Ethiopian Journal of Environmental Studies & Management 8(2): 206 – 224, 2015. ISSN:1998-0507 doi: http://dx.doi.org/10.4314/ejesm.v8i2.10

Submitted: January 5, 2015

Accepted: February 17, 2015

SPATIAL VARIATIONS IN RESIDENTIAL PROPERTY DEVELOPMENT IN BIRNIN-**KEBBI, NIGERIA**

*OGUNBAJO, R. A., ¹ AJAYI, M. T. A., ¹ USMAN B. S. ² AND WALI R. I. ³

¹Department of Estate Management and Valuation, Federal University of Technology, Minna ²Department of Estate Management, Waziri Umaru Federal Polytechnic, Birnin Kebbi ³Department of Estate Management, Niger State Polytechnic, Zungeru

Abstract

Shelter is a basic necessity of man. The location and spatial distribution of residential accommodation across towns and cities are however subject to a variety of factors. This study aimed at analysing spatial variations in residential property development across Birnin-Kebbi. The relevant population comprised housing units in three (3) major areas. Primary data were obtained through interactions and interviews conducted with residents of the study area as well as questionnaire administered. A comprehensive survey of the area was also carried out and observations were noted. Analysis of data was done using simple descriptive statistics. The study revealed that household level of income is the most prominent factor considered by 53% of residents of Patrick Aziza when choosing areas for residential property development, while proximity to work place is the most influential factor for 50% of Gesse residents. In Badariya, residential location choices are most influenced by religious and ethnic affiliations (30%), security of neighbourhood (29%), and cost of land (27%). The study further revealed varied intensities in residential property development across the three sampled areas and explained reasons for these variations. In addition, the implications of residential expansion in the study area was thoroughly examined, while emphasizing the need for appropriate measures to ensure that the health, safety and wellbeing of inhabitants are not compromised in an attempt to fulfill the housing needs of the people.

Key Words: Residence, Location, Spatial Variation, Development

Introduction

Urban Residential Development is an essential and important aspect of the socioeconomic development of nations. Apart from its economic, physical and biological significance. residential properties also have social implications which affect the quality of lives and dignity of the occupants. In many Nigerian cities, the rate of urbanization has increased phenomenally

over the years, resulting in an increased need for residential accommodation in these urban areas. In response to this, individuals and corporate bodies have embarked on residential property developments, the locations of which were further influenced by individual choices and priorities. Records and events have shown that residential property developments are in trends; this means that

Email: rukky.adeola@futminna.edu.ng

^{*}Corresponding Author: Ogunbajo, R.A.

they change and grow with time due to certain peculiar reasons such as economy, change in lending or mortgage rates, consumer speculations, level of income. location of other residential developments, accessibility. distance to employment sources, distance to shopping, and availability of amenities. According to Duke et al. (2003),Residential development results in significant land use changes that need to be well understood in order to conduct effective environmental management and landuse planning in order to facilitate landuse management decisions.

The purpose of residential property development is to address the housing need of individuals by providing accommodation and shelter for people. A decent shelter is paramount for man irrespective of his social status or age. Aina and Somefun emphasized (2007)that residential accommodation transcends ordinary shelter and comprises of facilities and other aspects of social environment which links man with his remoteand immediate neighbourhood. Previous researches have shown that individual choices of residential location are influenced by distinct factors like ethnic considerations. People in developing countries choose to reside close to friends and relatives, or in areas where majority of the occupants are of the same ethnic background [Ahmad (1992). Dokmeci et al. (1996), Lupala (2002), Kapoor, et al. (2004) and Owusu (2004)]. This is believed to help maintain kinship and social ties in order to get support in difficult times. Phe and Wakely (2000) opined that housing choice maybe more sensitive to variations in work place accessibility, while Payne (2002) observed that locations with good business are highly environment desired by individuals. thus influencing residential location choices. Ovebanji (2003)

explained certain factors which influence

residential location choices to include income level of the house owners or occupants, the physical characteristics of sites in terms of configuration, size, and texture; the quality and quantity of electricity. amenities like water, communication, and drainage; accessibility, security. environmental quality, iob and socio-cultural opportunity, the background of the people. Galster and Santiago (2006)attributed residential location choices to the influence of neighbourhood satisfaction or dissatisfaction due to the presence or absence of good quality schools, social interaction and community spirit, friendliness of people, noise and crime.

