
ROLES OF URBAN OPEN SPACES TO ENVIRONMENTAL SAFETY IN NIGERIA

Oladunjoye, K.G.K.

*Department of Architecture,
The Polytechnic, Ibadan, Nigeria
Email: koladunjoye60@yahoo.com*

ABSTRACT

In the quest to maximise land value in terms of cost and location, human activities at various levels has led to the abuse of the physical environment in the misuse of the urban open spaces which if provided for in order with planning regulations in Nigeria, would have increased the beauty and safety of the buildings, and consequently, the wellbeing of accommodations. But with the continuous obliteration of these natural areas by man's activities of building development, refuse dumping, squatter settlements among others, with little or no cognisance of the need for coordinating physical development activities among neighbourhoods within major towns and cities have resulted into an unsafe, unpleasant quality of the environment. This paper asserts that it is fundamental that open spaces be provided for within the built environment in Nigeria and improved to enhance the quality of the environment as well as improve the safety of lives and properties of the inhabitants. It further asserts that creating and developing open spaces within a neighbourhood can help meet many needs such as adding to their buildings aesthetics, acting as green lungs of that community, encouraging leisure activities, community interaction and cohesion, encouraging active and healthy lifestyles, preserving open spaces from harmful repellent purposes such as flooding and erosion by putting into good use. Overall, this paper examines the roles and contributions of open spaces development and management in urban areas as a strategy for environmental improvement, conservation and its potential in sustaining a safe built environment in Nigeria.

Keywords: Physical Development, Safe Built Environment, Urban Open Spaces, Wellbeing.

INTRODUCTION

The environment is an interactive, indispensable medium, within and through which man's life performance is carried out. Man's life is unimaginable without the environment to supply him with his needs such as air (to breathe), water (to drink and wash with), food (to eat), and solid materials for fashioning weapons, building shelters and clothing (Atolagbe, 2002). But a widespread environmental degradation resulting from human attitude and activities most often harmful to livelihoods (Kjellstrom and Mercado, 2008) is becoming serious the world over, and Nigeria is no exception. Generally, problems arising from environmental degradation are mostly due to developmental processes and are of local, regional and global effects (Kadir, 2006). In the face of increasing urban population, the increased number of human extension of urban area through industrialization and technological advancement in

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transportation and building construction has contributed to industrial, human wastes and effluents resulting in environmental pollution such as noise pollution, air pollution, water pollution, land pollution, urban heat and urban sprawl leading to loss of green area (Hales, 2000).

This rising rate of urbanization in all the societies across the globe has brought with it several challenges ranging from physical, economic, social, to environmental among other issues (Cohen, 2006; Tibaijuka, 2008; Chelala, 2010; Kadi et al, 2012). This does not mean that urbanization does not have its advantages but more significantly the negative factors which are evident on the physical scene have almost overwhelmed the benefits. These are manifested through cramped, compacted and haphazard developments in our cities (Fasakin, 2009; Olujimi, 2009; Alabi, 2010; Aluko, 2011), a resultant effect of increase demands for accommodation lands and other land uses competing for relevance at vantage locations within our urban centres (Ogundele and Jegede, 2011). However, the environmental and physical problems by far seem to be receiving more attention today than ever before (Ayeni, 2012). For instance, the depletion of the ozone layer and its associated problems has caused present-day governments across the globe to meet at various times on the way forward from these recent occurrences. Nigeria has been represented on these occasions by her delegates from the Federal Ministry of Environment at these global assemblies (Ayeni, 2012). These recent meetings, discussions and debates are an indicator to the general dissatisfaction with what is happening in the environment with the quest for a holistic, scientific approach to the often mentioned urbanization and its attendant menace (Ayeni, 2012).

