

USERS' PERCEPTION OF URBAN PARKS AND GREEN NETWORKS IN IBADAN

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Abstract

The appearance and outlook of a city are defined by many spatial elements. Urban gardens form an integral component of such spatial elements. Urban gardens help provide a framework on which eco-friendly environment and sustainable development lies. The aesthetic, air quality purification and therapeutic benefits that these gardens provide cannot be over-emphasized. However, many of these gardens lack the infrastructure that could make them function and meet international standards. The aim of this study is to examine the users' perception of urban parks and green network in Ibadan. The specific objectives are to: investigate the various factors that determine the outlook of urban gardens; map out the locations of the urban gardens; appraise the current condition of the gardens and green infrastructure; and recommend appropriate measures for mitigating the current challenges affecting the identified gardens and parks. Data was gathered through the random sampling of 189 questionnaires. Geospatial analysis was used to map out the various locations of the existing gardens, and it revealed that the gardens are clustered along some local government areas. From the study, 52.4% of the respondents argued that some of the urban gardens lack complementary facilities or are in poor states. In view of the identified challenges, and the potentials of urban gardens improve the Ibadan cityscape, it is imperative for city planners, urban managers, and public authorities to commence a process of revitalizing the existing urban gardens and also establish a new garden with a view toward exploring its economic and ecological benefits.

Key Words: Perception, Urban, Gardens, Green Networks

1.0 Introduction

It is now abundantly clear that rapid urbanization is greatly transforming the spatial pattern of urban landuse worldwide and is one of the biggest environmental problems facing many cities worldwide (Graham *et al.*, 2004). It is estimated that 65% of the world's population will be living in urban areas by the year 2030 (Cilliers *et al.*, 2004). Consequently, the resulting

losses of urban green space at local to global level are continuously altering urban ecosystems, thus bringing about continuous change in the outlook of cities.

The composition of an urban space ranges from the human component, physical and natural components. The changing structure and the dynamic nature of these urban components defines the outlook and appearance of a city. With the advent of the dynamics of these urban areas, urban and city planning becomes a necessity. Graham *et al.* (2004) stated that it is now abundantly clear that rapid urbanization is greatly transforming the spatial pattern of urban land-use worldwide and is one of the biggest environmental problems facing many cities globally. A sustainable and ultimately self functioning city is realistic, so also a brighter future for the world's developing cities is both imperative and possible.

The ability of a city to function as a place of relaxation and opportunity is often determined by various factors, which include the environmental condition of such a place. Urban planners in the 21st century have been focusing on the concept of green city and green culture has an integral part of a functional, sustainable, clean and healthy city. Thus, the challenges of the fast growing cities will be to steer urbanization from its current, unsustainable path, towards sustainable, greener cities that offer their inhabitants choice, opportunity and hope (FAO, 2010), therefore, the concept of green city becomes a sustainable city planning. FAO (2010) avered that the concept of "green cities", designed for resilience, self-reliance, and social, economic and environmental sustainability is usually associated with urban planning in more developed countries.

Malmström *et al.* (1991), define a green area as an area in city plans with green surface, trees and other elements of vegetation. This shows that urban garden is a component of a green area. Urban green space includes everything in cities that has vegetation. For the essence of this study, an urban garden can be defined as structurally and physically planned area or environment, made-up of various facilities such as sit-outs, indoor and outdoor relaxation facilities that help supplement the social and psychological convenience of users such that it promotes relaxation and promote an atmosphere of relationship with natural landscape, in which greens and eco-friendly gadgets are its major focus.

Urban greening is a mitigatory measure to many of the environmental problems associated with expanding urban areas (Long and Nair, 1999). Studies (Akbari, 2002; De Sousa, 2003; Kollin, 2005) have shown that urban forests can help to reduce storm water runoff, improve air quality, reduce noise pollution, provide wildlife habitats, as well as providing shade in the city and thereby saving on energy. The associated health, psychological and financial benefits from urban forestry cannot be over-emphasized (Swones *et al.*, 1992; Kaplan, 1995; Long and Nair, 1999; Bodin and Hartig, 2003). For instance, Swones *et al.* (1992) stated that forest are of high medicinal and spiritual values, while Ajewole (2005) and Musiliu *et al.* (2010) observed that forestry helps in saving energy cost.

