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RESIDENTS' PERCEPTION OF GREEN INFRASTRUCTURE DELIVERY IN SOUTHWESTERN NIGERIA

Abstract. This study aimed at examined residents' perception of green infrastructure delivery in Abeokuta, Osogbo and Ado-Ekiti in Southwester Nigeria. Data for the study were from primary and secondary sources. Primary data were collected through physical observation and questionnaires applied to residents. Using multistage sampling, Abeokuta, Osogbo and Ado-Ekiti were stratified into three developmental zones (core, transition and suburban) followed by identification of residential areas in the zones. Thus, 199, 179 and 115 residential buildings were sampled across the developmental zones of Abeokuta, Osogbo and Ado-Ekiti respectively where respondents were selected to arrive at 493 residents that formed the sample size for the study. Data collected were analysed using both descriptive and inferential statistics. Findings (58.3% of the residents) revealed that the government was the major provider of green infrastructure in the three cities and the condition of green infrastructure was just fair with Relative Condition Index (RCI) of 2.63 and the RCI varied across the cities. It was also discovered that residents made use of green infrastructure for different purposes across the cities. Findings further revealed that the residents' places high level of importance on green infrastructure with Relative Importance Index (RII) of 3.06, but the level of satisfaction they derived was low with Relative Satisfaction Index (RSI) of 2.93 with lower RSI attributable to several green infrastructures. The factors found to influence residents' perception were socioeconomic characteristics (R^2 = 0.299) and condition of green infrastructure (R^2 = 0.072). This study concluded that there was less residents' level of satisfaction with green infrastructure compared with the level of importance they attached to them. Moreover, the residents' perception of green infrastructure was influenced by their socioeconomic characteristics and condition of green infrastructure in the study area.

Keywords: green infrastructure, delivery, residents, Southwestern Nigeria

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1. Introduction

Across the world, there are indications that despite the vital roles played by green infrastructure in offering social, cultural and economic developments of individuals and communities, the problem of ineffective green infrastructure delivery is escalating. Majority of citizens in countries in Sub-Saharan Africa, particularly Nigeria, do not have access to green infrastructure and where available, they are either not functioning or in a terrible state (Jim & Chem, 2008; Popoola *et al.*, 2016; Dipeolu & Ibem, 2020). As a result, many urban dwellers in the country live in deteriorating conditions that constitute an affront to human dignity. These conditions come with attendant health and environmental implications such as increased flooding, higher wind speeds and more episodic rainfall especially in higher-density cities where green infrastructure are usually scarce (Coutts *et al.* 2014; Brown *et al.* 2015). This realization of green infrastructure efficacy has heightened scholarly inquiry in relation to state and accessibility especially in the Southwestern zone of the Nigeria.

Studies have investigated the state of green infrastructure in both developed and developing countries (European Environment Agency [EEA], 2002; Oh & Jeong, 2007; Cook *et al.*, 2012; Ma & Haarhoff, 2015; Popoola *et al.* 2016; Artmann *et al.*, 2017; Johns, 2019; Yoade, 2019). Ma and Haarhoff (2015) examined accessibility levels of green infrastructure in walking distance in Auckland, New Zealand. One of the crucial findings was that residents/households in low-income areas do not have access to green infrastructure such as parks and public gardens, green corridors, local natural reserves, and beaches, with amenities such as playground, exercise equipment and social gathering sites. Likewise, Popoola *et al.* (2016) indicated that access to adequate green infrastructure is premised on the financial capability of a person or individuals. The study further stressed that the state of green infrastructure in Nigeria is attributed to incessant economic and political crises, rapid urbanization, inefficient infrastructural delivery systems, low investment in green infrastructure and bad governance. As much as these studies focused on accessibility and state of green infrastructure, there is dearth of information on government policies towards green infrastructure delivery.

Valderrama (2012) observed that almost all the green infrastructure such as woods, wetlands, parks, gardens, and man-made greenery design solutions such as constructed wetlands and green roofs in New Jersey, United States are owned by private investors and are in pleasant condition. On the other hand, Molla *et al.* (2017) stated that the deplorable condition of some green infrastructure in Ethiopia is attributed to the fact that some of them belong to government. The study recommended that government should ensure synergy and partnership with private providers on the maintenance of green infrastructure (Sister *et al*., 2010). As a result, this study therefore assessed the providers of green infrastructure in the study area.

