

Population Dynamics to Urban Spaces Needs in One of Africa's Largest Cities: Abuja, The Federal Capital City of Nigeria

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Abstract- This study examined the population dynamics to urban spaces needs in one of Africa's biggest cities, Abuja the Federal Capital City of Nigeria. It analyzed urban spaces in the city and examined the pull factors into the city center, in order to replicate functionality in surrounding environment and satellite towns instead of concentrating activities at the center. Materials and methods include primary data got from physical measurement technique, personal observations and physical trace while secondary data were obtained from National Population Commission, Federal Capital Development Authority, Journals and documents from the internet. Data collection and data analysis techniques used for this study includes; remote sensing imagery, geographic information system software, pictures, percentage statistics, frequency statistics and descriptive statistics. Results revealed that the Federal Capital Territory's (FCT) projective population growth overtime has increased more than its estimated target in the Abuja Municipal Area Council, with the implication of possible future crisis on social, economic, human and environmental development.. Statistical analysis reveals that about 55% of population activities takes place within the Municipal area, while observations shows that the Capital City witness continuous pressure on transport route leading into the Capital from Karu, Airport and Kubwa axis; causing productive hours spent on the road and exposed commuters to criminals' nefarious activities during the traffic gridlocks and stress on transport infrastructure. It is on these bases that the study recommends that development planners and city administrators should create alternative land-use model for the remaining Area Councils within the FCT, embark on strategic re-location of part of

defense and agricultural ministries and other agencies to more spacious environment, making other Area Councils perform more functional features to growth and development and a creation of standard database that will accommodate the various complex data, such as population, migrants' data, housing data as well as socio-economic indices of the people that will aid the functionalities of the FCT.

Indexed Terms- Sustainable development, population dynamics, infrastructure, city model

I. INTRODUCTION

Federal Capital Territory happens to be a modern city conceived by the Federal Government of Nigeria in the 1970s to replace Lagos as the City Capital due to the underlying urbanization challenges Lagos was witnessing. The City was limited in landmass with a lot of water-locked environment which limits the potential growth and proper development of the location, with the continue increase in population and the vulnerability of Lagos to external threats from the coastal plain, the National Security Council thought the need to move inward to avert the possibility of overtaking the sovereignty from a defensive perspective.

Urbanization and careful modeling of a City is paramount to the sustainability and resilient capacity of any modern city (Muhammad *et al*, 2018). Abuja Municipal Area Council was deliberately planned by three American firms; PRC Corporation; Wallace, Mcharg, Robert and Todd; and Archisystem on the account to create a blue print urban land-use Master-plan which was designed by renowned Japanese

architect KenzoTange, construction began in the late 1970s, due to the political and economic instability during these years, the initial stages were not completed until the late 1980s (Aliyu, 2016). Other Nigerian Scholars such Akin Mabogunje, the first indigenous Lecturer at University of Ibadan, contributed tremendously in the planning of the city.

II. CONCEPTUAL FRAMEWORK FOR THE ESTABLISHMENT OF THE FEDERAL CAPITAL CITY

Urban land-use plans were used to actualize the functionality of the Capital City with the adoption of certain functionalities from sector model and multiple nuclei theory that describes the morphology of space and functions to be performed by that geographical location in a respect of a system (Balogun 2001). These theories were applied to Abuja, the landmass are sectioned into phases and districts with plots allocated for certain structures and construction in-line with the purposed Master-Plan description (Obaidiet *al*, 2017). Perhaps, these modifications were conceived to adverse the problems and limitations continuously witnessed in Lagos Nigeria, which includes emergence of slum areas and shanties in the then capital and the persistence overcrowding due to the huge influx of population as a result of the City's functions on administrative and commercial activities. Falade (2005) argued that one of the continent's main developmental challenges for the first two decades of this new millennium would be how to successfully manage its urbanization for sustainable economic development and social emancipation. In order to make cities and human settlements inclusive, safe, resilient and sustainable, the population dynamic to urban spaces needs to be examined for us to understand the pull factors in other to replicate functionality in surrounding environment, in the case of Federal Capital Territory, the projective population growth overtime is estimated more to the Abuja Municipal Area Council, with the implication of possible future crisis on social, economic, human and environmental development (Zubair *et al*, 2015). The diversification of functionality and adoption of other urban land-use models and theories in developing surrounding environment could help achieve target 11.1 of the goal 11 of Sustainable Development Goals of the United Nation, which stated that by 2030,

authorities or management should ensure access for all, to adequate, safe and affordable housing and basic services and upgrade of slums.

