COMPARATIVE ASSESSMENT OF RESIDENTIAL HOUSING QUALITY IN URBAN AND PERI-URBAN AREAS OF IBADAN, A CASE STUDY OF NEW BODIJA AND AJIBODE AREAS OF IBADAN

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Abstract

Housing quality is a major key for ensuring healthy living, the quality of housing an individual lives in can be synonymous with the level of health and well-being. However, housing quality tends to vary across income classes and across different locations within the City. This research work carried out a comparative assessment of residential housing quality in the urban and peri-urban areas of Ibadan. New Bodija and Ajibode in Ibadan were selected for the study and a total of 306 housing units were sampled in both neighborhoods. Findings revealed that most of the houses located in New Bodija about 90 % are more of standard structures than the houses located in Ajibode this could be because most houses located in New Bodija are professionally built with appropriate and approved building plans, while only few houses in Ajibode are professionally built with appropriate building plans. Result of hypotheses tested using Pearson Correlation also showed that there was no significant relationship between the income of respondents and the quality of housing in both residential neighborhoods. The study recommended that government has a major role to play in ensuring healthy living of the residents in the two selected neighborhoods, and government should enact laws that will enforce non-conversion of residential housing into other uses.

Introduction

The interaction of different internal and external factors plays a role in the measurement of housing quality in peri-urban settlements (Allen, 2010; Chirisa, 2010). The geographical and ethnographic composition of the residents plays an important role in shaping housing quality in peri-urban settlements (Rapoport, 1998). Other factors such as neighbourhood quality, locational quality and regional response to patterns of development show that housing quality as a function is not limited to physical components of construction, but rather entails human satisfaction with urban attributes and facilities, environmental quality and locational advantages (El Din, Shalaby, Farouh & Elariane, 2013; Rapoport, 1998). The governance of peri-urban settlements in Lagos is shared between local land owners and the state government, but less attention is paid to the infrastructure development of settlements outside state government's acquired land (Adedire & Adebamowo, 2018). Environmental quality, which has to do with good sanitation, security, parking space, light and drainage, and locational quality of housing, which is the spatial position relative to the central business district, are all external factors that create a gap in services delivery, giving room to infiltration of informal development and infrastructure inadequacy in peripheral towns (Chirisa, 2010; Allen, 2003).

Dwelling quality is internally controlled by the socio-economic and socio-cultural

characteristics of the residents in peri-urban settlements; these determine the level of quality of housing they can access through their choice of building construction materials and methods of construction (Fiadzo, Houston & Godwin, 2001). In the majority of peri-urban settlements, there exists social differentiation and service inequality among the indigenous residents and the immigrants (Simon, 2008; Ibem & Aduwo, 2015). The influx of low-income urban immigrants into Ibadan peri-urban settlements is significantly impacting on housing quality. Lower income groups inhabit poor residential areas in peri-urban settlements associated with poor physical conditions, illegal development, limited or no access to water, and poor sanitation (Daramola & Ibem, 2010; Lawanson, Yadua & Salako, 2012). The assessment of residential housing quality in Ibadan urban and peri-urban settlements is significant to determine to what extent neighbourhood quality, location quality and the use of quality building materials contribute to the level of housing quality in these settlements. The findings might assist the state government to in her allocation of resources such as civic infrastructure like roads, water and street lighting should ensure that there is equitable distribution of this across the different segments of the City both urban and peri-urban.

Aim and Objectives

The aim of this study is to carry out a comparative assessment of residential housing quality and conditions in the urban and perilurban areas of Ibadan. Using the international acceptable standards as a yardstick with a view to suggesting a means of enhancing housing quality in the study location.

The Objectives of this study are to:

i Carryout Socio-economic Characteristics of the Respondents ii Carry out a detailed inventory of the housing structures in the study area.

iii Assess the habitability of the housing structures by using the housing quality indicators.

Iv Propose strategies to ameliorate identified challenges and improvement on the habitability of the defective houses.

Hypothesis

The following hypothesis will be tested to achieve the objectives of the research.

H :$_0$ There is no significance relationship between the income of residents and the quality of the housing structures in the study area.

H :$_1$ There is a significance relationship between the income of residents and the quality of the housing structures in the study area.

