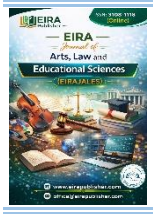

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Evaluating the Ecological Relevance of Open Green Space and Associated Challenges in Uyo Urban, Akwa Ibom State

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Abstract **Original Research Article**

The study aimed at examining the Ecological Relevance of Open Green Space and Associated Challenges in Uyo Urban, Akwa Ibom State in an attempt to reduce some of the urban environmental problems and improve livelihood. 400 copies of structured questionnaire were distributed to 10 study sites to capture the opinion of the respondents for benefits and challenges using random sampling technique. Inferential survey design was used for the study which involved the use of questionnaire although personal interview was also employed so as to generate a first hand information. The study found that green spaces are of great importance to the environment as it protects the wholesomeness of soil surface, erosion surface, it protects water resources and water structures, climate and air quality, accommodate the ecological cycle of organic waste, and protects recreational environment. The study found that the implication is statistically significant. The study promotes mental and physical health, generates income for individuals and governments through commercialisation of green space, increase tourism needs and provides community participation in sport and ceremonial activities. The utilization potentials of green space skyrocketed land value, economic value and environmental value most especially when the area is close to accessible road network. The study found out that various challenges degrade green environment through conversion and misuse of green space, degradation through illegal movement, urbanization intensification, haphazard utilization pattern, and lack of coordination and organization of green space, criminal den and ineffective green space management. It was recommended that effective management through planning, monitoring and ecological sensitization.

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1. Introduction

All over the world, benefits of greening environment with multi-faceted potentials to humanity and environment cannot be overemphasized. These benefits are serious area of environmental management lately. In sub-Saharan Africa, the utilization potential of greening environment has been noticed and is an important environment for all the ages to explore independently or collectively. In line with Okole and Okole (2020) majority of urban space in Nigeria are characterized by neglect, laws and misuse of open spaces. Omolola (2017) opined that the major problem of greening environment in Nigeria is the poor quality and mismanagement of this built environment. Hence the provision of green environment calls for concern today if sustainable urban development is to be materialized. Greening open space serves different functions to humanity and the environment as a whole. The importance of greening to urban residents and quality of life is increasingly appreciated (Oruwari, 2019). During the 18th century, courtyards and available space around buildings played a significant role in public life in the European and Western cities (Abraham, 2018; Okunlola, 2013). Mabogunje (1968) submitted that some residential districts in Lagos were constructed with courtyards behind buildings. Wilson (2018) asserted that African traditional settlers managed different kinds of private and public open spaces ranging from town squares, sacred gardens, village greens, royal gardens to the private yards. Wasiu (2017) submitted that open space serves as an area for public life such as social interaction, marketing,

religious and cultural activities in ancient cities. Socio-economic dimension of open green space involves various utilization potentials adopted by city dwellers to make life comfortable and sustainable.

Commercial activities and recreational options ranging from games and picnic attract financial gain in Nigeria and elsewhere. Urban agriculture in different plots of land and spaces in their adjourning land provide food crops and cash crops. Socio-economic benefits and multi-faceted potentials abound in urban green environment, informal sector activities in any available spaces thrives well and supported over 50% of the population in Uyo and elsewhere. Lately, Tropicana and end of year Christmas village celebration at Udo Udoma promotes trading and transportation sector of the economy. In Akwa Ibom State, green environment and the leasing out of plots to prospective business man and woman attracts financial benefits to the government and national development. Hiring of green environment in Uyo metropolitan city is a new welcome development to host games, marriages, funeral ceremonies and birthdays.

In recent times according to UNFPA (2007) urban growth is taking a toll on existing green space. It is estimated that more than 50% of the global population reside in urban areas encroaching into available open green space formerly used for environmental and socio-economic benefits.

In Europe, the Keukenhof garden in Lisse, Netherlands was built with over 7 million assorted flowers and it is the most visited greenery in Holland as well as the largest flower garden in the world. In France, the Gardens of Versailles was built on about 2000 acres with over 200, 000 trees (Falade, 2018, 2019, 2020). In Ireland, the Powerscourt Gardens in Enniskerry was designed with streams, forests and sculptural works of art to attract tourist. Moreover, the Garden of Cosmic Speculation in Dumfries, Scotland, United Kingdom is another eye-catching scene built with Jencks' bridges, sculptures, and other architectural works that attract millions of tourists yearly (Tyrvainen et al 2015). In Norway, Tromsø Arctic-Alpine Botanical Garden stretches between two islands with innumerable plant species and is widely visited by researchers and tourists. The Lost Gardens of Heligan in Cornwall, England, United Kingdom consist of the statue of animal decked with shrubs. During World War I, the estate became overgrown due to neglect. However, the property was never sold or developed. Fortunately for plant lovers everywhere, workers restored the forgotten gardens to their original glory in the 1990s.