Despite the well established benefits of urban gardens and green networks, the lack of consistent association in assessing quality of green open spaces within residential neighborhood area may be due to difficulties in defining, measuring, and assessing the quality of a park (Malek *et al.*, 2010). Chiesura's, (2004) avered that current sustainable indicator for urban development which is much related to most city planners and urban designers in their work should take into account the availability of public spaces (urban garden inclusive) and green open areas as they have been proven to fulfill the needs and expectations for the satisfaction of residents living environment which should lead to a sustainable city. The rural outlook of some local government

area coupled with needed population threshold in terms of cost and population patronage are some of the factors that define the spatial distribution of urban gardens in Ibadan.

Numerous studies (Carter, 1993; McPherson *et al.*, 1994; Beatley, 2000; Alvey, 2006; Jim and Chen, 2008; James, *et al.*, 2009 and Malek, *et al.*, 2010) have pointed to urban green spaces as a resource in promoting public health and providing valuable ecosystem services to urban dwellers. McPherson *et al.* (1994) stated that studies in Chicago shows that increasing tree cover in the city by 10 percent may reduce the total energy used for heating and cooling by 5 to 10 percent. While in Mexico City, the average level of particulate suspension in the atmosphere rose from 65 mg/m³ to 400mg/m³ between 1974 and 1990, and this is due to poor urban greening practices (Carter, 1993). Fuwape and Onyekwelu (2011) also averred that urban forests can have a positive impact on physical health of urban dwellers, as in many cities in West Africa, trees often have cultural and spiritual values, thus impacting positively on the mental health of the people. Fuwape and Onyekwelu (2011) also averred that urban forests can have a positive impact on physical health of urban dwellers, as in many cities in West Africa, trees often have cultural and spiritual values, thus impacting positively on the mental health of the people.

The aim of this study is to appraise users' perceptions of urban parks and green networks in Ibadan. The specific objectives are to: (1) map out the locations of parks in Ibadan; (2) appraise the current condition of the urban parks and green infrastructure; and (3) recommend appropriate measures for mitigating the current challenges affecting the identified green networks and infrastructure.

1.1 Statement of problem

Biodiversity of urban green spaces is well recognized for the provision of variety of ecosystem services to cities. Hence green spaces are recognized as one of the most popular resources of the urban ecosystems today. The increasing urbanization and human population growth during recent decades have resulted significant loss of habitats in the urban landscape (Mckinney, 2002) and accompanied by many environmental problems, such as a reduction of green spaces and ecosystem deterioration (Lee, *et al.*, 2005).

Despite the importance of urban green spaces, urbanization and limited accessibility (in cost and time), lack of complementary facilities has influenced negatively the use and patronage of urban gardens and urban green spaces in urban areas. The fact that urbanization is having enormous impact on the environment at local, regional and global scale (Turner *et al.*, 1990) the trend of studying different aspects of urban green spaces is gaining momentum among urban researchers. Thus, it becomes imperative to investigate users' perceptions of urban parks and green infrastructures in Ibadan.

This is so due to the organic, historical and urban morphology of Ibadan as a settlement that can be classified as ancient as it is the capital of Oyo State, and is reputed to be the largest indigenous city in Africa, south of the Sahara. Ibadan had been the centre of administration of the old Western Region, Nigeria since the days of the British colonial rule. Also at Nigerian independence, Ibadan was the largest and most populous city in the country and the third in Africa after Cairo and Johannesburg.

