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► **To cite this version:**

Nadir A. Nasidi. Urbanism And the Conservation of The Natural Environment for Sustainable Development: A Case Study of Kano State, Nigeria, 1989-2020. [Research Report] IFRA-Nigeria Working Papers Series 87, IFRA-Nigeria. 2022, pp.1-20. hal-03762087

HAL Id: hal-03762087

<https://hal.science/hal-03762087>

Submitted on 26 Aug 2022

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**URBANISM AND THE
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NATURAL ENVIRONMENT
FOR SUSTAINABLE
DEVELOPMENT:**

**A CASE STUDY OF KANO STATE,
NIGERIA, 1989-2020**



IFRA-Nigeria

WORKING PAPERS SERIES

IFRA-NIGERIA WORKING PAPERS SERIES

This paper is part of a **publication series of 4 IFRA-Nigeria working papers (86, 87, 88, 89)** resulting from the one-day roundtable “Urban Lives & Environmental Changes” organized *by and for* early-career researchers, held at the University of Lagos on May 10th, 2022. This event was co-organized by IFRA-Nigeria and the Center for Housing and Sustainable Development at the University of Lagos.

Our roundtable and the following publication were made possible by the work of the Organization Committee and the Editorial Board of these publications’ series *composed of*

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This Roundtable was part of a collaborative conference series funded by the Institut Français, the French Embassy in Nigeria and IFRA-Nigeria.



Urbanism And the Conservation of The Natural Environment for Sustainable Development: A Case Study of Kano State, Nigeria, 1989-2020

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Abstract

Kano is one of the fast growing urban centres in Africa with concomitant environmental challenges that emerged as a result of uncoordinated human activities in the State such as deforestation, disturbance of open spaces and other natural forms, especially those that constitute the State's important cultural heritage sites. This development made the Kano State government to enact different urban development laws, regulations, policies and edicts apart from the establishment of important urban planning and development agencies such as the Kano State Environmental Planning and Protection Agency (KASEPPA) and the Kano State Urban Planning and Development Authority (KNUPDA) in 1989 and 1990. Using primary and secondary sources, this paper examines the impacts of these governmental laws and edicts on environmental growth for sustainable development. This is achieved by also looking at the unique roles played by experts, especially landscape architects in the planning, designing and management of natural, rural and built environments to address sustainability, quality and health of

landscapes. This paper finds out that urban growth in both demographic and infrastructural basis temper with the Kano town planning and landscaping due to intense human activities, especially with the emergence of slums in the capital city. The State has also experienced the rapid conversion of natural green lands and important open spaces to either residential or commercial areas

Keywords: Urbanisation, Conservation, Natural Environment, Sustainable Development.

Introduction

Though scholars, especially landscape architects, as well as environmental sociologists and scientists have written extensively on the changing nature of human activities on the environment for many years, this present time demands a more critical re-assessment of the impact of urbanization on the environment including natural forms. In this regard therefore, mega (in terms of population and structures) Nigerian cities such as Kano, the focus of this paper call for an intellectual interrogation of the environmental challenges of the state as one of the fast growing urban centres in Africa.

Rapid urbanization in Kano since 2000 has brought a lot of changes to the socio-political, economic and environmental development of the Kano capital city. This development according to Okopi (2021, 1-3), Sule (2014, 1-9) and Abdulsalam (2014) has notable implications on the management and development of urban infrastructure. He also opines that this urban growth in both demographic and infrastructural basis threatens the proper town planning and landscaping of the Kano capital city due to intense human activities, especially with the emergence of slums in the capital city. The city has also experienced the swift conversion of natural green lands and important open spaces to either residential or commercial areas.

To address the negative impacts of human activities on the landscapes and town planning, the Kano State government from the 1960s to the present has enacted different urban development laws, regulations, policies and edicts. It has also established important urban planning and development agencies such as the Kano State Environmental Planning and Protection Agency (KASEPPA), which

was established in 1989 before it metamorphosed into the Kano State Urban Planning and Development Authority (KNUPDA) in 1990 (KANUPDA, 2022).

