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GREENING AND FURNISHING PUBLIC SPACES FOR SUSTAINABLE LANDSCAPE DEVELOPMENT IN ADO-EKITI, EKITI STATE CAPITAL, NIGERIA

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Abstract

Rapid urbanisation has been responsible for changes occurring in developing countries like Nigeria, where cities experience increasing population occasioned by wanton rural-urban migration. Since Ado-Ekiti was designated as Ekiti State's capital in 1996, the ever-increasing spatial demand for diverse human activities has put pressure on inelastic land resources and public spaces, leading to unplanned expansion of the cities into the suburbs. The amorphous development, tantamount to inequitable and unsustainable land use, is manifested in environmental degradation, aggravation of the urban heat island syndrome, and livability reduction in the city. This paper examines the extent to which informal developments have invaded public spaces, and proposes the utilization of green landscaping and furniture to create functional and friendly environment. The reestablishment of inclusive green spaces to make great places promotes livability, inclusiveness and a sustainable cityscape. The study reviews literature and conducts field survey to identify and substantiate green infrastructure gaps and options available to fill them. Findings reveal high incidence of encroachment, complete vegetal removal, excessive hard landscaping, gross inadequacy or outright lack of furnished recreational open spaces, parks, and gardens; culminating in scanty greenery in the urban web. The paper recommends the reclamation, aggressive greening and furnishing of public spaces, backed by model, programmes, effective policy directives, enabling laws, citizen participation, and good governance. These initiatives guarantee city transformation, enhanced aesthetics, improved urban comfort, livability, inclusiveness and sustainable landscape development, thereby making Ado-Ekiti a future great city.

Key Words

Green landscaping; Street furniture; Public spaces; Placemaking; Sustainable development.

Introduction

Population explosion poses myriads of environmental challenges of various dimensions, rampant in developing countries. Prominent among the factors responsible for rapid population growth in the cities of tropical Africa as established by researches is the intercourse of rural-urban migration with natural population growth (Onokehoraye, 1976, Henderson, 2002, United Nations, 2002, Kadiri, 2009, Salau, 2009). Nigeria exhibits a similar pattern and rate of population bloating and urban expansion, being more rampant in cities, which are experiencing socio-economic and environmental problems of various dimensions. As a Yoruba core city predating the colonial era, where peculiar early urbanization occurred (Breese, 1966, Mabogunje, 1962), and up to the colonial period when the Yorubas were already living in 'city-like areas' thereby making them one of the most urbanized people in Africa (Bascom, 1962), Ado-Ekiti has been subjected to increasing population and spatial coverage. This trend became more accentuated following its emergence as the capital of Ekiti State in 1996 with mounting spatial demand for land use activities, which strained limited land resources. Consequently, the city sprawled uncontrollably and spilled onto the surrounding suburbs, engulfing public spaces in its wake, leading to bare landscape bereft of greenery and well-designed public spaces.

A recent study finds that in the course of time, the city experienced rapid growth and development leaving in its wake a complete removal of natural vegetative cover, depletion of verdant environment, replaced by unsustainable building and agricultural practices leading to amorphous expansion into the outlying forests (Ojo-Fajuru & Adebayo, 2014).This trend has culminated in a multiplicity of urban environmental problems including sprawling; encroachment on open spaces and setbacks to roads, water bodies and utility lines; lack of functional open spaces, gardens and parks; depletion of greenery; aggravation of urban heat island syndrome; degeneration and disorder in urban form; reduction of livability and inclusiveness; environmental pollution and landscape degradation. These abnormalities tend to overwhelm the city, pose health risks and hazards, and reduce the user satisfaction of city dwellers and visitors alike. The current state of the environment, devoid of pleasurable spaces, desirable places, urbane environment, and green spaces ranking below internationally acceptable Green City Index average of 74 square meters per person (Siemens, 2012), negates the desire and ability of every community to attain the goal of living in a great place.

This paper is therefore conceptualized to study the extent to which increasing spatial demand for human activities has induced sprawling and encroachment on public spaces, depleted verdure, dwindled the use of soft landscaping elements, and overshadowed the provision of desirably furnished recreational areas. To justify the assertion that a good environment is a prerequisite to conducive, livable and sustainable neighbourhood that satisfies users' yearnings for desirable, productive and healthful living, this paper advocates greening, furnishing and placemaking strategies to enrich reclaimed public spaces, as well as creating new, functional gardens and parks in Ado-Ekiti. These are expected to make great places that promote livability and inclusiveness in the regional capital city.

1.1 Conceptual framework in greening and furnishing public spaces

This section of the paper delves into the underpinning concepts associated with greening and furnishing public spaces such as green landscape, street furniture, public

spaces, placemaking and sustainable development. The knowledge of these concepts helps to identify existing gaps in the greening and furnishing of public spaces and the strategies available to fill them in Ado-Ekiti, and thereby make the city liveable within the realms of conducive cityscape and sustainable urban environment.

