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URBAN INFRASTRUCTURE PLANNING AND SUSTAINABLE DEVELOPMENT IN THE FEDERAL CAPITAL TERRITORY

By

IBE, EZECHI CYRAICUS (Corresponding Author)
Department of Political Science, Nasarawa State University, Keffi.
Phone: 0806 381 2308, **Email:** ezechinyereibe@gmail.com

EUGENE TARKENDE ALIEGBA
Department of Political Science, Nasarawa State University, Keffi.
Phone:0803 384 6081

&

SHUAIBU UMAR ABDUL
Department of Political Science, Nasarawa State University, Keffi.
Phone: 0813 313 9039

ABSTRACT

Premised upon the imperative to achieve Sustainable Development Goals (SDGs) target through urban infrastructure planning in the Federal Capital Territory (FCT), this paper examined the prospects of urban planning towards realization of sustainable development with focus on Urban Development in the FCT. The paper was anchored on the Elite Theory which underscores connecting the conception of urban infrastructure planning and elite preferences. The study utilized primary and secondary data and collected data were analyzed using percentages and frequency tables, while data from in-depth interview were analyzed using textual method. Data from secondary source were analyzed using relational-content analysis. Findings revealed that there was significant relationship between urban infrastructure planning and sustainable development in the FCT and the manner of conception of urban infrastructure policies hamper sustainable water supply in the FCT. On the basis of the findings, it is concluded that effective urban infrastructure planning is a useful tool for ensuring the realization of sustainable development in the FCT and with regards to infrastructure provision. Consequent upon conclusion from the findings, the study recommended that the FCT Administration should institutionalize efficient urban infrastructure planning to actualize robust urban amenities provision; and also prioritize efficient waste management, supply of clean water and provision of efficient transportation system in the urban infrastructure planning process. These will significantly drive the course of attaining the sustainable development in the FCT.

Keywords: Urban, Urbanization, Planning, Urban Planning, Sustainable Development

1. Introduction

It is important to know that by getting urban infrastructure planning right, cities can create jobs and offer better livelihoods, increase economic growth, improve social inclusion, promote the decoupling of living standards and economic growth from environmental resource use, protect local and regional ecosystems, reduce both urban and rural poverty. The need for cities to offer better services and have more comprehensive resources through robust urban infrastructure planning is vital for the realization of sustainable development globally. Nevertheless, inadequate urban infrastructure planning has continued to pose many challenges on the quest by stakeholders globally, especially in the developing nations, in making cities livable for the present and future generations (Okereke, 2023).

In Nigeria, the Federal Capital Territory (FCT) has been grappling with developmental challenges since its creation and this has hampered its quest in realizing sustainable development in the city. The nature

of challenges confronting the FCT show that there are gaps in urban infrastructure planning in the city. During the conception of the city, there was plan that infrastructures would be developed and spread across all areas in the city in order to guard against many avoidable challenges associated with urbanization, especially where adequate plans have not been conceived and implemented to combat such challenges from their formative stages (Onu, 2022).

The quest to ensure sustainable development in the FCT through adequate urban infrastructure planning has led to series of demolition of illegal structures, resettlement of indigenes displaced by the implementation of such policies, but the city is still confronted with inadequacy of basic infrastructures such as environmentally-friendly transportation system and portable water supply within the FCT. Over the years, FCT has been grappling with the challenge of provision of efficient urban amenities, supply of clean water, ensuring better waste management and ensuring sustainable development in the city, a challenge that is worsened by the existence of slum settlements and related challenges in the city (Ume, 2018).