At this juncture it is applicable to note that the various developments that are springing up in the process of increasing population seems not to be accompanied by necessary adequate physical planning provisions, hence, unguided, uncontrolled, haphazard developments (Olujimi, 2009; Alabi, 2010; Wald and Hostelter, 2010) and has led to urban sprawl, slums etc (Daramola and Ibem, 2010; Aluko, 2011). The urban sprawl in many cities in the developing countries especially Nigeria, has led to ineffective use of open spaces (Daramola and Ibem, 2010) and unfortunately, the rate of development in most urban areas is causing public spaces to shrink pushing people further away from nature and its eventual disappearance within the built environment threatens their wellbeing and safety. This paper therefore aimed at examining the roles and contributions of these required open spaces as a strategy for improving, conserving and its potential in sustaining a safe built environment in Nigeria. In the same vein it seeks to fathom appropriate ways in which open spaces with its biodiversity can be made an integral part of a safe built environment through the practice of Landscape Architects.

PROBLEM STATEMENT

In Nigeria, there are statutory regulations that guide the planning and use of land both private and public (Arigbola, 2008; Aluko, 2011). For instance, on Federal Government Lands and Estates across Nigeria, there is a maximum allowable area for various plot sizes and densities. While 50% is allowed for high density size, only about 45% and 35% of the total land area are allowed for medium and low density plots. Furthermore, the balance is prescribed to be landscaped or simply put as open

space. Any structure proposed on the balance will not be approved by the relevant planning authority. Unfortunately, in some cases, people go ahead to develop illegally without the knowledge of relevant approving authority, thereby defeating the concept of safety of the environment through open space and landscaping of the built environment. Indeed, green areas are constantly being converted to other land uses and unplanned nature of many urban areas has led to the continuous loss of many open spaces.

METHODOLOGY

To achieve the aim of this paper, data were obtained from secondary sources which include textbooks, conference and seminar papers, internet, dailies, and other research materials that considered and worked on the roles and contributions of open spaces as a strategy for improving the environment.

The Concept of Open Spaces in the Built Environment

Open space is regarded as any undeveloped land within the boundary or designated envelope of a neighbourhood which provides, or has the potential to provide, environmental, social and/or economic benefits to communities, whether direct or indirect (Ahern, 1991; Al-Hagla, 2008). Similarly, Alabi (2009), Wald and Hostelter (2010) describes an open space in an urban setting as a vacant land, either built upon or developed as gardens and recreation grounds or underdeveloped land which has value for recreational purposes, amenity, conservation and other natural resources, historic or scenic landscapes or areas of outstanding natural beauty such as water bodies, valleys, hills and mountains. Furthermore, Open spaces as Kabir (2006) had noted, are informal and formal parks, water courses, agricultural lands, private gardens and city squares; which not only serve ecological functions but also help in improving air quality, increasing biodiversity and managing storm water. The American Planning Association (2006) defines open space as 'any land that is free of residential, institutional, commercial or industrial use and may also include conservation areas protected by law'. In the same vein, Tang and Wong (2008) identifies open spaces to include parks, gardens, playgrounds, beaches and amenity areas developed and maintained by the public authority.

The importance of open space as stated by Maruani and Amit-Cohen (2007) to our environment and quality of life is increasingly being recognized and accorded attention in our contemporary societies. Noting the importance of open space, RICS (2007) argued that open spaces provide pleasant and natural environment and improve the quality of life of urban areas. Likewise, CABESpace (2009); Wald and Hostelter (2010) noted that open spaces help to meet a range of social, environmental and health benefits and at the same time create a more attractive environment. Furthermore, open spaces encourage interaction between residents; increase property values and foster a sense of responsibility for local natural resources. From the foregoing definitions of the concept of open spaces as posited by various authors, it is predicated that this subject cannot be de-emphasized or over-emphasized if a certain degree of environmental quality is to be achieved in our environment. It therefore becomes imperative that man's immediate environment must be seriously prioritized by all stakeholders in the built environment with public

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authorities leading facilitation and coordinating the various activities towards achieving that desired comfort-zone in our environment.

