International Journal of Architecture and Urban Development
Vol. 9, No.1 , Winter 2019

Assessment of Housing Characteristics in Ibeju-lekki, Lagos Peri-Urban Settlements

[1]Funmilayo Mokunfayo Adedire, [2]Anthony Iweka*

[1]Ph.D., Department of Architecture, University of Lagos, Lagos, Nigeria.*
[2] Senior Lecturer, Department of Architecture,University of Lagos, Lagos, Nigeria.

Recieved 14.08.2017 ; Accepted 13.11.2018

ABSTRACT: Housing developments in Lagos State peri-urban settlements have contributed immensely to alleviation of the challenges of housing deficits in central Lagos. This research aims at examining the characteristics of housing development in the peri-urban settlements of Lagos State, Nigeria. Using a case study approach, housing developments in peri-urban settlements in Ibeju-Lekki Local Government Areas were selected to represent the rapidly urbanizing metropolitan peripheral areas in Lagos State. Data was collected through primary and secondary sources which include survey questionnaires, direct observations and in-depth interviews. Using two stage sampling techniques, questionnaire was distributed to households in purposively selected 16 peri-urban settlements in Ibeju-Lekki. Data collected through field survey were analysed using frequencies, percentages, cross tabulations while qualitative data were analysed using descriptive analysis. Findings demonstrate that different housing initiatives in the peri-urban settlements performed differently in typology and resident's perception. Socio-economic attributes revealed a multi-cultural households composition, reasonable literacy level. It is recommended that improved quality and user performance peri-urban housing development can be achieved through residents' participation in housing policy design and also by timely regional policy response to the pace of housing development in Lagos peri-urban settlements.

Keywords: *Peri-urban housing; Characteristics; Typology; Building materials; Residential segregation; Socio-economic Characteristics.*

INTRODUCTION

Housing development in Lagos peri-urban settlements is dynamic because of the different perception of stakeholders to the potential of the interface. Shaped by activities of many actors and often unfavourable urban policy, there exists a dichotomy in the governance and policy response to the sustainability of different housing initiatives in the interface. The characteristics of the emerging housing development is a function of many factors, some of which are government policy toward peri-urban settlements, the housing development management, socio-economic attributes of the residents, government perception of the economic viability of the location and the building materials used in construction. Housing development in Lagos peri-urban settlements and other developing countries is in a response to the challenge of housing in the city centre due to limited land supply in the metropolitan regions and continuous population growth in cities (Dutta, 2012; Acheampong & Anokye, 2013).This study will assess the characteristics of housing development in Lagos peri-urban settlements.

Housing development in Lagos peri-urban usually exists under three initiatives; government-led housing development, private company-led development and self-help housing development. Each housing initiative varies in building typologies, mode of construction, target users and conformity to standard (Wu et al, 2013; Salem, 2015). Socio-cultural diversity and the socio-economic characteristics of the residents greatly affect the physical characteristics of housing development in the peri-urban. Housing development in the peri-urban calls for consideration of the socio-economic attributes of the different income groups of the migrants but this is not the situation in most peri-urban housing developments (Shen & Wu, 2013).

There is disparity in Lagos peri-urban infrastructural

*Corresponding Author Email: *funmidire@gmail.com*

development. The government-led housing settlements and private-led housing settlements are better developed in terms of infrastructure than settlements constituting self-help housing by the low-income group. Armed with inadequate knowledge of the socio-economic composition of the migrants, most housing initiatives led by institutional and corporate bodies are not meeting the needs of the majority of low-income and middle income group due to affordability issues. Therefore, most exclusive gated housing developments in the peri-urban are not occupied. Although the peri-urban housing developments are generally known to be poor in term of quality, there exists good housing development led by government initiatives and private developers' initiatives.

Borne out of the varying socio-economic composition of the residents and poor institutional responses, most self-help housing developments in Lagos peri-urban are total deviation from acceptable housing quality standard. There is an institutional failure which translates to additional challenges in Lagos peri-urban housing developments and ultimately impairs the characteristics of housing in Lagos peri-urban settlements. Contributing also to the chaotic development pattern is the lack of adequate monitoring of the continuous development by the building regulation authority and lack of proper documentation of the pattern of growth as seen in most peri-urban developments in developing countries (Puttal & Ravadi, 2014).