More so, with the rapid increase in the population of the FCT, and the challenge of infrastructural decay and need for improved urban infrastructure planning in the city continue to increase. Consequently, urban poor now live in informal settlements and satellite communities of the city given the high-cost of rent in the expensive urban and formal settlements where there is a measure of infrastructural facilities provided by the government. Though the Abuja Master Plan is designed to make infrastructural development evenly spread across all the 6 phases in the FCT, in reality, infrastructural development is concentrated in the city centers to the detriment of satellite communities in Abuja. This worsened the challenge of poor in the area of access to clean water, efficient urban transportation system, sanitation etc. Therefore, this paper is designed to interrogate the relationship between urban infrastructure planning and sustainable development in the FCT with reference to sustainable provision of portable water and efficient transportation system.

2. Literature Review

2.1 Urban Infrastructure Planning

Before reviewing the concept of urban planning, it is important to review the concepts of urban, infrastructure, and planning first. Although that is hard to define or characterized what urban is all about, but as a theme it encompasses so many fields which goes beyond nature and residing in the cities. As the world gets more urbanized daily with the adoption of the 2030 Agenda and the Sustainable Development Goals (SDGs) it is crucial that urban areas are strengthened in their role as key development actors. Moreover, the urban goal, SDG-11, underlines the need to "Make Cities and Human Settlements inclusive, safe, resilient and sustainable".

Accordingly, 'urban' is a placed-based characteristic that incorporates elements of population density, social and economic organization and the transformation of natural environment into a build environment (John, 2010). Besides, defining the urban synthesizes knowledge from different academic disciplines, professional practices, and emerging approaches to offer the reader a truly comprehensive overview of established strategies to understand cities and urban phenomena. Despite that, there have also been some few efforts to define the urban in the academic literature.

Furthermore, a rare attempt to consider how different disciplines define the urban was presented by McIntyre, Knowles-Yanez, and Hope (2000). After surveying many of the social sciences they aimed to derive a consistent quantitative description of the urban. The success of this endeavour could be debated as many social scientists could take issue with how their discipline has been reductively characterized. However, it can also be argued that this effort made ecologists aware that other academic communities think about the urban, and that they do so in ways that might help ecology address some of its own conceptual and methodological shortcomings.

Relatively, the term 'urban' is often amounted to "varied assemblages of certain measurable characteristics," understood as "inherently spatial," and juxtaposed to its "counter-concept," the rural

(Friedmann, 2014). Moreover, to give an example from policy and practice: the United Nations does not use a single, globally accepted definition of the urban (UN-DESA, 2014). Moderately, the estimated rate of global urbanization reflects a mix of country-specific definitions based upon one (or more) of the following criteria: administrative areas designated as urban/certain named towns; any place with a municipality; administrative function or structure or Local Government etc., with a population threshold, ranging from 200 to 20,000; some combination of thresholds in terms of population, number of dwellings economic activity profile, population density, or even a minimum number of prescribed services such as a secondary school, grid connection, health centre, or telephone service.

With respect to the concept of infrastructure, Mehta (2015) noted that infrastructure is a term used for physical systems of a business or nation's transportation, communications, water, electricity, among other things. Infrastructure systems are mainly capital intensive and are vital to economic growth of a state. Projects that are related to infrastructure improvements may be funded by the government or private organizations or partnership between the government and the private concerns. Infrastructures are many and diverse including road, tunnels, bridges, rail ways, airports, harbours, subways, power plants, power lines, oil and gas pipelines, telephone exchanges and networks, among other things. Though Mehta (2015) pointed out the importance of infrastructure in spurring sustainable development, but that did not cover the characteristics of infrastructure.

Besides, urban infrastructure is regarded as the aggregation of all amenities, services, facilities and utilities such as water, electricity, telephones, stadia, parks, nature gardens, sewage and drainage as well as others relating to health, education, economic and housing which are essential to and necessary for enhanced human settlements (Fidelis, Uche & Celestine; 2016).

According to Prud'homme (2022), infrastructure is long-lasting because its life span is measured in decades. Infrastructure is space-specific, meaning that infrastructure is not mobile. In addition, citing of an infrastructure takes many years, therefore, infrastructures are capital projects and not consumed directly, but are needed for the production of other goods. Infrastructure, especially transport infrastructure plays important role in Adam Smith's brand of economic development. Within this premise, it could be said that if there is no road, there would be no transport, no trade, no specialization, no economics of scale as well as no productivity and development. It is instructive to note that infrastructure investment is an important component of output. Increase in infrastructure investment increases aggregate demand and output, even though it may not positively add to output as well as productivity.

