



An Appraisal of the Attributes of Incremental Housing in Akure, Ondo State, Nigeria

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Authors' contributions

This work was carried out in collaboration among all authors. Author TJA designed the study. Author AAS performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Author OOO managed the analyses of the study and the literature searches. All authors read and approved the final manuscript.

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ABSTRACT

This paper examined the attributes of incremental housing in Akure, a three-stage sampling was done. First, the peripheral areas of Akure metropolis was identified and used as the clusters. The second stage of sampling involved selecting communities from each peripheral area in Akure metropolis. In selecting the communities, purposive sampling was employed. The third stage of sampling was used in choosing the target units which were the incremental house owners. Sample size was selected using statistically valid methods with the assurance of complete data from the sampling frame and such data are collected in a reliable manner. Google Earth imagery of the study area was gotten from Google Earth Pro.7.0.3.8542. The imagery was digitized and the numbers of buildings were counted using Autocad. Oba-Ile had 1,013 buildings, Ijoka had 413 buildings, Igoba had 602 buildings while, Orita-Obele had 565 buildings, and the number of buildings from the four corridors were estimated to a total of 2,593 buildings. Findings revealed that incremental housing developers in Akure fringe areas generally have a household size of 4 to 6 members, despite that

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the respondents have been staying in the study area for years, there were still uncompleted buildings because of the low income class they belongs to, due to low income the completion of the project will still take a longer time, a good number of the incremental developers have building plans for their building projects, while there are some without building plans, it is an attribute of the majority of the housing developers to build houses without an approved building plan and majority of the incremental houses in the study were still under construction. It is recommended that the NGOs, Private sectors as well as Microfinance should help in encouraging the developers by giving them flexible loan and also create awareness, advocacy, project monitoring and evaluation, providing checks during projects and programmes implementation.

Keywords: Attributes; incremental and housing.

1. INTRODUCTION

Incremental housing is a step-by-step process of housing development that begins with a core house and is gradually upgraded in size and or quality over time under the owner's control with regards to household needs and resources [1]. In reality, the number of people living in cities in the developing world is expected to double by the middle of the twenty-first century and the spatial extent of those cities is expected to triple. The majority of new urban dwellers will meet their housing needs in illegal settlements in informal city spaces.

Policies for informal housing that range from neglect and denial of services and infrastructure to forced eviction are giving way to incremental housing approaches. Informal households commonly improve their living conditions and are regularized through incremental processes over many years: informal neighborhoods are recognized and incorporated in the city; land tenure is solidified; basic city services are extended and families invest their labour and savings in improving their dwellings.

1.1 Statement of the Problem

Majority of the fringe housing is produced incrementally by the private informal sector, the involvement of this sector, especially the low income households themselves, in providing their own housing is hardly addressed in Nigeria's Housing Policy. Yet, the low income earners in Nigeria continues to provide their own housing in a variety of ways and circumstances that are not recognized by policy makers. The Ministry of Housing and Urban Development both at the federal and state levels do not have adequate information on the conditions of these incremental housing development and housing needs of the low – income groups.

Thus, the ministry fails to plan for an inclusive approach to housing that accepts the right of poor people to live in good conditions in the city. Furthermore, the unequal power relations within civil society lead to the skewing of public and private housing development in favor of meeting the needs of more powerful groups in the city [2]. Therefore, the low income groups continue to perpetuate this self-help housing in an unguided manner. Ferguson [3] noted that, if self –help housing are unsupported and unguided as is typically the case, it suffers from severe drawbacks. Ferguson [3] further noted that, fixing these neighborhoods create much greater public and private costs than if these areas were developed formally in advance.

The economic reason for incremental housing development process is primarily the lack of access to capital. Land developments and housing production is capital intensive and access to continued flow of capital is necessary to ensure that land development projects are complete on time. Inadequate financial resources on the part of developers have fuelled the incremental building practices such that housing projects are often started and improved gradually as and when funds become available to the developers.