Though landscape architecture is an old profession globally, the field as a discipline in Nigeria is still growing. Writing on the formal presence of landscape architects, especially in Africa, Doherty observes that even though Africa represents the 'most significant gap' yet, the continent has landscape practices though few of them are handled by landscape architects (Doherty, 2021, 1). This is also the case of Kano State in particular and Nigeria in general. Professional landscape architects began to emerge in Nigeria in this 21st century and thus, the urgent urban needs of Kano capital city in form of proper landscaping call on the attention of architects who are enthusiastic in landscape architecture to contribute to the development of the city. This is because, landscape architecture as an ecological discipline deals directly with providing solutions to the ever changing human ecosystem, as well as cultural inventory. It is for this reason that Gulgum, Huney, Ektas and Yazici (2014, 1878) argue that landscapes '...are dynamic and change is one of their properties. Humans have always adapted their environment to better fit the changing society needs and thus, reshaped the landscapes'. This paper therefore examines the roles played by landscape architects in the development of Kano capital city through the construction of pedestrian walkways, the greening of the traditional city, development of disturbed landscapes such as burrow pits and puddles into recreational facilities, as well as the development and preservation of natural forms.

This paper sets out to examine the impact of urbanization on Kano city and the self-arrogated roles of landscape architects in the development and preservation of both the built and the natural environment for sustainable development. This discussion is situated around the crossroads of the recurrent tensions between government urban policies on one hand and the realities on ground that further define the way and manner people use, or misuse urban spaces around the city, which invariably has direct negative bearings on the environment and the people. The paper also argues that despite the fact that landscape architects have not been officially recognized by the Kano State government, especially in its decision-making process on matters relating to the development and management of the State's landscapes, they tried all possible means to share with the government their idea of an 'ideal' city with its rhythmic tenacity. This effort, also led to the implementation of some programmes aimed at managing and

developing open spaces, built and the natural environment, which form the central focus of this paper.

Methodology

This paper is solely built on both primary and secondary data. The primary sources included oral interviews with landscape architects, government officials, and the people using, or misusing the urban open spaces, government gazetteers, newspapers and pictures. Informants were identified using purposive sampling and snow-balling techniques. These two research techniques help in identifying important informants who are knowledgeable about Kano and its concomitant environmental challenges with particular reference to the use, or abuse of open spaces, especially within the metropolis. To achieve this, sets of interview questions were designed in both English and Hausa for respondents. Meanwhile, gadgets such as digital camera (for taking pictures), tape-recorder, phones and the computer were also used for easy collection of data from the field. This was followed by the transcription and analysis of the interviews conducted.

The secondary sources however, come largely from published and unpublished works such as books, journals, theses and dissertations. The paper also deployed the use of quantitative and historical research methodologies in the analysis of the data obtained. The data collected was also correlated, corroborated, selected and interpreted. This process gave a room for juxtaposing the different information collected from the field.

The Area of Study

Kano capital city is located within the metropolis, one of the most urbanized centres and the biggest commercial city in Nigeria. According to Ibrahim and Mohammed, the area is located between latitudes $11^{\circ} 59' - 12^{\circ} 02' - 39.57$ N and longitudes $8^{\circ} 33' 19.69$ E - $8^{\circ} 40'$ E, which is about 481 metres above the sea level (Ibrahim and Mohammed, 2016, 88).

Based on the 2006 population census, the capital city has a total population of 1,147,829 spreading across 54 Area km². Formally a walled city, it houses the historic Kurmi Market, which is known for its 800 years crafts, old dye pits- still in use, especially around Kofar Mata, Zage and Adakawa. The city also netted within it the Emir's palace, the Kano Great Mosque, Gidan Makama Museum,

Dala and Goron Dutse Hills, which were tentatively regarded as a World cultural and heritage site by UNESCO (Salisu, 2007, 1-10 and UNESCO, 2019, 2-10).