Urban green space in all its forms contributes to the rich visual effects in urban settings. Aesthetics benefits of urban green space relate to people's experience of both the appearance of each element and the composition of them as a whole. Much of aesthetics experience is subjective in nature and has Climate and air qualities are important factors in the urban environment. They directly connect with quality of urban life and survival in wildlife (Stiles, 2010). Studies have shown that urban green spaces contribute to mitigating bad climate and air conditions connected with hard urban structures. Green spaces provide shade, windbreaks, enhance ventilation, reduce temperatures and improve air quality (Stiles, 2010). Green corridors, for example, play a positive role for ventilation and air quality of a city.

Woodlands or tree belts help to reduce air pollution from roads by slowing down air circulation and accumulating dusts, while trees and hedgerow contribute substantially to the reduction of storm and havoc on building. Urban green space cover reduces surface temperatures, and therefore helps mitigate the heat island effect typical of urban areas. A study in Munich shows that an increase of vegetated surface cover by 10% reduced surface temperatures by, on average, 1^0C, and that one tree is equivalent to 5 room air-conditioners running for 20hrs a day (Nasution and Zahrah 2012). Urban climatologists also stress the importance of having a great range of different microclimatic conditions within walking distance.

Urban green space has the potential to accommodate the ecological cycles of organic waste. For example, the maintenance of urban green space needs fertile soil and nutrients which are ingredients from organic waste products.

Urban green spaces and natural landscape support architectural structures for urban space, just like buildings and social infrastructures. It has been established that the structural functions of urban green space are often used in urban planning and design by defining urban structure and urban form, regulating urban development, buffering between city zones, organizing traffic and the architectural use for planning and design. Studies in the USA have shown that because trees contribute to reducing heat-island effect, improving air quality and storm water management, provision of trees in a city can save the expenses that would otherwise be incurred for these purposes. Commercial recreation and tourism in urban green space can bring direct income to its management organizations, through direct use of the green spaces such as parks, garden and others as recreational centres. It can also increase property values because studies have shown that the value of a property decreases when its distance to parks, greenbelts and other green spaces increases. Many cities see redevelopment of high-quality public spaces as a regeneration strategy for an area, because improved environment can raise commercial property prices in those areas. Well-planned and managed public space also has a positive impact on nearby residential house prices.

However, many green environments without security structures in Uyo metropolis are haven for hoodlums molesting citizenry greatly especially around ravine area. In Akwa Ibom State, many green environments have lunatics and waste dump sites with heaps of waste littered uncontrollably. It is widely known that shades with tree canopies provide recreational environment for human and other biodiversity, despite this management of the fewer greeneries becomes a serious concern. The study was guided

by the following objectives, namely; identify locations for green environment, explore the benefits of green environment, the challenges facing green environment and management options for green environment in the study area.

2. Materials and Methods

Uyo is situated between Latitude 5^0 02^1 N 7^0 56^1 and Latitude 7^0 47^1 N 8^0 03^1E. The region is bounded in the North by Itu, Ibiono and Ikono Local Government Areas of Akwa Ibom State, in the South by Etinan, Nsit Ibom and Ibesikpo Asutan Local Government Areas of Akwa Ibom State, in the West by Abak Local Government Area of Akwa Ibom State and in the East by Uruan Local Government Area of Akwa Ibom State. Uyo covers the total land area of 115km^2 (44 sq ml). Uyo is made up of four residential clans, namely Oku, Etoi, Ikono and Offot.

However, the original rainforest which used to occupy over 75% of the total land surface has largely been removed through decades of intensive human activities such as farming, firewood exploitation, road expansion and urbanization among other (Ituen and Udoh, 2004). There are relics of former luxuriant tropical forest still found in patches within the Uyo ravine.

Uyo is the commercial centre of Akwa Ibom State since it is the seat of government being the state capital, Uyo plays host to several commercial and economic activities such as banking sector, oil and gas sector, power sector, health sector, educational sector, market stalls and shopping malls, thus, the reason for influx of people and services.