Literature review

The differentiation of housing quality occurs on the basis of several dimensions: the structural or dwelling quality, neighbourhood quality, and locational quality (Bates, 2006: 25; Kain & Quigley, 1970). Each of these factors is influenced by elements such as, for example, income, family size, education and race of residents in settlements that control them (Goodman, 1978).Adedire & Adegbile Assessment of housing quality,

Structural or dwelling quality

Housing type, design, age of the building, aesthetics, lot size, window sizes, spatial arrangements, the number of rooms per household, tiled toilet, tiled bath, tiled kitchen, lights and water contribute to the measurement of dwelling quality (Aderamo & Ayobolu, 2010; Štreimikiene, 2014: 27; Amao, 2012). The methods of construction, building materials used and aesthetics are also indices for measuring dwelling quality (Bradley & Putnick, 2012).

Neighbourhood quality

Neighbourhood quality is defined by the effects that neighbourhood characteristics have on a residence as a result of the environment in

which it is located (Clark & Huang, 2003). Characteristics such as neighbourhood deterioration, adequacy of services, safety and accessibility, and the overall assessment of the neighbourhood refer to the natural attributes of the neighbourhood (El Din et al., 2013). The dynamic relationship that exists between the physical features of housing, streets, open spaces and general settings in the neighbourhood determines neighbourhood quality (Rapoport, 1998; El Din et al., 2013) that is very poor in most of Lagos' peri-urban settlements. The quality of the neighbourhood, particularly in terms of socioeconomic attributes, has also been found to be an important determinant for housing quality (South & Crowder, 1997: 1040). Residents' socioeconomic capacity influences the quality of housing they can enjoy (Boamah, 2015). Residential areas for low-income earners in metropolitan peripheral areas are generally known to have limited or no access to services, poor sanitation and are mostly informal developed settlements (Allen, 2010). In these poverty areas, wastes are indiscriminately disposed of into canals and drainage channels; toilet facilities are open defecation, unimproved, or shared improved toilets that include flush toilets, flush latrines, and ventilated improved pit (VIP) (Allen, 2003; Puttal & Ravadi, 2014). Depending on the income status of houses in the majority of periurban settlements, access to drinking water could be unimproved, improved and piped (Allen, 2003). Building materials in these poor areas include wood, reeds, grass for construction and roofing (Simon, 2008). Neighbourhoods occupied by middle-income earners have better dwelling quality and are usually segregated from the indigenous residents and the immigrants (Simon, 2008; Ibem & Aduwo 2015). Predominantly in African peri-urban settlements, community participation is a means for securing improved neighbourhood quality (Lawanson et al., 2012; Binns, Maconachie & Tanko, 2003). This Acta Structilia 2018: 25(1) 130 is encouraged in externally initiated projects such as governmentled infrastructure development, developer-initiated or in projects initiated by an association of community residents (Obeng & Whittal, 2014; Binns et al., 2003).

Locational quality

The key measurement for locational quality involves residents' mobility and living convenience, including features such as access to place of work, accessibility to central business district, access to public services, closeness to the market, and availability of schools, hospitals and shopping places (Adebayo & Aliu, 2010). In African peri-urban settlements, commuting and daily travels are often slow, due to traffic congestion and the poor conditions of the access roads to and from the main arterial routes linking peri-urban settlements to amenities (Lawanson et al., 2012; Acheampong & Anokye, 2013). Housing quality in peri-urban settlements in Lagos suffer from neglect, due to the locational disadvantage of these settlements and the perception that it has no economic contribution to state development (Adedire, 2017). As a result, these settlements, in consonance with prior findings, suffer from poor sanitary conditions, increasing commuting time, traffic congestion, pollution, poor water supply and sanitation problems, solid waste disposal, and lack of open space (Dutta, 2012; Simon, 2008). In addition, housing quality in peri-urban settlements in Lagos is negatively affected by these poor environmental conditions, as they affect not only the sustainability of these places, but also people's health. The spread of epidemic diseases is common where environmental quality is poor (Boamah, 2015).

The significance of adequate standard housing to the social well-being of the people in any society cannot be overemphasized. However, the provision of standard housing in Nigeria and other developing nations alike still remains one of the most intractable challenges facing human and national development.