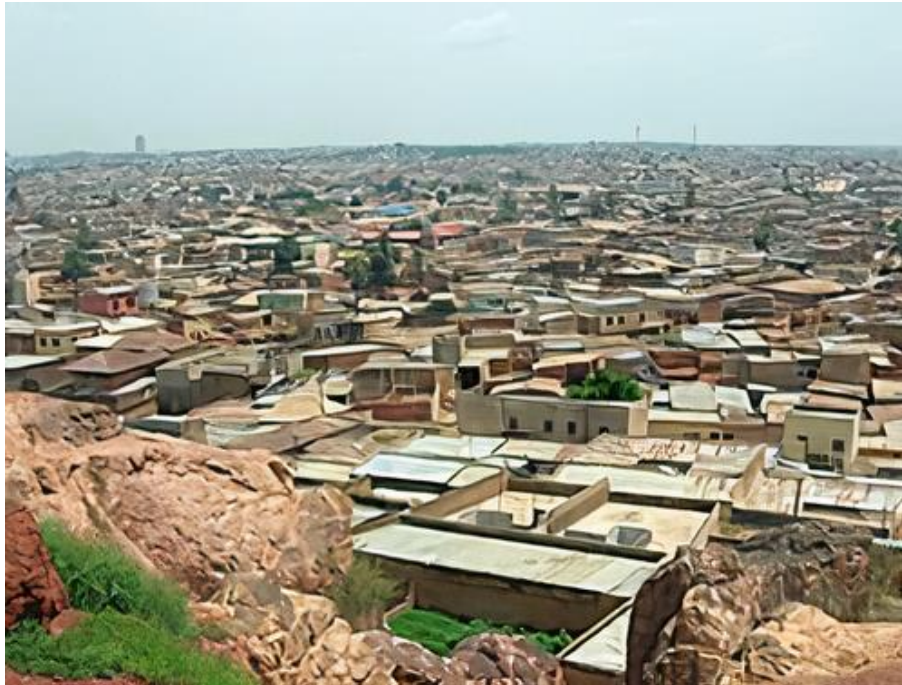


Fig. 1: Kano Capital Ariel View from the Dala Hill in 2005

(Source: www.en.m.wikipedia.org)

Urbanisation

Scholars have written extensively about the meaning(s) and challenges of urbanization across the globe. MacGranahan and Satterthwaite (2014, 1-3) argue that the concept of urbanization is now used more loosely to refer to ‘a broad-based rural-urban transition’ largely dealing with population growth, land-use, economy and culture. The authors also submit that though the thin line separating urban centres from the rural ones seems to be blurred, certain characteristics such as population growth, size, administrative level, employment, social amenities among others are often used to identify urban areas. They conclude by stating that urbanization brings a number of serious challenges and an attempt to inhibit it through exclusionary policies is likely to have some negative consequences on the socio-economic and environmental

aspects of human beings. With the right support however, the authors believe that urbanization can be an important element for sustainable development.

Writing on the same vein, Jedwab, Christiaensen and Gindelsky (2017, 6-16) observe that between 1950 and 2015, population, especially in developing nations has increased from 300 million to almost a billion, while urban areas share tripled from about 17% to 50%. The authors equally aver that urban natural increase creates a kind of disconnect between urbanization and growth because it expands without increase in the implementation of workable policies geared towards the enhancement of living standard. They also argue that if urban growth comes as a result of natural increase in population, then, there is the strong need to develop more infrastructure and enact viable urban planning and development policies.

According to Okopi (2021, 3), rapid urbanization, which is augmented by population expansion in Kano, Nigeria for instance, signals a serious threat to urban environmental sustainability. He also observe that urban growth in terms of demography and infrastructure in Kano metropolis has alarmed a great danger to the city and its landscapes due to the incessant uncoordinated human activities such as the emergence of slums, as well as the conversion of green areas, wetlands, water-bodies and air-marked open spaces to either commercial or residential areas. In this regard therefore, the author gives the example of Kano Municipal, Dala and Gwale Local Government Areas, which form what this paper conceives as the Kano capital city.