III. STUDY AREA

The Federal Capital Territory, commonly known as FCT, is located in the Central of Nigeria with about 7,315 square kilometer landmass coverage. This geographical space falls between $6^{\circ} 47'$ and $9^{\circ} 25'$ North of the Equator and longitude $6^{\circ} 47'$ and $7^{\circ} 40'$ East of the Greenwich meridian. FCT was formed in 1976 from parts of the states of old Kwara, Niger, Kaduna and Plateau States with the bulk of landmass carved out of Niger State. It is within the Middle Belt region of the country. Unlike the States of Nigeria, which are headed by elected Governors, it is administered by the Federal Capital Territory Administration, headed by a minister appointed by the President (Aliyu, 2016).

Federal Capital Territory Administration administers the whole of the Federal Capital Territory; the Federal Capital Development Authority (FCDA) specifically manages the construction and infrastructure development of the region. The capital city Abuja is located within the wider Abuja Municipal Area Council. The territory is currently made up of six Area Councils, namely; Abaji ;Abuja; Bwari; Gwagwalada; Kuje and Kwali. The FCTA was created on 31st December 2004. FCT has seven administrative structures called secretariats; each secretariat is headed by permanent secretary supervised by Ministry of the Federal Capital Territory (Ayileka and Kalgo, 2001).

The seven secretariats includes; Education Secretariats that deals with educational activities within this Territory, providing welfare and scholarships to outstanding pupils and students; Transport Secretariats makes provision for maintenance and transport mass transit alternatives to dwellers within the territory; Agriculture and Rural Development Secretariats deals with promotion of cash crops and livestock domestication within the Territory, providing grant and amenities to enhance healthy production and consumption; Health and Human Services Secretariats provide and monitors primary health care centers, also perform humanitarian

services during disasters and risk management; Social Development Secretariats deals with youth empowerment and creative activities across Area Councils, encouraging youth participation in sport and psycho-motive development; Legal Services Secretariats engage in legal issues involving the state affairs while Area Council Secretariats deals with interrelation issues within and between Area Council in the Federal Capital Territory.

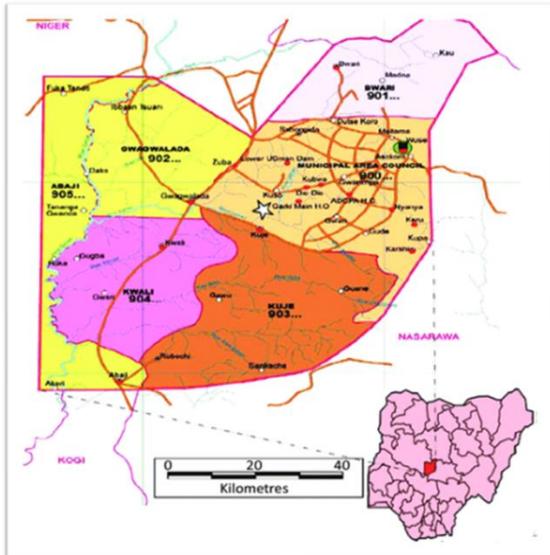


Figure 1: Area Councils within Federal Capital Territory
Source: Andrews, 2018

IV. MATERIALS AND METHODS

The study made use of primary and secondary dataset which include; primary data gotten from physical measurement technique, personal observation and physical trace. Secondary data were got from National Population Commission, Federal Capital Development Authority, journals and documents from the internet. Data collection and data analysis techniques used for this study includes; remote sensing imagery, geographic information system software, pictures, percentage statistics, frequency statistics and descriptive statistics.

V. FINDINGS AND DISCUSSIONS

The population projection of the Federal Capital Territory has been a subject of discourse since the assumption of moving the Administrative Headquarters to Abuja. The Federal Capital City is located in Abuja Municipal, the Federal Capital Development Authority has calculated population density per district in every of the four phases in the Capital City (Ezeamaka, 2015). Table 1 shows the records of population within Federal Capital Territory across the Area Councils, from 2006 and projected to 2022, as the projected data gotten from National Population Commission.