The concept of plan has been defined by Tiwari (2002) as a programme of action for realizing specific goals or objectives. A plan has equally been defined as a policy statement, while planning is defined as policy making. The foregoing definition of planning and plan are related to the meaning of the concept in this paper. Nathathiga (2019) defined planning as a scheme, a design, or a framework of programmes of action, strategies as well as activities.

According to Ugwu (2008), urban planning as a crucial aspect of urban development. Urban planning means a technical as well as political process concerned with the control of the use of land and design of urban environment, including transportation, networks to guide and ensure the orderly development of settlement and communities. Though the definition of urban planning by Ugwu is related to the idea of the concept in this paper, it did not cover the overall purpose of urban infrastructure planning necessary for facilitating the realization of sustainable development.

Above all, urban planning means the process that is adopted with a view to organizing the dynamics of human actions in cities to enhance spatial occupation through typological patterns of use, distribution of equipment, mobility, services and natural benefits derived through development of infrastructures. The purpose of urban planning is to solve challenges confronting the dynamics of events that concern cities (Eckert & Padilha, 2019), which includes infrastructural decay in cities. The foregoing definition is adopted in this paper.

2.2 Sustainable Development

Firstly, development as a concept, has been associated with diverse meanings, interpretations and theories from various scholars. However, the differences notwithstanding, there still exist the agreement by all divergent views that development encompasses a continuous 'change' in a variety of aspects of human society. Development could be defined as 'an evolutionary process in which the human capacity increases in terms of initiating new structures, coping with problems, adapting to continuous change, and striving purposefully and creatively to attain new goals (Baker, 2015; Biermann et al., 2022).

Development, according to the Urban and Regional Planning Decree (1992) means "the carrying out of any building, mining or other operation in, on, over or under any land; the making of any material change in the use of any land building structure, or conversion of land, building structure from its established or approved use, and / or including the placing or display of advertisement and urban furniture on the land, building or structure; the making of any environmentally significant change in use of any or demolition of building including felling of trees.

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According to Holmberg & Sandbrook (2019) development is understood as a social condition within a nation, in which the needs of its population are satisfied by the rational and sustainable use of natural resources and systems. Todaro and Smith (2006) see development as a multi-dimensional process that involves major changes in social structures, attitudes, and institutions, as well as economic growth, reduction of inequality, and eradication of absolute poverty.

Furthermore, Biermann et al., (2022) in his study captures development as an idea that embodies all attempts to improve the conditions of human existence in all ramifications. It implies improvement in material wellbeing of all citizens, not the most powerful and rich alone, in a sustainable way such that today's consumption does not imperil the future. It also demands that poverty and inequality of access to the good things of life be removed or drastically reduced.

Additionally, development can be seen as a process of improving the quality of all human lives with three equally important aspects namely; raising peoples living level such as income, consumption, medical services etc.; creating conditions conducive to the growth of peoples' self-esteem through the establishment of social, political and economic systems and institutions which promote human dignity and respect; and increasing peoples' freedom to choose by enlarging the range of their choice variables, such as varieties of goods and services (Gebre, 2020)

Meanwhile, sustainable development as a concept is a response to the challenges facing urban areas, such as globalization, decentralization, and rapid population growth. These changes affect such matters as the economy, the social conditions, and the environment, and bring about problems recognized as social inequalities, slums or informal settlements, and climate change.

According to Holmberg & Sandbrook, (2019, the primary objective of sustainable development is to reduce the absolute poverty of the world's poor through providing lasting and secure livelihoods that minimize resource depletion, environmental degradation, cultural disruption and social instability. On a different perspective, sustainable development can among others relate to conservation of ecosystem and biodiversity, production systems, population control, human resource management, conservation of progressive culture and people's participation (Ben-Eli, 2015; Molinoari et al., 2019).