The vegetative or naturally occurring aspect of the environment is referred to as the green landscape. These naturally created verdure conceptually termed soft landscaping elements include grasses, ground covers, climbers, flowers, hedges, shrubs, gardens, trees, palms, forests, groves, woodland, and vegetation. Other entities in this category include recreational or organised open spaces, parks, water bodies, swamps, watersheds and catchment areas. Green landscaping is the provision, utilization maintenance or preservation of these soft landscaping elements on the earthscape (Ojo-Fajuru, 2018). The concept of urban greening based on ecological principles is applicable in Beijing, China. For example, green space is identified as an indispensable component of the intricate urban ecosystems to attain enduring sustainability. Such greenery includes extensive natural and semi-natural forests: a web of green wedges, parks and corridors targeted at curtaining future urban expansion, environmental quality improvement, and provision of wildlife movement paths and habitats at the city level; and a network of riverside greenway, road greenway, parks and vertical greening that provides open spaces adjacent to residential areas for aesthetic and recreational purposes at the neighborhood level. A development approach was adapted in Beijing and given legal muscle to integrate urban parks, water, infrastructure, forestry, and agriculture, and evolve an interconnected web of green spaces to attain the ultimate goal of transforming the city into an eco-city beyond the 2008 Green Olympic City image (Lia et al., 2005).

The strategy that protects, restores, and maintains nature and ecological balance within urban communities is collectively referred to as green city development. It connotes the intermingling of nature with urbanism to create urbane, civic, healthy, and enriching places to live. It is a living area governed more by nature than legislature; and a sustainable human settlement based on ecological balance, community self-reliance, and participatory democracy (Williams, 2000). The embellishment of a city with opulent and superb greenery is characteristic of holistic planning, consistent management, and a culture of maintenance that guarantees lush green verdure, flourishing fauna and healthful human environment (Adams and Leedy, 1987; Johnston, 1990; Godefroid, 2001), which, according to Jim (2004), is a source of national pride to the people.

The green city concept is relevant to the management of urban landscape development in the study area as it harmonizes the public spaces reclamation and greening programme with efforts to enhance carbon sequestration and abate the effects of climate change in Ado-Ekiti. Green city initiatives will also ensure that the state capital retains abundant naturalness, which enhances city aesthetics and preserves the ecological system that makes the city liveable. A lush green landscape will also reduce glare and the intensity of the high temperatures in this tropical climate, thereby ensuring an ecological balance, urban comfort and liveability.

Street furniture is a collective term for objects and pieces of equipment installed on streets and roads for various purposes, and includes benches, traffic barriers, bollards, post boxes, phone boxes, streetlamps, traffic lights, traffic signs, bus stops, tram stops, taxi stands, public lavatories, fountains, watering troughs, memorials, public sculptures, and

waste receptacles (Cambridge Dictionaries Online, 2016). The environmental quality of street and public places goes beyond the nature and quality of building facades to include the design and placement of such items as lighting poles, litter bins, seats, street clocks, fences and even flag poles (Ojo, 1987).

In the realm of transportation planning and design, Okoko (2006) describes street furniture as the minor but essential components of urban road design such as electricity and telephone poles, telephone booths, post boxes, street name plates, beacons, bollards, pedestrian barriers and public toilets. Attention need be paid to standard regulation on the street furniture in terms of the size, shape, texture, colour and other functional attributes to avoid conflicts and chaos. A unique characteristic of furniture is the potential to strengthen a designed space and as well create focal points within it, but the size and shape of the space determines the suitable type of

Source: http://en.wikipedia.org/wiki/File:Street furniture, Warminster - geograph.org.uk - 1282544.jpg

Figure 1: Co-locating postbox, litter bin and bench as street furniture in Warminster, England.

furniture. Be it permanent or temporary, street furniture has a remarkable effect on the appearance and appeal of the outdoor space (Young, 2009). The common indicator is that street furniture is provided for use and convenience in public places (Figure 1). The concept of street furniture is relevant to this study as it sheds light on the need and importance of these vital items of comfort in the city. The concept guides in the drawing up of an inventory of furniture requirement, appropriate location and maintenance strategy to promote the functionality of urban space and enhance livability in Ado-Ekiti.

Public spaces connote socio-cultural spaces that are open and accessible to the general populace, regardless of age, gender, ethnicity, or religious affiliation. Generally available in the public realm, such spaces as squares, parks, open spaces, streets, and roadways, are readily available for the entire citizenry (The Future of Places, 2014), and afford people from all walks of life acceptability and equal treatment (Garau, 2014). Public spaces are places which are not profit-oriented, but made freely accessible for all to enjoy, including sidewalks, markets and playgrounds (UN Habitat, 2015). Designed and maintained as an amenity for the people, public spaces are often publicly owned; promote social integration and community identity (Safer Spaces, 2016).