The urban transformation taking place in terms of housing in Lagos peri-urban has not been captured adequately. An assessment of the characteristics of housing development in Lagos peri-urban settlements is vital because the peripheral locations in Lagos accommodate a large share of the urban population. Though there have been prior works on peri-urban study in Nigeria, none has adequately addressed the characteristics of housing development in Lagos as it should. Prior works on peri-urban developments in Nigeria were on land use changes, agricultural land conversion, rural-urban linkages and housing quality (Binns et al, 2003; Olotuah, 2006; Dung-Gwom, 2008; Nwokoro & Dekolo, 2012; Lawanson et al, 2012; Emankhu & Ubangari, 2015). Therefore, this study is imperative owing to scanty attention paid to peri-urban housing development in Nigeria.

Literature Review

Housing typologies is based on classification of existing building types and urban forms in term of social function and spatial efficiency (Keyes, 2010). Housing characteristics has evolved with technological advances like the rise in the use of automobile, introduction of industrial building components and also changed according to the needs of the developers. The patterns of housing investment, housing form, community services, settlement density and morphology are relevant to the growth and pattern of peri-urban development. Housing classification is determined by society, affordability and legality in form of government-led, private development-led and self-help housing. Housing in the peri-urban exists under three types of initiative and governance: self-built housing development, private developer - led housing and state-led housing development (Shen & Wu, 2013).

Self-help housing grew as a result of aggravated housing demand increased preference for single family houses (Gough & Yankson, 2000) and it is the most predominant housing initiative in peri-urban development zones. Under this initiative, individual household takes responsibility for the construction of their housing units. Generic attributes of most self-help housing development in developing countries are poor construction, unavailability of standardized designs and limited infrastructure connectivity (Bangdome-Dery et al, 2014). State-led housing development is aimed at driving the growth of the metropolitan fringe. It is accompanied with land acquisition and meagre compensation to the original landowners. Private developer-led housing development is formally regulated and predominantly occupied by middle class and higher income migrants from the city centres (Simon, 2008).

Housing typologies in the peri-urban are classified based on household size, the floor space per person for living, circulation and land intensity (Ravetz et al, 2013). Typologies are also influenced by the socio-economic attributes of the end users. Each type of housing is dominated by different types of neighbourhood. Types of housing in the metropolitan fringe are commodity housing, single family house, middle rise buildings, apartment buildings, detached house, compound houses and blocks of flats (Binns et al, 2003). Commodity housing has co-renting as its unique attributes and it serves the poor migrants. It is also called rooming apartment and characterized by one apartment sub- divided into numerous bedrooms (Olotuah, 2006). Rooming house is adopted because of ease of design, low cost on construction and high return from rental. Housing characteristics in Lagos peri-urban settlements include clusters of settlements and the urban morphology follow the trend of construction of housing estates on acquired large tracks of land (Lawanson et al, 2012).There is also an emergence of mixed-use housing development in Lagos peri-urban settlements. It has both negative and positive impact on housing development in the peri-urban. It is used to promote infrastructural development and provision of services. The concept of mixed-used development is utilized to address the multi-dimensional needs in the peri-urban (Tavares et al, 2012; Tan & Li, 2013). The adverse impact of mixed-use development comes in term of environmental pollution created by discharge of toxic wastes which affect both dwelling and environmental quality in the peri-urban.

Residential segregation in the peri-urban emerges as a consequence of people tendency to live in a residential community with some characteristics like language, race and social class. There exist a segregation of land uses into distinct zones in the peri-urban due to self-sorting of the population based on socio-economic status. Residential segregation can be seen as an isolation of a certain community in a certain residential area usually separated from mainstream community

owing to several reasons like policy and solid residential gate. Residential segregation induces spatial fragmentation and social segregation. It hinders balanced developments (Firman, 2004). There are different levels of residential segregation, residential segregation by education level and income, segregation by housing typology, existence of solid gate segregation by internal kinship and segregation by social class (Pradoto, 2012).