With strategic geographical located, a network of roads development to link Uyo with other commercial towns like Oron, Abak, Ikot Ekpene, Eket, Calabar and major other cities – a situation which attracted movement of large population from neighbouring villages and towns to the area, and this caused Uyo to rapidly develop into an urban centre. The emergence of Uyo as the state capital culminated to the urban expansion and presently a destination of choice for tourist.

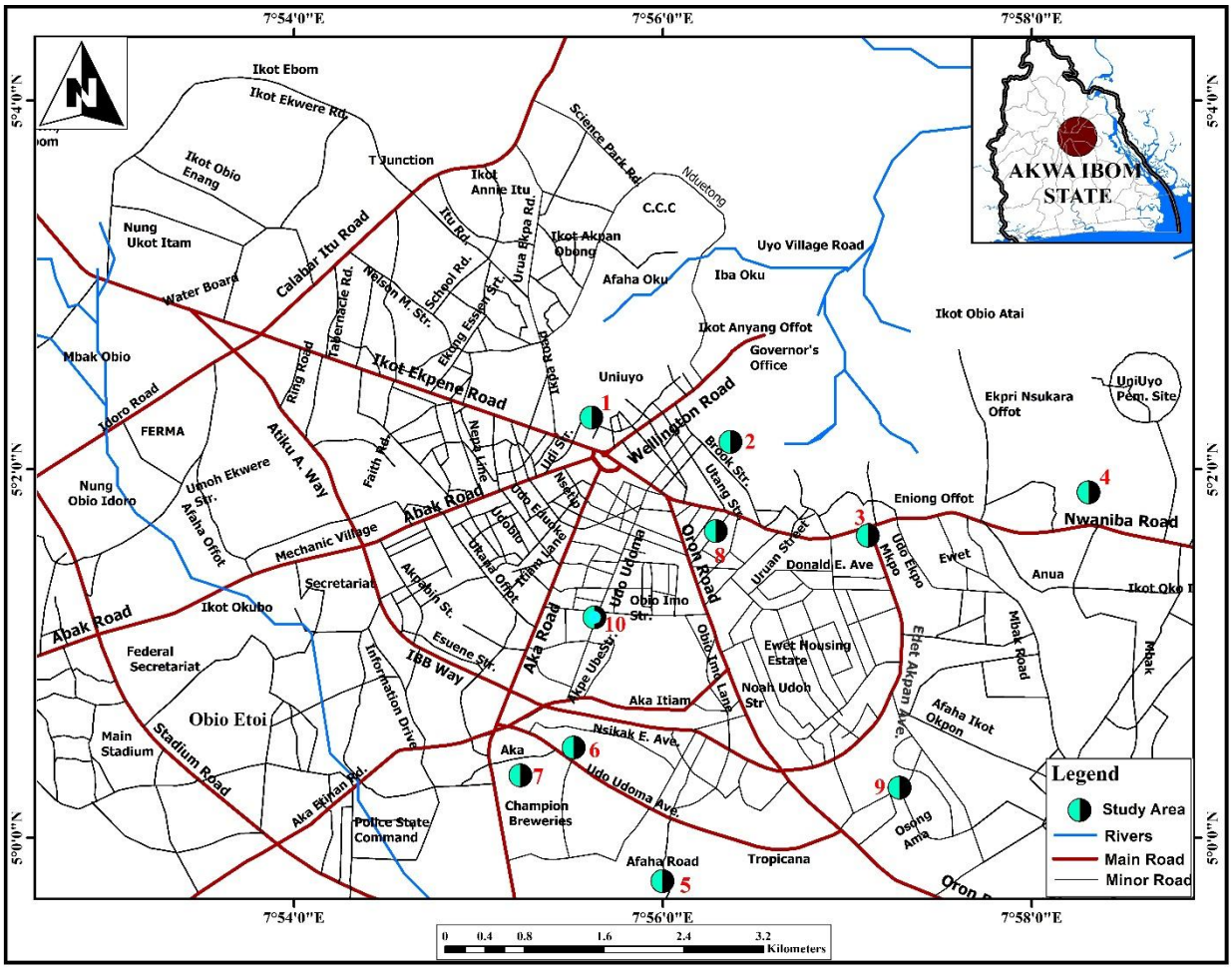

Fig. 1.1 Green space Utilization Spot -Uyo Urban
Source: Ministry of Lands and Town Planning, 2026

3. Methods

The research adopts both primary and secondary sources of data collection. The primary data was obtained through personal field observation, interview and questionnaire as well as map surveys. Eleven (11) open green spaces in Uyo Urban were purposively sampled. The Taro Yamane (1973) formula for finite population was employed to statistically determine the minimum sample size for the study. A total of 400 of respondents constituted the unit of data collection and analysis.