According to Warg and Li (2006), People choose to live in areas with high quality neighbourhood in terms of security, image, accessibility and convenience. As observed by Tatu (2010), the major factors influencing residential location choices of individuals access are to pleasant environment, proximity to work place, proximity to friends and relatives, the need to lower living costs, and access to vacant land. Though, the choice of where to live is usually a thing of personal preference, people generally desire to live in good quality environments characterized by good living standards, sufficient security and adequate supply of social amenities.

The primary objective of this study is to spatially quantify the residential expansion in Birnin-Kebbi and examine the trends in residential property development over an eight (8) year period (2006 - 2013). It further sets out to examine the causes and implication of residential expansion in the study area, while also exploring the variations in the growth pattern of residential property development in three (3) major neighbourhoods of Birnin-Kebbi. An understanding of residential variations obviously will assist all relevant

Authorities in ensuring proper planning, distribution and adequate provision of infrastructural facilities in the study area.

The Study Area

Birnin-Kebbi is the capital of Kebbi State in North Western Nigeria. It falls within Latitude 12.4539°N and Longitude 4.1975°E of the equator. It is the administrative headquarters of Kebbi state and is located on the Sokoto River. It is connected by road to Argungu, Jega and Bunza. Residents of the town are predominantly hausas and Fulanis.BirninKebbi is a tropical region with an average temperature of 32° C. It is characterised by seasonal rainfall which usually commence in April and last to October, though with heavy fall in July and August. The vegetation of the area issparsely trees like the neem tree and few grasses. The town is characterised by areas which make up the metropolis, but only three major areas were considered for this study. These are: Patrick Badariya, Gesse and Aziza (millionaires' quarters).

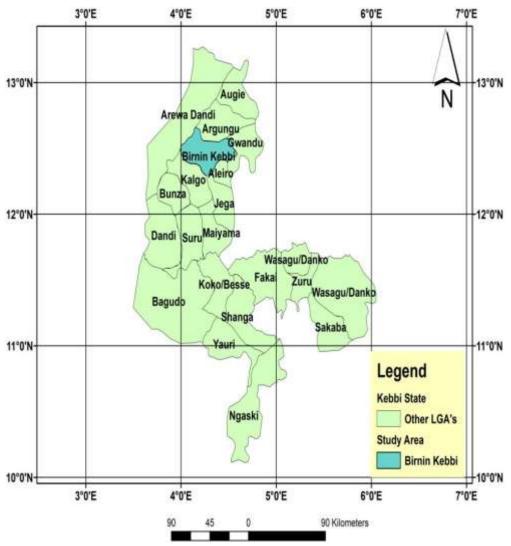


Figure 1: Map of Kebbi State showing BirninKebbi

Research Methodology

A comprehensive survey and inspection of the three sampled areas was carried out and personal interactions and interviews conducted with residents in a bid to identify houses that were developed within the study period in the study area. This is because formal records of housing developments completed during the period were unavailable. The relevant population comprised of Housing units in three selected neighbourhoods in Birnin-Kebbi. A total of 568 housing units were randomly sampled on proportionate basis in the three selected areas and questionnaire were administered and used to generate the primary data. These included data on the type of house, and factors that influenced

residential developments in the areas, among others. Satellite images of the study area were obtained from google earth and used to relatively show trends in property development. Simple descriptive statistics was used to analyse the collected data. Results are presented in form of frequency tables, thematic maps and charts.

Results and Discussions

Types of Residential Properties in the Study Area

Various types of properties are developed in the study area with prominent ones being single room apartments, two bedroom flats, three bedroom flats, and duplexes. The distribution of these in the study areas is shown in figure 2.