Studies have also examined the condition of green infrastructure and residents' socioeconomic attributes in relation to perception of green infrastructure delivery (Egunjobi, 1989; Jim & Chen, 2008; Wright, 2011; Wu *et al*, 2019). The work of Jim and Chen (2008) established that age, gender, education and income have significant influence on the physical activity of residents and use of urban parks in Guangzhou, China. Also, Wright (2011) assessed the perceptions and use of urban green infrastructure in two Ethiopian cities. The study concluded that location, accessibility, safety, type of green infrastructure, and opportunities for social activities, and residents' socio-economic factors such as age, gender and income influenced residents' perception of green infrastructure in the two cities. This study also examined the condition of green infrastructure and the socio-economic characteristics of residents in the study area and how these influence residents' perception to green infrastructure delivery in the study area.

There are several studies on perception of green infrastructure in terms of their awareness, importance attached to them and satisfaction derived from their utilization (Whitford *et al*., 2001; Wojuade, 2012; Nickel, *et al*., 2014; Okoli, 2014; Ezema, *et al*., 2015; Keeley *et al*., 2015; Lennon, 2015). Turner *et al.* (2016) indicated that residents' awareness of green infrastructure not only provides recreational and social interaction to people but also enhance their quality of life. Furthermore, studies have established the importance attached to green infrastructure in terms of their contribution to human health, well-being, quality of life and reduction of environmental impacts (van den Berg *et al.* 2010; Mayer *et al*., 2012; Lovell & Taylor, 2013; Meerow & Newell, 2017; Atoyebi & Yoade, 2024). The studies concluded that greener neighbourhoods are predominantly important for increasing people's engagement in physical activity.

Literatures have ascertained that the level of satisfaction derived is a determinant of residents' perception of green infrastructure (Geis, 2000; Lovejoy *et al.*, 2010; Johnson *et al.*, 2014; Popoola *et al.* 2016; Ostoić *et al.* 2017; Harrington & Hsu, 2018; Gashu *et al.* 2019). Satisfaction to green infrastructure can be assessed based on the availability of green spaces in any environment, travel time to available green spaces in home or work space, management and maintenance of green spaces and the behavioral approach of the users of green spaces. These studies are in developed countries where planning for green urban infrastructure and its utilization have been in existence for centuries. Thus, their perception of green infrastructure might be different from what operates in Nigeria. This study also examined residents' perception of green infrastructure in terms of the level of awareness of, importance attached to and satisfaction derived from green infrastructure in the study area.

From the foregoing, this study assessed green infrastructure delivery in term of the perception of residents on the provision and utilization of green infrastructure in the cities of Abeokuta, Osogbo and Ado-Ekiti in Southwestern Nigeria.

2. Study area

The study area covers three major cities in the Southwest region of Nigeria. The Southwest region comprises six states (Lagos, Ogun, Oyo, Osun, Ondo and Ekiti) and one hundred and thirty-seven (137) local governments. It is located in the southern part of the country and shares boundary with Kwara and Kogi States in the north, Edo State in the East, Republic of Benin in the West and bordered Atlantic Ocean in the South. Presented in the Figure 1 is the map of the Southwest with its adjoining boundaries. The region covered a land mass of 78,505.166 square kilometers and is the second most populous (27,511,992) region after Northwest (35,786,944) (NPC, 2006) and has large number of industries (Figure 1).

Figure 1. Southwestern States in the context of Nigeria
(Source: National Space Research and Development Agency - NASDRA, 2023*)*

The concentration of industrial and economic activities in the Southwest has attracted large number of people to the region. This situation has not only resulted to lateral and structural growth of most urban centers but also to urbanization and its associated problems such as environmental degradation and losses of urban green space which have taken unprecedented complex dimension in major cities in the

Southwest region of Nigeria. In line with this, Popoola et al. (2016) opined that continuously loss of green infrastructure is altering urban ecosystems, thus bringing about continuous change in the outlook of cities. Thus, it becomes imperative to investigate residents' perception of green infrastructure delivery in selected cities of the region. This study focuses Abeokuta, Osogbo and Ado Ekiti, Nigeria (Figure 2).

