aspects of the investigation require the use of weights to secure the level of functionality of extant public open space facilities, services and infrastructures, in a bid to probe their contribution to public recreational open space conversion. To achieve this, some variables were first scored using data evaluation method adapted from Udofia (2018) which gave a percentage value interval of 0-25%, 26-50%, 51-75% and 76-100%, before being weighted. Assigning values to variables were done through a questionnaire and records obtained during field observation. Assigning weights to variables was guided by the principles of weighted index standards. According to Coutts (2020), any weighted index ranging from 0.0-0.2 is regarded as being strongly inadequate, 0.2-0.4 as inadequate, 0.4-0.6 as moderately adequate, 0.6-0.8 as adequate, and 0.8-1.0 as strongly adequate.

Similarly, Relative Mean-score Analysis (RMA) was engaged to assess data on their relative performance and significance (Dong and Dung, 2020). To assess RMA, data were first generated from questionnaire and then ranked with their mean values determined. The parameter used to derive the minimum acceptable standard for assessment was informed by Lawrence (2018) as derived from Compton et al. (2019). The range covers 0.0-1.79 for no performance, 1.8-2.59 for low

performance, 2.60-3.59 for moderate performance, 3.60-4.19 for high performance and 4.20-5.00 for very high performance.

The study was therefore conducted on a cut-off value of 3.40 to establish the accepted level of performance/significance/effectiveness; this means that high performance/significance/effectiveness is the benchmark for acceptance. The rating of very high performance also covers values in excess of 5.00 RMA rating (Lawrence, 2020).

RESULTS AND DISCUSSION

Table 1 demonstrates that majority of the sampled population is lettered, with secondary education ranking first 712(54.75%), closely followed by post-secondary or tertiary education 390 (30.00%) and primary education 179 (13.77%). However, a low rate of non-formal education in the area is represented by 19 (1.48%) of all the responses. This could be as a result of evening education and night school programs as is being enrolled by most traders and peasant farmers within the sub-region; besides the proliferation of tertiary and non-tertiary institutions in the area.

Sequel to the analysis in Table 1 as corroborated by Orieji (2010), it is normal to expect a high rate of interest on open space and recreational matters as the greater number of the sampled population is getting educated on daily basis. However, on the contrary, it may be astonishing to note from a reconnaissance survey conducted, that the level of interest in recreation and open space activities in the areas under investigation is close to zero, little wonder why open space and recreation activities do not thrive in the area; the high level of literacy notwithstanding. This is as a result of poor public education/sensitization and weakness in the management of public recreational spaces in the urban areas of South-Eastern Nigeria.

Table 2 displayed that 681 people representing 52.38% of the study population rates the level of awareness of public open space in South-Eastern Nigeria as being grossly inadequate. This percentage is more than half of the study population. Furthermore, information secured via interview supports the fact that some of the respondents were either being ignorant or not being really sure of what the present situation holds for public open space and recreational services in South-Eastern Nigeria; as the majority of the target population do not have an idea on any form of sensitisation on any public recreational open space services in the sampled areas, neither were they aware of any public recreational open space centre that has up-to-date recreational facilities as to necessitate adequacy of service (Table 2). Still on, 277 people representing 21.31% never acknowledged having an understanding of open space services in the sampled areas. This is typified by their rating of public education/awareness of public open space services as being inadequate.

However, only 263 persons from the target population representing 20.25 % think that there is adequate sensitisation of public recreational open space services in the area. Similarly, 6% (79) of the respondents said that public education on recreation and open space services in the sample area are superb - highly adequate.

The explanation as made from table 3 implies that South-Eastern Nigeria lacks adequate information on public open space and recreational services, as this is one of the factors responsible for an increase in the conversion of public recreational open spaces in the study area. This also marks a grave weakness in the management of public recreational open space activities in the South-Eastern States of Nigeria. For additional emphasis, Table 3 is further subjected to weighted index.