1.2 Objective of the Study

The objective of the study is to appraise the attributes of incremental housing in Akure.

1.3 The Study Area

Akure is a traditional Nigerian city and like other traditional Yoruba towns in the country, it existed long before the advent of British colonial rule. The city is located within Ondo State in the South Western part of Nigeria. Akure lies between latitude 7.1824° and 7.3068° north of the

equator, while the longitude is between 5.1249° and 5.2506° east of meridian.

It also became the capital city of Ondo State and local government headquarters in 1976. Akure is located approximately 700 kilometers, Southwest of Abuja, the Federal Capital of Nigeria and about 350 kilometers to Lagos the former capital of Nigeria. It accommodates less than 400,000 people and it is dominated by Yorubas who form the major tribe in South Western Nigeria. The study area is bounded by Owo Local Government Area in the East, Akure North and Ifedore Local Government Areas to the North, Ile-Oluji/Okeigbo Local Government Area in the West and Idanre Local Government in the South.

Akure is a medium- sized urban centre and became the provincial headquarter of Ondo province in 1939. It also became the capital city of Ondo State and a Local Government headquarters in 1976. These dual political roles of Akure have since acted as impetus to the influx of people into the city [4]. This influx was necessitated by the development attracted to the State capital. With the presence of government seat in Akure, job opportunities, provision of community facilities such as roads, water etc prompts the migration of youths from the surrounding towns/settlements for job opportunities among others, leading to increase in population [5]. The city's morphology has changed over time to assume its present status with its attendant land use problems, slum creation, discharge of industrial effluents, vehicular smoke emission and host of others are experienced in similar medium sized urban centers in Nigeria [6]. Akure being a state capital has a wide range of importance. These include but not limited to the following; Administrative, Educational, religious and commercial importance. Its attainment of administrative importance dates back to the days of colonial era when it was made a district headquarters.

The city of Akure has witnessed remarkable growth in its urbanization in recent years, and its population during the past few decades has more than tripled [7]. The upsurge in the annual growth of the city's population can be adduced to its administrative, educational and religious importance as well as its long standing role as a centre of economic activities attracting a large spectrum of immigrants into it .Above all, the population growth in Akure agrees with the increase in housing demand which gives rise to the number of incremental housing development

in the study area. The major residential quarters in Akure includes the following: Lisa, Ijomu/Obanla, Osodi, Gbogi, Okearo/Uro, Owode/Imuagum, Odopetu, Apomu and Oda. These are the major residential quarters that constitute Akure. The people in other sections of Akure, the Isinkan whose head Chief is Aralepo and Isolos headed by chief Osolo and whose traditions are distinct from those of the majority of inhabitants also represent earlier settlers on this site of the present Akure. The total number building the study area cannot be actualize due to the large land mass of the area.

2. LITERATURE REVIEW

Housing deficits in developing countries are overwhelming especially in urban areas. These deficits are exacerbated by rapid urban population growth and low expenditure on public housing. The trends are that governments alone are unable to provide public housing especially for the urban population due to inadequate funds. These housing deficits affect the low-income groups more. The diminishing role of the governments in public housing delivery have led to a situation where housing production continue to be dominated by the private sector. In Nigeria, it is estimated that 90% of the housing stock is provided by private individual mostly through self-help approach [8].

Therefore the age-long self-help approach to housing continue to offer housing solutions to urban residents especially the low-income who are not able to purchase completed housing units; even though, it continues to received little support by government. Bana [9] and Emerole [10] indicated that inadequate capacity of housing agencies to deliver housing was one of the key challenges of housing in Nigeria. This suggests that understanding the organizational capacity and constraints of housing agencies to provide housing is necessary in judging their performance.