Based on literary deductions from the plethora of literature consulted, it is established that though scholars have written on the concept of urbanization and its challenges with particular reference to Kano State, no effort was made to study and bring out the roles played by landscape architects to the development of the Kano capital city. It is on this basis therefore that this paper examines the major roles played by landscape architects in finding solutions to the multiple environmental challenges that emerged as a result of rapid urbanization in Kano capital city.

The Kano State Government Town Planning Policies and the Role of Landscape Architects

Due to the growth in uncoordinated human activities that had direct impact on the Kano State landscaping programmes, the government made a bold step in the establishment of urban development agency in 1964, which kept on changing

names in order to incorporate all matters related to landscape development and management in the state. For instance, the Kano State Environmental Planning and Protection Agency (KASEPPA), emanated from the famous Kano Planning and Development Board that was established in 1968 (KANUPDA, 2022). Based on Edit No. 5 of 1990, however, KASEPPA was renamed to Kano State Urban Planning and Development Authority (KANUPDA) (KANUPDA, 2022).

The major Kano State government policies towards landscape and environmental development began in 1976 with the promulgation of Kano State Urban Development Board Edict No. 5. This edit was followed by the Kano State Urban Development (building) Regulations of 1987, as well as the Kano State Urban Development (building) Regulations of 1988. The Kano State government policies as contained in these regulations and edicts were enacted to perform the following function;

1. Giving approval for governmental, commercial, communal, or private conformity plans.
2. The supervision of approved building plans to ensure conformity to existing regulations.
3. Issuing 'stop notice' order instructing a developer to stop further development.
4. Maintenance of proper sanitary conditions, amenities and conveniences.
5. Prevention of buildings and other objects of architectural, historic, or artistic interest, as well as places of natural interest and beauty and;
6. Planning and designing Kano housing estate in urban areas.

The responsibilities of Kano State landscape architects are not far from the submissions of the IFLA position paper, which itemized and explained five important points as the responsibilities of landscape architects in the world (IFLA, 2021, 1 and Council of Europe, 2021, 1-9). These responsibilities are; (1) The improvement of health and well-being (2) understanding and considering natural process so as to support Green Deal Initiatives (3) the application of socio-economic and environmental sustainability to landscape projects in order to avoid climate change and manage micro-climates (4) the enhancement of environmental value with a view to implementing resource management policies and (5) to ensure the social context of landscapes (e.g visual, environmental, access/use, as well as heritage).

It should be noted that despite the key roles landscape architects play in the development of open spaces, management of both built and natural forms in

Kano, they have never been part of the government's decision-making process¹. This is best informed by the fact that landscape architecture as a field of study in Africa is still in its infant stage to which Kano is no exception. Secondly, the seeming lack of recognition of their roles by constituted authorities is another challenge to their expected position as stake-holders in matters pertaining to landscape issues². That was why most of the land-scape architectural projects executed were conceived and implemented by mere architects.

To be more specific, the position paper equally summarizes the role of the landscape architects in the planning, designing and management of natural, urban/rural and built environments through the application of scientific and aesthetic principles. This is put in place to address the sustainability, quality and health of landscapes, collective memory, heritage, culture and territorial justice. Therefore, the major roles of the Kano State landscape architects can be summarized in the following sub-headings. It should be observed however that the projects that are explained below were initiated by the administration of Governor Rabi'u Musa Kwankwaso (1999-2003 and 2011-2015) and that of Governor Malam Ibrahim Shekarau (2003-2011) respectively³. Though the former initiated the projects, he was also the one that completed most of the projects from 2011-2015. These projects are also discussed below laying emphasis on the roles of landscape architects in the development of open spaces and the preservation of both the built and the natural forms for sustainable development.