Table 3 additionally supports the already concluded fact that users of recreational open space in the South-Eastern States of Nigeria do not have adequate knowledge of public recreational open space services in the area, due to weakness in the management of public open spaces. This is deduced from a weighted score of 0.35 which is lower than the standard score of 0.5. Therefore, majority of the masses are ignorant of the existence of public recreation in the area, they also do not see the reason for their existence, therefore leading to pressure in converting public recreational open spaces for a more competitive and purposeful urban land use development.

Table 4 reveals the recreational options needed by the sampled professionals' residents in the study area. From the table, it is clear that the majority of the sampled professionals prefer football fields, children's parks, and cool spots. While having flair for jogging and bicycle park.

Table 5 showed the recreational options needed by the sampled user's residents in South-Eastern Nigeria. Table 5 shows that football fields, children's Park and night-life centres were very highly preferred above Bicycle Park, although highly demanded by the sampled population. Jogging park was moderately demanded by the user population sampled while picnic and skirting islands were marginally or weakly demanded.

Table 6 analyses the sampled management recreational needs for public open space provision in South-Eastern Nigeria. The value of the ranked data indicated the highest mean scores for cool spots/night-life centres, athletics/jogging parks, children's parks, and football fields; although bicycle park is highly needed. However, it is only skirting Ireland that was not needed by the sampled management population.

Tables 4, 5 and 6 by implication, means that the sampled population have a very high interest in football field, children's recreation park and cool spot/night-life activities more than cycling, athletics and picnicking. None of the sampled brackets however has an interest in skating in the study area. This could be as a result of the very high risk involved in skating, as many have lost their lives enlisting in such ventures (games).

Table 7 indicates weighted values of public open space usage in South-eastern Nigeria. From the table, all the sampled states and urban areas scored had a very low rating (0.25), which indicates a decreased usage of public open space services; especially as the calculated score did not measure with the standard score of 0.5. Nevertheless, since 0.25 is half (1/2) of 0.5, the study, therefore, concluded that the level of decrease in the use of public recreational open space services is fairly inadequate and highly unsustainable, with the least used states being Imo (Owerri) and Abia (Umuahia).

Table 1: Educational Status of Respondents by Sampled States and Urban Areas in South-Eatern Nigeria.

	Level of Education				
Sampled States/Urban Areas	(0)	(1-3)	(4-6)	(7)+	**Total Response**
Abia					
Aba	14 [2.41%]	74 [12.76%]	174 [30%]	258 [44.48%]	580
Anambra					
Onitsha	4[1.15%]	50 [14.12%]	169 [48.09%]	129 [36.64%]	352
Enugu					
Enugu	0 [0.00%]	33 [14.65%]	119 [53.45%]	71 [31.90%]	223
Imo		21	87		
Owerri	8[5.71%]	[14.29%]	[60.00%]	29 [20.00%]	145
	19	**179**	**712**	**390**	**1300**
Total mean of Distribution (%)	**[1.48%]**	**[13.77%]**	**[54.75%]**	**[30.00%]**	**100**

Note: 0 = no formal education, 1-3 = primary education, 4-6 = secondary education, 7+ = post-secondary or tertiary education.

Table 2: Awareness of Public Recreational Open Space Services in the Sampled Areas of South-Eastern Nigeria.

	Awareness				
Sampled States/ Urban Areas	**Highly Inadequate**	**Inadequate**	**Adequate**	**Highly Adequate**	**Total Response**
Abia	379		109	18	
Aba	[65.34%]	74 [12.76%]	[18.79%]	[3.10%]	580
Anambra	156	99	77	20	
Onitsha	[44.27%]	[28.24%]	[21.76%]	[5.73%]	352
Enugu	79	66	51	27	
Enugu	[35.63%]	[29.60%]	[22.70%]	[12.07%]	223
Imo	91	25	25	4	
Owerri	[62.86%]	[17.14%]	[17.14%]	[2.86%]	145
	681	**277**	**263**	**79**	**1300**
Total mean of Distribution (%)	[52.38%]	[21.31%]	[20.25%]	[6.06%]	100

Table 3: Level of Awareness of Public Recreational Open Space Services in the Sampled Areas of South-Eastern Nigeria.