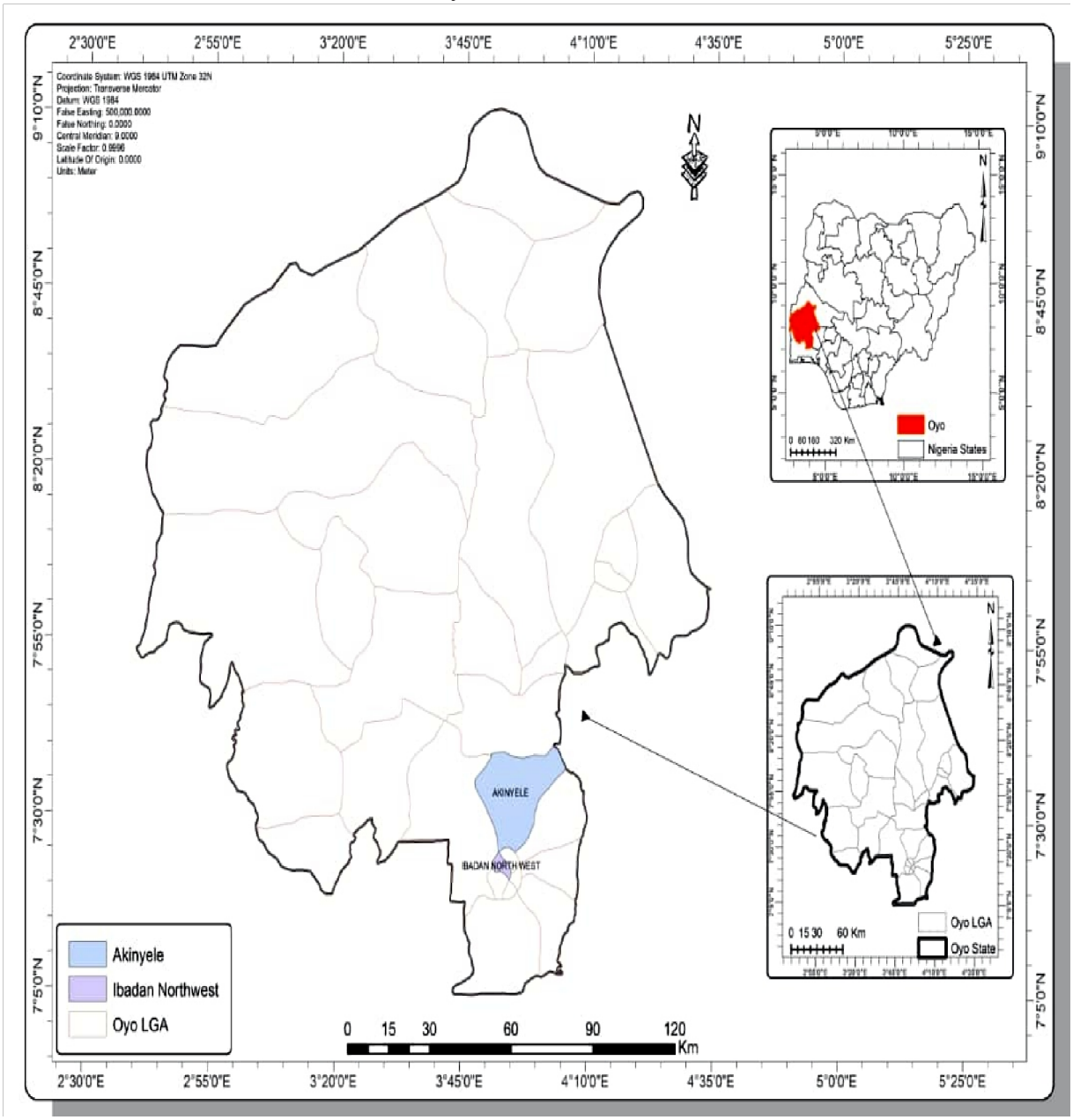
Previous attempts by all stakeholders, including government agencies, planners and developers

to provide necessary recipe for solving the housing quality problems have yielded little or no success.