1.2 Literature review

The increasing rate of urbanization and city expansion has resulted in the loss of green spaces and less emphasis has been placed on the benefits of urban parks to human and city sustainability. Mckinney, (2002) stated that the increasing urbanization and human population growth during recent decades have resulted significant loss of habitats in the urban landscape.

Yuan *et al.* (2005) noted particularly that the expansion of residential and commercial land uses towards the periphery of urban areas has been recognized as the main factor in influencing the urban ecosystems. The negative environmental impacts of urban growth have been demonstrated in developed and developing countries (Colding, 2007) and accompanied by many environmental problems, such as a reduction of green spaces and ecosystem deterioration (Lee *et al.*, 2005). FAO (2010) asserted that the challenges of the fast growing cities will be to steer urbanization from its current, unsustainable path, towards sustainable, greener cities that offer their inhabitants choice, opportunity and hope.

The valuation of the benefits provided by urban gardens and parks are quite difficult to measure and quantify, but yet indispensable. According to Milton, (2002) some of the many benefits of urban green spaces are; air and water purification, mitigation of the impact of environmental pollution, carbon sequestration, regulation of microclimate, habitat for urban wildlife, recreational, spiritual and therapeutic value as well as social integration. Hence, green space improves the environmental quality of life, urban tourism, active and passive recreations and many other urban ecological functions (Randall *et al.*, 2003).

Urban green spaces serves as a resource in promoting public health and providing valuable ecosystem services to urban dwellers (Alvey, 2006; Jim and Chen, 2008). As far as the roles of urban green spaces in urban environment are considered, they are recognized as key ecological service providers to urban dwellers with multiple functions and also an important pillar of sustainable development. Sandstrom *et al.* (2006) pointed out that the multiple functions of urban green spaces are reasonably well developed, but these are not well integrated into the urban planning, design and management process. Urban greenery in the form of tree and flower planting and the establishment of public parks and gardens contribute to the beautification of a city. Urban greening through urban forestry management is an important strategy to improve urban living and working environments (Jiang, 2003 in Fuwape and Onyekwelu 2011), thereby reducing air pollutants and enhancing environmental air quality control through the reduction of carbon dioxide level (Nowak *et al.*, 1996; McPherson *et al.*, 1994)

Moreover, by getting the public involved in educational activities associated with urban green spaces, planners can raise the consciousness of the public concerning the importance of these “urbanscapes”. Gill *et al.* (2007) emphasized that the urban green spaces can play a central role in both climate-proofing cities and in reducing the impacts of cities on climate. Presently, as rapid urbanization is causing losses of even more urban green space across the globe, hence, urban green spaces need to be preserved and promoted for future generation as they provide key ecological services. Richard and Stout (1998) stated that public parks helps to restore life to the cities due to the lifeless situation provided by urbanization in form of built up spaces. Public parks are organized open space designed for recreation, where people meet, relax and enhance social ties among the citizenry. It can be in its natural or semi-natural state, or planted, and is set aside for human enjoyment or for the protection of wildlife or natural habitats (Sherer, 2006).

UNDP (1996), in Beatley (2000), observed that many of the European cities studied maintain extensive allotment gardens—areas of small garden plots, rented or assigned to the general public and used for recreational flower and food gardening. Malek *et al.* (2010) observed that the lack of consistent association in assessing quality of green open spaces within residential neighbourhood areas may be due to difficulties in defining, measuring, and assessing quality of a park or neighbourhood parks.

2.0 THE STUDY AREA

Ibadan is made up of 11 local government areas in which 5 of the local government areas form the urban area and the remaining 6 local government areas can be classified as a rural or peri-urban local government area. The core area of Ibadan is comprised of 5 major local government areas which are considered as the urban local governments in the state. These urban local governments are Ibadan North, Ibadan North-West, Ibadan North-East, Ibadan South-East and Ibadan South-West. Basically, the rapid urbanization which has hitherto eaten deep into the city of Ibadan has seriously affected the recreational lands, vacant lands, forest reserves etc. in the study area. The population of the study area (Ibadan North, Ibadan North-West, Ibadan North-East, Ibadan South-East, Ibadan South-West) according to 2006 census put the population of the city at 1,343,147.