While Mohieldin, (2017) in his view sees sustainable development as an approach to development which uses resources in a way that allows them (the resources) to continue to exist for others. Evers (2017) further relates the concept to the organizing principle for meeting human development goals while at the same time sustaining the ability of natural systems to provide the natural resources and ecosystem services upon which the economy and society depend. Considered from this angle, sustainable development can be said to aimed at achieving social progress, environmental equilibrium and economic growth (Gossling-Goidsmiths, 2018; Zhai & Chang, 2019).

Besides, the relevance of sustainable Development deepens with the dawn of every day because the population keeps increasing but the natural resources available for the satisfaction of human needs and wants do not. Hák et al. (2016) maintain that, conscious of this phenomenon, global concerns have always been expressed for judicious use of the available resources so that it will always be possible to satisfy the needs of the present generation without undermining the ability of future generations to satisfy theirs. This implies that sustainable development is an effort at guaranteeing a balance among economic growth, environmental integrity and social well-being.

2.3 Theoretical Framework

The paper was anchored on the Elite Theory. Elite theory's origins lie most clearly in the writings of Gaetano Mosca 1858–1941, Vilfredo Pareto 1848–1923, and Robert Michels 1876–1936 and Max Weber 1864–1920. Mosca emphasized the ways in which tiny minorities out-organize and outwit large majorities, adding that "political classes" – Mosca's term for political elites – usually have "a certain material, intellectual, or even moral superiority" over those they govern. The major assumption of the theory is that in a society with truly unrestricted social mobility, elites would consist of the most talented and deserving individuals. But in actual societies elites are those most adept at using the two modes of political rule, force and persuasion, and who usually enjoy important advantages such as inherited wealth and family connections. Pareto sketched alternating types of governing elites, which he likened, following Machiavelli, to lions and foxes. The masses are perceived as unorganized and pathetic and wired in such a way that the elites would always deceive them and have their ways (Chikendu, 2002).

The Elite Theory is relevant to this paper given that since public urban infrastructure planning really reflects the preferences of elites, whereby public officials and administrators carry out the policies decided upon by the elite. The theory helps our understanding of urban infrastructure planning, urban settlement, implementation FCT Master Plan, provisions of infrastructural services in accordance with the master plan, provision of amenities, the formulation/implementation of urban development programmes in FCT generally.

3. Methodology

The research design adopted in this study was a descriptive research design involving both quantitative and qualitative methods. The population of the study was 3,510 comprising of staff in FCDA (34), OSSAP-SDG (21), National Assembly Committee on SDG (28), Department of Environment AEPB (12), Department of Urban and Regional Planning in Ministry of Works, Department of Urban Development in AMAC (18), Department of Urban and Regional Planning in Ministry of Works, Department of Urban Development in Bwari (22), and Department of Urban and Regional Planning in Ministry of Works, Department of Urban Development in Kuje (29). This also included community leaders AMAC (1,050), Bwari (1,080) and Kuje (1,200) area councils. The sample size of the study was 359 respondents determined

using Rakesh sample size formula, who were also administered questionnaire to. Twenty-five (25) respondents were selected for in-depth interview on the basis of their knowledge on issues under study, but after the interview of 5 respondents, the researcher reached a saturation point and stopped the interview. Data were also collected using secondary sources. Data from questionnaire were analyzed using percentages and frequency tables, while data from in-depth interview were analyzed using textual method. Data from secondary source were analyzed using relational-content analysis.