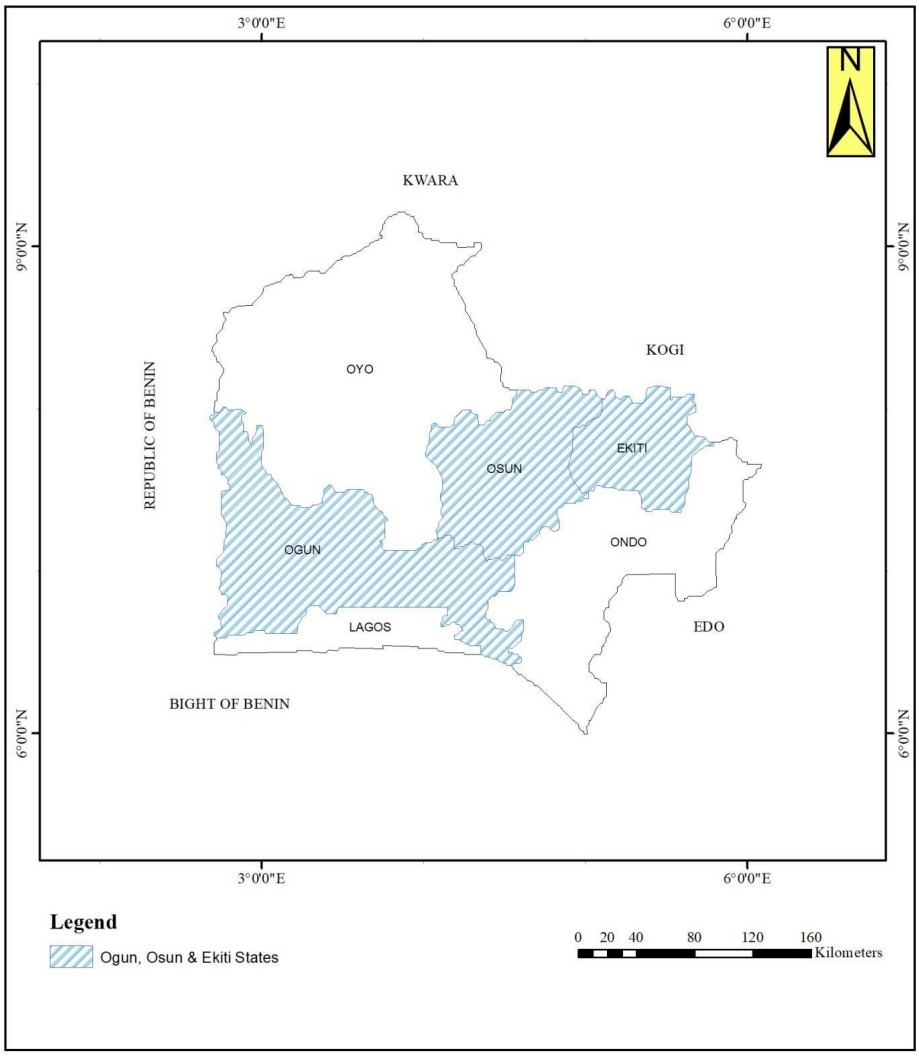

Figure 2. Ogun, Osun and Ekiti States in Southwest
(Source: National Space Research and Development Agency - NASDRA, 2023*)*

3. Methodology

For the study, data were collected from both primary and secondary sources. The primary data were data collected by researcher which are both quantitative and qualitative in nature while secondary data were those obtained from published works. The six states in the Southwestern zone were stratified into three groups: Lagos/Ogun; Oyo/Osun and Ondo/Ekiti. One state is selected randomly from each group to arrive at the three states selected for this study which are Ogun, Osun and Ekiti States.

The focus of this study is the state capitals. Thus, the state capitals of Ogun, Osun and Ekiti (Abeokuta, Osogbo and Ado-Ekiti) respectively are selected. The study population comprises all the residents of Abeokuta, Osogbo and Ado-Ekiti, Nigeria. Multi-stage sampling procedure was adopted for this study. The first stage is the stratification of the selected cities into core, transition and suburban developmental zones.