Table 1: National Population Census of Federal Capital Territory

YEAR	ABAJI	ABUJA MUNICIPAL (AMAC)	BWARI	GWAGWALADA	KUJE	KWALI
2006	58,642	776,298	229,274	158,618	97,233	86,174
2007	79,508	1,052,517	310,853	215,057	131,830	116,836
2008	79,996	1,058,976	312,761	216,376	132,639	117,553
2009	80,359	1,063,789	314,182	217,360	133,242	118,087
2010	80,721	1,068,573	315,595	218,337	133,841	118,618
2011	80,908	1,071,052	316,328	218,844	134,152	118,894
2012	81,224	1,075,238	317,564	219,699	134,676	119,358
2013	83,347	1,103,338	325,863	225,441	138,195	122,477
2014	85,772	1,135,442	335,344	232,000	142,217	126,041
2015	86,490	1,144,945	338,151	233,942	143,407	127,096
2016	86,831	1,149,459	339,484	234,865	143,972	127,597
2017	86,914	1,150,563	339,810	235,090	144,110	127,720
2018	87,173	1,153,987	340,822	235,790	144,539	128,100

2019	87,784	1,162,072	343,210	237,442	145,552	128,997
2020	88,687	1,174,031	346,742	239,885	147,050	130,325
2021	90,114	1,192,926	352,322	243,746	149,417	132,422
2022	90,888	1,203,165	355,346	245,838	150,699	133,559
Total %	4.2	55.2	16.3	11.3	6.9	6.1

Source: National Population Commission, 2019

The population of the Federal Capital Territory continues to increase since 2005; the influx of people from rural areas and other urban cities across Nigeria to the Federal Capital Territory became both economic and social pull factors. The population growth within all Area Councils between 2006 and 2007 was about 75%, which is explosive enough for just one fiscal year, the amount of resources and infrastructural amenities by the authorities saddled with responsibility of planning and structural development would witness optima services provision and state fastness during these changes across board with the total population in Abuja Municipal was already standing at over a million, which demonstrates the significant value of the geographical space and functionality. Proximity of the Abuja Municipal also perform the sphere of influence to other Area Councils, because lower class and informal sector practitioner look for cheaper accommodation spaces to rent, which is affected by the cost of living within the Abuja Municipal which is barely affordable to average citizens.

National population census (2019) estimate population growth across Area Council at over 65% from 2006 to 2019, the Capital Territory is expected to grow over time. But the preparation for such increase remains questionable as the deplorable state of some key infrastructures and social amenities rightly compromise the expected standard needed to accommodate the pressure from this continuous increment in population. Sustainable Development Goals establishes global concern on underlying problems around the world and made sustainable cities and communities a priority to the continuous driven solution within developing societies, especially in Asian, Latin America and Sub-Sahara Africa.

Urbanization is a process that occurs in response to the growth and development of the municipality,

being an economic and demographic process that has the possibility of transforming the rural to urban lifestyle and through the transformation of urban infrastructure (Awumbila, 2015). Urbanization is rampant energy changes, such as movement network changes, water crises, heat waves and contribution to climate change, and so on from a plan of action that can be a good quality of life for the population, in order to achieve sustainable development (Bharath *et al.* 2018). The deliberate re-modification and extension of functions to other Area Council cannot be overemphasized; in order to retain status of the Federal Territory and urban growth across board, reducing the pressure of the sphere should be encouraged. Figure 1 shows the population percentage of each Area Councils in Federal Capital Territory.

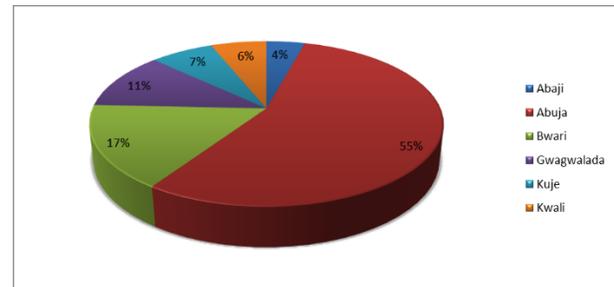


Figure 1: The percentage population of the Federal Capital City, Abuja.