Public spaces are considered very important to human settlements to the extent that '*Public Spaces for All*' was adopted as the theme for World Habitat Day 2015. Their

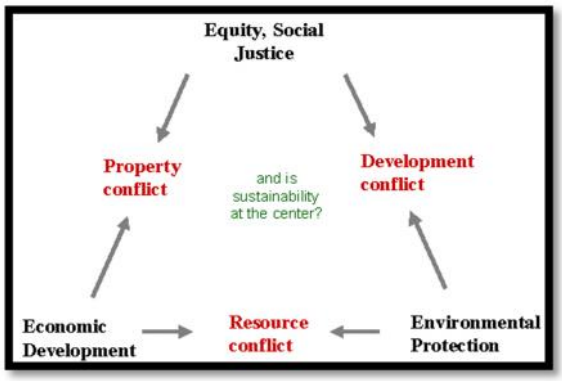
establishment also constitutes a key issue in the proposal for Sustainable Development Goals, forming the cornerstone of Goal 11 Target 7, which states: 'By 2030, provide universal access to safe, inclusive and accessible green and public spaces, in particular for women and children, older persons and persons with disabilities' (UN Habitat, 2015, p. 2-3). The indispensability of public spaces in the promotion of welfare and equality in urban centres provides the impetus to examine the concept in this study. This underscores the need to provide public spaces in optimum quantity and desirable standard in cities, particularly in developing countries. However, it is observable in Nigerian urban centres as exemplified in Ado-Ekiti, a typical state capital in the southwestern geopolitical zone, that rural-urban migration takes toll in form of population increase and amorphous expansion. This tendency culminates in the encroachment on public spaces and the subtraction of greenery in the cityscape, which this study intends to reverse.

The placemaking concept was initiated through the futuristic writings of Jane Jacobs and William Holly Whyte in the 1960s, and provided pioneering thoughts about designing cities that accommodate people, rather than just cars and shopping centers. By the mid-70s, the Project for Public Spaces (PPS) constituted a resource center that championed the advancement of the placemaking movement, and consistently advocated a collaborative community process that pays attention to issues on the small scale as the best approach in creating and revitalizing public spaces. Thereafter, placemaking as a term gained wide acceptance in usage by planners, architects and landscape architects in describing the process of creating pleasurable or interesting squares, plazas, parks, streets and waterfronts that offer strong attraction to the people, and also as structuring devices as the city creates places of attraction and landmark. Placemaking is therefore, a peaceful movement that equates public spaces as the heart of every human community, and employs a transformative approach to motivate people in creating and making better their public places, thereby reinforcing the relationship between people and their communal working, living and relaxation places (PPS, 2014).

Placemaking Chicago/Project Partners (2008) explains that although 'spaces' and 'places' appear to be similar words, they convey different meanings, and the dichotomy between the two lies in the fact that while a space is a physical description of a piece of land, a 'place' suggests a feeling of an emotional attachment to the land. However, the central tenet of placemaking is still misconstrued, misused, or abandoned by planners and urban designers (Hunt, 2001). Moreover, the Project for Public Spaces wonders why creativity overshadows the values of cultural centers in cities nowadays and queries, "why do our cultural centers so often turn inward, away from the street, onto an internal space that is only nominally for gathering, and is mainly used for passing through?" (PPS, 2012). It therefore opines that placemaking cannot be equated with 'constructing a building, designing a plaza, or developing a commercial zone', but can be authentically likened with 'when people enjoy a place for its special social and physical attributes, and when they are allowed to influence decision-making about that space' (PPS, 2014). Hence, the concept of placemaking is an 'innovative participatory engagement tool' (SAPI, 2014), considered important in attaining the aim of this research, centered on synthesizing green landscaping, street furnishing, and citizen participation techniques to transform existing, reclaimed and newly established public spaces into pleasurable urban places, and thereby creating great places for improved liveability and sustainable city transformation in Ado-Ekiti.

Sustainable development has been viewed beyond wealth creation and environmental protection, and projected not only to the care of the people and their quality of life, but also to the assurance that the quality of life of future generations will be as good as, or even better than the present. Hence, the issue of sustainability of the environment can be viewed from two broad perspectives: crisis-free environment, and an environment free from physical barriers that are capable of resisting meaningful development (Basorun 2004). It implies that there should be social progress, which recognizes the needs of everyone, prudent use of natural resources, maintenance of high and stable levels of economic growth and employment, and effective protection of the environment (Cullingworth and Nadin 2002). This boils down to the addition of a fourth value, livability, to the three Es (environment, economy, and equity) that evolved from the most widely accepted United Nations' World Commission on Environment and Development definition of sustainable development as the development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs (WCED 1987). The salient fact is, sustainability therefore implies that the world is not inherited from our parents, but borrowed from our children.

A triangle has been used to depict the three goals of sustainability at each point, and accentuates the basic antagonisms that arise along the axes due to conflicts in the opposing goals. As shown in Figure 2, these conflicts are: development conflict between equity and ecology, property conflict between equity and economy, and resource conflict between ecology and economy (Campbell 1996). The resolution of these triangular conflicts, and the diffusion of tensions arising between livability and the goals on the sustainability prism, is the focus of contemporary planning practice, which is also central to this study.



Source: Campbell, SD 1996, 'Green cities, growing cities, just cities? Urban planning contradictions

of the sustainable development', *Journal of American Planning Association*, vol. 62, pp. 296-312.

Figure 2: The triangle of conflicting goals for planning, and the three associated conflicts.