Open spaces in urban designs (layouts, master plans etc.) serve as an avenue for neighbourhood outdoor interactions, and foster community cohesion. Aside the important functions of community conservation, recreation, contact with nature, social or mental health within an urban environment as affirmed by Tang and Wong (2008). Open spaces enhance social inclusion, communal sharing, cultural integration, veritable avenue of democratic expression and political harmony in cities. Also, Maruani and Amit-Cohen (2007); Wald and Hostelter (2010) said, increasing urbanisation is leading to the degradation of environmental quality and irreplaceable natural values, whose result is irreversible, unless preventive measures are embedded in planning, design, development and management. Thus, the constant misuse needs to be corrected to safe guard the total imminent elimination of open spaces that could be environmentally beneficial to all in the future ahead.

Furthermore, in the residential community, landscape can affect the housing in the surroundings. Similarly, Chiesura (2004), argued that, the presence of natural areas contributes to the quality of life in many ways and besides many environmental and ecological services, urban nature provides important social and psychological benefits to human societies, which enrich human life with meanings and emotions. Furthermore, Thompson (2002) acknowledged that, access to some form of "nature" is a fundamental human need and therefore, a vital part of access to open space. As further emphasised, Ahianba, Dimuna and Okogun (2008) said that, the physical environment is an important component of the environment and it is through that which organism, individual, community or population are in contact. As such, a well landscaped physical environment, also known as the built environment (Ahianba, Dimuna and Okogun, 2008) should be an integral part of the human environment.

Biodiversity, Urban (Green) Open Spaces and the Challenge of Urbanisation in Nigeria

Urban areas as centres of arts, culture, education, entertainment, technological innovations, providers of specialised services and "economic engines" (Udeh, 1992) are products of urbanisation which come with far reaching economic, socio-spatial and health implications (Acho, 1998). Urban open spaces are regarded as landed areas not built upon and ranged considerably from natural landscapes to definitely cultural, artificially designed areas and from huge green areas to almost entirely enclosed small outdoor rooms (Kadir, 2006). At the macro level, they are meant to serve as urban parks or as green belts to limit development and to act as buffer zones between urbanised areas or elements. While at the micro level where town houses and apartments are grouped together, much of the land left, are open spaces meant for recreation and aesthetic purposes (Kjellstrom and Mercado, 2008).

Hales (2000), observed that the pace and scale of growth have outstripped the capacity to maintain acceptable standards of public health, environmental safety and sustainable economic growth in urban areas in less developed nations in Africa, Asia and Latin America. In many African nations, the general attitude in green open space planning is, often expressed solely through spontaneous action and direct

intervention to a pressing problem. Consideration is centred only on the short-term effects that are set against limited time horizons. Few of African cities where little attention has been given to urban (green) open space include Abuja, Lagos, Calabar and part of Cairo, Capetown among others (Abegunde, 2008; CCG, 2008). Like many other third world nations, rapid urban development in Nigeria has caused lack of green spaces in urban settings (Daramola and Eziyi, 2010). Consequently, this has contributed to the problems and issues related to urban pollution, heat island, erosion and flood (Omar *et al.*, 2000). Also, the challenge of global warming, rapid depletion of the ozone layer, and changes in the ecology of urban environment occasioned by increasing population, overcrowded habitations and uncontrolled exploitation of natural resources which posed great threat to life have accounted for the promotion of green space in the built environment (Stoel, 1999; Hales, 2000). These challenges albeit, the possibility for the sustainable landscaping of the urban open spaces in Nigeria is currently far from being realized. It seems that the outdoor environment had been forgotten as a space that needs to be consciously organized for social relationships for the city inhabitants (Fadamiro and Atolagbe, 2006).

The development of urban green open space is manifested through conservation of existing green belts in cities, tree planting, soft landscaping, urban agriculture, creation of green parks and gardens among others. Urban green provides an essential structural and functional contribution to cities so as to make them more attractive and habitable (Melville, 1975). Green open space helps in keeping the quality of city life (Liu *et al.*, 2008). Putting green space planning into practice remains, therefore, a major challenge, and the practice of landscape architecture as a means to urban development really needs to be firmly supported by federal and state governments. Considering the advantages of a green open space, the government in most capital cities in Nigeria have begun to inculcate a good attitude toward green space in their citizens (Ward, 1992). Urbanization is seen as one of the arch enemies of biodiversity because of its impact on the environment which is purportedly believed to be responsible for the displacement of wildlife (Luck *et al.*, 2004; McKinney, 2006; Lizee *et al.*, 2010). It is also said to result in destruction and fragmentation of natural and semi-natural habitats, where small and isolated habitats remaining are encamped by a matrix of uninhabitable areas and also induces changes in species abundance and richness (Lizee *et al.*, 2010; Ockinger *et al.*, 2009).

