Assessment of Housing Quality in Osun State, Nigeria

Owolabi and Babatunde Oluwaseyi
Department of Urban and Regional Planning, Federal University of Technology Akure, Ondo State, Nigeria

Key words: Assessment, housing, quality, Ondo state, Nigeria, destiny

Corresponding Author:
Owolabi
Department of Urban and Regional Planning, Federal University of Technology Akure, Ondo State, Nigeria

Abstract: This study focused on housing quality in Osogbo local government with the aim to assess the quality of residential housing in Osogbo local government with a view of suggesting a sustainable housing quality for the people therein. The study examined, housing conditions in-house facilities situation as well as the socio-economic status on housing quality among sample respondents in Osogbo local government. Both primary and secondary data were used. Quantitative as well as qualitative analysis were done. A total number of 210 questionnaires were administered using multi-stage sampling. Systematic random sampling was employed in which the whole local government was stratified into fifteen geo political wards namely; Ataoja "A", Ataoja "B", Ataoja "C", Ataoja "D", Ataoja "E", Otun Jagun B, Alagbaa, Are-Ago, Jagun "A", Jagun "B", Baba Kekere, Otun Jagun "A", Eketa, Otun Balogun "A" and Ekerin, according to the documented planning board records. Out of these wards, twelve come under high density; two of these wards are medium density while the remaining one is low density. Therefore, six wards were selected at random, to give every ward and buildings equal chance to be selected. They are Ekerin, Ataoja "A", Ataoja "B", Ataoja "D", Ataoja "E" and Baba Kekere, in each ward; the first building was sampled at random while the subsequent buildings were chosen systematically after every 10th building. The study employed both descriptive and inferential statistics for analysis. For instance, charts, percentages, etc. were the descriptive statistics used while inferential statistics such as Likert scale was used to explain respondent's perceptions of condition of houses sampled in the study area. The result of the analysis, it was shown and clear that the quality of housing in Osogbo local government is not encouraging and this is due to the low level of income been earned by the inhabitants, the highest number of respondents falls within the income is 31%. The study, therefore, recommends the important way of improving housing

Page No.: 28-44
Volume: 14, Issue 02, 2020
ISSN: 1994-5396
Environmental Research Journal

quality in areas where there are dilapidated structures may involve the use of housing micro-finance which consist mainly of giving loans to low-income earners. And also both the state and local government should embark upon programmes that will encourage provision of social facilities. This should include pipe-borne water, public toilet facilities and effective waste disposal system.

INTRODUCTION

In recent times, there has been a growing concern in the deteriorating state of housing in most urban areas of the developing nations (Zeithaml *et al*., 1993). Housing is one of the basic necessities of life; everyone wants to have a place of abode which is very conducive and suitable for human habitation. Housing is defined as "the process of providing a large number of residential buildings on a permanent basis with adequate physical infrastructure and social amenities (services) in planned, decent, safe and sanitary neighbourhoods to meet the basic and special needs of the population" (FMWH., 1991; Abiodun, 1976).

It is defined by Agbola (1998) as "the process of providing a large number of residential buildings on a permanent basis with adequate physical infrastructure and social amenities (services) in planned, decent, safe and sanitary neighbourhoods to meet the basic and special needs of the population". Adequate housing should provide protection from the weather elements and contribute to the physical, mental and social well-being of the occupants (Aribigbola, 2000). Consequently, housing has been described in various ways as follows:

According to, the United Nations Centre for Human Settlement (Habitat), adequate housing is defined broadly more than having a roof over one's head (Parasuraman *et al*., 1994). It implies protection from disposal of household and human wastes, sufficient spaces for health and privacy, security of tenure of occupancy, availability of safe drinking water, affordability and access to employment, health, recreation and educational services. It is important to note that as comprehensive as the definition of adequate housing by UNCHS (Habitat) is adequacy of housing is essentially, a national concept. UN declares the first Monday of October every year as world habitat day. On this day, it is expected that everyone reflects on the housing problems all over the world and ponder over possible ways of solving these problems with the aim of housing the homeless and ensuring healthy and decent housing for those living in sub-standard places.

United Nations (1976) defines housing as which encompasses all the ancillary services and community facilities which are necessary to human well-being (Baumol and William, 1979). Another researcher defined housing as "a complex package of goods and services and access to employment and community facilities" (Baumol and William, 1979).

On the other hand, a decent housing must include not only a physically sound structure for shelter at affordable price but also at a suitable size and location which meet the needs of the household and a functioning neighbourhood environment with adequate supply of housing related services (Theodori, 2001). Bowen (2002) listed at least four conditions which must be satisfied before we have a decent, safe and habitable housing. These are:

Physiology needs: The housing environment particularly, the house must provide adequate privacy, clean, air, adequate natural and artificial light, adequate space for playing and outdoor living.