3. RESEARCH METHODS

In determining the sampling frame, the incremental house owners are the respondents from which data were obtained in the study area. To arrive at this unit, a three-stage sampling was done. First, the peripheral areas of Akure metropolis was identified and used as the clusters. The second stage of sampling involved selecting communities from each peripheral area in Akure metropolis. A total of four communities Orita-Obele, Igoba,Ijoka and Oba-Ile were

selected, one from each peripheral axis according to Goethert, [1] in his study on incremental housing opined that incremental housing development is more prominent at the peripheral areas of urban centre due to the rate at which the city is expanding. In selecting the communities, purposive sampling was employed. The third stage of sampling was used in choosing the target units which were the incremental house owners. Here, house owner or any member of the house that has the knowledge of the development was randomly selected for the purpose of the study.

Sample size was selected using random sampling technique with the assurance of complete data from the sampling frame and such data are collected in a reliable manner. Figs. 1–4 show the Google Earth imagery of the study area from Google Earth Pro.7.0.3.8542. The imagery was digitized and the numbers of buildings were counted using Autocad. Oba-Ile had 1,013 buildings, Ijoka had 413 buildings, Igoba had 602 buildings while, Orita-Obele had 565 buildings, and the number of buildings from the four corridors was estimated to a total of 2,593 buildings, out of the residential buildings, the ones that were on incrementally developing were purposively selected for the study. From Table 1, 15% (389) of the total households was sampled because of the homogenous characteristics of the study area such as socio-economic characteristics and housing characteristics and these amounted to 389 questionnaires. The objective of the sample size is to survey the ideal number of households which gives the most statistically representative result [11]. Yusuf [11] opines that “larger

populations permit smaller sampling ratio for equally good sample because as the population size grows, the returns in accuracy for sample size shrink. A total survey or 100% survey amounting to six (6) number of questionnaire were administered for staff of the Institutions responsible for land use planning and management in the city.

A total of three hundred and eighty nine 389 questionnaires were administered at the study area. A simple random sampling technique of houses was used; this involves picking of the selected household randomly among the residents of the selected corridors.

The analysis was done using Univariate Analysis which includes the use of pictorial presentation of data, figures and tables.

4. RESULT S AND DISCUSSION

4.1 Household size of Respondents

Table 2 shows the findings on the Household size of the respondents within the four neighborhoods. The findings reveals that 69.4% and 85.5% of the family at Orita – obele and Igoba has a household of less than 4 while at Ijoka and Oba-Ile majority 72.2% and 77.6% of the respondents has a household size between 4 to 6 member. This corroborate with the findings of Gabriel (2017), on household size that reveals that an average household size in Akure is between for 4 and 5. This implies that the incremental housing developers in Akure fringe areas generally have a household size of 4 to 6 members.

Table 1. Sample size of residents in the study area

Corridor label	Name of corridor	Total numbers of buildings	Sampled household at 15%
A	Oba-ile	1013	152
B	Igoba	413	62
C	Ijoka	602	90
D	OritaObele	565	85
Total		2593	389

Source: Author's field survey, 2019

Table 2. Household size of the respondents

	Orita-Obele		Igoba		Ijoka		Oba-Ile	
	Freq	%	Freq	%	Freq	%	Freq	%
Less than 4	59	69.4	53	85.5	24	26.7	30	19.7
4-6	25	29.4	8	13.3	65	72.2	118	77.6
7 and above	1	1.2	1	1.2	1	1.1	4	2.6
Total	85	100	62	100	90	100	152	100