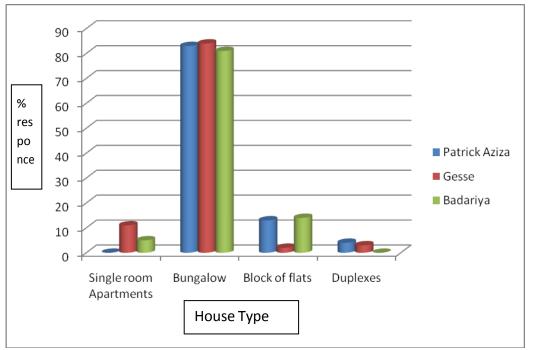
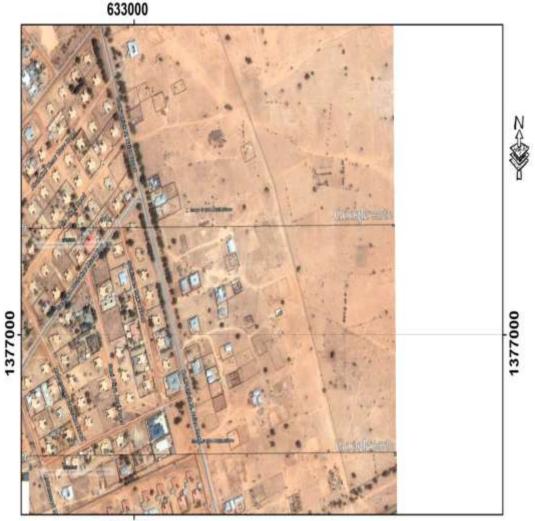


Figure 2: Showing Types of Residential Properties in the Study Areas

Figure 2 shows the types of residential properties in the three sampled neighbourhoods. It clearly indicates that a larger number of houses in the three neighbourhoods are bungalows. There are also blocks of flats in the three areas, though in varying proportions; and few duplexes in Patrick Aziza and Gesse. This is not unconnected with the fact that Patrick Aziza is a low density, high income neighbourhood, while Badariya is a high density residential area. Gesse is however a medium income residential neighbourhood. Some residents of Badariya were discovered to be restricted by culture from developing duplexes or buildings on more than one floor because it is believed that people living in such houses will or can look into neighbouring houses, hence violating the concept of 'pudah' in Islam. While there were no single room apartments in Patrick Aziza, there were quite a number of them in Gesse and Badariya.

Trends in Residential Property Development in the Study Area

As an indication of trends regarding how residential property development has intensified in recent years, the following maps/satellite images of property development during the period under study shows the increase in development in the study area.