Psychological needs: The housing environment particularly, the house must provide adequate opportunity for normal family and community life, easy movement within the house, proper maintenance and cleanliness.

Protection against accidents: The housing environment particularly, the house must be properly constructed to prevent fire accidents, protection against electricity defects and gas poison, injuries at home and traffic hazards.

Protection against diseases: The housing environment particularly, the house must give protection against diseases through provision of pure water supply, toilet facilities and sleeping spaces.

Housing quality has to do with the physical conditions of the housing units in a particular area in terms of their structural soundness or fitness, ventilation, natural and artificial lighting as well as essential facilities such as water, electricity, telephone services, toilet, bathroom, kitchen among others. In summary, housing quality refers to bundle of services which the house offers or is expected to offer to the household-such as shelter, independence, privacy status (including tenure) and comfort (i.e., accessibility to supporting services, facilities and utilities, convenience, safety and healthy environment).

Housing quality is determined by the maintenance culture of the residents as regards the existing housing unit. This is because if the existing facilities are maintained properly, the quality of housing will be very high (FMWH., 1991).

Poor quality of housing environment: if housing is a totality of the environment within which the physical structure (shelter) is located, then the occupants of a house require and will make use of other elements in the immediate and general environment. Such elements include access roads, places of work and worship, shopping, recreational, educational institutions, health facilities and other community services (Galster and Hesser, 1981).

Good quality housing provides the foundation for stable communities and social inclusion, therefore is essential to planning. It does not only ensure the safety and wellbeing of people but promotes beauty, convenience and aesthetics in the overall built-up environment (Gilbertson and Green, 2009).

Housing quality problems in Osogbo local government which is the main focus of this study is qualitative and quantitative in nature and must be looked into, so as to ensure maximum satisfaction of individuals (Merrill, 1997). The act of providing shelter for inhabitants can be a step towards making life worth living and other features surrounding them. Hence, there is need to study the quality of dwellings in Osogbo local government in order to establish different types of dwellings that exist in the study area as well as their quality.

Statement of the problem: Historically, urban centre have been the driving force in economic, transport and social development. The benefit of urban centre are not solely economic, it is also associated with improved quality of life, improved health and higher literacy by Abiodun (1976).

There is no country in the world which is devoid of housing problem; the problems of housing are much more acute in the developing countries than in the more developed nations.

In Nigeria, for example, the increasing pace of urbanization and the high tempo of rural-urban migration makes housing problems in cities and towns very acute. Available evidence shows that many Nigerians do not have access to good shelter or decent homes (Abiodun 1976; FMWH., 1991).

Abiodun (1976) noted that the housing need in Nigeria urban centres has been made greater and housing problems exacerbates by a combination of factors. The bulk of housing units available in our urban centres mainly in dilapidated conditions and they are hardly suitable for habitation. Secondly, more houses are needed to relieve existing overcrowding in many of the Nigeria urban centres. Thirdly, natural increases within the urban centre demand additional dwelling units to house the increasing population. In terms of quantitative housing needs, the estimates of housing needs and demands in Nigerian urban centers are very staggering (Satsangi and Kearns, 1992).

The consequences of adaptation and restructuring have resulted into differential housing quality in different communities (Miles, 2005). This problem of differential housing quality is compounded by the very rapid urban growth. The world is increasingly becoming urbanized and the rate at which city populations grow and countries urbanize is indicative of the pace of social and economic change. Since, man's quest for change will continue within his dynamic environment, this points to the fact that urbanization becomes an inevitable phenomenon particularly in developing countries (Milstead *et al*., 2006).

The housing situation in Nigeria is very critical in urban centres and this is reflected in high house rent increasing occupancy ratio, excessively high density of population ratio and encroachment of open spaces. The problems are reflected in the poor quality of housing units and inadequate infrastructural facilities such as roads, drainage, water, electricity supply, etc.

The result of housing problems in Nigeria is manifested in growing overcrowding in houses, increasing pressure on infrastructural facilities and rapidly deteriorating environments.

Aim and objectives of the study

Aim: These study aim to assess the quality of residential housing in Osogbo local government with a view of suggesting a sustainable housing quality for the people therein.

Objectives: In order to achieve the above aim, the following objectives are to:

- Assess the quality of residential buildings in the study area
- Examine the socio-economic characteristics of the inhabitants in Osogbo local government area
- Identify the problems associated with quality of housing in the study area
- Provide possible suggestions or recommendations on how to improve the quality of housing in the study area

Justification of the study: After food, shelter has been accepted worldwide as the second most important essential human need. Meeting this essential need of

people is one of the biggest challenges facing government worldwide. To meet these challenges, government and his agencies have contributed to put wide varieties of housing delivery options which include site and services scheme, modifications of land use and building regulations, employment and income generating programs for the poor to increase their ability to pay for housing among others.