However, urban areas are surprisingly rich in biodiversity, hosting a great variety of species and habitats, some of which are rare and threatened on a global scale (Sundseth & Raeymaekers, 2006). Urban areas, gardens, and backyards can support a surprisingly diverse range of wildlife, including a number of species rare in or absent from more semi-natural habitats. The heterogeneous nature of cities create these highly diversified mosaic of suitable habitats where the structure and quality of the habitat is as important, if not more important, than its size. This is why biodiversity in cities is often found in rather more unconventional places, for instance along railway tracks and green verges, in allotments and private gardens, beside river courses and in cemeteries and even on roofs and buildings (Sundseth and Raemaekers, 2006). Also, a low-nutrient and well-drained ground and some mineral-extraction sites can be of exceptional conservation value for invertebrates, which on the cool edges of their range require warm, open-early succession habitat. Areas of

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industrial waste products can support characteristic assemblages of plants but are however viewed as waste ground, which are consequently subjected to re-development or pressure to clean them up in order to create green spaces for recreation (Ausden, 2007).

The Need, Roles and Contributions of Urban Open Spaces Development in Nigeria

From the foregoing, the need for open space in an urban setting and their proper management cannot be over emphasised as urban areas continuous growth without consideration for the provision and monitoring of their use has led to unpleasant environmental consequences such as loss of green areas, overcrowding, altogether resulting into an aesthetically unpleasing environment. Open space is an essential part of any urban development and makes several contributions such as the provision of areas for organised activities (sports, concerts) and unorganised leisure activities where people can meet and interact (play areas, gardens, and walkways). They also serve the function of adding to the beauty and diverting attention from the monotonous form of buildings in the urban setting. Additionally, it has important benefits within the community, such as attracting investment, revitalising cities, boosting tourism, preventing flood damage, protecting farmland, promoting sustainable development and safeguarding the environment (Esbah et al 2005; The Trust for Public Land, 2009; Dong and Dong, 2011).

Most Nigerian cities are poorly organised and characterised by inadequate open spaces (Olotuah and Bobadoye, 2009). Indeed, the available open spaces have been taken over by unorganised and haphazard planning, resulting from weak development control. In the view of Fadamiro and Atolagbe (2006), the negative effects of the misuse and mismanagement of the urban open spaces in Nigeria is the poor quality of the built environment. Consequently, this has contributed to the downward trend in the management and use of open spaces, thus resulting in the decay of the built environment (Ahianba, Dimuna and Okogun, 2008). Hence, there is need for proper planning and efficient use of spaces at macro and micro levels in Nigerian cities.

In many parts of Nigeria, mass urban movement has led to a reduction in the amount of open spaces in urban areas (Alabi, 2009; Ayatamuno, 2010) which in most instances are converted illegally for other land uses such as residential use, corner shops, refuse dumps, squatter settlements, mechanic workshops and other uses. It is just as Olotuah (2006), Alabi (2009) and Owei et al (2010) affirmed that, the rapid rate of urbanisation being experienced in Nigeria has led to severe degradation of the environment and decline in the quality of life of residents (Ayatamuno, 2010). This in turn has distorted the landscape elements in the course of development and has not made the public benefit immensely from the role open spaces could play in terms of beautification, social interaction, cohesion and integration in the built environment in Nigeria. The rapid expansion has therefore called for a thoughtful approach to urban development by professionals in the building industry in order to achieve efficiency and long term sustainability (Aku, 2009).