The next stage involves the estimation of the streets in the selected developmental zones. Physical observation revealed that there were 340, 752 and 331 streets in the selected developmental zones of Abeokuta, Osogbo and Ado-Ekiti respectively. In Abeokuta, there were 107 streets in the core zone, 185 in transition and 42 in suburban zone. While Osogbo comprises of 142, 291 and 319 streets in the core, transition and suburban zones respectively; streets in the core, transition and suburban zones of Ekiti were 98, 181 and 52 respectively. Systematic sampling was adopted to select one (1) of every five (5) streets in each development zones. This represents 20% of the streets.

Systematic techniques were used in the selection of buildings. Consequently, one (1) of every twenty (20) buildings in the selected streets of Abeokuta, Osogbo and Ado-Ekiti were sampled. Respondents for questionnaire survey were drawn from 5% of the residential buildings. The first building was chosen randomly, while the subsequent unit of investigation was on every twentieth (20th) building in each residential quarter. The number of buildings in the selected developmental zones and the number representing the sample size (5%). Thus, the sample size was 493 residents that were drawn from the three cities. Data collected were analysed using both the descriptive and inferential statistics based on the objectives.

4. Residents' perception of green infrastructure delivery in Abeokuta, Osogbo and Ado-Ekiti

4.1. Level of Importance Attached to Green Infrastructure

Findings on the level of importance that residents attached to green infrastructure in the study area are as discussed in following sections. For the sake of easy understanding of the interpretation of these findings, the results for each of the cities were presented separately. Also, there is a combined presentation of findings for the three cities together as a study area.

4.2. Level of importance attached to green infrastructure in Abeokuta

Assessment of respondents on the level of importance attached to green infrastructure of residential neighbourhoods of Abeokuta are as presented in Table 1 based on mean index computation. The Sum of Weighted Value (SWV) for each of the green infrastructure was calculated based on the number of respondents (199) and the mean index for each of the green infrastructure which is tagged Relative Importance Index (RII). The cumulative mean (CM) of RII for all the assessed green infrastructure in Abeokuta was 3.18 and the green infrastructure that the resident attached high level importance to those above 3.18 with positive deviations about the mean (DMs). On the other hand, are those green infrastructures below 3.18 RII and negative deviations about the mean (DMs) which residents attached less importance to, based on their experiences.

Table 1

Level of Importance Attached to Green Infrastructure in Abeokuta

Green infrastructure	Abeokuta			
	SWV	**Mean**	**DM**	**Rank**
Green parks	565.16	2.84	-0.34	16
City crop farms (urban agriculture)	624.86	3.14	-0.04	13
Grasses	825.85	4.15	0.97	2
Sport Fields	788.04	3.96	0.78	3
Green roofs	628.84	3.16	-0.02	8
Green gardens	736.30	3.70	0.52	6
Urban forests	622.87	3.13	-0.05	14
Street trees	829.83	4.17	0.99	1
Public green space	644.76	3.24	0.06	7
Horticulture	612.92	3.08	-0.10	15
Woodland	754.21	3.79	0.61	4
Flood plains/wetland	551.23	2.77	-0.41	17
Blue roof	626.85	3.15	-0.03	11
School yard	628.84	3.16	-0.02	8
Rain gardens	541.28	2.72	-0.46	20
Wildlife habitat	754.21	3.79	0.61	4
Outdoor sport fields	551.23	2.77	-0.41	17
City Square and plazas	626.85	3.15	-0.03	11
Home garden (home yards)	628.84	3.16	-0.02	8
Cemetery and religious yards	551.23	2.77	-0.41	17
RII		**3.18**		

Source: Field Survey, March and April, 2024

As presented in Table 1, the green infrastructure that the residents attached high level of importance to and return positive deviations from the mean (DMs) were ranked. Street trees system (DM = 0.99) was ranked first, grasses (DM = 0.97) was ranked second, and sports fields collection (DM = 0.78) was ranked third. Green infrastructure such as woodland and wildlife habitat with common DM of 0.61 are ranked fourth and there are some other types of green infrastructure in in the positive category such green gardens and public green spaces with DMs of 0.52 and 0.06, which are ranked 6th and 7th respectively. It is noteworthy to state that these seven green infrastructures are those that the respondents attached high level of importance to. Also, the level of importance that the residents of Abeokuta attached to green infrastructure is also revealed

with high indices that are more than RPI of 2.5 on a five-point scale. The green infrastructure with negative deviations about their mean in Abeokuta also has more than the average index of 2.5 of the five-point scale. Findings also revealed that despite the negative deviations, all the green infrastructure also have the indices of more than 2.5 for the level of importance that residents attached to them.