The Greening Project

Though the British colonial government had encouraged the planting of trees, in the 1980s, especially with implementation of the Structural Adjustment Programme, a programme that promoted poverty and squalor among Nigerians apart from the collapse of both private and public economic and financial institutions, people began to cut down many of such trees for domestic purposes (Oyejide, 1991, 485-498). This development signaled a great danger in the area, particularly with the growing rate of desertification and flood (Barau, Ludin and

¹ Interview with Mohammed Ahmed Falaki, aged 45, Landscape Architect, Kano, 29/02/2021.

² Interview with Mohammed Ahmed Falaki, Kano, 29/02/2021.

³ Interview with Ibrahim Haruna, aged 37, KNUPDA, Zoo Road, 09/02/2022.

Said, 2013; Barau, Macnochie, Ludin and Abdulhamid, 2015). The State government together with various non-governmental organizations such as Kwandala Foundation and MTN therefore, introduced the famous greening of the city project not only for the challenges of climate change, but also for aesthetics (Fig. 2) (Bashir, 2017; Agency Report, 2020 and **Murtala, 2021**).

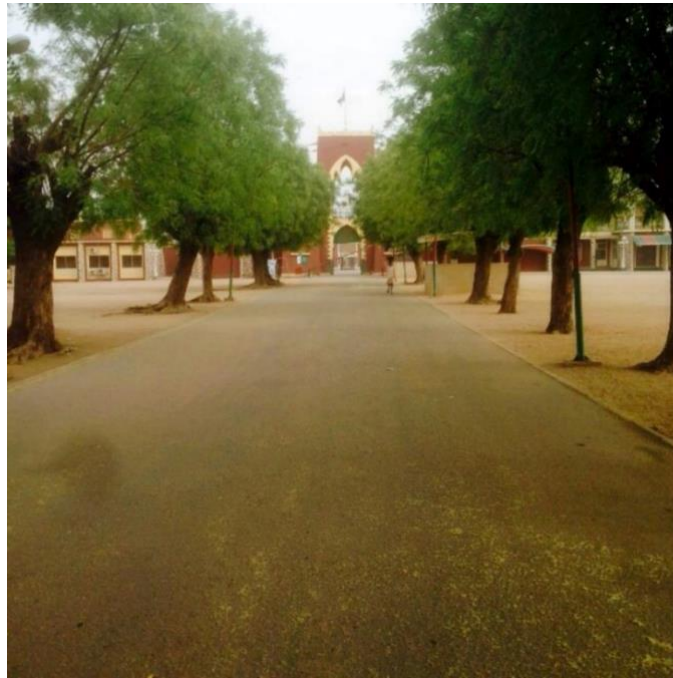


Fig. 2: Neem Tress Planted around the Kofar Kudu of the Emir's Palace (Source: Falaki, 2021)

In executing this project however, anonymous landscape architects on personal basis submitted different designs and plans to the Kano State government for consideration and implementation. Those that were connected with certain government officials, or could buy their ways in normally succeeded in getting government's approval for most of the greening projects across the State. Though the projects in themselves are within the space of landscape architecture, most of those designs come largely from architects. The outstanding ones however, were executed by professional landscape architects. Most of these projects were located around the Emir's palace and the Kano Central Mosque. Their role in this regard therefore, is in line with two of the five roles of landscape architects as itemized by IFLA (2021), which are; (1) about understanding and considering natural process so as to support Green Deal Initiatives and the application of

socio-economic, as well as environmental sustainability to landscape projects in order to avoid climate change and manage micro-climates.

It is worth-noting that, the tree planting programme would not have been successful without the professional efforts of landscape architects who gave the government the blue-print of the right places to plant so as not to temper with the city's development plan, which may be the case if it would be left for the mainstream architects. This is a step taken by landscape architects to share with the government, their notion of an 'ideal' city and its rhythmic altercations. Most of the trees were planted around the Kano capital city beautifying the roadsides, open spaces and parks. This was also in line with the government's plan to save the city's open spaces that are threatened by uncoordinated activities such as open defecation, sewage disposal, building illegal structures among others (Maiwada, 2000; **Murtala, 2016**; UNDP, 2020; *Aisha, 2021*; Agency, 2021; Muktar, 2008; Clement, and Zahraddeen, 2022). The aim of the programme is to plant about 2 million neem tree seedlings to stop desert encroachment, as well as to beautify the city by providing a serene environment. Apart from the neem trees, edible ones such as mango and guava were equally planted. From 1999 when most of the projects were initiated, successive governments up to 2020 have made concerted efforts to conserve and preserve the environment and its natural forms.