Socio economic status of residents has significant influence on the housing typology in the peri-urban. The types of housing development are a function of the socio-economic composition of the residents. Residents with lower socio-economic status occupy different spatial form of settlements, these are often characterized by squatter settlements. Socio-cultural composition of peri-urban residents' constitute migrants from other places, residents from the inner city and local natives. Poverty contributes to the environmental quality in the interface. Differentiating factors between the peri-urban resident groups could be through either socio-economic factors, personal motivation for housing, housing choices preference or the resulting spatial differentiation. In the peri-urban, using socio-economic attributes, the most significant differentiating factor that distinguishes migrants from other resident groups is housing tenure. Non migrant groups are mostly home owners regardless of socio-economic status. Rural migrants constitutes the root of rental housing in the peri-urban. This class of people eventually settles in low cost private rental houses in the peri-urban (Shen & Wu, 2013).

The Study Area and Scope of The Study

The case study area for this study Ibeju-Lekki peri-urban settlement, is a Local Government Area of Lagos State and is approximately 75 kilometers long and about 20 kilometers wide. Ibeju- Lekki Local Government land area is about 646 kilometers square, equals one quarter of the total land mass of Lagos state. It is located at approximately latitude 40 15'north latitude 40 17' north and longitude 13015' east and 13020' east. According to the National population Commission , Nigeria (2006) census, Ibeju-Lekki had a population of 117,481 out of Lagos State's total of 9,113,605. The sample frame constitutes the existing housing units in the peri-urban. (Fig.1)

MATERIALS AND METHOD

This study employs a case study methodology in the field survey. The case study approach was applied by conducting field research covering the three tiers of housing that is, self-help housing, private developer-led housing development and government-led housing development. Primary data for this study were extracted quantitatively from the questionnaire instrument and the observation schedule. Quantitative data

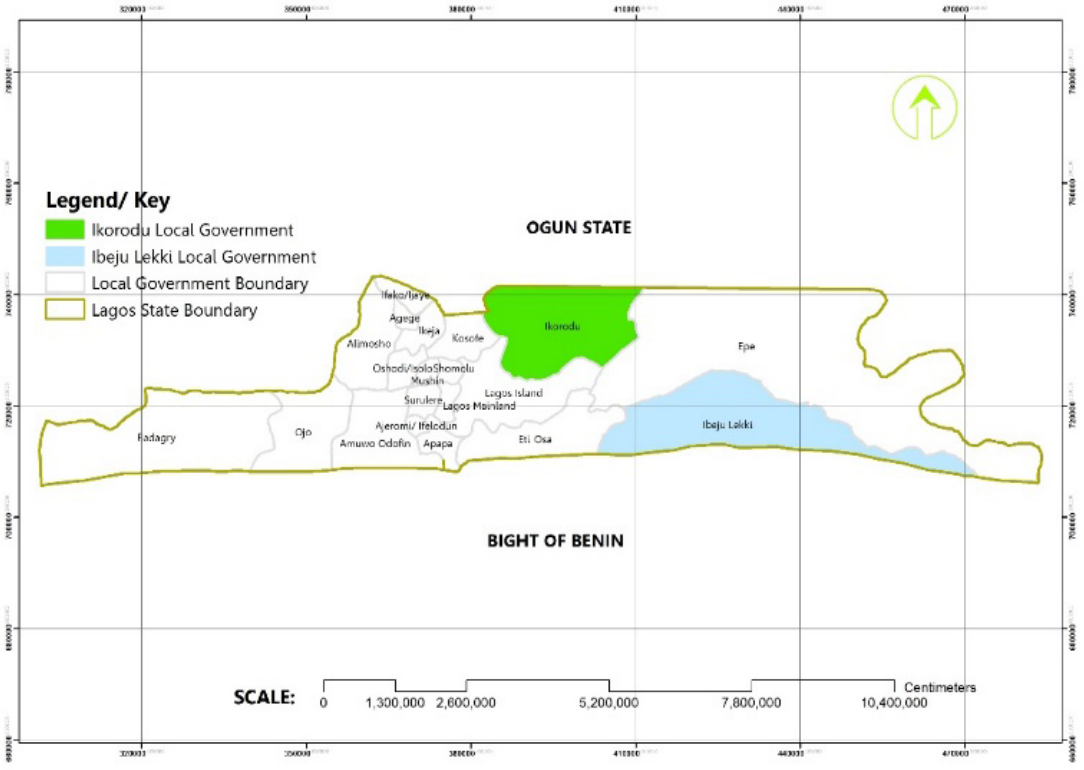

Fig.1: Map of Lagos State showing Ibeju-Lekki (Study area highlighted in blue). (Source: Field Survey, 2016)