633000

Figure 3: Patrick Aziza in 2006

210

208

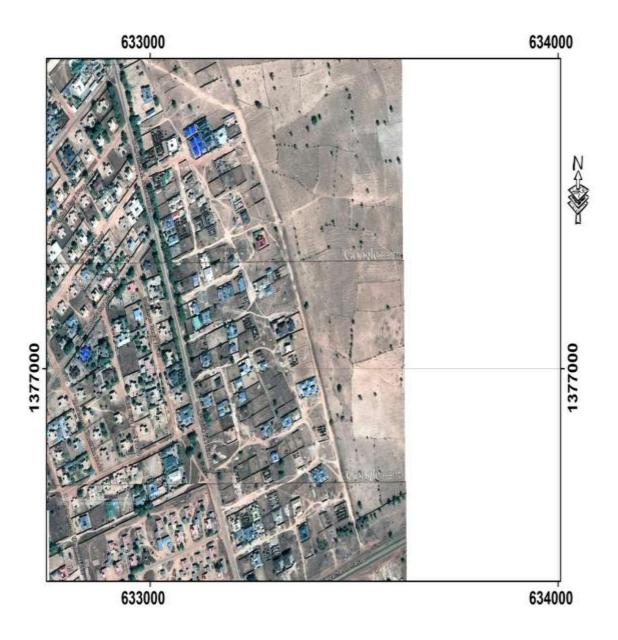


Figure 4: Patrick Aziza in 2009

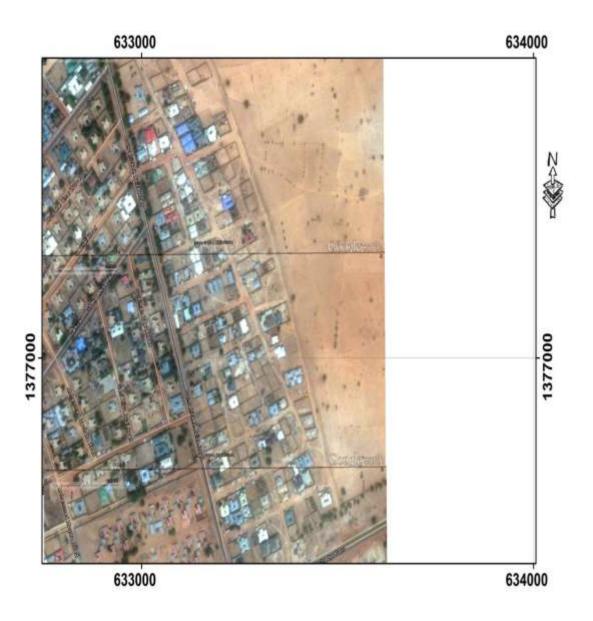


Figure 5: Patrick Aziza in 2012

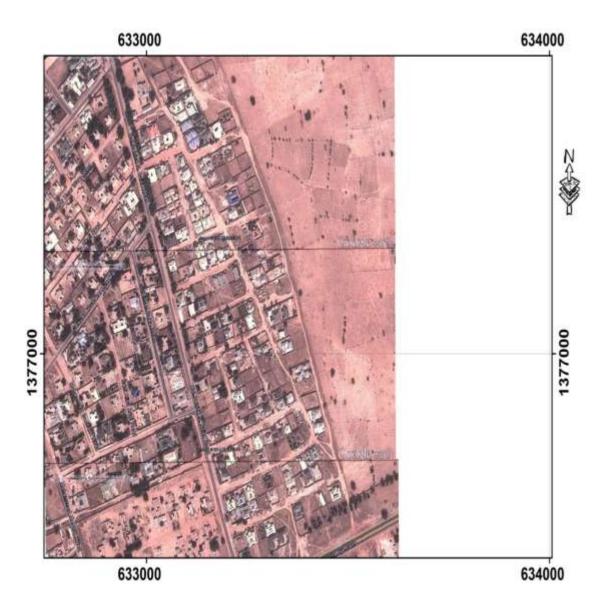


Figure 6: Patrick Azizain 2013

Figures 3 - 6 show the aerial views of Patrick Aziza area between 2006 and 2013. The images show a significant increase in property development between 2006 and 2013. Though, these images shows all property developments in the area, a comprehensive physical survey of the area revealed that about 85% of the buildings in this area are for residential purposes.