In recent years retaining and enhancing the biodiversity of an area has become more important. The government of Nigeria and Oyo state in particular through the greenery of the state and the tree planting campaign across the nation suggests that the population should seek to 'live within environmental limits' and so there is a responsibility to look after the rich and varied biodiversity of Ibadan, both for current well-being and for future generations. Management of the landscape and future plans need to be sensitive to ensure that the biodiversity of the area is sustained.

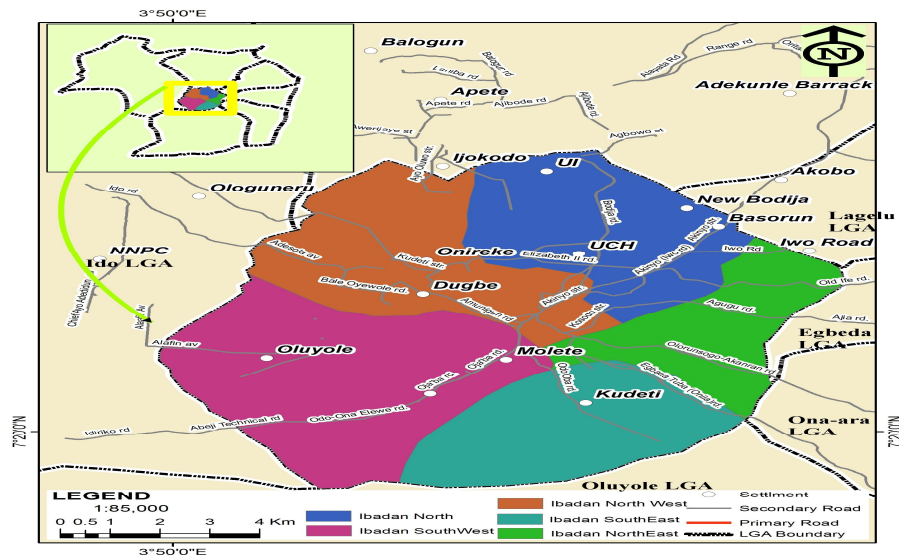


Figure 1: Map of the study area

Source: Oyo state Ministry of Physical Planning and Urban Development (2015).

3.0 Methodology

This research adopted a cross sectional research design. The instrument employed for the collection of data was questionnaire. The sample frame of the research is the total population of the urban local governments that make up the Ibadan metropolis. The metropolitan area of Ibadan has a total population of 1,343,147 according to the 2006 census, encompassing of five local government areas. For the basis of the research, a sample size of 0.014% of the sample frame was used. The justification for the choice of 0.014% is because of the exigency of time, the population size and the ease of proper administration of questionnaire that will ensure a proper base for generalization of the sample population. Hence, a total of 189 questionnaires

were administered in the study area. Accidental sampling was adopted in the questionnaire administration. Field observation and in-depth interview was conducted to have a clearer understanding on the subject matter.

Geospatial analysis and mapping was also employed in the mapping of the locations in which the urban gardens are, as this will help locate the urban gardens with ease.

4.0 Findings and Discussion

The total number of questionnaires administered for the purpose of the study was 189 out of which 102 are male while 87 are female. Age distribution of the respondent also reveals that it ranged from 18 to 83 with a mean of 34.96 (s.d.=13.68). Meanwhile, 12.2%, 51.3%, 16.9% and 19.6% of the respondents were single, married, divorced/separated and widowed respectively. The study reveals that majority of the respondents were self-employed accounting for 39.7% of the total respondents, 23.8% are students, 28% are traders, 8.5% are civil servants. 18.6% respondents earn less than #40000 (200USD at #200 per USD), 56.1% earn between #40000 and #80000, while the remaining 25.4% respondents earn above #80000. The sample shows that most respondent (78.9%) carry knowledge of the fact that green spaces consist of tree plantings and grass plantings. This can be attributed to their educational background and the fact that planning for green spaces had to be communicative in nature and there is a need for sensitization of the public as to the meaning of green space and what it entails.