were obtained through a questionnaire survey of purposively selected 16 settlements in Ibeju-Lekki and the survey was carried out between August and October 2016 in the study area. A total of 366 good and complete questionnaires were retrieved from Ibeju-Lekki. Badly completed questionnaires were regarded as missing system in the analysis. The questionnaires were administered mostly during the weekend to ensure a high response rate. Two-stage sampling was adopted in selecting the sample size made up of randomly selected 370 housing units in Ibeju-Lekki. Descriptive analysis was conducted on the data to generate percentages and frequencies of respondents' socio-economic characteristics, housing initiatives, housing typologies, tenure, building materials, factors for informality and segregation in the study area. Data processing and analysis for this study were carried out using the Statistical Package for Social Sciences (SPSS) 22 for windows for statistical analysis of the quantitative data.

RESULTS AND DISCUSSION

Characteristics of Housing Developments in the Study Area

Characteristics of housing in this study will be discussed based on housing typologies, units of household per building and the number of rooms per household. Analysis of the field survey presented in Table 1 show ten housing typologies was identified and one uncategorized in the study area. The three commonest housing types in the peri-urban are the single family bungalow unit which constitutes about 76.2%. The single storey family unit (11.5%) and two family detached storey building (4.9%). Other less prominent housing types are two family semidetached bungalow (2.2%), semidetached duplex (1.6%), multiple units traditional housing (1.1%), multiple unit bungalow row housing(1.1%), storey block of flats, single unit traditional housing(0.3%) and tenement storey building (0.3%).

Housing Typologies in the Study Area

Single family bungalow unit is the most prevalent in Ibeju-Lekki peri-urban settlements. It is mainly owner occupied and not part rented. The single storey family units are wholly owner occupier especially among the polygamous families in the peri-urban. The two families semidetached bungalow housing in the peri-urban is partly owner occupied and partly rented out. Part of the building is usually rented out for investment purpose and also often for security purpose in areas of the peri-urban that are a long way from the active areas. Two families semidetached storey housing unit is like the two families semidetached but different in that it is storey. The owners usually occupy one unit of the whole housing while the other wing is rented out. The semidetached duplex housing unit is a two winged duplex buildings in which one is owner occupied and the other rented out. It is widespread in developer-led housing and also among the middle income earners. Block of flats housing is a multi-family housing built mostly and purposely for profit and mostly not occupied by the owners. Tenement unit bungalow and storey buildings are for rental housing, sharing communal sanitary facilities and built purposely for low income and the poor. The single unit and multiple traditional housing are the regular housing unit among the natives, built to be lived in by all extended families and usually with poor quality building materials. It is more of an inheritance housing in the peri-urban of Ibeju-Lekki. Finally, multiple unit row housing consists of many households units on the same parcel of larger lands built for rental purpose and not for the owner occupier. (Table 1)

Internal Characteristics of Housing Units in the Study Area

Analysis of the internal characteristics of the housing units is presented in Table 2. The commonest household units per building in in the study area are 7-8 units having 28.1% of the total households. Other types are 3-4 units (22.1%), 8-above

Table 1: Housing typologies in the study area. (Source: Field Survey, 2016)

Housing Typology	N=366	%
Single family unit (bungalow)	279	76.2
Single family unit (storey)	42	11.5
Two family semidetached bungalow	8	2.2
Two family semidetached (storey)	18	4.9
Semi-detached duplex	6	1.6
(Block of flats(storey	2	0.5
Single unit traditional housing	1	0.3
Multiple units traditional housing	4	1.1
Multiple unit row housing (bungalow)	4	1.1
Tenement unit bungalow(face to face)	0	0
Tenement storey building (face to face)	1	0.3
Missing	1	0.3