Source: Author's field survey, 2020

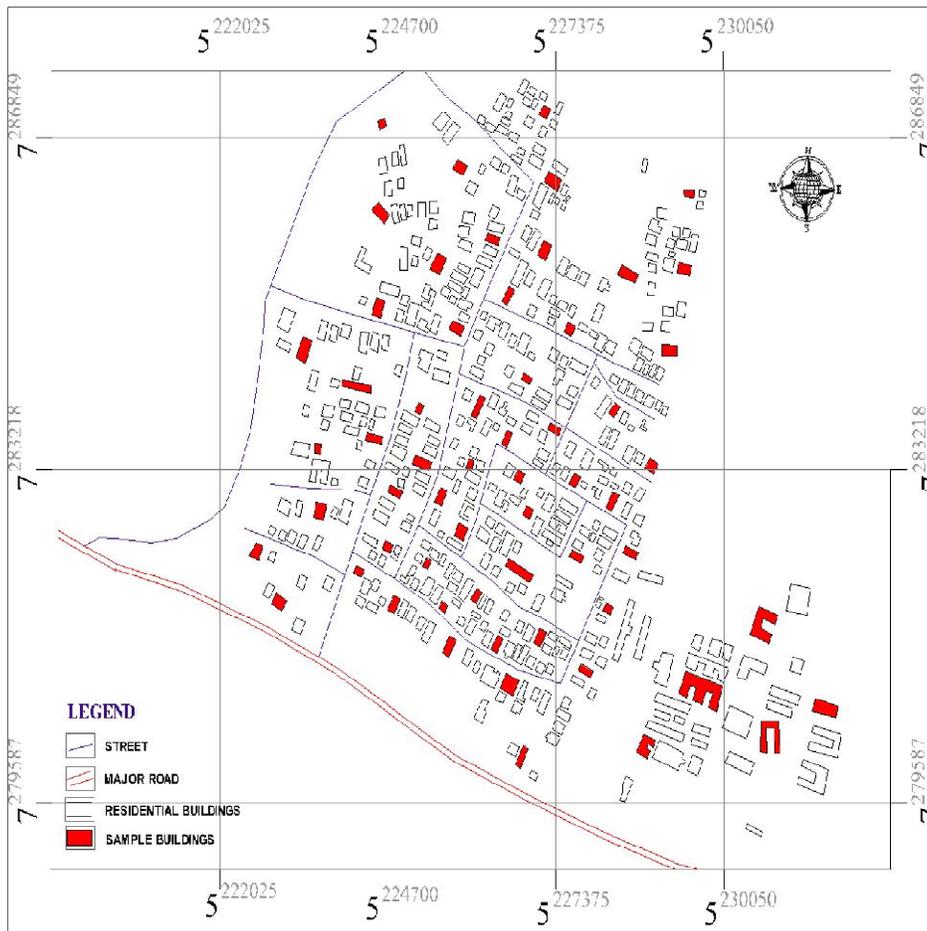


Fig. 1. Selected building at Igoba

Source: Google Earth Imagery, Digitized by the Author (2019)

4.2 Length of Stay

Table 3 revealed the findings of the field survey on the length of stay of the respondents in the four selected neighborhoods. At Orita-Obele 82.4%, Igoba 38.7%, Ijoka 58.9% and Oba-Ile 48.0%, the respondents respectively have been staying in this location between 4 -5 years. While 10 .6% of the respondents at Orita-Obele, 19.4% at Igoba, 14.4% at Ijoka, and 16.4% at Oba-Ile have been staying in this neighborhoods for more than 5 years. The implication of findings revealed that, despite that the respondents have been staying in the study area for years, there were still uncompleted buildings because of the low income class they belongs to.

4.3 Final Cost of Construction

The result from Table 4 revealed the finding of the field survey on the final cost that was needed

for completing the buildings in the four selected neighborhoods. At Orita-Obele 65.9%, Igoba 90.3%, Ijoka 58.9% and Oba-Ile 37.5% respectively, the respondents opined that the final cost of the construction will be above ₦1,000,000. The implication of this is that, due to low income the completion of the project will still take a longer time.