In spite of all these, attempt has not been made to meet the challenges faced by the people of Osogbo local government on housing quality problem.

However, this study seeks to give a clearer view on the quality of available houses in the study area and how these qualities can be improved upon through suggestions and recommendations in order to stress its importance to the current situation of the area.

Scope of the study: The research is concerned with studying the housing quality in Osogbo local government, in a clearer way, revealing situation in the study area as well as its implication for policy framework.

Housing quality in this study will be studied within the context of in-house and around the house or outdoor environments. Thus, reflecting the totality of the housing environment of the inhabitants in the study area. Detailed analysis of air quality and water quality will not assessed and analyzed as these may require further research and specific concentration.

However, a general observation based on the residents and researcher's perceptions and inferences drawn from other environmental indicators are enough to determine the nature of air and water pollution.

Limitation of the study: Some problems encountered during the field survey is the non-availability of the total number of buildings in the study from the census office. During the course of the research work, the result of the total number of buildings had not be released to each local government, it was only the total population that was released to each state, therefore, the buildings had to be enumerated or counted one by one in the study area.

In the administration of questionnaires, some of the local inhabitants were reluctant in disclosing their income, age and in answering the questions concerning finance. Some respondents also show much reluctance in disclosing the number of people living together in a household. This, however has to do with the traditional belief among the Yoruba that it is forbidden to count the number of offspring to outsiders. It was also difficult to obtain the exact age of buildings from the respondents and these were estimated through memorable past events.

The study area: Osogbo the study area for this research is the capital city of Osun state. It is situated between Latitudes 7°42^{1}N and 7°51^{1}N and Longitudes 4°28^{1}E and 4°40E with an average height of about 300 m above the sea level (Abiodun, 1976). It was founded in the late 18th century and originated as a traditional as well as cultural town which derives its name from the proclamation by the goddess of Osun river. The town is known for very rich arts and cultural heritage. Following the creation of Osun state in 1991, Osogbo assumed the status of a state capital. It has two local governments which are Osogbo and Olorunda. It is a vast area with an extent in excess of 4700 ha with an existing thickly populated urban area. Based on the 2006 population census (provisional result) Osogbo has a population of about 156, 694 people and the postal code of the area is 230.

Over the years Osogbo has witnessed tremendous growth both spatially and in population. The establishment of a railway station is perhaps a major factor in the growth of Osogbo. Apart from the railway, postal and telecommunication, NEPA regional station, road network, agglomeration of heavy and many light industries, being the seat of government and the presence of a good number of higher institutions Osogbo, thus, became a major trading and distribution centre for people within and outside its immediate environment.

In recent times, the location of Osogbo as a state capital coupled with other factors mentioned above has led to the influx of people from other towns and villages, thus, giving it the status of a twin city that is a traditional as well as a modern city (Agbola, 1998). This account for the uncoordinated expansion of the city which has posed serious consequences on land use planning and management.

Geo-historical background of the study area: Osogbo was founded in the 18th century and originated as a traditional as well as cultural town which derives its name from the proclamation by the goddess of Osun river. Osogbo was created out of old Oyo state on August 27, 1991 by Babangida's administration. It is a Yoruba town which is some 96 km North-East of Ibadan, the capital of Oyo state.

The town is known for her very rich arts and cultural heritage. Following the creation of Osun state in 1991, Osogbo assumed the status of a state capital; it has two local governments which are Osogbo and Olorunda local government.

Osogbo is located on latitude 7.7°N of the equator and longitude 4.5°E of the Greenwich meridian. Osogbo falls within the climatic zone that can be described as the sub-equatorial region with two major season of the year. South Westerlies bring Osogbo the study area for this research is the capital city of Osun state. It is situated between Latitudes 7°42^{1}N and 7°514^{1}N and Longitudes 4°28^{1}E and 4°40E with an average height of about 300 m

above the sea level (Abiodun, 1976). It was founded in the late 18th century and originated as a traditional as well as cultural town which derives its name from the proclamation by the goddess of Osun river. The town is known for very rich arts and cultural heritage (Agbola, 1998). Following the creation of Osun state in 1991, Osogbo assumed the status of a state capital. It has two local governments which are Osogbo and Olorunda. It is a vast area with an extent in excess of 4700 ha with an existing thickly populated urban area. Based on the 2006 population census (provisional result) Osogbo has a population of about 156,694 people and the postal code of the area is 230.

Over the years Osogbo has witnessed tremendous growth both spatially and in population. The establishment of a railway station is perhaps a major factor in the growth of Osogbo. Apart from the railway, postal and telecommunication, NEPA regional station, road network, agglomeration of heavy and many light industries, being the seat of government and the presence of a good number of higher institutions Osogbo, thus, became a major trading and distribution centre for people within and outside its immediate environment.