4. Data Presentation and Analysis

Research Proposition (i): There is a significant relationship between urban infrastructure planning and realization of sustainable development in FCT

Table 1: Level of Implementation of urban infrastructure planning and realization of sustainable development in FCT, Abuja

Question/Statement	SA	A	U	D	SD	Total
Through the implementation of urban policy, satellite communities in the FCT were provided with the needed infrastructure, clean water and other essential amenities that enhance human life	63 (22.6 %)	27(9.7 %)	30(10. 8%)	85(30.5 %)	74(26.4%)	279 (100%)
Through the implementation of urban policy, access to safe water and affordable housing were improved with the proportion of people living in informal settlements reduced	42 (15.1 %)	47 (16.8 %)	29 (10.4 %)	100(35. 8%)	61(21.9%)	279(100 %)
The proportion of urban residents with access to improved sanitation and urban sustainability has significantly increased particularly in the satellite communities	20 (7.2%)	56(20. 1%)	41(14. 5%)	78(28%)	84(30.1%)	279(100)
The level of implementation of urban policy in FCT contributed largely in addressing urban transportation problem, improved urban renewal and guaranteed access to safe, inclusive, green and public space for women and children	25(9%)	37(13. 2%)	37(13. 2%)	55(19.7 %)	73(26.2%)	279(100 %)
The level of implementation of urban policy in the FCT, Abuja has improved	40 (14.3 %)	47(16. 8%)	53(19 %)	75 (26.9%)	64(23%)	279(100 %)

Source: Field survey, (2023) SA= strongly agree, A= agree, U=undecided, D=disagree, SD=strongly disagree

Findings from questionnaire showed that 105 (37.6%) of the respondents disagree that urban infrastructure planning has resulted in efficient provisions of urban amenities in the FCT, while 115 (41.2%) of the respondents strongly disagree that urban infrastructure planning has resulted in better transportation system in the FCT. Also, 121 (43.4%) of the respondents strongly disagree that implementation of urban infrastructure planning has enhanced the supply of water in the FCT, while 111 (39.3%) of the respondents disagree that urban infrastructure planning in human settlements has brought about better waste management in the FCT, while 127 (45.5%) of the respondents strongly agree that there is significant relationship between urban infrastructure planning and sustainable development in the FCT.

Findings from in-depth interview cover more issues than findings from questionnaire. Findings from in-depth interview showed that:

> There is meaningful relationship between the level of urban infrastructure planning and realization of sustainable development in the FCT. Findings showed that good urban infrastructure planning are necessary strategies for spurring efficient urban transportation, efficient healthcare system, and environmental preservation. This showed that urban infrastructure planning is pivotal in engendering sustainable development in the FCT, but urban failures in the city was blamed on poor urban infrastructure planning. Generally, findings showed that efficient urban infrastructure planning is an inevitable tool for facilitating environmental sustainability, improving the transportation system, ensuring provision of clean water and efficient healthcare systems in rural settlements. Findings clearly showed that though urban infrastructure planning can spur sustainable development in the FCT, factors such as corruption in Nigerian public service has continued to hinder efforts at realizing infrastructures provisions in the FCT (Field survey, 2023).

Findings from previous studies are not significantly established connection between urban infrastructure planning and sustainable development in the FCT. Findings by Arfvidsson, Simon, Oloko and Moodley (2017) showed that sustainable development is vital in the world. This is because urban infrastructure planning must be relevant, acceptable and practical for it to be used as effective tool for achieving sustainable development generally. This is different from the findings of this study as it did not show the relationship between urban development and sustainable development goal in Nigeria. The study by Adeniran (2017) revealed the need for development of local capacity building for effective delivery of sustainable urban development as a veritable strategy for realizing the SDGs, which points towards possible nexus between urban infrastructure planning and sustainable development goals target in Nigeria. Baba, Tifwa and Achoba (2017) found that instead of robust policy framework, Nigeria still lags behind in the realization of SDG targets in Africa, which also show a possible connection between urban development and sustainable development goal targets in Nigeria.