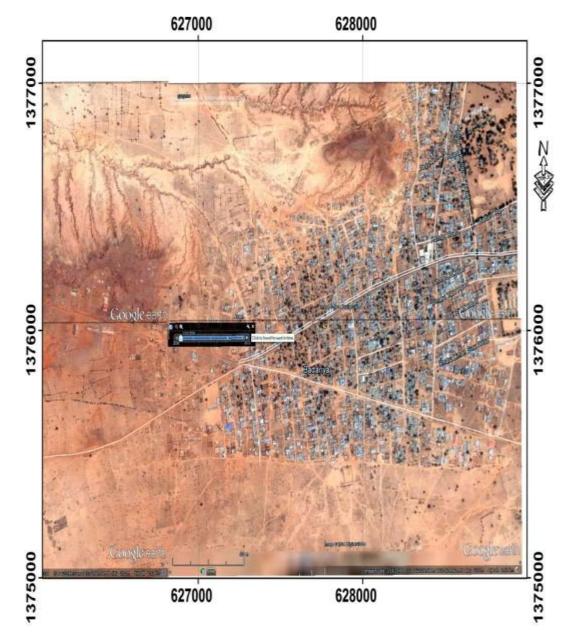


Figure 7: Badariya in 2006

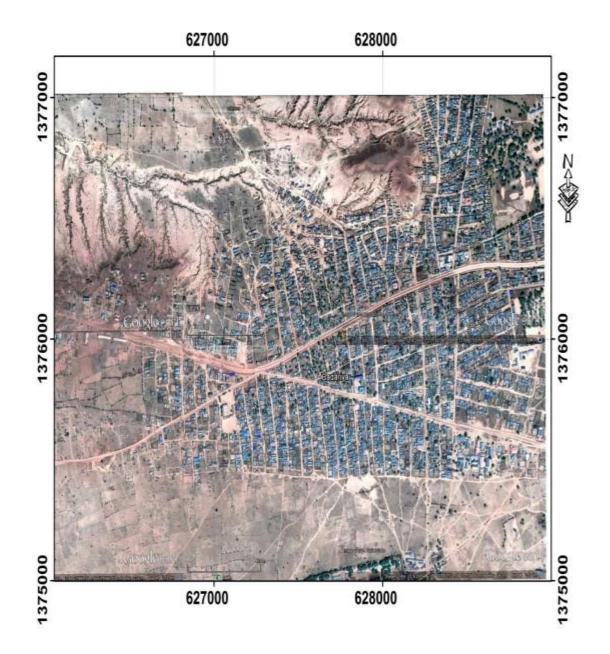


Figure 8: Badariya in 2009

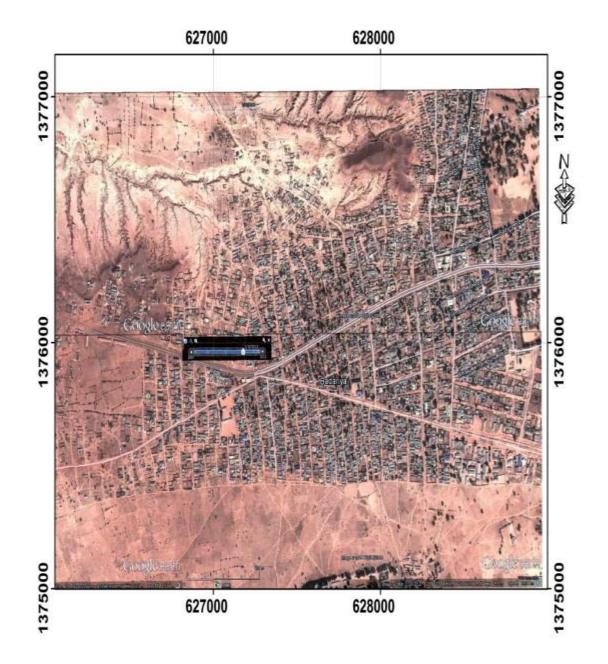


Figure 9: Badariya in 2012

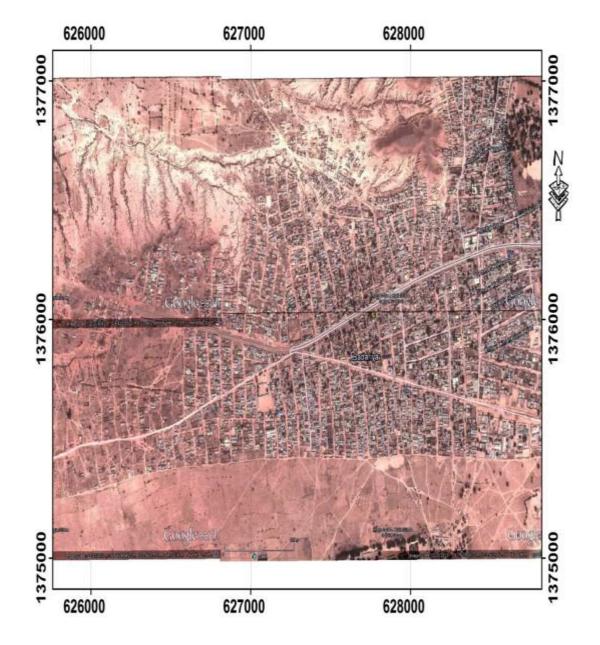


Figure 10: Badariya in 2013

Figures 7 – 10show the satellite images of Badariyabetween 2006 and 2013. These images also show a very significant increase in property development in the study area. The study revealed a number of factors which are responsible for the residential expansion of the area. These are however discussed in the next section.

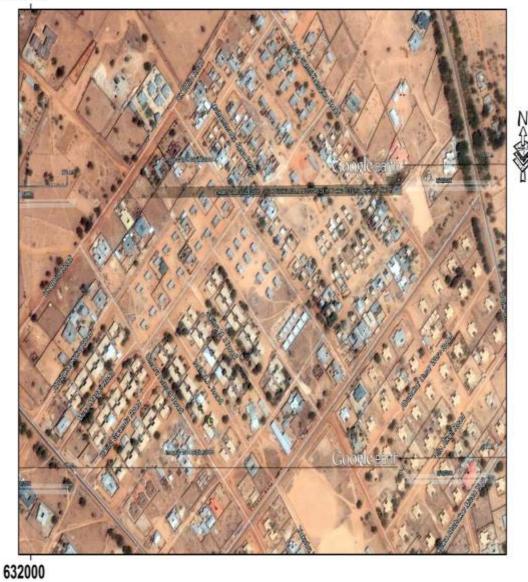


Figure 11:Satellite image of Gesse in 2006



Figure 12: Satellite image of Gesse in 2009





Figure 13: Satellite image of Gesse in 2012



632000 Figure 14: Satellite image of Gesse in 2013

Figures 11– 14 show aerial views of Gessebetween 2006 and 2013. Though, these images also shows all property developments in the area, physical inspection and surveys of the areas revealed that about 85% of properties in these areas are for residential purposes. The use of satellite images was adopted because exact figures of residential properties completed within the study area for the period under consideration were unavailable.