The Development and Preservation of the Historic Dala Hill

Dala hill, which is about 200 metres above the sea level, occupies a special position in the history of Kano. It was considered the first settlement. Before the 1804 Jihad of Sheikh Uthman bn Fudi (1754-1817), the traditional religion of the people that involves the worship of a spirit called *Shamus* was conducted at the Hill (Nasidi, 2020, 17-18). The hill is currently one of the major centres for tourism attraction. People come from different parts of the world for tourism. Locally, the people visit it, especially during the Muslim Eid festivities. The sedimentary aspect of the hill makes it difficult for people to climb. For this reason, landscape architects designed the construction of special steps to convey tourists to the hill top (Fig. 4)⁴. This did not only serve a utilitarian function, but also the

⁴ Interview with Muhammad Bala, aged 50, KNUPDA, Kano, 02/03/2022.

preservation and aesthetics of the hill. This effort further tallies with two main roles of landscape architects as earlier on mentioned which are; (1) the enhancement of environmental value with a view to implementing resource management policies and (2) to ensure the social context of landscapes (e.g visual, environmental, access/use, as well as heritage). In this sense therefore, landscape architects contributed in the preservation and transformation of the Dala Hill into resources management centre and cultural heritage site.



Fig. 3: Dala Image (Source: www.en.m.wikipedia.org).

The Redevelopment of Disturbed Landscapes

Landscape architects helped in developing puddles that were hitherto used by local inhabitants as sewage dumping grounds into either fish ponds, or recreational centres within and outside the Kano Capital City⁵. This development has not only saved the natural environment, but also served an economic role in line with the argument that landscape architecture should also bring income alongside aesthetics (see Fig. 4).

⁵ Interview with Sule Bello, aged 67, Professor, Unguwa Uku, 16/07/2020.



Fig. 4: Redeveloped Puddle in the Kano Capital City (Source: Nadir A. Nasidi, 2020)

The Pedestrian Walkways Project

In line the improvement of health and well-being of the people as one of the first role of landscape architects as stated by IFLA (2021) and as part of the proper landscaping project of the Kano State government, landscape architects provided adequate professional support to design the construction of interlocked pedestrian walkways throughout the capital city (Falaki and Nasidi, 2021, 1-9). This includes the road pavements and the front sides of peoples' houses. This project apart from beautifying the city, it has also made life very easy for passers-by, especially during the rainy season when such walkways become inaccessible (Fig. 5).



Fig. 5: The Interlocked Walkways around the Emir's Palace
(Source: Falaki, 2021)

Urban Growth and the Challenges to Proper Landscaping in Kano Capital City

It should be noted however that, despite the great efforts made by the successive Kano State governments to develop and ensure the health of its landscape including both built and natural forms, the rapid urban growth of the State poses serious threats, especially with the emergence of slums within the Capital City. Other challenges include; the disruption of important open spaces, particularly by petty traders who occupied it, as well as the walkways that were constructed by the government (Falaki and Nasidi, 2021, 1-9). Around the Dala Hill for instance, there emerged slums whose activities do not only temper with the serene nature of the environment, but also make tourists uncomfortable⁶. These problems coupled with the growing rate of corruption amongst government town planning agencies who are often bribed by investors to erect structures at wrong locations⁷. For instance, proper landscape monitoring mechanisms are weak due to corruption on the side of the Kano State town Planning Agency (KNUPDA). This development has also tempered with the Kano State master plan set aside for its proper town planning programmes⁸.

⁶ Interview with Bello Zakari, aged 70, merchant, Madatai, 17/01/2020.