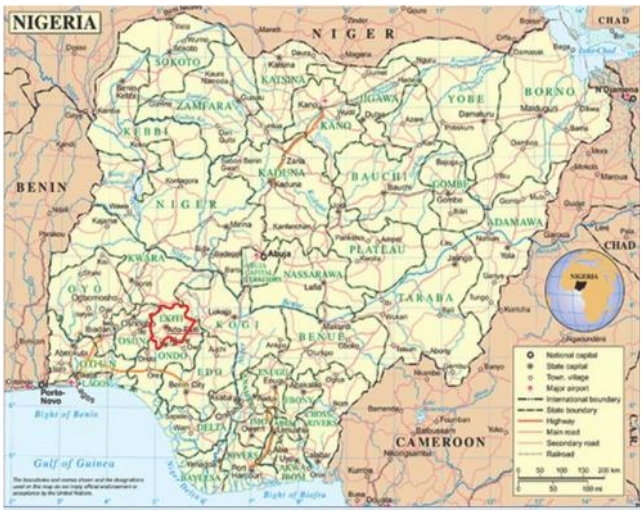
Whichever way sustainability is viewed, be it as tripod fulcrums of the three Es (WCED 1987), or as the four basic objectives of a better quality of life (Cullingworth and Nadin 2002), or as the triangular approach to resolving value conflicts of goals (Berke et al 2006), or as the 14 principles that encapsulate the essence of enduring land use development in all communities (Jepson Jr. and Edwards 2010), or simply as the 'dualistic

relationship between human beings and the ecosystem they inhabit' (Morelli 2011, p. 21), the bottom line is that unpolluted air, clean water, resourceful land, wholesome spatial arrangement, lush greenery, good governance, public participation and livelihood attainment are indispensable towards achieving a truly sustainable city landscape and environment. This is the main thrust of this paper on greening and furnishing of public spaces to promote liveability and sustainable landscape in Ado-Ekiti as a great future African green city.

2. Materials and methods

2.1. Case study area

Ado-Ekiti lies on Longitude 5° 27' East of the Greenwich Meridian, and Latitude 7° 31' North of the Equator in the southwest geo-political zone or Nigeria. Ado-Ekiti occupied a unique political position as the seat of



(Source: http://en.wikipedia.org/wiki/File:Un.nigeria.ong, [accessed 17 April, 2015], highlights by Researcher)

Figure 3: The geographical location of Ado-Ekiti in Ekiti State (highlighted in red) among other states

and the Federal Capital Territory in Nigeria. Inset is the location of Nigeria in Africa on the Globe.

administration with its emergence as the headquarters of Ekiti Divisional Council since the Treaty of 1886, which established colonial Nigeria as part of the British Empire. When Ondo State was created in 1976, Ado-Ekiti remained the headquarters of the newly created Ekiti Central Local Government Area. In 1996, following the creation of Ekiti State from Ondo State, Ado-Ekiti assumed the dual role of headquarters of Ado-Ekiti Local Government and the capital city of the new state.

According to the 1963 Nigerian Census, Ado-Ekiti had a population of 157,159 people and was the largest town in the old Ondo State. In 2001, National Population Commission figures showed that the population of Ado-Ekiti had increased significantly to 208,414.

Using 2001 as the base year, and a population growth rate of 2.9% per annum (NPC, 1998), the projected population figures for Ado-Ekiti for 2010, 2015 and 2020 are 269,542, 310,954 and 358,764 people respectively (see Appendix). The various economic activities in Ado-Ekiti fall within the categories of primary production like farming, fishing, weaving and hunting; secondary production like manufacturing and processing; and tertiary employment such as the civil service and professional service. The fourth category is the informal sector dominated by the self-employed engaged in trading and service activities as a survival response in the wake of widespread youth unemployment and economic downturn. Many informal economic activities, motivated by livelihood strategies, are concentrated in the nerve center - the CBD - and other major streets and hierarchies of roads in the various residential districts.

2.2. Methodology

Data requirement for this study was derived from primary and secondary sources. Questionnaire is the main instrument used for the collection of primary data by field survey using the multi-stage sampling technique. Literature was reviewed from published and unpublished works, research reports, journals, conference proceedings, ministries and departments, and the internet.

Ado-Ekiti was structured into along morphological lines into old unplanned traditional core areas (COAs), new or recent neighbouring colonial development areas (NDAs), and planned post-colonial or contemporary residential estates (PREs) such as government reservation areas (GRAs), state housing estates (SHEs) and private housing estates (PHEs). It was based on these homogenous premises that some neighbourhoods were selected into the sampling frame. The delineated sample frame was subdivided into thirty-two (32) districts, whereby eight (8) districts were selected. These are Old Garage/CBD from the COAs; Ajilosun, Fajuyi Park, Irona, Odo-Ado, and Opopogbooro randomly selected from districts abutting some major roads within NDAs, and the Federal Low Cost Housing Estate and the Government Reservation Areas (G.R.A.) from the PREs. One in every five houses enumerated on street basis in each of the selected districts was picked after making a random choice of the first house. Thereafter, one (1) person, preferably the household head, was singled out in each of the selected houses, culminating to 372 respondents, who were interviewed using the questionnaire method.

Inquiries on the spatial distribution and typology of available open spaces, the extent, causes and effects of encroachment on the open spaces and setbacks, and government efforts to reclaim and revamp green spaces in the capital city were captured in the questionnaire to assess the environmental impacts of the lack/inadequacy of open spaces and greenery in the cityscape. Also included in the questionnaire was the respondents' assessment of whether the reclamation and greening of setbacks and open spaces would improve environmental quality, other socio-economic activities that can be incorporated into the exercise, and readiness to participate in the transformation to sustainable city environment.