From the foregoing, the roles of urban open spaces in a safe and healthy environment succinctly include the following:

- a. Preservation of essential ecological functions and protection of diversity;
- b. Enhance city aesthetics hence increasing attractiveness; help shape urban form and its compatible uses.
- c. Provision of visual relief for urban dwellers;
- d. Also provides economic benefit by increasing the property value as the real estate market consistently demonstrate that many people are willing to pay a higher amount for a property located close to parks or open space areas than for homes that does not offer this facility (Love and Crompton, 1999).
- e. Enhances public health benefits as shown in a study conducted by Frank (2003) that college students under exam stress had increased positive feelings and reduced fear and anger when they had a view of plants. Lohr, *et al.* (2007) also demonstrated that plants in the workplace reduce stress levels. It was also found that when plants were present in the interior space systolic blood pressure was reduced by one to four units, to which worker's productivity was also increased.
- f. To act as pollution abatement and cooling: trees and plants have been labelled as the "lungs of cities" (McPherson, 2005) because they have the ability to remove contaminants from the air that is breathed. Acting as natural filters and reducing air pollution, it has been shown that plants generate health benefits by reducing the mortality rate and reducing visits to the hospital (Powe and Willis, 2004). Every tree helps fight global warming by reducing the amount of greenhouse gases in the atmosphere.

Other ways in which plants reduce air pollution are as follows:

- Absorption of gaseous pollutants through their leaves, e.g., Ozone, Nitrogen oxides, and Sulphur dioxide.
 - Further reducing ozone concentrations at ground level by reducing the temperature via evapotranspiration as mentioned above.
 - Collection of dust, ash, pollen and other particulate matter on their leaves hence reducing its presence in the air breathed.
 - Releasing of oxygen, as mentioned above, which increases the quality of the air for human use (McPherson, 2005).
- g. To enhance social benefits by promoting community engagement, civic pride and provide opportunities for people to take ownership of their community by sharing a common vision for the betterment of their surroundings, this also improves the quality of life.

And as Okoli (2008) said, "Providing green places where people can be together promotes communal bonding among city residents and infuses the social content in city life". The form or appearance of an urban area clearly shows the level and type of development within it. This also influences the quality of life of the dwellers. Thus a safe urban environment should have well landscaped and organised open spaces not only at the town centres as is peculiar to many Nigerian cities but also extended to other residential neighbourhoods and development in the overall interests of the citizenry on both short and long runs (Ayeni, 2012). Although this is gradually being achieved in few of the capital cities across the nation, however, concerted efforts should be made by all stakeholders to extend this same initiative to other states that

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are lagging behind, as well as major towns and local government administrative headquarters across the Federation (Ayeni, 2012).

Although, the Federal Government of Nigeria, through its various residential housing estate or lands across the country, tends to pilot a model of development in this direction by stipulating statutory guidelines for developments. These are being strictly enforced, but more efforts became necessary to cut across the three tiers of government. For instance, all lands at the Federal Capital City of Abuja fall under the purview of Federal Capital Development Authority. Tables 1 and 2 below shows the permissible percentage of use for different land uses. The balance for each use is expected to be landscaped and bring nature to the people.

Table 1: Minimum Set Back/Plot Coverage Allowed on Federal Government Lands at Abuja

Land Uses (Density)	Minimum Set-back (Metres)			Minimum Number of Floors	Maximum Number of Floors	Maximum Plot (%) Coverage	Plot Sizes (lxb)m ²
	Front (Air Space)	Side (Air Space)	Rear (Air Space)				
Residential (High)	6.0m	1.5m	3.0m	1 nos.	4 nos.	50%	15m x 24m
Medium	6.0m	1.5m	3.0m	1 nos.	3 nos.	40% - 45%	18m x 36m
Low	6.0m	3.0m	3.0m	1 nos.	2 nos.	35%	Varies
Commercial	8.0m	4.0m	4.0m	1 nos.	3 – 4 nos.	60%	Varies
Industrial (Light)	8.0m	6.0m	6.0m	1 nos.	2 nos.	60%	Varies
Medium	8.0m	6.0m	6.0m	1 nos.	2 nos.	60%	Varies
Heavy	8.0m	6.0m	6.0m	1 nos.	2 nos.	60%	Varies
Religious Buildings	8.0m	6.0m	6.0m	1 nos.	2 nos.	60%	Varies
Public Buildings	8.0m	6.0m	6.0m	1 nos.	Multiple	60%	Varies
Educational Building	8.0m	6.0m	6.0m	1 nos.	Multiple	60%	Varies