However, Obianyo et. al (2021) found that impediments to the realization of SDG-urbanization actualization include poor maintenance of infrastructure, bribery and corruption, preference to foreign made goods over local ones, among other things that are not related to the focus of this study. this is equally related to the findings by Ugwu and Ogunremi (2019) which shows the relationship between improvement in local languages and realization of sustainable development in Nigeria. The foregoing created gaps in the establishment of relationship between urban planning and sustainable development goal in the previous studies, which has been filled by the finding of this study. Therefore, our research proposition (i), there is significant relationship between urban infrastructure planning and sustainable development in the FCT, is accepted.

Research Proposition (ii): The manner of Conception of urban infrastructure planning hamper water supply in the FCT

Table 2: Effect of Implementation of urban infrastructure planning on water supply in FCT, Abuja

Question/Statement	SA	A	U	D	SD	Total
Implementation of urban policy in the city/satellite communities and villages has greatly improved with a large number of people enjoying clean water and other essential services	31 (11%)	36 (13%)	50 (17.9%)	78 (28%)	84 (30.1%)	279 (100%)
Implementation of public policy has greatly improved access to basic services such as efficient and accessible transportation system I the FCT	25 (9%)	30 (10.8%)	57 (20.4%)	76 (27.2%)	91 (32.6%)	279 (100%)
Implementation of urban policy has resulted in the reduction in the growth of shanties, slums and efficient waste management in the FCT	19 (6.8%)	33 (12%)	45 (16%)	60 (21.5%)	122 (43.7%)	279 (100%)
Implementation of Abuja Master Plan has largely preserved green areas and ensured clean environment in the FCT	43 (15.4%)	31 (11.1%)	48 (17.2%)	85 (30.5%)	72 (25.8%)	279 (100%)
Implementation of urban policy has largely led to the realization of SDG 11 in FCT, Abuja	32 (11.5%)	47 (16.8%)	39 (14%)	91 (32.6%)	70 (25.1%)	279 (100%)

Source: Field survey, (2023) SA= strongly agree, A= agree, U=undecided, D=disagree, SD=strongly disagree

Findings from questionnaire showed that 99 (35.5%) of the respondents disagree that FCTA has conceived robust urban infrastructure planning in ensuring efficient waste management evacuation in the FCT, while 102 (36.6%) of the respondents disagree that through adequate conception of of urban infrastructure planning, FCT Administration has established effective and efficient transportation system in the city. Also, 115(42.2%) of the respondents strongly disagree that through adequate inclusion of women, youths and excluded group, the FCT Administration has improved access to land and economic opportunities for all, while 107 (38.4%) of the respondents disagree that FCT Administration has largely achieved sustainable water supply through efficient urban infrastructure planning. Similarly, 94 (33.7%) of the respondents disagree that FCT Administration conceived urban infrastructure planning in a manner that would achieve sustainable development in the FCT.

Findings from in-depth interview cover more issues than findings from questionnaire. This showed that:

> The sustainable development was not conceived as a stand-alone framework but designed to work with other programmes such as the Vision-2030. The implementation of sustainable development necessitated collaboration between SDG Office and AGIS in the FCT. This further necessitated the implementation of Abuja Master Plan phased from 1 to 6. Despite the foregoing, infrastructural development, over the years, has been concentrated in the FCT City Centres. Given the poor conception urban infrastructure planning in the FCT, the challenges portable water,

poor healthcare facility, housing, neglect of the environment, poor transportation systems, among others, have continued to impede sustainable development in the FCT, especially in its satellite communities and suburbs (Field survey, 2023).