Study area

Ibadan is located in south-western Nigeria in the southeastern part of Oyo State at about 119 kilometers (74 miles) northeast of Lagos and 120 kilometers (75 miles) east of the Nigerian international border with the Republic of Benin. It lies completely within the tropical forest zone but close to the boundary between the forest and the derived savanna. The city ranges in elevation from 150 m in the valley area, to 275 m above sea level on the major north-south ridge which crosses the central part of the city. The city covers a total area of 3,080 square kilometers (1,190 sq. mile), the largest in Nigeria.(Adeniran A, 2018)

Bodija and Ajibode are both Located close to the University of Ibadan, Ajibode is Located in the northcentral part of Ibadan metropolis, It shares boundaries with University of Ibadan and Orogun communities to the south and to the north with International Institute of Tropical Agriculture (IITA), Ojoo and Shasha communities of Ibadan while



Source: Geographical Information System (GIS) Unit, University of Calabar, 2018.

Bodija is a district located in North-West Local Government area of Ibadan, There are two of such estates within the region. Old Bodija and New Bodija. The estate is home to many popular schools within the state. It is also home to Bodija Market which is one of the largest Markets in Ibadan. The establishment of the Nigerian premier university college in 1948 and the University college Hospital in 1957.

Methodology

The study sought to carry out a detailed inventory of the housing structures in the study area and to assess the habitability of the housing structure by using the housing quality indicators. The study used qualitative data, primary and secondary data were collected. Primary data for the study was sourced mainly through direct field survey and investigations which was obtained through the use of a well-structured questionnaires containing closeended questions (for ease of analysis) and also the use of direct observation of the facilities on the field in addition to the information from residents, personal observation, in-depth interview with key officials in Oyo State Ministry of Works, Oyo State Ministry of Physical Planning and Urban Development and also Oyo State Ministry of Housing was undertaken to compliment the information obtained from residents in the study area. Secondary data used for this study include; the total number of registered/approved physical development in the Local Planning Office in Akinyele and Ibadan North Local Government Area of Oyo State, as well as the Ministry of Housing and Ministry of Works.

Table 1.

Sample frame, sample size and sampling distribution

In new Bodija total number of housing units were 708 while that of Ajibode were 188 housing units making a total number of 896 housing units. Thirty percent of the total numbers of housing units in New Bodija making 212 housing units was selected while 50% of the total number of housing units in Ajibode making 94 housing units was selected from making a sum-total of 306 housing units in the two study areas.

The targeted population for the study was primarily residents of New Bodija and Ajibode area of Ibadan. Systematic random sampling was used to sample the housing units with every fourth housing unit selected. The questionnaire was administered on the heads of household and if not available the next person to that.

Results and discussion

The key results of the study are presented in table 1. Results indicated that 55.06% of the respondents in Ajibode earned between N20,000-50,000 monthly, while 58.14% of the New Bodija respondents earned above N100,000 monthly, thus showing that residents within Bodija earn more than their Ajibode counterparts.

The structural condition of the buildings presented in table 2. showed that 55.06% of houses in Ajibode and 71.70% of houses in Bodija are in good structural condition. findings

Response	Ajibode		Bodija		Total	%
	Respondent	Percentage	Respondent	Percentage		
Less than 20,000	19	21.35	3	1.42	22	7.31
20,000-50,000	49	55.06	16	7.55	65	21.59
50,000-100,000	12	13.48	27	12.74	39	12.96
100,000 and above	9	10.11	166	78.30	175	58.14
Total	89	100.0	212	100.0	301	100

Source Author's field survey, 2018

revealed that most houses in New Bodija are good condition, there is high presence of houses

Response	Ajibode		Bodija		Total	%
	Respondent	Percentage	Respondent	percentage		
Good	49	55.06	152	71.70	201	66.78
Fair	17	19.10	50	23.58	67	22.26
Poor	23	25.84	10	4.72	33	10.96
Total	89	100.0	212	100.0	301	100

houses with block wall representing 89.62% of the total numbers of respondents, in Ajibode most houses are constructed with mud represent 43.82% of the total population in Ajibode, findings also revealed that No house belonging to the respondents was built with mud in new Bodija, 84% of houses of respondents in New Bodija are in good condition of which 30.34% of houses of respondents in Ajibode are also in Source Author's field survey, 2018

Finding also revealed that 92.92% of respondents in New Bodija have adequate circulation space in their dwelling unit while 55.06% of respondents in Ajibode have inadequate circulation space in their dwelling

with fair condition in Ajibode with 46.07% of the total number of houses of respondents while

Table 2.