The implication of these findings is that the respondents considered some green infrastructure more important than others. As such, it can be deduced that the residents were able to rate the importance of green infrastructure in their areas. These revealed that the residents of Abeokuta desired an environment that satisfies the goal of urban planning and that is to secure an environment that serene and conducive for living, working and recreation.

4.3. Level of importance attached to green infrastructure in Osogbo

Assessment of respondents on the level of importance attached to green infrastructure of residential neighbourhoods of Osogbo are as presented in Table 2 based on mean index computation. The Sum of Weighted Value (SWV) for each of the green infrastructure was calculated based on the number of cases (179) and the mean index for each of the green infrastructure. The RII for all the assessed green infrastructure in Osogbo was 3.07 and the green infrastructure that the resident attached high level importance with are those above 3.07 and had positive deviations about the mean (DMs). On the other hand, are the green infrastructure which their indices are below the RII of 3.07 have negative deviations about the mean (DMs). They are the green infrastructure that the residents attach less importance based on their experiences. The ranking of these 20 green infrastructures in order of their mean indices is also included.

Table 2

Level of Importance Attached to Green Infrastructure in Osogbo

Green infrastructure	Osogbo			
	SWV	Mean	DM	Rank
Green parks	508.36	2.84	-0.23	16
City crop farms (urban agriculture)	562.06	3.14	0.07	13
Grasses	742.85	4.15	1.08	2
Sport Fields	708.84	3.96	0.89	3
Green roofs	565.64	3.16	0.09	8
Green gardens	662.30	3.70	0.63	6
Urban forests	560.27	3.13	0.06	14
Street trees	746.43	4.17	1.10	1
Public green space	579.96	3.24	0.17	7
Horticulture	551.32	3.08	0.01	15
Woodland	678.41	3.79	0.72	4
Flood plains/wetland	495.83	2.77	-0.30	17
Blue roof	563.85	3.15	0.08	11
School yard	565.64	3.16	0.09	8
Rain gardens	486.88	2.72	-0.35	20
Wildlife habitat	678.41	3.79	0.72	4
Outdoor sport fields	495.83	2.77	-0.30	17
City Square and plazas	563.85	3.15	0.08	11
Home garden (home yards)	565.64	3.16	0.09	8
Cemetery and religious yards	495.83	2.77	-0.30	17
RII		**3.07**		

Source: Field Survey, March and April, 2024

The green infrastructure that the residents attached highest level of importance to and return positive deviations from the mean (DMs) in Osogbo was street trees with DM = 1.10 and ranked first. Also, grasses constituting green infrastructure (DM= 1.08) was ranked second and sports field (DM = 0.89) was third in rank. Green infrastructure such as availability of woodland and wildlife habitat with common DM of 0.72 are ranked 5th. Added to these are other green infrastructures in the positive category such as blue roofs, school yards, city square and plazas, among others. It can be inferred that these types of green infrastructure are those that the respondents attached high level of importance to and the level of importance is also revealed with high indices of more than average of 2.5 of the five-point scale.

The green infrastructures with negative deviations about their mean also have more than the RII of 2.5 of the five-point scale. These include green infrastructure such as green parks, flood plains, rain gardens, wildlife habitat, outdoor sports fields, and cemetery and religious yards. Also, from these findings, and despite the negative deviations, all the green infrastructure also has the indices of more than 2.5 for the level of importance that residents attached to them.

The implication of these findings is that the respondents considered this green infrastructure important for their living. As such, it can then be deduced that the residents knew the importance of green infrastructure in their residential neighbourhoods. They are concerned about the issues with environmental conservations, disaster mitigation, serenity of the environment and safety of the residents in their neighbourhoods. These revealed that the residents of Osogbo also desired an environment that satisfies the goal of urban planning and that is to secure an environment that conducive for living working and recreation.