	Rating Level of Awareness				
Sampled States/ Urban Areas	0-25% (1)	26-50% (2)	51-75% (3)	76-100% (4)	**Mean of Weighted Responses**
Abia					
Aba	379	74	109	18	0.71
Anambra					
Onitsha	156	99	77	20	0.51
Enugu					
Enugu	79	66	51	27	0.36
Imo					
Owerri	91	25	25	4	0.18
Mean Weighted Index					0.35

Note: (1) – (4) are weights from lowest to highest by which responses are being weighed.

Table 8 shows reasons for the low-usage of public recreational open spaces in South-Eastern Nigeria. The table indicated Ignorance (1.15) and Insecurity (0.91) as being highly significant. Lack of standard facilities has a mean score of 0.86, thus rated as being significant. Have no time scored 0.22, not my lifestyle (0.08), with laissez-faire having a mean score of 0.11. The last three factors were rated as not having a very serious impact or not being regarded as strong reasons for not participating actively in public recreational activities in the sampled areas. Results from table 8 shows that low usage of public recreational services is a major indicator of public recreational open space conversion in the area, as a decrease in recreational activities often force public

Table 4: Public Recreation Options Needed by the Sampled Professionals Residents in South-Eastern Nigeria.

	Indicators								
Options	(7)	(6)	(5)	(4)	(3)	(2)	(1)	**Mean Rank**	**Inference**
Children Park	36	28	7	16	25	14	4	4.81	Very highly needed
Bicycle Park	3	26	6	18	7	28	42	3.06	Moderately needed
Picnic Island	4	6	5	18	21	27	49	2.51	Marginally needed
Football Field	78	19	10	7	6	5	5	5.93	Very highly needed
Cool Spot/ Night-Life Park	35	12	11	13	26	10	23	4.19	Highly needed
Athletics /Jogging Park	1	14	23	5	4	64	19	2.96	Moderately needed
Skating Island	2	4	8	10	11	21	74	2.05	Marginally (Not really) needed

Note: (7) – (1) are weights from highest to lowest by which responses are being evaluated.

Table 5: Public Recreation Options Needed by the Sampled Users Resident in South-Eastern Nigeria.

	Indicators								
Options	(7)	(6)	(5)	(4)	(3)	(2)	(1)	**Mean Rank**	**Inference**
Children Park	161	430	163	177	100	60	54	4.98	Very highly needed
Bicycle Park	42	78	111	460	198	230	26	3.70	Highly needed
Picnic Island	50	70	44	100	128	204	539	2.38	Marginally needed
Football Field	450	200	160	137	98	90	10	5.40	Very highly needed
Cool Spot/ Night-Life Park	242	303	122	122	56	100	101	4.70	Very Highly needed
Athletics /Jogging Park	60	36	111	389	281	78	190	3.43	Moderately needed
Skating Island	20	30	50	50	84	232	679	1.89	Very Weak (Not actually) needed

Note: (7) – (1) are weights from highest to lowest by which responses are being evaluated.

Table 6: Public Recreation Options Needed by the Sampled Management Resident in South-Eastern Nigeria.

	Indicators								
Options	(7)	(6)	(5)	(4)	(3)	(2)	(1)	**Mean Rank**	**Inference**
Children Park	10	5	3	2	2	2	1	5.36	Very highly needed
Bicycle Park	1	2	2	3	4	6	7	2.88	Moderately needed
Picnic Island	1	1	1	2	2	4	14	2.16	Marginally(Not really) needed
Football Field	5	8	3	3	2	2	2	4.84	Very highly needed
Cool Spot/ Night-Life Park	12	4	3	2	2	1	1	5.48	Very highly needed
Athletics /Jogging Park	9	6	4	2	1	2	1	5.40	Very highly needed
Skating Island	1	1	1	3	3	5	11	2.40	Marginally (Not really) needed

Note: (7) – (1) are weights from highest to lowest by which responses are being evaluated.