In recent times, the location of Osogbo as a state capital coupled with other factors mentioned above has led to the influx of people from other towns and villages, thus, giving it the status of a twin city that is a traditional as well as a modern city (Aribigbola, 2000). This account for the uncoordinated expansion of the city which has posed serious consequences on land use planning and management. It rains in the west while the North westerlies bring the harmattan (dry season). Osogbo has the mean annual temperature between 25.9 and 21.8°C, the warmest month are February and March while the daily minimum temperature is recorded in January due to the influences of harmattan in August and September while December and January records little or no rainfall (Aribigbola, 2000).

Osogbo is situated on a relatively flat surface area. The drainage system is influenced by the major river Osun that bisects the town; there are other tributaries like Okoko and Ogbagba that drain into Osun river. The topography of the town does not constitute any physical planning constraints.

Oshogbo the capital of Osun state had a population of about 251,674 in 1963; the national population commission 1991 provisional figure put it at 267,844. The town has an approximate total land area of about 1,495 km before it was made the capital but after it become the state capital the estimated total area was increased to 2,875 km^2. This was done when the Osogbo capital territory was established in 1992 and declared all land within 15 km radius to the centre of the town as part of Osogbo (Onibokun, 1974).

The occupational structures of the people revealed that majority of the people are predominantly farmers and traders (Olotuah, 2000). Products cultivated are both cash crops such as cocoa, palm trees, kolanut, maize, yam, cassava among others. Migrant traders from other parts of Nigeria include Ife, Delta and Ekiti states influences the rapid flourishing of trading activities in the area. Other forms of occupation include artisanship, blacksmithing, dyeing pottery, sawmilling, public administration, service and repair industries.

Osogbo being a traditional Yoruba city, exhibits the structure or plan of a typical Yoruba traditional city that can be approximated to model plan (Oladapo, 2006).

Climate: Osogbo has an average rainfall of 1150 mm a year; it lasts from April to late October or early November, though it eases off in July or August. The dry season lasts from December to March which is the period of intense heat. It lies mainly in the deciduous forest area which spreads towards the grassland belt of Ikirun, North of Osogbo. The climate is less humid and hot than the greater part of South-Western Nigeria, although, the effect of the harmattan wind is strongly felt in the dry season. Osogbo is situated on a raised land which is well over 500 m (800 feet) above the sea level and is drained by river Osun and its tributaries such as river Ogbaagba, river Gbodofon, river Okoroko (okooko), Olohunkoro and other streams (http://www.osogbocity.com).

Geomorphology: The land is geologically made of pre-cambrian rocks, the basement complex from which the fairly fertile clayey loam soil of the surrounding district is derived.

Literature review

Human activities and infrastructure: Osogbo became a commercial town with the arrival of railway in 1907 which brought the colonial government of then to the threshold of the town (Fig. 1 and 2). The river Osun and its tributaries provide the early settlers with regular source of water supply and through its good drainage a good healthy physical area emerged for development purpose. Industrial and commercial development has always received adequate attention of the settlers and immigrants from other parts of the country (Ogu, 2002). The busiest and most commercial parts of the town are Ayetoro area, Ajegunle area and the area along and around Station road. Here almost all the ethnic groups in Nigeria are represented trading side by side in harmony; along these roads are the commercial firms and banks (Milstead *et al*., 2006). The indigenes initially took to the cottage and handicraft industries such as dyeing, narrow-loom weaving, blacksmithing, pottery, embroidery and small scale farming. In addition, Osogbo people are renowned,