4.4. Level of importance attached to green infrastructure in Ado-Ekiti

Assessment of respondents on the level of importance attached to green infrastructure of residential neighbourhoods of Ado-Ekiti are as presented in Table 3 based on mean index computation. The Sum of Weighted Value (SWV) for each of the green infrastructure was calculated based on the number of respondents (115) and the mean index for each of the green infrastructure. The cumulative mean (CM) of RII for all the assessed green infrastructure in Ado-Ekiti was 2.99 and the green infrastructure that the resident attached high level importance to, are those above 2.99 and with positive deviations about the mean (DMs). On the other hand, are those green infrastructures below 2.99 RII and negative deviations about the mean (DMs) which residents attached less importance to, based on their experiences.

Table 3

Level of Importance Attached to Green Infrastructure in Ado-Ekiti

Green infrastructure	Ado-Ekiti			
	SWV	**Mean**	**DM**	**Rank**
Green parks	323.15	2.81	-0.18	16
City crop farms (urban agriculture)	319.70	2.78	-0.21	17
Grasses	345.00	3.00	0.01	13
Sport Fields	319.70	2.78	-0.21	17
Green roofs	483.00	4.20	1.21	2
Green gardens	473.00	4.15	1.16	4
Urban forests	369.15	3.21	0.22	7
Street trees	483.00	4.20	1.21	2
Public green space	350.75	3.05	0.06	12
Horticulture	488.2	4.25	1.26	1
Woodland	361.10	3.14	0.15	7
Flood plains/wetland	356.50	3.10	0.11	9
Blue roof	425.50	3.70	0.71	5
School yard	310.50	2.70	-0.29	19
Rain gardens	334.65	2.91	-0.08	14
Wildlife habitat	356.50	3.10	0.11	9
Outdoor sport fields	425.50	3.70	0.71	5
City Square and plazas	310.50	2.70	-0.29	19
Home garden (home yards)	334.65	2.91	-0.08	14
Cemetery and religious yards	356.50	3.10	0.11	9
RII		**2.99**		

Source: Field Survey, March and April, 2024

As contained in Table, 3, green infrastructure that the residents attached high level of importance to and return positive deviations from the mean (DMs) were ranked. These are horticulture (DM = 1.26) which was ranked first, green roofs and street trees (DM = 1.21) which were ranked second, green gardens (DM = 1.16) were ranked fourth. Other green infrastructure such as urban forests and wood land with common DM of 0.72 were ranked 5th, among other green infrastructure that are in the positive category. Based on the results on the green infrastructure with positive deviation about the mean, it can be inferred that these green infrastructures are those that the respondents attached high level of importance to with indices of more than RPI of 2.5 of the five-point scale. However, when compared with the earlier two cities discussed,

these findings reveal that the residents of Ado-Ekiti did not attach high level of importance to many of these green infrastructures.

The green infrastructure with negative deviations about their mean also has more than the average index of 2.5 of the five-point scale. These include green infrastructure such as green parks, urban agriculture, sports fields, school yards, rain gardens, home gardens and city squares. It is noteworthy from these findings that despite the negative deviations, all the green infrastructure also has the indices of more than 2.5 for the level of importance that residents attached to them. The implication of these findings is that the respondents considered these green infrastructures important for their living, although in a less manner, especially when compared with the cases of Abeokuta and Osogbo. As such, it can be deduced that the residents knew the importance of green infrastructure in their residential neighbourhoods and desired an environment that satisfies the goal of urban planning and that is to secure an environment that conducive for living working and recreation.

4.5. Level of importance attached to green infrastructure in the Study Area

Assessment of respondents on the level of importance attached to green infrastructure in the three cities of Abeokuta, Osogbo and Ado-Ekiti are as presented in Table 4 based on mean index computation. The Sum of Weighted Value (SWV) for each of the green infrastructure was calculated based on the total number of respondents (493) and the mean index for each of the green infrastructure. The RII for all the assessed green infrastructure for the three cities was 3.06 and the green infrastructure that the residents attached high level of importance with are those above 3.06 and had positive deviations about the mean (DMs). On the other hand, are those green infrastructures below 3.06 RPI and negative deviations about the mean (DMs) which residents attached less importance to, based on their experiences.