4. Results

Table 4.1: Location and Extent of Green Space

Green Space	Location	Extent
University Greenery Complex	Ikpa Road axis, Abak and Nwaniba	30-40 Hectares
Brooks Street green field	Dominic Utuk Avenue axis	6-8 hectares
Water Fountain Greenery	Nwaniba Road axis	1-3 hectares
Use Offot Primary Field	Nwaniba Road axis	1-2 hectares
Afaha Inyang Field	Abak Road axis	2-4 hectares
Christmas Village Complexes	Udoudoma Road axis	10-15 hectares
Catholic Church Aka Etinan	Aka Etinan Road axis	2-4 hectares
May Flower Field	Oron Road axis	1-3 hectares
Osong Ama green field	Nsikak Eduok axis	5-8 hectares
Discovery Park	Udoumana axis	3-5 hectares
Ibom Tropicana	Udoudoma Road axis	3-5 hectares
Aka Community secondary school green field	Aka Road axis	10-15 hectares

Source: Field Data, 2026

Table 4.2: Area Coverage and Level of Utilization of Selected Green Space

Green Space	Area Extent (Sq)	Level of Utilization
Uniuyo Mini Stadium	105	Active
Brooks Street green field	150	Active
Water Fountain Greenery	80	Active
Use Offot Primary Field	150	Active/Daily
Afaha Inyang Field	140	Active/Daily
Christmas Village Complexes	350	Active
Catholic Church Aka Etinan	145	Active/Weekly
May Flower Field	70	Active
Osong Ama green field	135	Active/Daily
Discovery Park	100	Active/Daily
Ibom Tropicana	185	Active/Daily
Aka Community secondary school green field	250	Active

Source: Field Data, 2026

Table 4.3: Benefits of Selected Green Space

Green Space	Benefit Potential	Dominant Benefit
University of Uyo Greenery Complexes	Academic-based social events, crusades, gully control, sport arena, INEC and Census	Academic
Brooks Street green field	Recreation, and gully control structure.	Gully control structure
Water Fountain Greenery	Church activities, football and recreation.	Recreation
Use Offot Primary Field	Trading, primary institution and food vending.	Primary Institution
Afaha Inyang Field	Parking space, recreation and food vending.	Recreation/Sport
Christmas Village Complexes	Football and Recreation.	Recreation
Catholic Church Aka Etinan	Worship, schooling, funeral, marriages, football, recreation, INEC and Census.	Worship and schooling
May Flower Field	School, recreation, sport and funeral.	School
Osong Ama green field	Event Centre, sport and recreation.	Event Centre
Discovery Park	Recreation and Event Centre	Recreation
Ibom Tropicana	Business Centre, recreation, car park, and crusade.	Business Centre
Aka Community secondary school green field	School, sport, civil service training and examinations, business centre	Civil service

Source: Field Data, 2026

Table 4.4: Estimated Income Realized in Selected Green Space

Green Space	Event Centre (₦)	Political rally/Sport (₦)
Uniuyo Mini Stadium	60,000.00	140,000.00
Brooks Street green field	Conservation site	Conservation site
Water Fountain Greenery	30,000.00	50,000.00
Use Offot Primary Field	75,000.00	90,000.00
Afaha Inyang Field	50,000.00	70,000.00
Christmas Village Complexes	100,000.00	120,000.00
Catholic Church Aka Etinan	70,000.00	85,000.00
May Flower Field	70,000.00	90,000.00
Osong Ama green field	85,000.00	115,000.00
Discovery Park	65,000.00	80,000.00
Ibom Tropicana	100,000.00	120,000.00
Aka Community secondary school	120,000.00	140,000.00