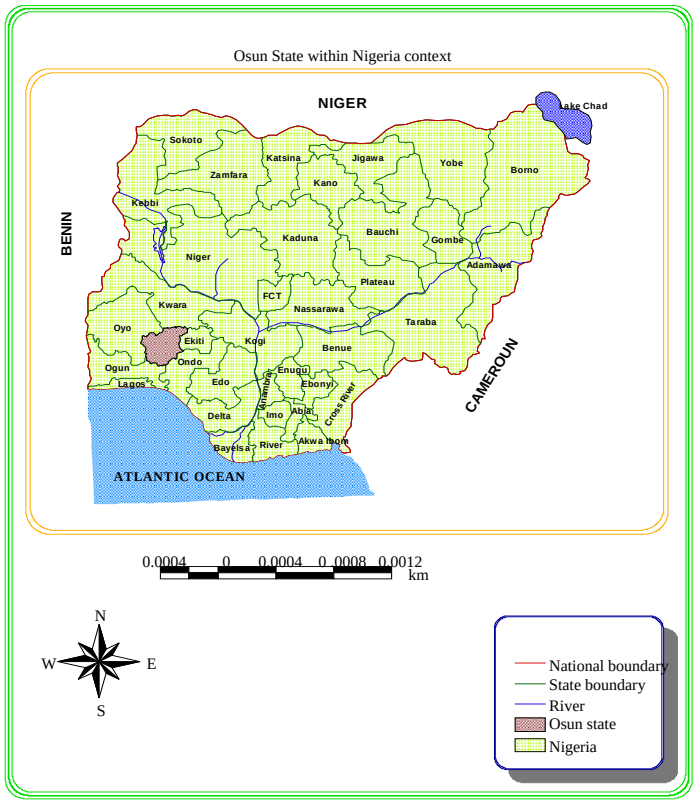

Fig. 1: Map of Nigeria showing Osun state (Researcher's field work, 2018)

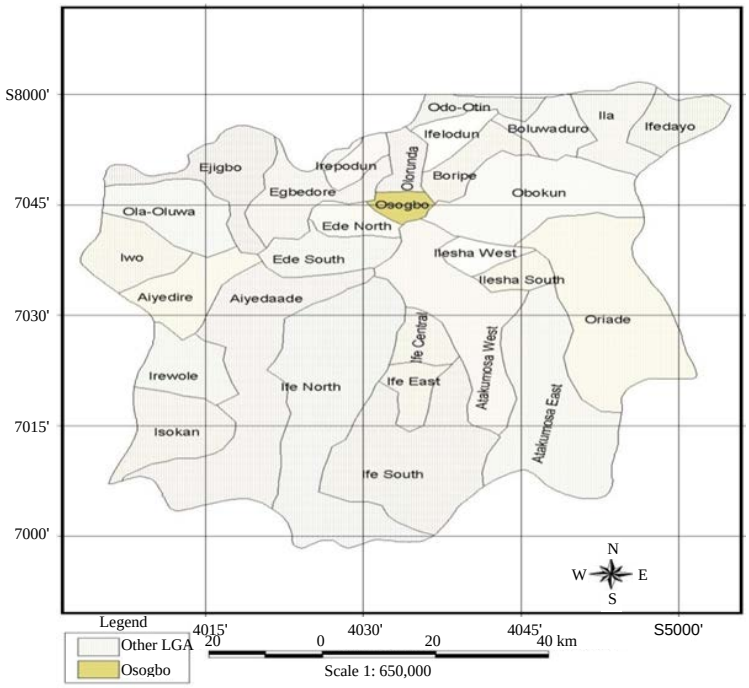

Fig. 2: Map of Osun state showing the study area (Researcher's field work, 2018)

worldwide, for their unique creations of art works of different cadre; painting, carving, bead-works, sacred artworks and even performing arts. Need to say this ever-increasing fame in contemporary African arts has shot Osogbo to a prominent spot in the world map as far as arts and antiques collections is concerned (Sirat, 1999).

The oldest industrial establishment was the defunct seed-cotton ginnery known and called the British Cotton Growers Association (BCGA) near the Railway station with capacity to produce 4,000 bales of ginned cotton per annum (Oliver and DeSarbo, 1988). The establishment wound up due to some reasons not unconnected with better skills of production. Agricultural, commercial and industrial establishments is widely spread across the town, some of them include the Tuns farm, lead pencil manufacturing factory, sawmills, the Nigerian machine tools, Osogbo Steel rolling company, industrial development centre, wire and nails industry, printing presses, garment industry, canning factory, sanitary pad, plastic pipes factory, allied products and hotels.

The town became a tourist centre for her famous Osun festival celebration which attracts people from far and near places every year. With the enlistment of the Osun grove as a world heritage site by the United Nations Education Scientific and Cultural Organization (UNESCO) in 2005, the annual Osun-Osogbo festival which is celebrated in the last week of August of every year has received a boost from not only indigenes of the town but also the international community (Oliver and Desarbo, 1989).

MATERIALS AND METHODS

This study shows the presentation of various methodological approaches utilized in the course of the study; this study also includes the study population and its characteristics, the data needed, data gathering techniques and the methods of analysis as well as the presentation of data. Methodology was concerned with both the detailed research methods through which data was collected and the general philosophies upon which the collection and analysis of data was based.

Data collection method: This research was also applicable to the notion that the authenticity of any research finding depends on the data collected in terms of questions posed and response gotten. The two sources of data which was also applicable to this project are:

- Primary sources
- Secondary sources

Primary sources of data: The primary sources that were adopted in this research are:

Direct interview: Due to the nature of this research, a schedule of interview was conducted and this shall be used as a guide for inquiring about their housing conditions.

Observations: Some of the buildings were visited, thereby given an opportunity to have a verbal discussion with the residents of the dwellings in a bid to extract more valuable information from them.