units (20.7%), 5-6 units (18%) and less than 2 units (10.9%). The prominence of multiple units of household per building could be attributed to the preference for storey building and investment-driven growth in Ibeju-Lekki peri-urban settlements. The commonest is 6-9 rooms' household having 25.7%. Others are 0-2 rooms (11.2%), 3-5rooms (24.9%), 10-12 rooms (19.9%) and more than 13 rooms (15%). Most of the residents in the study area were home owners, to 74.6%, while 22.7% and 2.5% were tenants and enterprise owners respectively. There are two types of occupancy in the study area, full family occupation and part rented house occupation. The full family occupation is more prevalent in Ibeju-Lekki peri-urban settlements having 56% while part rented housing units are 44%. However, different levels of house ownership exist in peri-urban settlements of Ibeju-Lekki. Self-built and owned houses constitute about 58.7% of housing, family owned house covers about 21%, family built but not owned housing(0.8%), employer built and owned houses (0.5 %), employer built but not owned (0.3 %), tenant self-paying (16.4%), and tenant not paying (2.2 %). (Table 2)

Analysis of Building Materials Used in the Study Area

Through observation schedule and the analysis of field survey provided in table 3, there were diverse building materials in the study area. Wall materials were mostly block wall, 97.8%. Thatch wall was only fairly used in areas belonging to the local natives whose primary occupation is fishing and coconut farming. They interspersed their walls with wood and mud blocks. Such settlements are Eleko and Ibeju. Though there are some unidentified roofing materials constituting about 12.6% of the analysis, aluminium roofing is approximately 75. 7%, thatch and the concrete slab are 5.5% and 6.3% respectively. Windows were composed of aluminium (68.7%), wooden windows (12.8%), louvre windows (10.1%) and casement windows (8.5%). Wooden flush and panel doors were the commonest in the peri-urban. This constitutes about 62.6% of the analysis. Steel and iron doors were also used on the scale of (35.5%). Other sparingly utilized door types were glass doors and some unknown materials. Apart from the highway that is, the urban corridor of Ibeju-lekki that are tarred, almost all secondary roads in the peri-urban is either graded earth or ungraded earth road. The state of these roads makes an important contribution to the high commuting time during the peak period in the peri-urban. (Table 3)

Socio-economic Characteristics of the Household Heads

Through the field survey presented in Table 4, there are five recognised household sizes in the study area. Household size

Table 2: Characteristics of housing units in the study area. (Source: Field Survey, 2016)

Variable	No of household units/building	N=366	%
Household units per building	units 0-2	40	10.9
	units 3-4	81	22.1
	units 5-6	66	18
	units 7-8	103	28.1
	8-Above	76	20.7
Rooms per household	0-2	41	11.2
	room 3-5	91	24.9
	room 6-9	94	25.7
	room 10-12	73	19.9
	and above 13	55	15
	Others	12	3.3
Ownership statuS	Full family occupation	205	56
	Part family occupation/part rented	161	44
	Others	0	0
	Self-built house (owned)	215	58.7
	Family built house (owned)	77	21
	Family built house(not owned)	3	0.8
	Employer built house(owned)	2	0.5
	Employer built house (not owned)	1	0.3
	Government built house (owned)	0	0
	Tenant (self-paying)	60	16.4
	Tenant (non-paying)	8	2.2

Table 3: Analysis of building construction materials in the study area. (Source: Field Survey, 2016)

Building materials used	Type	N=366	%
Wall	Block wall	358	97.8
	Mud wall	3	0.8
	Thatch/others	1	0.3
	Missing System	4	1.1
	Total	366	100
Roof	Aluminium	277	75.7
	Thatch	20	5.5
	Concrete slab	23	6.3
	Other	46	12.6
	Missing system	0	0
	Total	366	100
Window	Aluminium	251	68.6
	Louvre	37	10.1
	Wooden	47	12.8
	Casement	31	8.5
	Missing system	0	0
	Total	366	100
Door	Steels/iron	130	35.5
	Flush/panel/wooden	229	62.6
	Glass	2	0.5
	Others	5	1.4
	Missing System	0	0
	Total	366	100
Road	Earth	243	66.4
	Tarred	71	19.4
	Graded mud	5	1.4
	poorly tarred	47	12.8
	Missing system	0	0