Source: Field Data, 2026

Table 4.5: Challenges Affecting Selected Green Space in Uyo Urban

S/N	Green Space	Challenges	Frequency	Percentage (%)
1.	University of Uyo green complexes	Over utilization	7	1.75
2.	Brooks Street green field	Intrusion by hoodlums	11	2.75
3.	Water Fountain Greenery	Traffic	20	5.0
4.	Use Offot Primary Field	Illegal trading	15	3.75
5.	Afaha Inyang Field	Human intrusion	30	7.5
6.	Christmas Village Complexes	Degradation, waste dump, and human intrusion.	9	2.25
7.	Catholic Church Aka Etinan	Noise pollution from traffic, football and event centre.	8	2.0
8.	May Flower Field	Noise pollution, human and animal intrusion.	100	25.0
9.	Osong Ama green field	Over utilization	50	12.5
10.	Discover Park	Intrusion and over utilization	120	30.0

11.	Ibom Tropicana	Noise pollution and over utilization.	20	5.0
12.	Aka Community secondary school green field	Over utilization for car park and sport events	10	2.5
	Total		**400**	**100**

Source: Field Data, 2026

4.2.1 Summary of Chi-Square Tests

Chi-Square Tests			
	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	207.162[a]	12	.000
Likelihood Ratio	201.218	12	.000
Linear-by-Linear Association	61.409	1	.001
N of Valid Cases	14133		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 35.07.			

From Table 4.2.1, the result produces Pearson Chi-Square value of 207.162[a], degree of freedom (df) of 12 and a P-value (2-sided) of 0.000, and this concluded that there is significant benefits derive from utilization of green space in Uyo Urban is significant.

4.2.2 Summary of Chi-Square Tests

Chi-Square Tests			
	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	219.100[a]	12	.000
Likelihood Ratio	201.620	12	.000
Linear-by-Linear Association	71.760	1	.001
N of Valid Cases	16981		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 35.07.			

Table 4.2.2 shown that Pearson Chi-Square value of 219.100[a], degree of freedom (df) of 12 and a P-value (2-sided) of 0.000, and can be concluded that challenges facing utilization of green space in Uyo Urban is significant.

4.1 Discussion of Findings

In the study several findings were realised. It offers valuable insights into the spatial distribution and approximate sizes of selected green areas within Uyo, Akwa Ibom State. A primary observation from the analyse is the varied scale of green spaces across Uyo. The "University Greenery Complex" stands out as the largest, with an estimated extent of 30-40 hectares, encompassing multiple axes (Ikpa Road, Abak, and Nwaniba). This significant size suggests a major ecological and recreational asset, likely incorporating extensive landscaped areas, sports fields, and possibly natural or semi-natural vegetation zones within the university's large landholding. Such a large green complex would contribute substantially to the urban green lung, biodiversity, and recreational opportunities for both the university community and surrounding residents.

Beyond the university, several other green spaces are identified as having moderate to large extents. The "Christmas Village Complexes" (10-15 hectares), "Brooks Street green field" (6-8 hectares), and "Osong Ama green field" (5-8 hectares) represent significant open areas. These larger green spaces are crucial for accommodating a variety of activities, from organized sports and events (as implied by "Christmas Village") to environmental functions like gully control ("Brooks Street green field"), and potentially large-scale recreational development ("Osong Ama green field"). Their sizes allow for diverse uses and contribute meaningfully to the city's green infrastructure, providing relief from urban density.

Conversely, a number of green spaces are identified as being smaller in scale, typically ranging from 1 to 5 hectares. Examples include "Water Fountain Greenery" (1-3 hectares), "Use Offot Primary Field" (1-2 hectares), "Afaha Inyang Field" (2-4 hectares), "Catholic Church Aka Etinan" (2-4 hectares), "May Flower Field" (1-3 hectares), "Discovery Park" (3-5 hectares), "Ibom Tropicana" (3-5 hectares), and " Aka Community secondary school Complex field" (10-15 hectares). While smaller individually, these green spaces are strategically located across different axes of the city, indicating a distribution that could provide localized access to green amenities for various communities and institutions. Their smaller sizes make them suitable for neighborhood parks, institutional grounds, and specific recreational or aesthetic purposes, contributing to the immediate surroundings and local quality of life. The presence of these varied sizes highlights a nuanced approach to urban greening in Uyo, catering to different scales of demand and types of use across the urban landscape.

The benefit of green space ranges from Academic Institution, hostel, and sport arena, Recreation, and gully control

structure, Church activities, football and recreation, Trading, primary institution and food vending, Worship, schooling, funeral, marriages, football, recreation, INEC and Census, Civil Service complex, car park, and business outfits. From Table 4.12, attempt is made to create a concise overview of various green spaces within Uyo and their perceived benefits. It categorizes these benefits into a "Benefit Potential" which lists multiple uses, and a "Dominant Benefit" that highlights the primary function. The data reveals a diverse range of functions for Uyo's green spaces, extending beyond typical recreational uses to encompass academic, institutional, and even infrastructural roles. This broad spectrum of utility underscores the multifaceted contribution of these areas to urban life in Uyo.