Use of questionnaire: This was achieved through questionnaire administration. The administration of the questionnaire was aimed at sourcing information on the quality of housing and well-being of the residents. This was necessary to ascertain their views, challenges and other necessary information which may be considered confidential. The questionnaire was divided into five sections, they include:

Socio-economic background: This deals with the general information about each respondents; this involves the age, marital status, gender, educational background, occupation, income, etc.

Characteristics of housing: This gives information on the housing type, ownership status and age of the buildings.

Structural quality of the house: This gathered information on the building materials for construction, type of roof, floor type and type of ceiling.

Facilities available in the house: This shows the facilities available in the house such as lighting, source of water, power supply, type of toilet, cooking place, bathroom, etc.

Environmental management in the study area: This comprises the method of garbage collection, the distance travelled to dispose the waste and the effectiveness of the bodies responsible for the collection of refuse.

Secondary sources of data: This was done by consulting relevant text books, journals, previous researches, published work and other information obtained from town planning office at the local government headquarter. Maps were also used for illustrations.

Sampling techniques and sampling frame: For achieving the goal of this section, systematic random sampling was employed in which the whole local

government was stratified into fifteen geo political wards namely; Ataoja "A", Ataoja "B", Ataoja "C", Ataoja "D", Ataoja "E", Otun Jagun B, Alagbaa, Are-Ago, Jagun "A", Jagun "B", Baba Kekere, Otun Jagun "A", Eketa, Otun Balogun "A" and Ekerin according to the documented planning board records. Out of these wards, twelve come under high density; two of these wards are medium density while the remaining one is low density.

Therefore, six wards were selected at random, to give every ward and buildings equal chance to be selected. They are Ekerin, Ataoja "A", Ataoja "B", Ataoja "D", Ataoja "E" and Baba Kekere, in each ward; the first building was sampled at random while the subsequent buildings were chosen systematically after every 10th building.

Sample size: From the selected densities (3 densities from high, 2 density from medium and 1 density from low); 10% of houses was randomly selected from each density. While, the first building for questionnaire administration was randomly chosen, unit of investigation applied was ten-every tenth building; this was carried out to ensure that every building has equal chance of being selected and also the population figure for Osogbo local government, according to, the 1991 National Population Census was projected to 2014. This was done to have a reliable population figure to work with; using an annual growth rate of 3.2% (fraction at 0.032) derived from previous 2006 census figures for Osun state.

The 2018 population of the study was projected using this Eq. 1:

$$P = A(1+R)^n \quad (1)$$

Where:

P : Estimated Population
A : Existing population
1 : Constant
n : No. of year
R : Growth Rate (which is 3.2% derived from previous 2006 census Fig. 1 and 2 for Osun state)

For this study, a total number of 210 questionnaires were administered in all the six wards selected due to time constraint. The number of questionnaire administered in each ward was determined by: projected population of each ward/total projected population of the six wards x total number of questionnaire (Table 1-3).

Method of data analysis and presentation: Questionnaires were designed to include closed and open questions in the structured questions, respondents supplied other answers in some cases where the pre-determined options on the body of the questionnaire was insufficient. After this data were sourced, several analytical techniques were employed in the analysis and presentation.

Table 1: Projected polpulation for year 2018

Ward	Census Figures (2006)	Projected 2018 (AGR = 3.2%)
Ataoja "A" and "B"	22,341	46,104
Ataoja "D"	14,948	30,847
Ataoja "E"	21,824	45,037
Ekerin	13,151	27,139
Baba Kekere	2,958	6,104
Total	75,222	155,231

Table 2: Sample frame and sample size

Selected wards	Projected (2018)	No. of questionnaires
Ataoja "A"and "B"	46,104	62
Ataoja "D"	30,847	42
Ataoja "E"	45,037	61
Ekerin	27,139	37
Baba Kekere	6,104	8
Total	155,231	210

NPC (2006) and Computation (2018)

Table 3: Shows the breakdown of the sample size

Density/Wards	Sample Size	Percentage
High		
Ataoja "A"	31	14.7
Ataoja "B"	31	14.7
Ekerin	37	17.6
Medium		
Ataoja "D"	42	20.0
Ataoja "E"	61	29.0
Low		
Baba Kekere	8	3.8
Total	210	100.0

Researcher's field work (2018)

In analyzing the data collected from the field for this research, the information was processed from the questionnaire, summarized and presented in tabular forms. Descriptive statistical methods such as percentages, graphs and frequency tables were used for analyzing and presenting data percentages. Other scientific method adopted for the analysis of the questionnaire was Likert scale.

RESULTS AND DISCUSSION

This study focuses on the analysis of data collected from the administration of 210 questionnaires in Osogbo local government and it is summarized with table, figure. and other scientific method. In identifying the residential housing quality in Osogbo local government, the following housing characteristics are used.