Source: FCDA Development Control Regulations, 2001

Table 2: Minimum Setback/Plot Coverage Allowable for Different Land Uses on Federal Government Lands/Estates in Nigeria

Land Uses (Density)	Minimum Set-back (m)			Plot Size m ²	% Coverage Permissible	Permitted Uses	Conditional Uses
	Front	Sides	Rear				
Low Density	6.0m	3.0m	3.0m	36mx36m 1296m ²	45%	Duplex, Flats, Bungalow	Processional Offices, Clinic, Vendors
Medium Density	6.0m	3.0m	3.0m	18mx36m 648m ²	50%	Duplex, Flats, Bungalow	Clinic, Vendors
High Density	6.0m	3.0m	3.0m	15mx24m 360m ²	37.5 - 40%	Rooms, Flats, Bungalow	Service Industry, Clinic, Vendors
Neighbourhood and Shopping Centre	9.0m	6.0m	6.0m	50mx100m 5000m ²	55%	Day-care, Offices, Banks	Clinics, Shops, Restaurants
District and Shopping Centre	12.0m	6.0m	6.0m	Varies	55 - 60%	Cinema, Offices, Shops	Restaurants Clinics, Day-care
Hotel, Market, Gas Filling Station	12.0m	6.0m	6.0m	Varies	50%	Markets, Banks	Filling Station, Shops
Offices	9.0m	6.0m	6.0m	30mx30m 900m ²	30%	Warehouse, Offices	Offices, Clinics, Restaurants
Recreation	-	-	-	50mx80m 4000m ²	20%	Active/Passive Kiosks	Restaurants
Nursery School	12.0m	6.0m	6.0m	40mx75m 3000m ²	45%	Nursery School	Day-care, Clinics
Primary School	15.0m	6.0m	6.0m	100mx100m 10000m ²	45%	Pry School, Staff Quarters, Hostels	Hostels, Clinics Day-care,
Secondary School	15.0m	6.0m	6.0m	120mx200m 24000m ²	45%	Secondary School	Staff Quarters, Student Hostels

Place of Worship	15.0m	6.0m	6.0m	40mx50m 2000m ²	45%	Place of Worship	Church Hall, Parsonage Day-care, Mosque, Adult Education
Police Post	12.0m	6.0m	6.0m	40m x 75m	45%	Police Post	-
Clinic	12.0m	6.0m	6.0m	40m x 75m	45%	Clinic	-
Light Industrial Venture	9.0m	6.0m	6.0m	30m x 30m	30%	Warehouse, Offices	Offices, Clinics Restaurant

Source: Federal Ministry of Work and Housing, 1992

Contributions of Landscape Architecture to Human Well-Being and Environmental Safety in Open Spaces Development

Landscape refers to our perceivable environment (Antrop, 2000). It also refers to the process of shaping, modifying and creating an outdoor scene ordered to effectively express the functional and supportive attribute of the public domains within the urban environment (Fadamiro and Atolagbe 2006). Many studies have shown that the elements of landscaping such as trees, shrubs, grass, ground cover, rocks, and water elements are important in adding to the attractiveness of an environment and serve the purposes of shading, screening, enclosure, and for directing circulation. Trees, apart from enhancing the aesthetics of the environment, saves energy, provide shades and serves as catalyst of temperature reduction in hot and sunny weather thereby affording comfort zone for birds, animals, man inclusive in a habitat. Changing the unappealing appearance of many open spaces in the Nigerian urban centres by generally redesigning the landscape with both hard and soft landscape elements will not only prevent the misuse but will also improve the overall appearance and provide good amenities within the surrounding. Landscape elements serve many functions, apart from shading, visual screening and overall enhancement that lawn, trees, shrubs, flowers serve, they can also help minimize storm water run-off, stabilize slopes and reduce erosion in areas which have being prone to erosion.