⁷ Interview with Musa Kabiru, aged 45, a business man, Alfindiki, 02/02/2022.

⁸ Interview with Ibrahim Garba, 70, a business man, Dukawa, 18/02/2022.

Furthermore, the Kano State government has also contributed to the contemporary challenges that also undermine its effort to ensure proper and successful landscaping and town-planning programmes. This is due to the failure of the government to decongest its metropolitan cities by moving markets and other public places that attract large number of people to the outskirts so that open spaces would be kept well and utilized for several socio-political and economic purposes.

Other challenges to proper landscaping in Kano capital city as identified by this paper includes the fact that the literature and constituted authorities in Kano do not fully recognize landscape architects as key players in the preparation of plans and designs that take into consideration, land resources for environmental, aesthetic and economic security. Instead, the services of built environment practitioners such as builders, engineers, as well as urban and regional planners were solicited based on the connections such experts have with those in political offices⁹.

Lack of the existence of Landscape architecture as a course in Universities and other tertiary institutions within the State in particular and Nigeria in general is another problem affecting government programmes geared towards landscape development. This is predicated by the lack or the total absence of professional landscape architects who can conceive viable landscaping ideas, as well as oversee the completion of government programmes towards the same direction. Failure on the side of the Kano State government to officially consider the roles of landscape architects in its decision-making process on matters relating to landscape development has been a serious blow to the development and preservation of both human and natural forms throughout the State. This has also created a wide gap between Kano State landscape development projects on one hand and the services of professional landscape architects on the other.

Conclusion

This paper apart from tracing the historical transformation of Kano capital city through the promulgation of town planning edicts and regulations, it also examined the major contributions of landscape architects, especially in the

⁹ Interview with Shafi'u Adamu, aged 37, architect, Koki, 05/04/2022.

development and preservation of landscapes for both utilitarian and aesthetic reasons. Emphasis is however, given to the efforts made by landscape architects to the planning, designing and management of natural, rural and built environments through the application of scientific and aesthetic principles to address sustainability, quality and health of landscapes. These contributions are basically achieved through (1) the Greening Project (2) the development and preservation of the Dala Hill (3) the redevelopment of disturbed landscapes and (4) the pedestrian walkways project. Despite these contributions, a lot has to be done, especially by clearly defining the roles of landscape architects, as well as providing a special mechanism that will check-mate the powers, functions and activities of town-planning and development agencies so as to curb-out the problems of corruption, which has been affecting the ideal city blue-print for so many years.

The paper has equally observed that landscape architects play a significant role not only in the development and maintenance of open spaces within the capital city, but also in making sure that designs and plans follow an economic function. A classic example of this is the development of 'edible' landscapes where aesthetic qualities are achieved alongside economic development as a solution to the pressing challenges raised by urbanization in modern capital cities like Kano. Despite their unique roles, the paper established that landscape architects have never been part of the Kano State government decision-making process in relations to landscape development in the State, especially within the Kano Capital City. This has therefore, affected the development and management of healthy landscapes. It has also created an avenue through which non-professionals engage in projects that are mainly for landscape architects.

Table of Oral Interviews:

S/N	Name	Age	Occupation	Place and Date of Interview
1.	Mohammed Ahmed Falaki	45	Landscape Architect	Kano, 29/02/2021
2.	Salisu Mubarak Muhammad	37	Independent Researcher	Kabuga, 08/09/2021
3.	Ibrahim Haruna	57	KNUPDA	Zoo Road, 09/02/2022
4.	Bello Zakari	70	merchant	Madatai, 17/01/2020
5.	Sule Bello	67	Professor	Unguwa Uku, 16/07/2020
6.	Shafi'u Adamu	37	Architect	Koki, 05/04/2022
7.	Muhammad Bala	50	KNUPDA	Kano, 02/03/2022
8.	Ibrahim Garba	70	A business man	Dukawa, 18/02/2022
9.	Musa Kabiru	45	A business man	Alfindiki, 02/02/2022

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