General quality of housing in Osogbo: These give the general qualities of housing in Osogbo local government as a whole in respect to the socio-economic background, characteristics of housing, structural quality of houses and the facilities available in the house.

Socio-economic background of the people in Osogbo: The socio-economic background includes the age of

Table 4: Age of respondents

Age groups (years)	Frequency	Percentage
18-25	16	8.0
26-35	44	20.0
36-45	50	24.0
46-55	40	19.0
Above 55	60	29.0
Total	210	100.0

Researcher's field work (2018)

Table 5: Sex of respondents

Categories	Frequency	Percentage
Male	127	60.5
Female	83	39.5
Total	210	100.0

Table 6: Marital status

Categories	Frequency	Percentage
Single	40	19.0
Married	140	66.7
Divorced	4	1.9
Widowed	26	12.4
Total	210	100.0

Table 7: Level of education

Categories	Frequency	Percentage
No formal education	72	34.3
Primary education	55	26.2
Secondary education	34	16.2
Tertiary education	49	23.3
Total	210	100.0

Researcher's field work (2018)

respondent, gender, marital status, educational background, occupation, the level of income and the number of household. The socio-economic background of people reflects to some extent the type and quality of houses that they live in. It also shows the general standard of living.

Age of respondents: Table 4 shows, the age distribution of the respondents in the study area shows that people between the ages of 18-25 years are 8%, 46-55 years are 19.0%, 26-35 years are 20% while those between the ages of 36-45 years and above 55 years are 24 and 29%, respectively. This means that majority of the respondents are aged people, therefore, their inference about the physical quality are valid as they are matured and have seen it all, making them to have better perception of what affects them than the younger ones.

Sex of respondents: Table 5 shows, the data above revealed the socio economic characteristics of the residents in the study area, 60.5% of the respondents swswere male while 39.5% were female. Hence, this means that males carry out the responsibility of provision of housing quality and facilities.

Table 8: Occupational status of respondents

Categories	Frequency	Percentage
Students	16	7.6
Self employed	69	32.8
Unemployed	14	6.7
Civil servants	30	14.3
Traders	59	28.1
Artisans	9	4.3
Farmer	13	6.2
Total	210	100.0

Table 9: Monthly income

Categories	Frequency	Percentage
Below ₦5000	60	28.6
₦5,100-₦10000	65	31.0
₦10,100-₦20000	63	30.0
₦21,000-₦40000	17	8.1
Above ₦40,000	5	2.3
Total	210	100.0

Researcher's field work (2018)

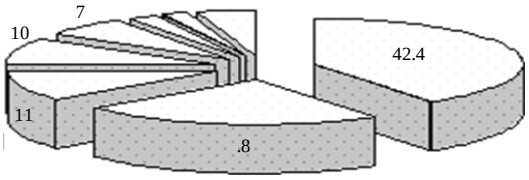

Fig. 3: The No. of household (Researcher's field work, 2018)

Marital status of respondents: Table 6 shows that married people dominated the sampled houses in Osogbo local government with a percentage of 66.7%, 19.0% were single, 12.4% were widowed while 1.9% of the respondents were divorced. It could therefore be deduced from the gender and marital status that a higher percentage of married stay at home and were interviewed.

Educational status of respondents: Table 7 reveals the level of education as one of the variables used to assess the environment of the respondents revealed that respondents with non-formal education were 34.3%, primary education accounted for 26.2% while tertiary and secondary were 23.3 and 16.2%, respectively. As seen that respondents with non-formal education dominated the area hence accounted for some of the nonchalant attitudes of caring for the house quality. Unlike where we have people with least secondary school education or better still with tertiary education that is expected to facilitate a quality house. Note that lack of education also causes poverty, so, it has a chain effect.

Occupational status of respondents: Table 8 can be seen that people who are self-employed were 69 (32.8%) out of the whole lot of 210, following closely are traders who accounted 28.1%, although, most of them are petty traders

Table 10: Use of buildings

Categories	Frequency	Percentage
Residential	115	54.8
Commercial	40	19.0
Light industries	5	2.4
Mixed	50	23.8
Total	210	100.0

Researcher's field work (2018)

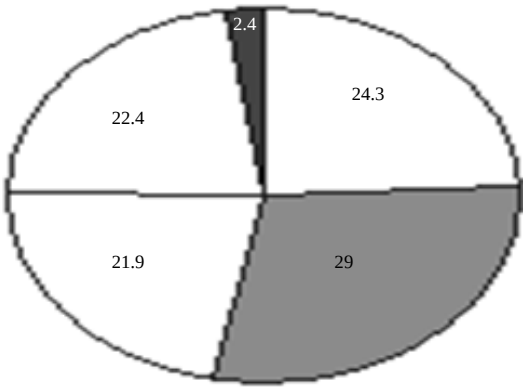

Fig. 4: Housing type (Researcher's field work, 2018)

Fig. 5: A traditional house at Isale Osun (high density area) (Researcher's field work, 2018)

as they lack sufficient funds to make their businesses flourish. Next are the civil servants, students, unemployed, farmers and lastly the artisans who account for 14.3, 7.6, 6.7, 6.2 and 4.3%, respectively. All these factors stated go a long way to determine the economic status of quality of housing.