The distribution of urban gardens in Ibadan is well presented in figure 2. The location of the urban gardens within Ibadan metropolis shows a cluster of the open spaces within Ibadan North and Ibadan North-West local government areas, while other local government areas has no planned and organised urban garden or parks. This situation is attributable to certain factors which includes among others intense competition for residential and commercial development, uncoordinated development associated with the core areas of the city such as the areas within Ibadan south-west, Ibadan south-east and Ibadan North-East. Areas such as Beere, Oja'aba, Mapo among others were observed to be worst hit by the phenomenon of intensive residential and commercial development.

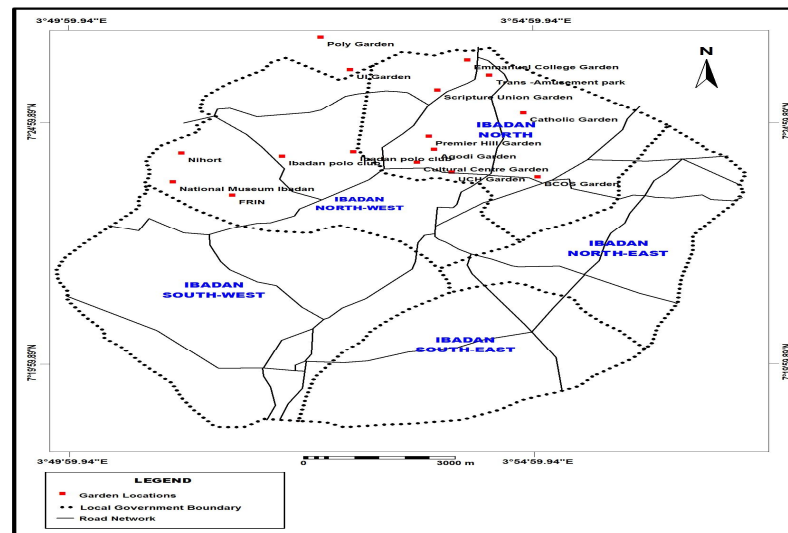


Figure 2: The spatial distribution of urban parks

Source: Authors analysis 2015

4.1 Urbanization and urban gardens

The drastic rate of urban settlement growth coupled with population increase often times influence the place making of urban center. African cities are experiencing rapid population growth, and this has a considerable effect cities structure. O'Connor (1984) stated that the effective control of urban growth in most cities currently outstripped the structure and machinery set-up in the local government areas and planning authorities. Falade (1998) stated that Nigeria high urbanization has several implications for every aspect of the people's life style, including parks development for outdoor recreation, landscape improvement and environmental conservation for healthy living.

Sequel to the foregone, the result revealed that the majority (60.9%) of the sampled residents in the study area were of the perception that urbanization have an impact on urban green landscape, while the remaining 39.1% disagree with that fact that urbanization has an effect on urban green landscape. Factors such as rapid urban population growth (45%), limited land area for practicing green landscape (9%) and poor implementation of government policies (39.8%) are the identified factors that affect urban greening and landscape development in Ibadan/ Table 1 shows that the perceived major impact of the loss of urban green space identified includes loss of biodiversity due to increasing rate of unplanned urbanisation, and this was attested for based on this study, as 32.2% respondents share of the notion, while another 67.8% were of the opinion that urban green space loss affects weather condition ranging from reduced rainfall and increased temperature pattern.