23.60% of houses of respondent in Ajibode are in poor condition. This reveals that houses in New Bodija have better condition than the ones in Ajibode.

Table 3.

unit. This shows that houses in Ajibode are not professionally built with appropriate and approved building plans. While in New Bodija are professionally built with appropriate and approved building plans presented in table 3.

Response	Ajibode		Bodija		Total	%
	Respondent	Percentage	Respondent	percentage		
Inadequate	49	55.06	9	4.25	58	19.27
Not sure	19	21.35	6	2.83	25	8.31
Adequate	21	23.60	197	92.92	218	72.43
Total	89	100.0	212	100.0	301	100

Source Author's field survey, 2018

The condition of floors in houses located that most houses of respondents are in fair in New Bodija are in good condition condition with a percentage of 46.07% of the representing 85.38% of

the total numbers of total numbers of houses in Ajibode. Presented in houses of respondents, Finding also revealed table 4.

Table 4

Response	**Ajibode**		**Bodija**		**Total**	**%**
	Respondent	**Percentage**	**Respondent**	**percentage**		
Good	27	30.34	181	85.38	208	69.10
Fair	41	46.07	19	8.96	60	19.93
Poor	21	23.60	12	5.66	33	10.96
Total	89	100.0	212	100.0	301	100

Source Author's field survey, 2018

Most houses in New Bodija 23.60%, in Ajibode most houses make use of neighborhoods make use of borehole as their well as their major source of water with a major source of water supply with a percentage percentage of 57.30% presented in table 5. of 88. 68% while that of Ajibode represents just Table 5.

Response	**Ajibode**		**Bodija**		**Total**	**%**
	Respondent	**Percentage**	**Respondent**	**percentage**		
Borehole	21	23.60	188	88.68	209	69.44
Well	51	57.30	19	8.96	70	23.26
Rain fall	17	19.10	5	2.36	22	7.31
Total	89	100.0	212	100.0	301	100

Source Author's field survey, 2018

Most houses in New Bodija make use of the water closet system up to 93.87% of the total number of houses of respondent findings also reveals that 46.07% houses of respondent in Ajibode also make use of water closet system, while 34.83% of the houses use pit latrine while

house with no toilet is 19.10%, in New Bodija there are no houses without toilet facility, findings reveals that 4.25% of the houses of respondent use pit latrine why 1.8% of them use public toilet presented in table 6.

Hypotheses Testing

Table 6.

Response	Ajibode		Bodija		Total	%
	Respondent	Percentage	Respondent	Percentage		
Water closet system	41	46.07	199	93.87	240	79.73
Pit latrine	48	53.93	9	4.25	57	18.94
Public toilet	0	0	4	1.89	4	1.33
Total	89	100.0	212	100.0	301	100

Source Author's field survey, 2018

	Mean	Std. Deviation	N
average income per month	3.6792	.67518	212
structural condition of the building	1.2830	.54650	212

Table 8. Correlations

		average income per month	structural condition of the building
average income per month	Pearson Correlation	1	-.048
	Sig. (2-tailed)		.485
	N	212	212
structural condition of the building	Pearson Correlation	-.048	1
	Sig. (2-tailed)	.485	
	N	212	212

The hypothesis was formulated so as to determine the significant relationship between income of residents and the quality of the housing structures. This is necessary to come out with meaningful findings and also to formulate appropriate sustainable measures for the improvement of living standards. Pearson product moment correlation was used to test the stated hypothesis because this is a comparative assessment and it's the best form of analysis as it give the best form of linear relationship between

Table 7. Descriptive Statistics

two variables.

The hypothesis goes does:

For New Bodija, The correlation coefficient r, is -0.048 which indicates a very weak negative relationship between the two variables. This means that a change in the nature of the income of respondents cannot be explained by the quality of the housing structures. The null hypothesis is therefore accepted that there is no significant relationship between the income of respondents and the quality of the housing structures.