Only 369 questionnaires were finally collated and analysed, yielding a 99.19% response rate, deemed amply sufficient for the study. The observation method was readily used to assess the existing physical land use characteristics and determine the availability and location of public spaces in the spatial structure of the city. Unstructured interview guides

were handy to collect valuable information from officials of relevant ministries, departments and parastatals on the state of the environment, and efforts of the state government on reclaiming encroached setbacks and open spaces, which are crucial for greening and furnishing within the placemaking programmes in the capital cities.

3. Results and Discussion

The field survey in Ado-Ekiti presents spatial structure, which reflects obvious planlessness in the morphology of the urban web, typical of traditional Yoruba cities of common origin. The research reveals that the city experienced rapid growth and development which led to the depletion of vegetal cover and replacement with building and agricultural uses, leading to amorphous expansion into the outlying hills and forests as shown in Figure 4. This unplanned development is vividly evident in the high density inner city residential areas that have been in existence since the pre-colonial era, which preceded the advent of planning. On the other hand, the periphery areas in the suburbs that developed during the post-colonial era show limited degrees of planning.

By and large, residential land use is predominant in the spatial structure of the cities, while commercial, industrial, and mixed uses, occasioned by urbanisation, punctuate the built-up areas with little or no provision for open spaces and green landscaping. In effect, the land uses in the urban setting appear bare with few or no

Source: Field observation, July 2015.

Figure 4: Aerial view of Ado-Ekiti showing development sprawling into the surrounding regions.

trees or greenery as result of the built-up areas of the cities expanding sporadically into the outlying suburban districts with attendant vegetal destruction, landscape exposure, encroachment on setbacks and open spaces, and gross inadequacy or total lack of furnished green spaces. The study shows that the existing spatial structure in Ado-Ekiti, exhibiting amorphous development and inadequacy of open spaces and green infrastructure, reduce liveability and attraction as great places.

3.1 Existing state of setbacks, open spaces and greenery

Direct observation of the study area reveals that setbacks and incidental open spaces existing in various states in the city have concomitant negative effects on the nature and appearance of the environment. Data collected and presented in Table 1 indicates that very few respondents representing 4.07% attest that setbacks and incidental open spaces in their localities are paved or landscaped, while in the converse, respondents representing 43.90% confirm that such spaces in their vicinity are bare. Worst still, a significant number of

Existing state of setbacks, open spaces and greenery	No of Respondents	% of Response
Landscaped: paved or planted	15	4.07
Bare and untreated	162	43.90
Illegally used for trading, workshops, storage, etc.	218	59.08
Bushy, strewn with refuse and generally unkempt	85	23.04
Greens (trees, hedges, grass, etc.) available	34	9.21
Greens (trees, hedges, grass, etc.) not available	301	81.57
No response	13	3.52
Total Number of Respondents	**369**	**100.00**

Source: Field survey, July 2015.

Table1: Existing state of setbacks, open spaces and greenery in Ado-Ekiti.

Source: Field observation, July 2015.

Figure 5: Setback to roadway developed as row of shops for trading in Irona, Ado-Ekiti.

respondents constituting 59.08% in the study observe that setbacks and incidental open spaces in their neighbourhoods are occupied by trading shops, workshops and other illegal uses as shown in Figure 5 below, even as a considerable percentage of respondents constituting 23.04% confirms that the spaces are bushy, strewn with refuse and generally unkempt. The study establishes that setbacks and incidental open spaces are either bare, encroached, or poorly maintained as attested by larger percentage of respondents. Findings confirm that the prevailing invasion and willful neglect make public spaces qualitatively deficient, thereby reducing aesthetics and environmental quality to the lowest ebb, and rubbing the attributes of great place off the city. The research also exposes the dearth of greenery in the urban web. The tabulation above impeccably reveals this deficiency as 81.57%, a vast majority of respondents, admit to the acute insufficiency of trees, shrubs, hedges, grasses, and flowers in the cityscape. Comparatively few respondents constituting just 9.21%, traceable to respondents from planned G.R.A. and Federal Low Cost Housing Estate, confirm the availability of green elements within their neighbourhoods. The paucity of this class of respondents corresponds with the widespread insufficiency of public spaces and greenery in the state capital. However, a few respondents forming 3.52% in the study did not respond to the question. It is established that public open spaces and greenery, the breathing organs of cities that play a crucial role in enhancing aesthetics, environmental quality, liveability, and character of a place, are quantitatively deficient, thereby impacting negatively on urban comfort, placemaking and sustainable landscape in Ado-Ekiti.

3.2 Dearth of landscaped public open spaces and furniture for recreation

Research findings reveal the gross deficiency of landscaped and furnished open spaces in the public realm, functioning for recreation and relaxation purposes. Data emanating from the research indicate that the majority

Type of Street Furniture	No. of Respondents on Availability	% of Response
Seats and benches	21	5.68

Waste bins	Not Available	0.00
Street lights	197	53.24
Phone booths	Not Available	0.00
Mail boxes	Not Available	0.00
Fountains	19	5.14
Traffic Signs	226	61.08
Directional signs	Not Available	0.00
Bus stops	35	9.46

Source: Field Survey, June 2014.