4.4 Duration of Construction

The investigation of the number of years the respondents have spent on their various construction is shown in Table 5, the findings revealed that majority which makes 87.1% of the respondents at Orita –Obele have been on the construction between 5-10 years, while at Igoba, 37.1% of them have spent more than 10 years on their various building construction. Also at Ijoka and Oba-Ile majority which makes 61.1% and 51.35 have spent between 5-10 years on

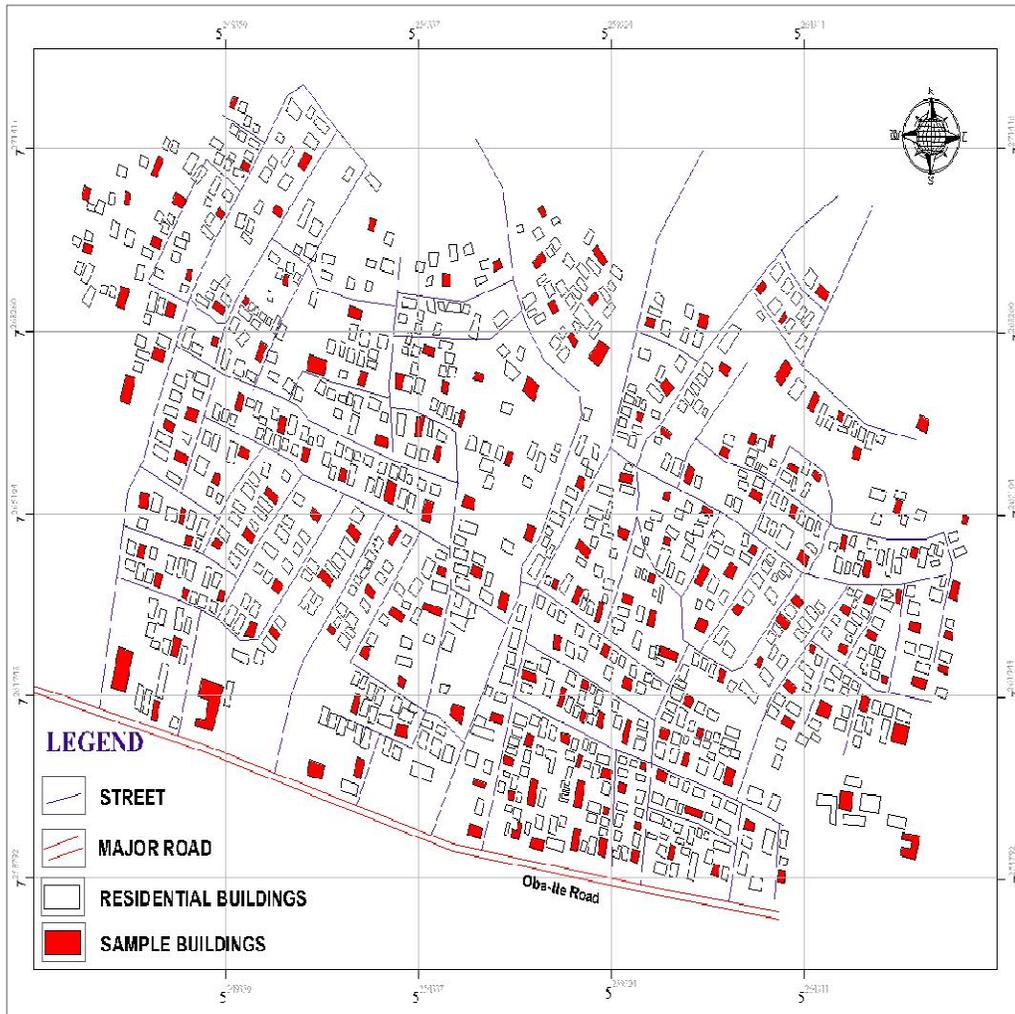


Fig. 3. Selected Buildings at Oba-Ile

Source: Google Earth Imagery, Digitized by the Author, (2019)