of 1-2 persons constitutes 13.1% of the households, more than 13 persons (3.3%) and 10-12 persons (2.2%). Household sizes of 3-5 persons are the commonest, having 55.2% of the respondents' population. Trading and commercial enterprises are the commonest occupation of the peri-urban residents. 36.6% of the population is engaged in this category of occupation. 19.1% of the population is in civil service because of the location of many government parastatals in the peri-urban. Professional practices and artisan work constitute the third of the population having 16.7% and 15.3% respectively. Students comprise 5.7% and retirees 3.6%. Unemployed (0.5%) and farmers (0.3%) have almost insignificant contribution in the occupational capacity in the peri-urban. Illiteracy level in Ibeju-Lekki is very low. The total is 2.2% of the respondents. People with secondary school education are 30.1% and constitute the highest. Highest level of literacy is the first degree, diploma and secondary school certificate having 32.7%, 20.8% and 34.3% respectively. Predominant monthly income of household heads as captured by the survey instrument is the monthly earnings above N150, 000 monthly, this constitutes high income group and is 44.6% of the entire population. The low income group with monthly earnings of N25, 000-N50, 000 is 36.3% and the middle income earning N50, 000-N150, 000 constitute 19.1%. Tenure analysis reveals that 37.1% of the respondents have been living in the study area for more than ten years. The Yoruba ethnic group makes up the largest portion of the population in Ibeju-Lekki peri-urban settlements, it is 71.9%. Hausa tribe is the least presented in the

Table 4: Socio-economic characteristics of the household heads. (Source: Field Survey, 2016)

Variable		N=366	%
Household size	1-2 persons	48	13.1
	3-5 persons	202	55.2
	6-9 persons	96	26.2
	10-12 persons	8	2.2
	More than 13 persons	12	3.3
Occupation	Civil service	70	19.1
	Trading/business	134	36.6
	Professional practice	61	16.7
	Unemployed	2	0.5
	Retired/pensioner	13	3.6
	Artisan	56	15.3
	Student	21	5.7
	Farming	1	0.3
	others	8	2.1
Literacy level of the household head	Postgraduate	56	15.3
	First degree/HND	105	28.7
	National diploma	62	16.9
	Secondary	110	30.1
	Primary	25	6.8
	None	8	2.2
Monthly Income of household head (Naira)	Low income N25,000-N50,000	133	36.3
	Middle income N50,001-N150,000	70	19.1
	High income N150,001-Above	163	44.6
Respondents' Ethnic group	Yoruba	263	71.9
	Hausa	6	1.6
	Ibo	70	19.1
	Others	27	7.4
	Total	366	100
Tenure	Less than 5 years	114	31.1
	5-10 years	116	31.7
	More than 10 years	134	36.6
	Others	2	0.5
Housing Initiative	Self-help housing	309	84.4
	Private developer/Cooperative	53	14.5
	Government housing	4	1.1

peri-urban. Housing initiatives were primarily of three types in the study area. Self-help housing is the commonest constituting about 84.4% of the housing development. Private developers' initiatives are about 14.5% of the housing development in the peri-urban while government housing initiative was 1.1%. (Table 4)

Factors Influencing Housing Characteristics in the Study Area

Correlation between housing typologies and respondents' socio-economic attributes: The correlation analysis presented in Table 5 shows there is a significant relationship between housing initiatives and housing typology in the study area (0.200** P<0.01 in Ibeju-Lekki). This signifies that there is a

relationship between housing initiatives and typologies in the study area. (Table 5)

Residential segregation in the study area: Tribe, income and education are the primary factors driving residential segregation in the study area as shown in the correlation test in Tables 6 with significance level at 0.001 and 0.000, there exist a significant linear relationship between residential segregation by gate and the three notable socio-economic factors. The correlation analysis shows there is a significant relationship between residential segregation and respondents' socio-economic attributes of the study area. Tribe, income and education are the main socio-economic attributes that influence residential segregation in Ibeju-Lekki (-0.195** P<0.01; -0.386** P<0.01 & 0.363** P<0.01). This signifies that tribe and income influence segregation negatively while education has a positive correlation on residential segregation. (Table 6)

Correlation between housing typologies and respondents' socio-economic attributes: The test of correlation between housing typologies and respondents' socio-economic attributes(Table 7) shows that income is the only attribute having significant relationship with housing typologies in Ibeju-Lekki (-0.205** P<0.000). Therefore, housing typologies is influenced by respondents' socio-economic attributes in the study area. (Table 7)

Table 5: Test of correlation between housing typologies and housing initiatives area.