Reasons for Variations in Residential Expansion across the Study Areas

Growth Patterns and the rate of residential development vary across the

three sampled areas. Findings show that these variations are due to the following:

Security: In recent times, security has been a major challenge in parts of Northern Nigeria. This has had a significant impact on choices of residential property location among residents of the study areas. In Badariya for instance, development has been faster and more rapid because of its nearness to the army Barracks. People now prefer to live close to the military barracks because of security challenges. Most of the non-muslims and non-indigenes cluster around this place for safety or security in case of any outbreak of violence, thus making it a high density residential neighbourhood.

Access to Land: Access to land is also factor responsible for residential а expansion in parts of Birnin-Kebbi. In Badariya, land is relatively cheap and affordable. This coupled with other factors tends to increase the rate of residential property development in the area as opposed to the other two areas. However, land in Patrick Aziza is quite expensive making it difficult for low income earners to purchase and own land there. This is the major reason for the slow pace of residential property development in the area since only few wealthy individuals can afford it. An assessment of the study areas also revealed that building regulations are relaxed in Badariya compared to Gesse and Patrick Aziza where building codes and regulations are strictly enforced.

Proximity to Basic Services: The study area has a significant number of its work force in the civil service, thus such people choose to live in areas within close proximity to their places of work. This is particularly true for Gesse which is at the heart of Birnin-Kebbi, and it is within relatively close proximity to places of work, schools, health centres, commercial centres, and all other services in the state capital.

Factors most considered in Residential Location Choices across Birnin-Kebbi

Households consider different factors before selecting areas for residential property development. Responses were sourced from residential property owners and occupiers in the three sampled areas on factors that were most considered or had the greatest influence on their choice of location for residential property development in the selected areas.

	Location					
	Patrick Aziza		Gesse	Badariya		
Factors	Freq.	%	Freq.	%	Freq.	%
Levelof Income	68	53%	46	28%	21	8%
Cost of Land/Access to Land	0	0%	8	5%	75	27%
Proximity to Place of Work	37	29%	81	50%	17	6%
Religious and Ethnic						
Affiliations	0	0%	0	0%	83	30%
Availability of basic						
Infrastructure and Services	18	14%	22	13%	0	0%
Security of Neighbourhood	5	4%	6	4%	81	29%
TOTAL	128	100%	163	100%	277	100%

 Table 1: Factors most considered in choosing areas for Residential Property Development

As shown in Table 1, 53% of respondents affirmed that the choice of locating residential properties in Patrick Aziza was mostly influenced by household level of income. This is because land in this area is relatively expensive, thus only high income earners who can afford to pay for such lands develop residential properties in the area. Patrick Aziza is a low density residential area which is highly admired and occupied by high income earners in Birnin-Kebbi. On the contrary, 29%, 14% and 4% of respondents described their choice of the area as having been influenced by its close proximity to their places of work, availability of basic infrastructure, and security of the area respectively. In Gesse, 50% of respondents described their choice of the area as having been influenced by its close proximity to their various places of work. Gesse is the heart of Birnin-Kebbi where a number of offices, schools, banks, and other services are concentrated. However, for 28% and 13% of the respondents, the choice of Gesse was mostly influenced by household level of income and the availability of basic infrastructure and services respectively. 5% of respondents attributed their choice of the area to the cost of land, while 4% believed that the area was relatively secured. Badariya is a relatively high density area and accommodates all classes of income earners. As opposed to Patrick Aziza and where Religious Gesse and ethnic affiliations are not influential factors. findings revealed that they are major influential factors for 30% of residents in Badariya. Residents of Badariya choose to live close to people with whom they share the same faith and ethnic background. This is seen as a security measure in case of any outbreak of religious or ethnic violence. Similarly, 29% of residents prefer Badariya to other areas due to the security of the area. Badariya is close to the army barracks and residents feel they can always seek refuge there when there is any outbreak of violence, because in recent times there have been serious security challenges in parts of Northern Nigeria. Other influencing factors in Badariya are cost of land (27%) which is relatively cheap and affordable, level of income (8%), and proximity to place of work (6%). Residents here do not place emphasis on availability of services and infrastructure.