Table 4. Final cost of construction

	Orita-Obele		Igoba		Ijoka		Oba-Ile	
	Freq	%	Freq	%	Freq	%	Freq	%
Less than ₦250,000	-	-	1	1.6	5	5.6	17	11.2
₦250,001-₦500,000	-	-	-	-	13	14.4	29	19.1
₦500,001-₦750,000	8	9.4	4	6.5	6	6.7	17	11.2
₦750,001-₦1,000,00	21	24.7	1	1.6	13	14.4	32	21.1
Above ₦1,000,000	56	65.9	56	90.3	53	58.9	57	37.5
Total	85	100	62	100	90	100	152	100

Source: Author's field survey, 2020

4.5 Availability of Building Plan

The result from Table 6 reveals that 76.5%, 96.8%, 94.4%, and 90.8% of the buildings at Orita-Obele, Igoba, Ijoka, and Oba-Ile

respectively have a plan designed either by an Architect or draftsman. While, Orita-Obele 23.5%, Igoba 3.2%, Ijoka 5.6% and Oba-Ile 9.2% of the buildings were built without a plan. This implies that a good number of the incremental

developers have building plans for their building projects, while there are some without building plans.

4.6 Approval of Building Plan

Table 7 showed the investigation on approval of the building plan the respondents use for the construction, it was revealed that 77.6%, 91.8%,

70.0%, and 69.1% of the building plans at Orita-Obele, Igoba, Ijoka, and Oba-Ole respectively were not approved. While 22.4%, 8.1%, 30.0% and 30.9% of the building plans at Orita-obele, Igoba, Ijoka and Oba-Ile respectively were approved. In indication, this means it is an attribute of the majority of the housing developers to build houses without an approved building plan.

Table 5. Duration of construction

	Orita-Obele		Igoba		Ijoka		Oba-Ile	
	Freq	%	Freq	%	Freq	%	Freq	%
Less than 1 year	-	-	-	-	12	13.3	29	19.1
1-5 years	6	7.1	20	32.3	12	13.3	26	17.1
5-10 years	74	87.1	11	30.6	55	61.1	78	51.3
More than 10 years	5	5.9	23	37.1	11	12.3	19	12.5
Total	85	100	62	100	90	100	152	100