A significant observation from the table is the prominence of recreation as a benefit. Green spaces like Water Fountain Greenery, Afaha Inyang Field, Christmas Village Complexes, and Discovery Park all list recreation as a key or dominant benefit. This suggests that these areas serve as vital outlets for leisure and physical activity for the urban populace. The inclusion of "sport" alongside recreation for some spaces further emphasizes their role in promoting public health and well-being through active engagement. The consistent appearance of recreation across several sites highlights its importance in the urban fabric of Uyo.

Beyond recreation, the table identifies several green spaces with significant institutional and civic functions. The Uniuyo greenery complex primarily serves an academic institution, events and recreation, while Use Offot Primary Field and May Flower Field are crucial for marriage event, funerals, political rally and sport. The Catholic Church Aka Etinan green space is notable for its comprehensive utility, encompassing worship, schooling, marriages, and even serving as a venue for INEC and Census activities, highlighting its deep integration into community life. Similarly, the Aka Community secondary school green field is primarily a civil service complex and car park, showcasing green spaces being integral to governmental and administrative functions.

Furthermore, the analysis reveals instances where green spaces offer unique and essential services beyond typical urban park functions. Brooks Street green field, for example, is primarily identified for its role as a "gully control structure," and recreation indicating its environmental significance in mitigating ecological challenges. Osong Ama green field and Ibom Tropicana, on the other hand, function predominantly as "Event Centres" and "Business Centres" respectively, illustrating their adaptability to commercial and large-scale public gatherings. This diversification of benefits emphasizes the resourcefulness in utilizing available green spaces to address a wide array of urban needs in Uyo.

From the identified green space: Uniuyo Mini Stadium, Brook street green field water fountain, Use Offot Primary Field, Afaha Inyang field, Christmas Village Complexes, catholic church Aka Etinan, May Flower Field, Discovery Park, Osongama green field, Ibom Tropicana and Idongesit Nkanga Secretariat Complex field.

Figure 1: Greening gully sites for effective control at University of Uyo Campus.

Figure 2: Wire Fencing to stop human encroachment

Figure 3: Tree Planting as a buffer against gully provocation

The major challenges are basically issues related to management namely over utilization, poor maintenance, dumping of waste, illegal trading, intrusion by hoodlums, noise pollution from traffic, football and event centre, over-utilisation for car park. Among all the problems, the worst embarrassing scenario is waste dump which is predominant in the region due to distorted attitudinal orientation. Analysis in Table 4.13 provides an insightful snapshot of the estimated income generated by various green spaces in Uyo Urban, categorized by two primary revenue streams: "Event Centre" activities and "Political rally/Sport" events. A detailed analysis reveals significant disparities in earning potential and highlights the diverse roles these green spaces play within the city's economic and social fabric.

Foremost, the Idongesit Nkanga Secretariat Complex field and the Uniuyo Mini Stadium consistently emerge as the highest revenue generators. Both venues command the top income for "Political rally/Sport" at ₦140,000.00 each, indicating their capacity to host large-scale public events and sporting activities that attract significant numbers and thus, higher financial returns. Their substantial earnings from "Event Centre" activities (₦120,000.00 for Idongesit Nkanga and ₦60,000.00 for Uniuyo) further solidify their position as pivotal commercial hubs within the city's green infrastructure. This suggests that these locations possess the necessary infrastructure, accessibility, and perhaps reputation to cater to major events.

Following these, Ibom Tropicana and Christmas Village Complexes also demonstrate strong earning capabilities, particularly in the "Political rally/Sport" category (₦120,000.00 each) and respectable figures for "Event Centre" functions (₦100,000.00 each). This implies their well-equipped nature and popularity for diverse gatherings, potentially benefiting from their status as established recreational or festive destinations.

Mid-range earners include Use Offot Primary Field, Afaha Inyang Field, Catholic Church Aka Etinan, May Flower Field, and Osong Ama green field. These spaces contribute moderately to the city's income from both event types, suggesting they serve as important local or community-level venues. Their income figures, while not as high as the top performers, still represent a valuable economic contribution. For instance, Osong Ama green field earns a notable ₦115,000.00 from political rallies/sports, showcasing its potential for such activities.