VARIABLES	PEARSON CORRELATION; P-VALUE	INFERENCE
Housing typologies vs. housing initiatives.	0.200** 0.000	There is a significant correlation between the two variables.

** Correlation is significant at the 0.01 level (2-tailed).

Table 6: Test of correlation between residential segregation and respondents' socio-economic attributes in the study area.

TESt VARIABLES	SUB VARIABLES	PEARSON CORRELATION; P-VALUE	INFERENCE
Residential segregation vs respondents socio-economic attributes	Tribe	-.195** .000	There is a significant negative linear relationship between the two variables
	Income	-.386** .000	There is a significant negative linear relationship between the two variables
	Education	.363** .000	There is a significant positive linear relationship between the two variables.

**. Correlation is significant at the 0.01 level (2-tailed).

a. List wise N=366

Table 7: Correlation between housing typologies and respondents' socio-economic attributes.

TESt VARIABLES	SUB VARIABLES	PEARSON CORRELATION; P-VALUE	INFERENCE
Housing typologies vs. respondents' socio-economic attributes	Income	**-0.205 0.000	There is a significant negative linear relationship between the .two variable
	Literacy group	0.043 0.410	There is no significant correlation between the two variables There is no significant correlation between the two variables
	Ethnic group	0.061 0.242	

**. Correlation is significant at the 0.01 level (2-tailed). a. List wise N=366.

CONCLUSION

The influx of multi-cultural and different socio-economic composition of residents in the peri-urban has created a residential segregation and socio-cultural segregation. Characteristics of housing are affected by the socio-economic attributes of the residents and the housing initiatives. There were ten different housing typologies were identified in Ibeju-Lekki peri-urban settlements. Among these, commonest housing type in Ibeju-Lekki was the single family bungalow housing and single family storey building constituting 76.2% and 11.5% respectively. The commonest type of households units per building were the 7-8 units, 0-2 grouping was the least. The commonest rooms per household in Ibeju-Lekki housing were 3-5 rooms. Housing Occupancy in Ibeju-Lekki shows that full family occupation was 56% while part family and part rented occupancy were 44%. Self-owned housing units were 58.7%, family built housing was 21% and tenant housing was 16.4%. The majority of the housing developments were constructed with conventional building materials like cement sandcrete blocks, aluminium burglary proof windows, mostly wooden panel internal doors and steel external doors. Most secondary roads are either graded earth road, ungraded earth road. Only few secondary roads in both locations are tarred. Findings show no trace of alternative building materials for the mentioned housing initiatives in the peri-urban. . Statistical validation of data was done using the statistical tool of correlation. The test shows that housing typology is influenced by socio-economic attributes of the residents. Major socio-economic attribute that affects housing typology in the study area is income with a p-value of 0.000 and Pearson correlation of -0.205, it shows a significant negative linear relationship with housing typology. The implication of this is that the less the income, the less the quality and standard of housing typology that can be assessed. Residential segregation is affected in the peri-urban settlements by socio-economic attributes of the residents. The major socio-economic attributes that affect housing segregation in the study area are income, tribe and education. Housing typology is also affected by housing initiatives in the peri-urban settlements of Ibeju-Lekki Government-led, private developer-led and self-help housing developments all have different housing typologies attached to them.

Recommendation

Residential segregation can be minimized in the peri-urban settlements by balancing infrastructure development which can be achieved by a policy review. In order to ascertain the infrastructure needs and distribution in the peri-urban, effort should be made to update data on the pattern and extent of development. A policy framework to standardize design to serve the various income groups and household sizes should be set up. This can be achieved by creating a portfolio of the socio-economic characteristics of the residents. Also there should be an inclusion of the end users in the design stage, especially projects targeting low income group and middle income group, to help in achieving appropriate housing delivery strategy by housing providers in terms of the provision of an efficient and user responsive housing units. Post occupancy study should be carried out in government and private housing development to determine their efficiency and suitability for the peri-urban settlements. This will enhance performance standard in other housing projects to be implemented. Advocacy for housing policy that encourages the use of alternative building materials by the government and private developers will aid housing affordability in the peri-urban.

REFERENCES

Acheampong, R. A., & Anokye, P. A. (2013). Understanding Households' Residential Location Choice in Kumasi's Peri-Urban Settlements and the Implications for Sustainable Urban Growth. *Research on Humanities and Social Sciences*, 3(9), 60-70.