A well designed, landscaped and managed open space within the neighbourhood or environment can offer play areas for children, communal space, and serene environment and also contribute to the quality of life and wellbeing. Newton (2007) defines well-being as "peoples positive evaluation of their lives and includes positive emotion, engagement, satisfaction and meaning". It is not only the absence of pain, discomfort and incapacity but encompass meeting basic needs, having a sense of purpose, achieving personal goals and participating in the society. Thus a well landscaped open space will not only promote the physical well-being of an individual, but also the mental and social well-being by alleviating crime, promoting social interaction, encourage sense of place and enhancing cohesiveness and community cooperation, fostering a sense of oneness, and creates feeling of safety and security (Hutchison, 2003). On the other hand, open space that is not properly taken care of not only constitute health hazards caused by improper use as mentioned earlier, but also unpleasant aesthetics of the environment. It may also be a security risk to the people as it may be a hideout for animals and men of questionable character.

Improving the urban open spaces for human and environmental safety through landscaping is very important. Korpela (2007) opined that natural environment which includes plants, trees; gardens and green spaces have positive restorative

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effects psychologically, emotionally and behaviourally; and human beings are often at their best physically, emotionally, socially and spiritually when engaged in non-threatening interaction with nature (Huppert, Baylis and Kerverne, 2005). As such open space in our environment need to be effectively promoted, valued and protected to help enhance the quality of life of the people, safe habitations and improve built environment aesthetics.

The contributions of landscaping to man and his immediate environment according to Adeniji (2005) are succinctly stated below;

- a. Ecological balance
- b. Economic benefits; e.g. economic or tree crops
- c. Noise screening, most especially in layouts/plans to enhance zoning of land uses
- d. Prevention of environmental nuisance e.g. dust
- e. Landscape breaks or prevents monotony in designs
- f. Enhances environmental quality through sweet fragrance of some trees, flowers etc.
- g. Medicinal/herbal values
- h. Artificial fence/hedges and
- i. Beautification/ aesthetics e.g. ornamental trees such as umbrella/canopy trees that provides shades all years round.

FINDINGS AND DISCUSSIONS

From preceding discussions, it has been revealed that the various unguided development in the Nigerian urban centres arising from urban sprawl has led to ineffective use of open spaces in many cities. Similarly, Cohen (2006); Chelala (2010); Olotuah (2009); Wald and Hostelter (2010); Kadi *et al* (2012); and Daramola and Ibem (2010) argued that the aesthetics of many urban areas have been affected by urbanization; manifesting into haphazard development; thereby reducing the availability and ineffective use of open spaces and a decline in the quality of the physical environment. As such, the planning and the overall aesthetics of many cities in Nigeria are affected.

On the other hand, urbanisation has led to shrinkage of the few available open spaces in Nigeria; and the gradual disappearance of open spaces. Open spaces are gradually disappearing, resulting in slums and increasing the quest for accommodation as affirmed by Ogundele and Jegede (2011). But the available few are not well planned and are poorly organised (Olotuah and Bobadoye, 2009). It is therefore suggested that to avoid a total elimination of open spaces, pockets of unutilised lands currently constituting eyesores in the cities be identified and designed as public open spaces to complement the few ones in existence. Also, lost open spaces can be regenerated. A good example of this is evident in the recent launched Lagos State 'millennium city' concept (Okunola, 2013). Urbanization has created habitats where opportunities species have been found. Species richness may be at its peak in moderately disturbed areas. Small protected areas and private land have a considerable potential for the preservation of wildlife and may provide stepping stones linking larger natural areas (Sorace and Visentin, 2007). Species richness is said to increase with area (Pautasso, 2008; Ulrich and Fiera, 2009).

CONCLUSION

This paper has attempted a critical assessment on enhancing the application of open space planning and its management in our built environment with a view to obtain an effective and efficient environmental comfort, safety as well as a sustainable ecosystem. It has highlighted the concept of open spaces planning, development, control and management, the need for it, its impending contributions to human well-being and environmental safety as it relates to the Nigerian experience.