Table 4

Level of Importance Attached to Green Infrastructure in the Study Area

Green infrastructure	Study Area			
	SWV	Mean	DM	Rank
Green parks	1,459.28	2.96	-0.10	16
City crop farms (urban agriculture)	1,493.79	3.03	-0.03	12
Grasses	2,070.60	4.20	1.14	2
Sport Fields	1,464.21	3.97	0.91	3
Green roofs	1,592.39	3.23	0.17	8
Green gardens	1,883.26	3.82	0.76	6
Urban forests	1,528.30	3.10	0.04	11
Street trees	2,085.39	4.23	1.17	1
Public green space	1,607.18	3.26	0.20	7
Horticulture	1,483.93	3.01	-0.05	13
Woodland	1,893.12	3.84	0.78	4
Flood plains/wetland	1,400.12	2.84	-0.22	17
Blue roof	1,474.07	2.99	-0.07	14
School yard	1,552.95	3.15	0.09	9
Rain gardens	1,893.12	3.84	0.78	4
Wildlife habitat	1,400.12	2.84	-0.22	17
Outdoor sport fields	1,474.07	2.99	-0.07	14
City Square and plazas	1,552.95	3.15	0.09	9
Home garden (home yards)	1,301.52	2.64	-0.42	20
Cemetery and religious yards	1,474.07	2.84	-0.22	17
RII		**3.06**		

Source: Field Survey, March and April, 2024

As contained in Table, 4, green infrastructure that the residents attached high level of importance to and return positive deviations from the mean (DMs) were ranked. Being an aggregation of the ranking of the green infrastructure across the three cities, the pattern of ranking of the green infrastructure follows those of the three cities earlier discussed. It can be inferred that these highly ranked green infrastructures are those that the respondents attached high level of importance to, based on their indices with positive deviations from the mean and more than average of 2.5 of the five-point scale. Some other green infrastructures with negative deviations about their mean also have more than the RPI of 2.5 of the five-point scale. Despite the negative deviations, all the green infrastructure also has the indices of more than 2.5 for the level of importance that residents attached to them.

The implication of these findings is that the respondents considered some green infrastructure more important than others, although they attached importance to the entire green infrastructure. As such, it can be deduced that the residents knew the importance of good environmental quality in their areas through the availability of green infrastructure. They are concerned about the issues with environmental conservations, disaster mitigation, serenity of the environment and safety of the residents in their neighbourhoods. These revealed that, generally, the residents of the three cities desired an environment that satisfies the goal of urban planning and that is to secure an environment that conducive for living, working and recreation, although with varying levels.

5. Conclusion and recommendations

This study focused on assessment of green infrastructure in Abeokuta, Osogbo and Ado-Ekiti. In achieving this, the socioeconomic characteristics of residents, providers, condition and utilization of green infrastructure, residents' perception of green infrastructure in terms of the level of importance that residents attached to green infrastructure and the level of satisfaction with green infrastructure, and factors influencing the perception of residents on green infrastructure in the study area were examined.

However, it is concluded that the government is the major provider of green infrastructure, the condition of green infrastructure is fair and the residents used green infrastructure for different purposes across the cities. On the perception of residents on green infrastructure, it can be concluded that the high level of importance that residents attached to green infrastructure was not commensurate with the level of satisfaction they derive from the green infrastructure. Also, the socioeconomic characteristics of the residents are strong determinants of their perception of green infrastructure in the study area and these determinants residents' perception includes the condition of green infrastructure in the study area.

Based on the conclusion of this study, the following recommendations are proffered:

(1) The government should put in place the policy guidelines towards the provision and utilization of green infrastructure in the study area. This will enhance the availability and condition of green infrastructure across the cities of the study area.
(2) The government should make efforts to encourage the participation of community groups, private organizations and individuals for the purpose of providing green infrastructure in order to neutralize the dominance of the government as the provider of green infrastructure in the study area.
(3) The government at the state and local government levels in the study area should put in place the physical planning frameworks, in terms of legislation and physical development plans that are eco-friendly and would provide for green infrastructure.
(4) There should be an effective collaboration between the three tiers of government in order to bring about adequate green infrastructure delivery in Nigeria communities. For this to be well incorporated there is need for government to involve private organizations and interested individuals in planning, budgeting, provision, maintenance, monitoring and evaluation of green infrastructure. This will bring about development of various spheres of life such as recreation, agricultural, educational, health and nutrition in the country.
(5) Government also needs to sensitize the public about the multiple benefits offered by urban green infrastructure in order to ensure that green infrastructure benefits are equally understood or appreciated among the residents and to increase the level of awareness of the residents on the importance of green infrastructure to their wellbeing.

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