Source: Author's field survey, 2020

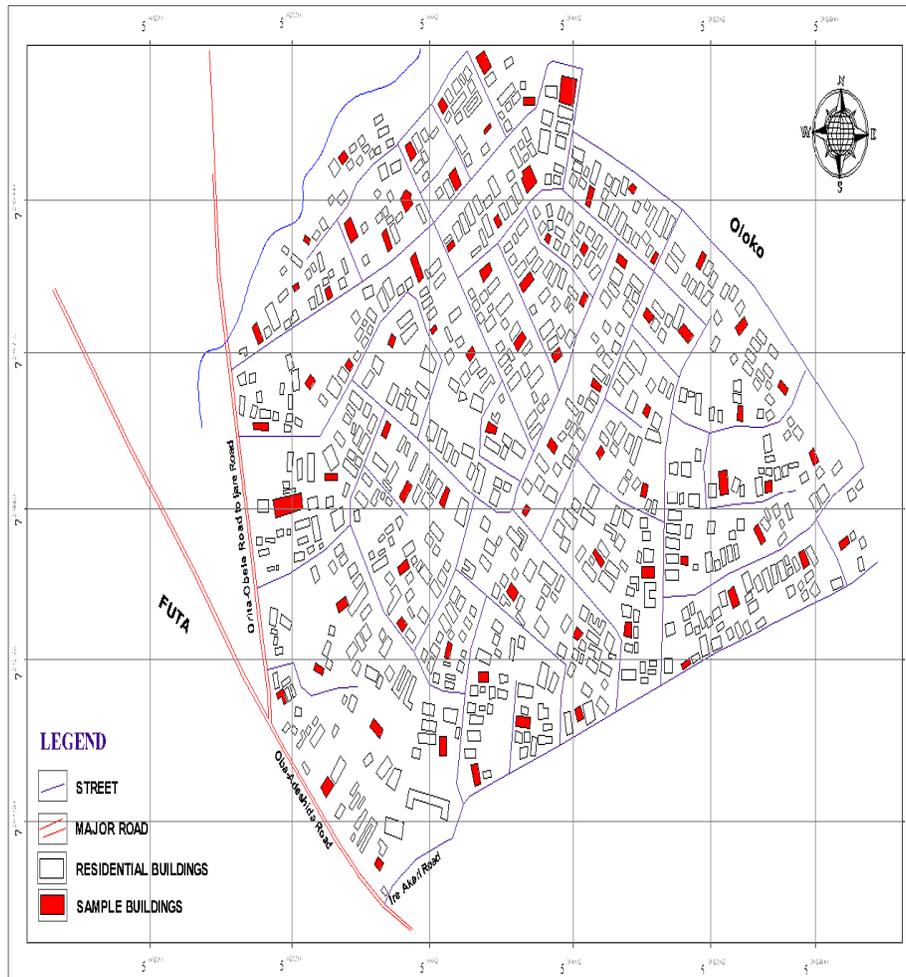


Fig. 4. Selected buildings at Orita-Obele
Source: .Google Earth Imagery, Digitized by the Author (2019)

Table 6. Availability of building plan

Respondents	Orita-Obele		Igoba		Ijoka		Oba-Ile	
	Freq	%	Freq	%	Freq	%	Freq	%
Building plan	65	76.5	60	96.8	85	94.4	138	90.8
No Building plan	20	23.5	2	3.2	5	5.6	14	9.2
Total	85	100	62	100	90	100	152	100

Source: Author's field survey, 2020

Table 7. Approval of building plan

	Orita-Obele		Igoba		Ijoka		Oba-Ile	
	Freq	%	Freq	%	Freq	%	Freq	%
Approved	19	22.4	5	8.1	27	30.0	47	30.9
Not Approved	66	77.6	57	91.9	63	70.0	105	69.1
Total	85	100	62	100	90	100	152	100

Source: Author's field survey, 2020

Table 8. State of building construction

	Orita-Obele		Igoba		Ijoka		Oba-Ile	
	Freq	%	Freq	%	Freq	%	Freq	%
Completed	29	34.5	17	27.7	19	21.1	37	24.1
Uncompleted	56	65.5	45	72.3	71	78.9	115	75.9
Total	85	100	62	100	90	100	152	100

Source: Author's field survey, 2020



Plate 1. Incremental housing development at Akure

4.7 State of Building Construction

The investigation on the state of building construction at the four neighborhood as shown in Table 8 reveals that 65.5%, 72.3%, 78.9%, and 75.9% of the buildings at Orita-Obele, Igoba, Ijoka, and Oba-Ile respectively were still under construction. While 34.5% 27.7% 21.1% and 24.1% of the buildings at Orita-Obele, Igoba, Ijoka and Oba-Ile respectively were already

completed. This simply implies that majority of the incremental houses in the study were still under construction.

5. CONCLUSION

It can be concluded that that incremental housing developers in Akure fringe areas generally have a household size of 4 to 6 members, despite that the respondents have been staying in the study

area for years, there were still uncompleted buildings because of the low income class they belongs to, due to low income the completion of the project will still take a longer time, a good number of the incremental developers have building plans for their building projects, while there are some as well without building plans, it is an attribute of the majority of the housing developers to build houses without an approved building plan and majority of the incremental houses in the study were still under construction. Incremental housing is a common characteristic of the low income earners most especially in the developing countries.

6. RECOMMENDATIONS

It is recommended that the NGOs, Private sectors as well as Microfinance should help in encouraging the developers by giving them flexible loan and also create awareness, advocacy, project monitoring and evaluation, providing checks during projects and programmes implementation. The residents that are self-employed should form a housing cooperative society with the aim of assisting members with cash and sell building materials at subsidies rate to the members.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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