More so, this paper observed that open space planning and management has not been prioritized as it ought to, to achieve the ultimate goal of a safe, sanitized and sustainable environment. This is premised on certain factors such as disregard of the natural environment by the people; lack of human resources; absence of functional institutional frameworks to plan, monitor, control, manage and enforce development; and lack of proper education or awareness by the larger society on the significance of an aesthetically pleasing environment and the inevitable roles of a landscape architect. Other major factors include a lack of collaborative effort between relevant stakeholders in making this a reality in the best interests of the citizenry and the environment in particular. A lack of political will by the public administrators to formulate and implement long lasting policies on the built environment is also another factor.

Nonetheless, it emphasizes on a concerted collaborative effort of all interested and relevant stakeholders; this is necessary to change the current trend to a more pragmatic result-oriented planning procedure that will benefit the general public. It also encourages healthy recreational pursuits and communication amongst the residents; encouraging them to retain green open spaces in their (urban) localities as this can add value to their properties thereby increasing their market value and enhancing the economic revival of cities.

RECOMMENDATIONS

This paper recommends that value-oriented and sustainable beautification schemes be created and ensured in the Nigerian urban areas planning programmes. On the other hand, it is also suggested that to avoid a total elimination of open spaces, pockets of unutilised lands currently constituting eyesores in the cities be identified and designed as public open spaces to complement the few ones in existence. Lost open spaces can be regenerated. A good example of this is evident in the recent launched Lagos State 'millennium city' concept (Okunola, 2013).

As Fadairo and Atolagbe (2006); Ahinmba, Dimuna and Okogun (2008) identified the poor quality and mismanagement of open spaces in the Nigerian Built environment; this paper suggests better management of existing open spaces and the prevention of further degradation of the environment through proper planning, design and development. In the same vein, the use of existing open spaces be monitored in order to make it responsive to the needs of the people. Training and re-training of skilled personnel such as Landscape Architects, Town Planners, Soil Scientists, Horticulturists, Estate Surveyors among other professionals to be actively involved in the planning, execution, monitoring, management and protection of open spaces in order to make the cities sustainable is herewith also suggested.

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More also, encouraging full participation of Community based organisations, Non-Governmental organisations, Social Class or Organisations involved in the management of both existing and potential open spaces should be done in the interest of conserving nature, and enhancing healthy living of the entire public (Ayeni, 2012). A holistic approach to environmental planning administration which recognises the need for a comprehensive environmental planning and execution be adopted for effective environmental planning and management across the board. In this wise, all major stakeholders interest must be captured and be considered for workable programmes for rural and urban centres.

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BIOGRAPHY

Arc. Oladunjoye, Kola was born on the 28th June, 1960 in Ibadan, Oyo State. He had his primary education at Afolabi Institute, Oshodi, Lagos between 1967-1973 where he obtained the First School Leaving Certificate. He proceeded to Lagelu Grammar School, Ibadan in 1976 for his secondary education and obtained his G.C.E. O'Level in 1981.

He obtained a B.Sc degree in Architecture from Obafemi Awolowo University, Ile-Ife in 1988 and M.Sc Architecture from the University in 1990.

He joined the services of The Polytechnic, Ibadan as Lecturer III in the Department of Architecture in August 1992. He is currently a Senior Lecturer in the same Department.

He became the Head of Department of Architecture since 2012 till date. He is the chairman and member of several Committees on Campus.

He is a member of several professional bodies including:

- Nigeria Institute of Architects (NIA);
- Association of Architectural Educators in Nigeria (AARCHES);
- Architects Registration Council of Nigeria (ARCON).

He has attended several workshops, conferences and seminars. He has served and still serving as external examiners to various Polytechnics in Nigeria. He has to his credit many research publications in reputable journals.

He is into Architectural Consultancy Services, consulting for several individuals and corporate bodies.

He is a Church worker in several Units, as well as the Assistant Coordinator of Covenant Men Fellowship in New Covenant Church, Basorun Centre.

He is married to Grace Bamidele Oladunjoye, while the marriage is blessed with children.