Respondents asserted that the benefits of urban green spaces includes air and water purification (50.3%); a bio-means of controlling pollution (20.6%); 21.2% carry the notion that it serves as tool for protection against flooding, while the remaining 7.9% are of the opinion that it support improved air quality. This finding corroborates studies by McPherson, (1998); Fuwape and Onyekwelu, (2011) and Nowa, *et al.* (2013) who stated that urban green spaces (parks inclusive) with trees as major component play important roles for healthy, liveble and sustainable cities, thereby serving as city environment coolant, natural filters and noise absorbers, improve microclimates, conserve biodiversity, protect and improve the quality of natural resources, including soil, water, vegetation and wildlife. The study revealed that 51.8% respondents do not believe that green paces improve environmental quality of life, while the remaining 48.2% perceive that green spaces directly or indirectly influences environmental quality of life. This study finding is in line with that of Popoola *et al.* (2015) which stated that landscaping is a powerful tool to achieve a pleasant, as it contributes to visual satisfaction, and also helps absorbs carbon dioxide released into the atmosphere through the activities of man and thereby releases oxygen in exchange this process gives fresh air into the environment.

Table 1 Perceived effects of loss of urban green space

Impact of loss of urban green space	Responses	Percent
Increased temperature	19	15.4
Reduced rainfall	43	35
Destruction of plant and animal species	61	49.59
Total	123	100.0

The urban garden users where of the view that the benefits of urban gardens includes improved/purification of air and water (58.2%), pollution control (20.6%), a tool for protection against flooding (21.2%), and improved air quality.

Establishing the benefits of green space to human health is imperative to eco-planning education. Respondents are of the view that green spaces are a resource for promoting public health. 71.4% of them believe that urban green spaces is a resource to promote public health, while the remaining 28.6% respondents disagree with the statement that it is a resource in promoting public health. Also, 75.6% of the respondents perceive the improvement in tourism as a result of urban gardens and green spaces.

4.2 Users perception on the patronage and functionality of urban gardens

Human are subjected to action based for various reasons. Relating and appreciating the urban green space forms part of the action of man in space. Jahdi (2013) stated that one of the most important and effective factors of human life are urban forests and green spaces. To appreciate the potential of the urban garden is attitude and perception defined. Balram and Dragievi,(2005) argue that attitudes influence the behavior towards urban green spaces. Respondents were asked how often they visit urban gardens around them. The study revealed that 52.4% of respondent's visited the urban garden often, 29.6% respondents went there occasionally, while 18% of respondents rarely or had never been in the urban garden. (See table 2).

It was observed that visit to the park by a respondent is often determined by the family, peer group, distance and cost defined. Humans are economically rational, both in cost and time. Thus, a need to establish the time travels to utilize the urban garden by the respondents. The study revealed that the average distance covered by each respondent to access a facility is between 10 to 30 minutes, as a total of 130 respondents uses that time to access a facility, 38 respondents' used over 30 minutes while the remaining 21 respondents' used less than 5 minutes to travel to location where the closest or the preferred facility is located. The average cost of accessing the urban garden is between #100(0.5USD) and #200 (1USD).

Table 2 Level of patronage of respondents to urban garden

Responses of visit	Responses	Percent
Often	99	52.4
Occasionally	56	29.6
Rarely or Never	34	18.0
Total	189	100.0

The relationship between the age, sex, marital status, educational qualification, income, occupation and distance from home to urban garden and frequency of visit is reported in table 3. Sequel to the cross-tabulation of socio-economic characteristics of respondents and level of patronage of urban gardens in Ibadan, the result of the analysis showed that peoples frequency of visit to urban parks are dependent on variables such as age, marital status, educational qualification, income, occupation and distance coverage of respondents. Where age and marital status has a Pearson Chi-square 2-ways test of confidence level, it was identified that there was significance of 0.001 (which is lesser than 0.05%). This means that there is over 95% confidence level in the prediction. For the educational qualification, income, occupation and distance from home to urban garden, there was a significance value of 0.000 respectively. This shows that as

frequency of visit to urban park in Ibadan is concerned, it is not dependent on the sex of the respondents.