Table 2: Availability of Street Furniture in Ado-Ekiti

of respondents representing 91.62% confirm the non-availability of furnished open spaces as recreational facilities in the capital city. It can be inferred that Ado-Ekiti is faced with acute shortage of functional furnished recreational open spaces as this general deficiency is further established by very few respondents constituting mere 4.60% who affirmed that furnished open spaces are available in their residential areas such as the G.R.A. The qualitative deficiency of furnished open spaces has adverse effect on health, liveability, comfort, recreation and productivity of residents, while eroding the potentialities of the capital city to be a great place.

The field survey exposes the total lack of street furniture on streets and roads for the use and convenience of the general public. Out of the nine types of street furniture surveyed, only street lights and traffic signs are observed to be available. As shown in Table 2 above, 61.08% of respondents confirm the availability of traffic signs in the city, while 53.24% corroborate the provision of street lights. Seats and benches are marginally available in the city as very few respondents notice their presence with response rates of 5.68%, indicating the acute scantiness of this furniture for seating and relaxation. In like manner, fountains are sparingly available in the city as confirmed by only few respondents, constituting a meager 5.14%. This trend is similar for the availability of bus stops recording a response rates of 9.46%. The study exposes the absolute lack of waste bins, phone booths, mail boxes and directional signs anywhere in public places in the state capital, as there is not a single affirmative response as shown in the table.

The non-availability of furnished recreational open spaces in the required quantity and quality, or the outright lack of indispensable street furniture in public spaces reduces liveability, comfort, recreational pursuits and inclusiveness of urbanites, while undermining the appearance, strength of character, appeal, functionality and convenience of public spaces. These inadequacies reduce the tendency towards placemaking in Ado-Ekiti, and in so doing, militate against the status of the capital city being regarded as great place.

3.3 Incongruity of statutory planning provisions on public spaces and trends of encroachment

Field survey data analysis established a disconnection between the stipulations of extant planning laws and peoples' attitude towards the provision and maintenance of setbacks, open spaces, squares, parks and the environment in Ado-Ekiti. Despite the requirements of

Ekiti State Urban and Regional Planning and Development Law, developers wantonly abuse the provisions of sections 15-17 of the law on permissible plot ratio coverage, and sections 19-20 on general setbacks permissible. The law provides that the maximum plot coverage of building on any parcel of land should not exceed 40% of the plot to allow for landscaping and other surface treatment; and the responsibility is given the developer to provide drainage and plant ornamental trees on the sidewalks abutting such property before development permit approval is given (EKSG, 2011). Research findings established that more than 80% of the buildings in the study area negate these statutory provisions on plot ratio development, setbacks and tree planting, closely corresponding with 68.28% majority of respondents who claimed unawareness of the provisions of any law in the course of their development.

The study also established a 55.21% tendency of the people to encroach on setbacks, open spaces, squares, and parks, mostly for commercial purposes. The uncontrolled occupation of every available space by informal commercial activities along major roads including sidewalks and even roadways is alarming. Responses affirming encroachment on public spaces by commercial uses recorded 59.44% and 61.02% in the core and new development areas of the city respectively, while the planned residential areas had a low response rate of 29.34%. The study revealed a similar trends of encroachment along minor roads, which were also clogged with illegal commercial activities, as well as access roads, which are not spared in the wave of trading activities. Furthermore, 15.17% of encroached setbacks and open spaces in the city are used for residential purposes, while informal, unpermitted workshops and light industrial activities and services occupy 9.44%, just as religious use, mostly of Christian denomination, was found to occupy 8.56% of encroached spaces. Findings shows that 5.12% of encroached setbacks and open spaces are used as refuse heaps, while other sundry uses cover 6.5% in the city.

The study revealed major causal factors for incessant encroachment on public spaces as ignorance at 34.65%, while nearly one-third (31.77%) of respondents attribute it to the desire by the developer or usurper to livelihood strategy better their financial lot, as well as increasing human activities requiring space (13.16%). Other factors revealed by the study are the laxity of government organs on development matters in the city (15.19%), and the nefarious activities of land speculators poaching the city (4.48%). The research finds that these substandard developments that were largely unapproved, but audaciously and hastily undertaken to satisfy increasing yearnings for socio-economic sustenance in the city, run afoul of minimum setback provisions, making them veritable, but avoidable sources of danger to life and property. It was therefore revealed that incessant encroachment, warranting this myriad of uncontrollable illegal development on public spaces, negates every legal standard. By implication, greenery, circulation spaces, pedestrian movement paths and functional recreation areas are steadily reduced in the state capital. The study exposed the paradox of public space encroachment for the attainment of livelihood strategies at the expense of desirable green landscape, urban liveability, and environmental sustainability. As stated in literature, the development conflict between equity and ecology, property conflict between equity and economy, and resource conflict between ecology and economy in the sustainability triangle (Campbell 1996) are clearly evidenced in the city.