For Ajibode, Pearson Product Moment Correlation (PPMC) analysis was used to test the stated hypothesis, the correlation coefficient r, is -0.317 which indicates a weak negative relationship between the two variables. This means that a change in the nature of the income of respondents cannot be explained by the quality of the housing structures. The null hypothesis is therefore accepted that there is no significant relationship between the income of respondents and the quality of the housing structures.

Table 9. Descriptive Statistics

	Mean	Std. Deviation	N
average income per month	1.9213	.58823	89
structural condition of the building	1.7079	.85549	89

Table 10. Correlations

		average income per month	structural condition of the building
average income per month	Pearson Correlation	1	-.317**
	Sig. (2-tailed)		.002
	N	89	89
structural condition of the building	Pearson Correlation	-.317**	1
	Sig. (2-tailed)	.002	
	N	89	89

Findings revealed that in New Bodija 78.30 percent of the respondents earn 100,000 and above while just 10.11 percent of the respondents in Ajibode earns the same amount, 55.06 percent of the respondents in Ajibode earns between 20,000 – 50,000, 42.92 percent of the respondents in New Bodija are owner occupiers while it is just 16 percent in Ajibode

Findings also revealed that most houses in New Bodija are houses with block wall representing 89.62 percent of the total numbers of respondents, in Ajibode most houses are constructed with mud represent 43.82 percent of the total population in Ajibode, findings also revealed that No house belonging to the respondents was built with mud in New Bodija, 84 percent of houses of respondents in New Bodija are in good condition of which 30.34 percent of houses of respondents in Ajibode are also in good condition, there is high presence of houses with fair condition in Ajibode with 46.07 percent of the total number of houses of respondents while 23.60 percent of houses of respondent in Ajibode are in poor condition. This reveals that houses in New Bodija have better condition than the ones in Ajibode

Finding revealed that 92.92 percent of respondents in New Bodija have adequate circulation space in their dwelling unit while 55:06 percent of respondents in Ajibode have inadequate circulation space in their dwelling unit. This shows that houses in Ajibode are not professionally built with appropriate and approved building plans. While in New Bodija are professionally built with appropriate and approved building plans, the condition of floors in houses located in New Bodija are in good condition representing 85.38 percent of the total numbers of houses of respondents, finding also revealed that most houses of respondents are in fair condition with a percentage of 46.07 of the total numbers of houses in Ajibode. most houses in New Bodija neighborhoods make use of borehole as their major source of water supply with a percentage of 88. 68 while that of Ajibode

represents just 23.60, in Ajibode most houses make use of well as their major source of water with a percentage of 57.30, most houses in New Bodija make use of the water closet system up to 93.87 percent of the total number of houses of respondent.

Findings also reveals that 46.07 houses of respondent in Ajibode also make use of water closet system, while 34.83 percent of the houses use pit latrine while house with no toilet is 19.10 percent, in New Bodija there are no houses without toilet facility, findings reveals that 4.25 percent of the houses of respondent use pit latrine why 1.8 percent of them use public toilet.

Respondents in New Bodija are very satisfied with the building materials used for making housing while we have 23.60 percent of the respondent in Ajibode that are satisfied with the building materials used for their housing

Conclusion

In assessing the housing quality in a particular area, emphasis is usually on the physical structure and conditions of the dwelling units, availability of housing facilities , occupancy or level of crowdedness and availability of and accessibility to communal infrastructural facilities and services and level of environmental quality .The study found out that dwellings in New Bodija are structurally good and majority of the houses are well maintained while the ones in Ajibode have majorly houses that are not structurally good with little or no maintenance. The facilities such as toilets, bathrooms and kitchens are adequately provided In New Bodija. In most houses it is observed that the occupancy rate is relatively okay and at least to a reasonable extent conducive. The environment quality of the study area is fairly good. The study recommended that; first, the government in her allocation of resources such as civic infrastructure like roads, water and street lighting should ensure that there is equitable distribution of this across the different segments of the City both urban and peri-urban. Second, sensitization needs to be done for the residents in Ajibode on how important it is to have a house that is professionally designed with appropriate and approved building plan.

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