Analysis of data gathered from the field survey also revealed that cost of accessing the gardens might not necessarily influence the users' level of patronage. The use of urban gardens like some other facilities are seasonal in nature and event defined, so distance doesn't often determine the use. People use of urban gardens is functionality and satisfaction based. Respondents that uses between above 20 minutes to travel from their homes to urban gardens patronize the urban gardens more.

Table 3 Test of relationship between age, sex, marital status, educational qualification, income, occupation and distance from home to urban garden and frequency of visit.

Test of relationship between age of respondents and level of patronage			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	16.957 ^a	3	.001
Likelihood Ratio	22.014	3	.000
N of Valid Cases	189		
a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is 1.80.			
Test of relationship between sex of respondents and level of patronage			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.636 ^a	3	.304
Likelihood Ratio	3.692	3	.297
N of Valid Cases	189		
a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 4.61			
Test of relationship between marital status of respondents and level of patronage			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	23.985 ^a	6	.001
Likelihood Ratio	30.491	6	.000
N of Valid Cases	189		
a. 5 cells (41.7%) have expected count less than 5. The minimum expected count is 2.13.			
Test of relationship between educational qualification of respondents and level of patronage			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	80.554 ^a	9	.000
Likelihood Ratio	98.766	9	.000
N of Valid Cases	189		
a. 8 cells (50.0%) have expected count less than 5. The minimum expected count is .90.			
Test of relationship between income of respondents and level of patronage			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.0572 ^a	12	.000
Likelihood Ratio	113.381	12	.000
N of Valid Cases	189		
a. 14 cells (70.0%) have expected count less than 5. The minimum expected count is .79.			
Test of relationship between occupation of respondents and level of patronage			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	59.387 ^a	6	.000

Likelihood Ratio	73.611	6	.000
N of Valid Cases	189		
a. 5 cells (41.7%) have expected count less than 5. The minimum expected count is 2.13.			
Test of relationship between distance of respondents home to urban garden and level of patronage			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	72.318 ^a	9	.000
Likelihood Ratio	83.745	9	.000
N of Valid Cases	189		
a. 9 cells (56.3%) have expected count less than 5. The minimum expected count is 1.12.			
Test of relationship between cost of assessing the urban garden and level of patronage			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.0912 ^a	9	.000
Likelihood Ratio	83.556	9	.000
N of Valid Cases	189		
a. 10 cells (62.5%) have expected count less than 5. The minimum expected count is .90.			

4.3 Factors that determine the physical condition of parks in Ibadan

- **Location:** elements in space are often said to be dictated by location in terms of outlook, and maintenance. The location of urban green spaces aren't an exception in defining its outlook. Based on field observation of urban gardens in Ibadan, it was discovered that the aesthetic quality, appearance, and usage are determined by the location of such green areas.
- **Nature of Activity in the Environ:** man's activity in space seems voracious and never static but always changing. It was observed that the nature of activity in an area determines how the place looks. Urban gardens located along commercial, and high density neighbourhood are not properly maintained as compared to the ones located along along military barcaks and institutional areas such as the government house, the state secretariat, and the university college.
- iii. **Financial Implication:** in the course of the field work it was discovered that it is very expensive to maintain urban gardens and greeneries, given the scarce resource and inadequate electricity availability. Ibadan recreation club, UI botanical garden and poly botanical garden are faced with such situation.
- iv. **The isolation or fencing of the Area:** whether the place is sealed or left open determines the outlook of a place. Urban gardens that are well fenced are often well maintained.

4.4 Government and green infrastructures

The role of the government in urban green spaces cannot be under-emphasized, as politics often times dictates the pace of planning activities. Planning is a process that is subjected to change when necessary. To plan for the future, there is a need to evaluate the present and identify the changes in the past. A research question was asked to ascertain the respondent's perception as to changes in the urban green landscape in Ibadan for the past 10 years. 74.1% of the respondents believe there had been changes regarding urban green landscape in Ibadan for the past 10 years (table 4). These changes are fairly perceived or substantially visible. Despite this fact, 25.9% of the respondents was of the view that there isn't a change regarding urban green

landscape in Ibadan within the last 10 years. The perceived causal factor for the change in urban green landscape in Ibadan include; improved awareness and education as regards urban green landscape(49.2% of the respondents); change to the political scape, political will and various government initiatives in terms of policies and programs in the state (50.8% of the respondents); in the past 10 years. The change in urban green landscape was perceived by the respondents to be the responsibility of the government.