3.4 Activities to be incorporated into reclaimed and landscaped setbacks and open spaces

The research establishes high level contravention of planning regulations and invasion of public spaces in the city. Government officials interviewed in ministries and departments confirm the inevitability of reclaiming encroached setbacks and open spaces. This exercise is expected to recover usurped spaces for the establishment of greenery, especially from those who believed that these spaces were extensions to their properties, and thereby assuming the liberty to develop them at will. People's opinions were sought regarding the activities to be incorporated into reclaimed and landscaped setbacks and open spaces. Findings show more than a quarter the respondents in the survey constituting 27.30% wish the reclaimed public spaces to be maintained as open green areas devoid of any activity, believing that greenery will be more preserved in this way. Most of the respondents comprising 31.51% support the idea of incorporating recreational activities such as seating, walking and relaxation into reclaimed and landscaped public spaces. It is indicated that more people prefer the option of recreational activities in the capital city. Apart from these, a significant number of respondents constituting 19.57% opine that commercial ventures like kiosks, food vending, newsstands, marts and periodic markets should be entrenched into such reestablished public spaces. The support for commercial activities is significant since the space retrieval exercise will definitely displace street traders in the city. Furthermore, respondents representing 15.40% suggest that services such as parking, public toilets, litter bins, phone booths, internet/business centers, and vulcanizing, should be introduced into the recovered public spaces to allow for convenience needs. In the final analysis, a large number of respondents with the combined percentage of 68.48% support that activities ranging from recreational, commercial, and services be incorporated into reclaimed and landscaped public spaces, while 27.30% desire that any reclaimed and landscaped setbacks and open spaces be preserved as open green areas without any activity. This finding establishes people's priorities to be the incorporation of some socio-economic activities into reclaimed public spaces while preserving others as open lush green areas in the spatial greening programme in the state capital.

3.5 Willingness of the people to participate in placemaking programmes

Since planning is for the people, it is not only necessary to involve them in decision making, but it is also important to engage them in plan implementation. Research findings reveal people showing varied degrees of willingness and unwillingness to participate in placemaking activities and programmes such as clearing, cleaning, painting, refurbishing, renovating, planting, and furnishing aimed at creating pleasurable places out of reclaimed public spaces toward transforming the capital city to a great place. A significant number of respondents making up 25.40% are strongly willing to participate in placemaking activities and programmes, while the majority being 48.10% indicate their willingness to engage in the public participatory improvement programmes. Further analysis shows that the summation of respondents strongly willing, and willing to take part in placemaking programmes adds up to 73.30%, indicating a high level of willingness for public participation in the city. On the other hand, indication of unwillingness to participate in placemaking programme of activities (21.09%) outweighs those strongly unwilling to partake in any of such activity (4.60%). Combining the response rates of the unwilling with

the strongly unwilling respondents indicates a relatively significant reluctance towards placemaking initiatives recording 25.69% in the city. Although the percentage of respondents that evaded answering the question (0.81%) is infinitesimal, a slightly high rate of apathy up to 25-30% is expected towards actives participation in placemaking activities and programmes geared towards making great places in Ado-Ekiti.

4. Conclusion

The use of green landscaping and furniture to transform public spaces and make great places that promote livability, inclusiveness and sustainable landscape in Ado-Ekiti is the purview of this research, which finds that the proportion of the land use devoted to open spaces and green landscaping in the city's spatial structure is relatively low deriving, from their incessant encroachment. The ineffective statutory legislations on development control is the established nexus between the ubiquitous dearth of green spaces and peoples' inertia or abuse of the provision and maintenance of setbacks, incidental open spaces, and the environment. Coupled with acute shortage of furnished recreational open spaces and parks, and the outright lack of street furniture in these public places, there is consequential reduction in functionality of such spaces, inhibition of aesthetics, and degradation of environmental quality to the detrimental exclusion of urbanites, and debilitating effects on placemaking potentialities and capability to transform the capital city to a great place. However, the majority of people in Ado-Ekiti indicate recreational, commercial, and services as priority activities to be incorporated into reclaimed and landscaped setbacks and open spaces in the state capital while a significant number of people desire that such spaces be preserved as open lush green areas without any activity. Similarly, people show varied degrees of willingness to participate in the placemaking activities and programmes, and it is envisaged that the significance of conflicting opinions may constitute a stumbling block to goal attainment in respect of green city transformation in this typical Nigerian state capital.

In view of the foregoing, the following recommendations and policies are made to actualize the aim of using green landscaping and furnishing as strategies to transform setbacks and open spaces to gardens and parks, and enhance aesthetics, environmental quality, livability, inclusiveness and sustainable landscape in Ado-Ekiti.

It is highly necessary for government to embark urgently on the compilation, mapping and documentation of all encroached setbacks, incidental open spaces, vacant land and parks within the urban limits of the capital city as backed by relevant laws. This inventory, to be facilitated by remote sensing and satellite imagery, is intended to ascertain the levels of encroachment and illegal development in the urban setting, and guide the reclamation exercise.