A crucial distinction is observed with the Brooks Street green field, which is explicitly labeled as a "Conservation site." This designation means it generates no income from events or rallies, underscoring its primary purpose for ecological preservation rather than commercial exploitation. This highlights a balanced approach to urban planning, where certain green spaces are dedicated to environmental functions.

The Water Fountain Greenery and Discovery Park record the lowest income, suggesting they are either smaller in scale, less equipped for large events, or primarily serve as passive recreational areas with limited commercial potential for the listed activities. Their modest earnings from both categories reinforce this observation.

Findings also indicated that due to the alarming abuse of green space in Uyo Urban, options that can be harnessed to effectively managed the open spaces in line with sustainability principles include but not limited to provision of funding, effective maintenance, matching policies and sanctions on human abuse, provision of green infrastructure, and regulating human activities. The worst embarrassing scenario is waste dump which is predominant in the region due to distorted attitudinal orientation. The data highlights that green spaces, while vital for urban life, face a diverse array of pressures, ranging from human-induced degradation to environmental nuisances. The most prominent challenges identified across the green spaces are "intrusion" (human particularly), "over-utilization," and "noise pollution." Alarmingly, Discovery Park faces the most significant pressure, with "Intrusion and over utilization" accounting for a substantial 30% of all reported challenges. This high frequency (120 incidents) suggests a severe strain on the park's resources and potential degradation of its natural features due to uncontrolled access and intense usage. Similarly, May Flower Field is significantly impacted by "Noise pollution, human intrusion and poor maintenance," representing a staggering 25% of the total challenges (100 incidents). This indicates that the tranquil environment often associated with green spaces is severely compromised here, likely due to surrounding activities and lack of adequate control measures.

Over-utilization is a recurring theme, affecting several key green spaces. Beyond Discovery Park, Osong Ama green field (12.5% or 50 incidents) and Ibom Tropicana (5.0% or 20 incidents) are also experiencing this issue, often coupled with noise pollution. Even high-profile venues like University of Uyo green complexes (1.75% or 7 incidents) and Idongesit Nkanga Secretariat Complex field (2.5% or 10 incidents) suffer from over-utilization, particularly for alternative purposes like car parking. This suggests that the popularity and central location of these spaces inadvertently lead to their overuse, potentially straining their capacity and maintenance needs.

Human intrusion in various forms poses a significant threat to the integrity of these green spaces. Afaha Inyang Field registers a high percentage of 7.5% (30 incidents) due to human intrusion, which could encompass unauthorized entry, trespassing, or even informal settlements. Brooks Street green field faces the specific and concerning challenge of "Intrusion by hoodlums" (2.75% or 11 incidents), highlighting a security concern that impacts the safety and accessibility of the space for legitimate users. Furthermore, Use Offot Primary Field is plagued by "Illegal trading" (3.75% or 15 incidents),

indicating unregulated commercial activities that can degrade the green space and create disorderly environments.

Noise pollution is another pervasive issue, notably affecting Water Fountain Greenery (5.0% or 20 incidents) due to "Traffic," and Catholic Church Aka Etinan (2.0% or 8 incidents) from traffic, football, and event centre activities. This shows how the surrounding urban environment and the multi-functional use of some green spaces can detract from their intended peaceful or recreational purposes. Even the Christmas Village Complexes face a combination of "Degradation, waste dump, and human intrusion" (2.25% or 9 incidents), pointing to a multifaceted problem of mismanagement and lack of public responsibility.

5.1 Conclusion and Recommendations

Greening environment is significant in ecological and socio-economic benefits. Over the years, utilization of green space have skyrocketed and fundamental to human health and biodiversity. In Uyo urban, urbanization and multi-functional uses have challenged the sustainability of green space lately. The benefits of green space cannot be overemphasized and the challenges envisaged call for immediate attention to address the abnormalities for continuous utilization. Tourism development and recreation especially Christmas village jamboree yearly have yielded millions of Naira to boost socio-economic development and wellbeing. The most accessible green space in Uyo is Brook Street, Love Garden and Ibom Tropicana with multi-faceted benefits for locals and foreigners. To this end, greening environment must be looked into by government and private agencies, while every compound must have green space for the benefit of all. Moreover, awareness creation and environmental education in the management of green space should be made through seminar and symposium, while town planning and housing development should incorporate green space for effective management.

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