The functionality of an urban garden is dependent on the available complementary facilities. 47.6% observed that complimentary facilities are available while 52.4% argued that some of the urban gardens lack complimentary facilities or it is in poor condition. The available complimentary facilities include cafeteria, water supply, electricity, indoor sport, outdoor sport, and bar. The study also revealed that the government should incorporate the concept of urban green spaces into the city planning, design and management process. The majority (96.7%) of the respondents believe the government should incorporate the concept of urban green spaces into the urban planning, design and management process. Planning is a process that is subjected to change when necessary. To plan for the future, there is a need to evaluate the present and identify the changes in the past. Factors identified by respondents that affect urban garden establishment include limited land area(45%); poor implementation of government policies (39.8%); rapid urbanization (9.0%) and residents' lack of patronage of the available urban gardens (6.2%).

Table 4 Perceived level of changes in urban green landscape in the last 10 years

	Responses	Percent
substantially	115	60.8
fairly	74	39.2
Total	189	100.0

5.0 Conclusion and Recommendation

Eco-city and green city are two major planning issue that have occupied the global discussion. Sustainability depends heavily on how much of the natural environment can be conserved, maintained and appreciated. The essence of the green network must be seen beyond the aesthetic function which it performs but a great model from developed countries of Singapore, Sweden, and Netherlands whom have turned green networks into means of social functioning. Based on the well established benefits of urban parks and green network, the study put forward the following suggestions.

In planning, development or redevelopment of parks in our communities should be a special focus and due attention should be paid to it. Also, awareness should be made for the masses on climate change, global warming and Green House Gas (GHG) especially how these could be reduce by the simple use of green infrastructure. Embracing these will not only save our communities from environmental problems but also enriches us health wise and in monetary form. There is a need for green city promotion and awareness. It is indeed disheartening when the majority of people living in a neighborhood are oblivious to the vast natural endowment within their community.

Accessibility in time and cost are issues that need to be well provided for as regards the utilization of urban gardens in urban areas. The patronage of these urban gardens is subjective to the financial power of the users and these needs to be properly considered when fixing the price for accessing the facilities.

The rate of urbanization and settlement growth needs to be properly monitored in order to control the loss of biodiversity and also reduce the effects of urban heat island. As the social, mental, emotional, and therapeutic benefit of these gardens needs to be properly appreciated. Thus, there is a need for proper investment in the establishment of urban gardens before these benefits can be appreciated, as often times, the lack of education and sensitization as regards the benefits cannot be fully comprehended by users.

The State government needs to engage in public private partnership to enhance and bring about adequate facility maintenance. For this to be well incorporated there is a need for proper maintenance of the already existing gardens, parks and green infrastructure. Urban gardens like trans-amusement park, cultural centre garden, and various botanical gardens across the city need to be upgraded up to the global standard. As the aesthetic appreciation of this infrastructures come from a first glance at the infrastructures. Also, complimentary facilities are an important component of urban gardens as gardens do not exist in isolation. Urban gardens characterised by inadequate facilities need to be provided with facilities such as cafeteria, power supply (electricity and generator), and security.

Urban planners working in the various local planning authorities still remain the major managers of the green networks. For realistic investment to be possible, government must be willing to put in place planning framework that eco-friendly, and master plan that provides for urban gardens such that both public and private development plans include urban parks in their designs are rigidly adhered to and those that lack green infrastructures are provided with, as this will help complement the already available ones and also reduce traffic generation at locations with major urban gardens.

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