Ekiti State Government should set up the Urban Forest, Green Belt, Parks and Open Spaces Development and Maintenance Board (UfGbPOsDMB). This Board is to assume the responsibility of creating urban forests and green belts, within which are created interconnected parks, gardens and other open green areas adequately planted with trees, shrubs, hedges, grasses, ornamental plants and flowers to link up fragmented city spaces; and thereby crossbreed and grow biodiversity. It is highly recommended that appropriate legislation should be made to complement existing laws, and strictly implemented, to support the policy of breaking up hard surfaces in replacement with planting and flowers to reconcile concrete with greenery and thereby reintroduce nature into the city. All open

spaces naturally or incidentally occurring, including setbacks to roadways, utilities and water bodies, and those reclaimed from illegal developers, as well as slopes, should be acquired and re-vegetated into massive urban forest and green areas, and appropriately furnished to create great places for the recreational benefit and pursuits of the people. Selected socio-economic activities should be incorporated and controlled in some designated places to promote inclusiveness, service and economy in the city.

The Ado-Ekiti Local Government should lunch a programme to be tagged the Green Ado-Ekiti with a Million Trees (GAEMT). This initiative should be nurtured to elicit the support and active participation of the people in the tree planting exercise to make the city a great place. This programme should be supported with the provision of free tree seedlings, flowers and grasses groomed in public nurseries and horticultural gardens in strategic locations in the city. Complimentarily, indiscriminate felling of trees should be banned by law and, except in cases of approved maintenance or unavoidable control exercise, it should be made compulsory to plant two or more trees to replace any tree cut down.

Individuals, groups and corporate bodies should be encouraged and protected to form and operate placemaking outfits as non-profit but service-oriented community based organisations, and non-government organisations in the likes of Project for Public Spaces (PPS), Placemaking Chicago, Birmingham Open Spaces Forum, Friends of Heaton Moor Park, and the Green Movement in Paris, among others. These organisations will operate in tandem with the policies of the UfGbPOsDMB, and unite voluntary placemakers and people from all walks to clean abandoned open spaces and filthy vacant lots, and plant such with flowers, hedges, and trees to beautify the environment and bring back lost species such as birds to urban areas thereby reinventing the cities of the future.

Nigeria is a victim of quality assurance deficit in every facet of national life including issues relating to the environment. As proposed elsewhere (Ojo-Fajuru, 2012; Ojo-Fajuru & Adebayo, 2014), strengthened government control is central to law enforcement and attainment of all recommendations and policy directives. To this end, a Quality Control and Assurance Unit (QCAU) should be established to monitor the implementation of the policies and the activities of the UfGbPOsDMB, the GAEMT, and the placemaking organisations as applicable in the state capital. The QCAU will also oversee the upkeep, audit and maintenance of green facilities, infrastructure, furniture, and the overall landscape towards making and sustaining great places in the city.

The need arises to educate and continuously sensitize the populace on the advantages of well-maintained and landscaped public spaces in form of setbacks and outdoor spaces, furnished recreational open spaces, parks and greenery in the urban setting. There is also the need to create awareness of extant development control regulations and other sundry enactments, and the importance of compliance with the laws to attain orderly, conducive and sustainable urban environment. The people should be well informed on the need to shun apathy and rather be proactive and participate in whatever valuable and justifiable capacity, public oriented, service motivated, and team spirited community improvement activities and placemaking that is guaranteed to make places great in the streetscapes, and thereby render the city as a fledging great metropolis of tomorrow.

It is fervently hoped that the aggressive greening and appropriate furnishing of the overall landscape, hinged on effective improvement and placemaking policy directives, proactive citizens' participatory attitude, and enabling laws coordinated with good

governance, provide leeway to meaningful city transformation. These policy actions are guaranteed to propagate and enrich biodiversity, enhance aesthetics, improve urban comfort, increase livability, promote inclusiveness, and ensure sustainable landscape development towards making better spaces and great places in Ado-Ekiti.

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7. Appendix

Population projections

The Geometric growth projection.

The growth projection assumes a geometric series, which is mathematically expressed as:

$P_t = P_0 (1+ r)^t$

where P_0 = initial population

P_t = population t years later

Using 2001 (208,414) as the base year, and a population growth rate of 2.9% per annum (National Population Commission, 1998), the projected population figures for Ado-Ekiti for 2010, 2015 and 2020 are calculated as follows:

Projection for Year 2010

$P_t = P_0 (1+ r)^t$

where

P_0 = 208,414

r = 2.9%

t = 9 years

$P_0 = 208414 (1+2.9/100)^9$

$= 208414 (1.029)^9$

208414 x 1.2934 = 269,562.68

Therefore, the projected population for the year 2010 is 269,563 people.

Projection for Year 2015

$P_t = P_0 (1+ r)^t$

where

P_0 = 208,414

r = 2.9%

t = 14 years

$P_0 = 208414 (1+2.9/100)^{14}$

$= 208414 (1.029)^{14}$

208414 x 1.4922 = 310,995.37

Therefore, the projected population for the year 2015 is 310,995 people.

Projection for Year 2020

$P_t = P_0 (1+ r)^t$

where

P_0 = 208,414

r = 2.9%

t = 19 years

$P_0 = 208414 (1+2.9/100)^{19}$

$= 208414 (1.029)^{19}$

208414 x 1.7214 = 358,763.86

Therefore, the projected population for the year 2020 is 358,764 people.