Bangdome-Dery, A., Eghan, G. E., & Afram, S. O. (2014). Overview of Self-Help (Self-Build) Housing Provision in Ghana:Policies and Challenges. *Developing Country Studies,* 4(6), 77-89.

Binns, J., Maconachie, R., & Tanko, A. (2003). *Water, land and health in urban and peri-urban food production:* the case of Kano, Nigeria. Kano water LDD revised, 14(5), 431–444. doi:10.1002/ldr.571.

Dung-Gwom, J. Y. (2008). *The Nature of Peri-Urban Developments in Jos,* Nigeria. World Congress on Housing XXXVIIAHS.

Dutta, V. (2012). Land Use Dynamics and Peri-urban Growth Characteristics: Reflections on Master Plan and Urban Suitability from a Sprawling North Indian City. *Journal of Environment and Urbanization ASIA*, 3(2), 277–301.

Emankhu, S. E., & Ubangari, A. Y. (2015). The Nature Of Peri-Urban Development In Lafia, Nasarawa State. *International Journal of Geography and Regional Planning Research,* 1(3), 1-8.

Firman, T. (2004). New town development in Jakarta Metropolitan Region: a perspective of spatial segregation. *Habitat International,* 28(3), 349-368.

Gough, K. V., & Yankson, P. W. (2000). Land Markets in African Cities: The Case of Peri-urban Accra, Ghana. *Urban studies,* 37(13), 2485-2500.

Keyes, P. (2010). *Seminar: Housing Typology.* Oregon: Department of Architecture University of Oregon.

Lawanson, T., Yadua, O., & Salako, I. (2012). An investigation of rural-urban linkages of the Lagos megacity, Nigeria. *Journal of Construction Project Management and Innovation.,* 2(2), 464-581.

National Population Commission, Nigeria (2006). *Nigerian population census - State population* Retrieved from http://www.population.gov.ng/index.php?option=com_content&view=article&id=89 .

Nwokoro, I. I., & Dekolo, S. O. (2012). *Land use change and environmental sustainability: the caseof Lagos Metropolis.* In The Sustainable City VII: Urban Regeneration and Sustainability (pp. 157-167). RSA: WIT Press.

Olotuah, A. O. (2006). Housing Quality In Suburban Areas (An Empirical Study of Oba–Ile, Nigeria). *Dimensi Teknik Arsitektur,* 34(2), 133 - 137.

Pradoto, W. (2012). *Development patterns and socioeconomic transformation in peri-urban area. Berlin: Univerlagtuberlin.*

Puttal, V., & Ravadi, N. (2014). Role of Urban Planning as Tool to Mitigate the Environmental Repercussions Due To Peri-urbanisation. *Journal of Civil Engineering and Environmental Technology*, 1(3), 96-102.

Ravetz, J., Fertner, C., & Nielsen, T. S. (2013). *The Dynamics of Peri-Urbanization*. In K. Nilsson, e. al, & K. P. Nilsson (Ed.), Peri-urban futures: Scenarios and modals for land use change in Europe (pp. 13-44). Netherland: Springer-Verlag Berlin Heidelberg.

Salem, M. (2015). Peri-urban dynamics and land-use planning for the Greater Cairo Region in Egypt. Sustainable Development, 1, 109-119.

Shen, J., & Wu, F. (2013). Moving to the suburbs: demand-side driving forces of suburban growth in China. *Environment and Planning*, 45(8), 1823 – 1844.

Simon, D. (2008). Urban Environments: Issues on the Peri-Urban Fringe. *Annual Review of Environmental Resources,* 33, 167-185.

Tan, M., & Li, X. (2013). The changing settlements The changing settlements in rural areas under urban pressure in China: Patterns, driving forces and policy implications. *Landscape and Urban Planning,* 120, 170-177.

Tavares, A., Pato, R., & Magalhães, M. (2012). Spatial and temporal land use change and occupation over the last half century in a peri-urban area. *Applied Geography*, 34, 432–444.

Wu, F., Zhang, F., & Webster, C. (2013). Informality and the Development and Demolition of Urban Villages in the Chinese Peri-urban Area. *Urban studies,* 50(10), 1919–1934.