Table 7: Use of Public Recreational Open Space Services by Sampled States and Urban Areas of South-Eastern Nigeria.

	Usability				
Sampled States/ Urban Areas	0-25% (1)	26-50% (2)	51-75% (3)	76-100% (4)	**Weights of Responses**
Abia					
Aba	544	132	3	0	0.55
Anambra				0	
Onitsha	263	87	2		0.34
Enugu					
Enugu	137	79	7	0	0.24
Imo					
Owerri	116	25	4	0	0.14
Mean Weighted Index					0.25

Note: (1) – (4) are weights from lowest to highest for evaluating responses.

Table 8: Reasons for Low-Usage of Public Recreational Open Space Services by Sampled States and Urban Areas of South-Eastern Nigeria.

Sampled States/ Urban Areas	Reasons						Total Response
	Ignorance (6)	Insecurity (5)	No Standard Facility (4)	Have No Time (3)	Not My Lifestyle (2)	I don't care (1)	
Abia							
Aba	245	112	154	43	13	13	580
Anambra							
Onitsha	63	157	102	20	5	5	352
Enugu							
Enugu	37	79	57	8	12	30	223
Imo							
Owerri	96	15	24	4	1	5	145
Weighted Mean of Responses	1.15	0.91	0.86	0.22	0.08	0.11	
Inference	Highly Significant	Highly Significant	Highly Significant	Insignificant	Highly Insignificant	Highly Insignificant	

Note: (6) – (1) are weights from highest to lowest for evaluating responses.

recreational service providers to stay out of business and contributes indirectly to the present public recreational space conversion highly experienced in South-Eastern Nigeria.

CONCLUSION AND RECOMMENDATION

There is a general loss of interest in public recreational facilities and services, thus leading to disregard of public recreational open spaces. This fact according to Lerner (2019) prompts a high rate of conversion of public recreational spaces in South-Eastern Nigeria.

The available recreational options, as revealed from the study, do not meet users' recreational needs in the sampled urban areas of South-Eastern Nigeria which by implication means that users have serious need of football fields, children's recreation parks, and cool spots/night-life activity centres.

Furthermore, it was disclosed from the result of the analysis that existing recreational options do not meet users' recreational needs. This finding is substantiated by the findings of Ndukwe, (2020) and Nkruma (2019) separately affirmed that most Nigerian cities, particularly cities of South-Eastern States, are poorly organised and characterised by inadequate public open spaces which have midwives various on-road and on-street recreations. Public recreational options of high interest to users consist of football, children's recreation, and cool spot/night-life. Other public recreational activities also needed by the sampled population include cycling, athletics, picnicking and skating. The absence of these recreational activities gives way to street and on-road recreation which is highly precarious.

There is therefore the need to develop new recreational spaces by proximity to the urban residents. It is imperative to develop new public recreational spaces to meet the enlarged needs of the people. This could be achieved in a number of ways: (i) with the accent of the governor and with the approval of the house of assembly, all lands originally meant for public open space activities which have been converted to other uses can be revoked (ii). Every unutilized urban land should be mandated to develop within a specified period of time beyond which such land will be revoked for the use of public recreational open spaces (iii) Every non-standardized public open space establishment in the areas should be mandated to upgrade their facilities or services within a stipulated time frame, failure to do so will result to the closure of such business enterprise. (iv) Government or private sector or corporate organizations can tender and buy up already developed landed properties (where there is no space left for such development) in order to demolish, redesign, develop and manage public open space centres.

The study identified failure in creating public awareness. Therefore, a lot needs to be done, especially, in the area of provoking users' interest through classical advertisements, posting of bills and publication in both local and national dailies, particularly on the implication of converting recreational spaces in the areas being advertised. This calls for the need for public enlightenment plans in the likes of orientation programs, seminars, symposiums, recreation outreach courses and educating students (pupils) at various academic levels, on the need to recreate and participate actively in public open space activities, as there is many dividends accruable to such.

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