Implications of Residential Expansion in Birnin-Kebbi

The gradual expansion and increase in residential property developments across Birnin-Kebbi has serious implications which requires prompt attention from concerned stakeholders. These include:

Infrastructure: Increase in residential property development is directly linked to

increase in population. It is quite normal that an increase in population without a corresponding improvement in infrastructure will lead to an over stretch of the available infrastructure and eventual total breakdown. It is therefore imperative that the appropriate Authorities make adequate provision for the improvement and upgrade of existing infrastructure, as well as the proper management and maintenance of same, particularly in areas where development is more intensive. This will enhance the quality of the environment while also ensuring the health and safety of the residents. Infrastructure here includes electricity, portable water, access roads, waste disposal facilities, and drainage systems among others.

Planning: In areas experiencing uncontrolled residential expansion, there is high tendency of developments to deviate from the master plan resulting in haphazard development and the emergence of slums. The emergence and growth of slums comes with its negative effects on occupants, among which are serious health hazards, social vices, traffic problems, and filthy environments. As such, there is the need for the respective planning Authorities to be more proactive, ensure proper planning of these areas, enforce building codes and regulations and also ensure effective development control.

Security: In recent times, security has been a serious challenge in parts of Northern Nigeria. The acute congestion and over population of an area could pose security challenges, thus efforts should be made by government at all levels to improve the security situation. This will enable the decongestion of areas which are currently densely populated as a result of a feeling of security and a gradual development of other areas.

Conclusion

The choice of individuals to settle in a given residential area is usually dependent the visible features in on that neighbourhood and the preferences they attach to these features. This study has extensively discussed spatial variations in residential property development in Birnin-Kebbi and examined factors responsible for differences in the intensity of housing development across the sampled areas. Considering the special role of housing in the life of man, it is imperative to also understand the implications of residential expansion in order for appropriate actions to be taken. This will ensure that the health, safety and wellbeing of inhabitants are not compromised in an effort to address the housing needs of individuals.

References

- Ahmad, N. (1992). Choice of Location and Mobility Behavior of Migrant Households in a Third World City. *Urban Studies*, 29(7): 1147-1157.
- Aina, O.C. and Somefun, A.O. (2007).The Effects of Facilities Provision on Rental Values of Residential Properties in Ikeja, Lagos State.Journal of Land use and Development Studies, 3(1): 60-67.
- Dokmeci, V., Berkoz, I., Levent, H., Yurekli, H., and Cagdas, G. (1996). Residential Preferences in Istanbul. *Habitat International*, 20(2): 241-251.
- Duke D., Quinn M., Butts, B., Lee-Ndugga, T. and Wilkie, K. (2003). Spatial Analysis of Rural Residential Expansion in South Western Alberta, Miistakis Institute for the Rockies, University of Calgary.
- Galster, G. and Santiago, A. (2006). What's the Hood got to do with it? Parental

PerceptionsabouthowNeighbourhoodMechanismsaffecttheirChildren.Journal ofUrbanAffairs, 28(3): 201-226.

- Kapoor, M., Somik, V. L., Lundberg and Shalizi, Z. (2004). Location and Welfare in Cities: Impacts on Policy Interventions on the Urban Poor, World Bank Policy Research Working Paper 3318, United Kingdom.
- Lupala, A. (2002). Peri-Urban Land Management for Rapid Urbanization. The Case of Dar es Salaam. Published PhD Thesis, SPRING Research Series, 32, Dortmund.
- Owusu, T. (2004). Urban Migration and the Growth of Squatter Settlement in African Cities. Some Theoretical and Empirical Observations. *National Social Science Journal*, 21 (2).
- Oyebanji, A.O. (2003). Principles of Land use Economics. Lagos, Center for Environmental Planning Development and Management.
- Payne, G. (2002). Tenure and Shelter in Urban Livelihoods. In Rakodi, C. and Lloyd-Jones, T. (Eds), Urban Livelihoods: A People Centered Approach to Reducing Poverty. Earthscan, London, Pp 154-164.
- Phe, H.H. and Wakely, P. (2000). Status, Quality and other Trade-offs: Towards a New Theory of Urban Residential Location. *Urban Studies*, 37: 7-36.
- Tatu, M.L. (2010). Exploring Social-Cultural Explanations for Residential Location Choices.The Case of an African City – Dar es Salaam. Published Doctoral Thesis in Built Environment Analysis, Stockholm, Sweden.