Findings from previous studies did not significantly show the manner of conception of urban infrastructure planning toward achieving sustainable development in the FCT. For example, findings by Koch and Krellenberg (2018) showed that SDG 11 was altered to reflect the peculiarities of Germany in order to make it more applicable in the country, while a study by Alamu (2017) showed that high level of illiteracy is responsible for development challenges and poverty in Nigeria. This is disconnected from the findings of this study on how the FCTA has conceived and implemented urban development towards achieving SDG 11 target in FCT. Similarly, Ike (2021) found that none of the identified goals of SDG 11 has been significantly addressed in Nigeria, showing that the country is far from achieving sustainable development. A study by Suling (2020) found that the new type of urbanization has a significant positive impact on land use, which implied that the implementation of the urban infrastructure plans has not reduced sustainability of land use, but played important role in improving it. The foregoing is also disconnected from the focus of this study. Therefore, there are gaps in the determination of if the FCTA has conceived urban infrastructure planning in a manner that would help achieve sustainable development in FCT in the previous studies. Therefore, our research proposition (ii), the manner of conception of urban infrastructure planning hamper sustainable water supply in the FCT, is accepted.

5. Summary of Findings

(i)The result from investigation of research proposition (i) agrees with the opinions of the majority of the respondents who either agree or strongly agree that there is significant relationship between urban infrastructure planning and sustainable development in the FCT. The findings showed that urban infrastructure planning has not resulted in efficient provisions of urban amenities in the FCT. This is blamed on inefficient urban infrastructure planning which is responsible for decay in the transportation system, inefficient water supply, increase in the number of people that live in the informal settlements and deterioration of waste management challenges in the FCT. It is vital to make urban infrastructure planning efficient in order to spur sustainable development in the city and its satellite communities. Though findings from previous studies including Arfvidsson, Simon, Oloko and Moodley (2017), Adeniran (2017), Obianyo et al. (2021), among others, did not directly focus on the relationship between urban infrastructure planning and SDG 11, they implied that underdevelopment and poverty are consequences of inefficient urban infrastructure planning. Therefore, findings from questionnaire, in-depth interview and previous studies led to the acceptance of research proposition (i). The theoretical consequences of the findings in the political elites make and implement policy that favour them and this support the acceptance of research proposition (i).

(ii) The result from investigation of research proposition (ii) showed that majority of the respondents either strongly disagree of agree that the manner of conception of urban infrastructure planning hamper sustainable supply of water in the FCT. Given this, the FCTA has not conceived urban infrastructure planning in such a way that will ensure efficient waste management in the FCT, and through inadequate conception of urban infrastructure planning, FCT Administration has not established efficient and effective transport system, improved access to land and economic opportunities for all. Also, FCT Administration has not properly integrated the sustainable development strategies into its urban infrastructure planning. This is buttressed by the fact that Abuja Master Plan has been conceived and implemented in such a way that the satellite communities are starved of projects that would have led to the realization sustainable development in the FCT. In addition, findings from previous studies from Koch and Krellenberg (2018), Alamu (2017), Ike (2021), Suling (2020), among others, though different from the findings of this study in significant ways,

did not nullify the findings that FCTA has not conceived urban infrastructure planning towards achieving sustainable development, which led to the acceptance of our research proposition (ii).

5.1 Conclusion

This paper examined urban infrastructure planning and sustainable development in the FCT. The purpose of the paper was to examine the way and manner urban infrastructure planning has been deployed in ensuring the realization of sustainable development in FCT, especially in the rural areas. The major findings of the study are that there is significant relationship between urban infrastructure planning and realization of sustainable development in the FCT, and the manner of conception of urban infrastructure planning hamper sustainable water supply in the FCT. On the basis of the findings, it is concluded that urban infrastructure planning is a useful tool for ensuring the realization of sustainable development in the FCT. Therefore, if urban infrastructure planning continues to be improperly conceived in the FCT, the hope of achieving sustainable development would continue to elude the city in a distant future.

5.2 Recommendations

Based on the findings and conclusion of the paper, the succeeding recommendations were made:
Given the beneficial relationship between urban infrastructure planning and sustainable development, FCT Administration should ensure that efficient urban infrastructure planning should be urgently deployed as a tool for achieving robust provision of urban amenities.

Also, it is recommended that the FCTA should properly conceive urban infrastructure planning in order to achieve efficient waste management, supply of clean water and provision of efficient transportation system in the FCT.

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