Source: National Population Census (Nigeria)

Looking at the distribution of population across board, about 55% of the total population within the FCT is within the space of Abuja, this shows the level of functionality concentrated within the Abuja Municipal Council. The pull factor indices is arguably situated more at the Council, with all tiers of government headquarters located within this council, many ministries departments and agencies sited their offices within this geographic space, with limited room for spread of functions across the Federal Capital Territory. Implication of this process generates undue pressure of infrastructure and social amenities; the

possibility of squatter settlements and informal habitation of spaces is witnessed as a result of difficulty encountered during rush hours.

Nevertheless, during the early hours and closing hours, the Capital City witness continuous pressure on transport route leading into the Capital from Karu axis, Airport axis and Kubwa axis, in some cases causing productive hours to be spent on the road. Vehicular movement and passengers assess the City Capital from other Area Councils and surrounding states of Nasarrawa and Niger State, causing undue hardship on communal and urban dwellers, coming to the City Capital for means of livelihood, productivity and empowerment which could be an informal sector activity or an administrative office function.



Plate 1



Plate 2

Plate 1 and 2: Traffic Congestion at night in FCT Abuja

Most residential structures and office spaces still remains un-occupied, but the level of deterioration of road, traffic light and green areas is setting in with vandalism of social infrastructures such as pedestrian walkways interlock removal, sewage covers removal, motion camera, installation removal, street light vandalization, cable installation theft, and open defecation activities often witness in green parks and garden across the Abuja Municipal environmental designed layouts.

In order to make cities and human settlements resilient and sustainable, the government and authorities saddled with regional plan and structural development has to make cautious effort in diversification of strategic geographic space for inclusive growth in order to reduce pressure of infrastructure and social amenities. The concentration of migration into Abuja Municipal is as a result of desperation between the administrative hub of the Federal Capital Territory and the surrounding Local Councils, creating a decentralized system toward urban land-use by adopting from growth pole model that emphasis on location of industries and sphere of influence from location of pull industries or government establishments.

CONCLUSION

The concentration of development within the Abuja Municipal Area Council has been established to be the major reason for influx of population into the City Capital, with the rate of population growth within the Capital City, the steady planned growth process by the authority cannot be achieved, based on the uncontrollable human and vehicular traffic that will continue to rise going forward, causing undue stress on transport infrastructure and environmental layout design.

Sustainable growth and development of urban spaces is a deliberate planning procedure melting down by planners and authorities saddle with the responsibility of evaluating and managing of purposeful urban metropolis. The Federal Capital Territory attracts citizens all over the Federation irrespective of the class of qualification or psycho-motive skill-set of these persons. With un-controlled population influx into the City Capital that is not measurable through

functionality and activities of these immigrants, it is only advisable to strategically create a distractive alternative growth pole centers in the adjoining satellite towns to decentralize the concentration of attention to the Abuja Municipal Area Council. These activities would increase the mode of urban sprawl with decisive pull centers to help reduce pressure on the Capital City.

RECOMMENDATION

- Development planners and administrators to create alternative land-use model for the remaining Area Councils within the Federal Capital Territory.
- Strategic re-location of part of defense and agricultural ministries and other agencies to more spacious environment, making other Area Councils perform more functional features to growth and development.
- Construction of modern medium and low housing scheme across Area Councils in order to attract more civil servants and city dwellers to these locations, with availability of modern infrastructures and social services.
- Analysis of statistical results has shown that working class individuals preferred to work close to where they live, as this will cut down cost of transportation and reduce psychological issues like stress, depression, time wastage and low performance at workplace. Hence, the need for administrative and functional restructuring of employment procedures that will further increase individual's proximity to their work place.
- It is also highly recommended that the authorities should expand some of the dual carriage way leading to the City Centre or create multiple bypass in order to enhance free flow of vehicular movement and ease congestion and gridlocks on the roads.
- Upgrade of housing and living standard should be a continuous exercise in the Area Councils, so as to address the issues of overcrowding and unusual influence of migrants in the Capital
- There should be a standard database that will accommodate the various complex data, such as population, migrants' data, housing data, and socio-economic indices of the people that will aid the functionalities of the Federal capital Territory.

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