Monthly income of respondents: Table 9 shows, the monthly income status of the residents in the study area that the highest number of respondents falls within the income bracket of ₦5,100-₦10,000 which is 31% with those between ₦10,100-₦20,000 following closely with 30% while those that earn below ₦5000, between ₦21,000-₦40,000 and above ₦40,000 accounts for 28.6, 8.1 and 2.3%, respectively. This goes a long way to tell the high level of poverty in the study area. Hence, the reason, a vast majority cannot afford decent quality house.

Table 11: The age of buildings

Categories (years)	Frequency	Percentage
<10	46	21.9
11-20	63	30.0
21-40	41	19.5
Above 40 yrs	60	28.6
Total	210	100.0

Researcher's field work (2018)

Fig. 6: A Duplex at Oke-Ayepe (low density area) (Researcher's field work, 2018)

Showing number of household in Osogbo: Figure 3 shows, the number of household in a particular building in the town. It is seen that a building with one household family takes the highest percentage of (42.4%), two household takes a percentage of (24.8%), three household has (11.0%), four household has (10.0%), five household have (7.1%) while six and seven household has (2.4%) and (1.9%). Buildings with ten household members have (5.0%).

Use of buildings: Table 10 shows, residential buildings are preponderant in the area with a rating of 54.8%, followed by mixed uses which accounts for 23.8%, next is commercial at 19.0% and lastly light industries 2.4%. Those buildings said to be of mixed uses are a combination of residential and commercial with the commercial basically petty trading in front of buildings by housewives and the industrial are small scale industries such as bakeries, block industries.

Characteristics of housing in Osogbo: The characteristics of housing in Osogbo deals with the housing type, ownership status and the age of the building.

Housing type in Osogbo: Figure 4-7 show that 29.0% of the sampled houses in Osogbo are storey building while traditional houses accounted for the second largest portion of (24.3%). Block of flat and bungalow, respectively has 22.4 and 21.9%. There is 2.4% of duplex in the house which shows the least percentage in the type of house in the town.

Fig. 7: A storey building type at Odi-Olowo (medium density area) (Researcher's field work, 2018)

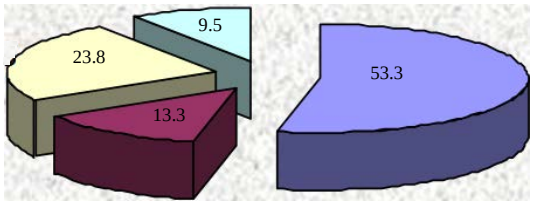

Fig. 8: The ownership status of houses in Osogbo (Researcher's field work, 2018)

Table 12: Construction material of buildings in the study area

Categories	Frequency	Percentage
Mud/Clay	70	33.3
Block	130	61.9
Concrete	10	4.8
Total	210	100.0

Table 13: Wall types of buildings in the area of study

Categories	Frequency	Percentage
Plastered	140	66.7
Not plastered	70	33.3
Total	210	100.0

Researcher's field work (2018)

Ownership status of houses in Osogbo: Figure 8 shows, the ownership status of houses in Osogbo. It could be seen from the sampled houses that owner occupier has the highest percentage with (53.3%) while family houses accounted for (23.8%). Rental and inherited respectively have (13.3 and 9.5%). It can then be deduced that most of the inhabitants of the town are blessed with their buildings.

Age of buildings in the study area: Table 11 shows that buildings <10 years claim 21.9%, those between the ages of 11-20, 21-40 and above 40 years claim 30, 19.5 and 28.6%, respectively. This implies that most of the buildings in the study area have been built for over decades. Hence, the reasons we have archaic looking houses and also contribute to degenerating state of quality therein.

Structural quality of housing in Osogbo: The structural quality of houses in Osogbo includes the construction material of building, wall type, roof type, ceiling, floor types and the type of window.

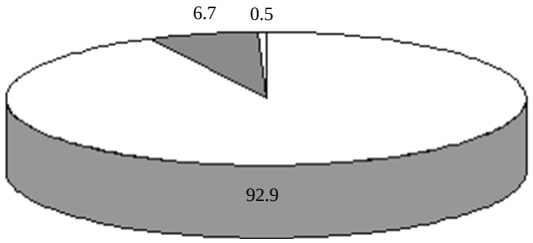

Fig. 9: Roof types in Osogbo (Researcher's field work, 2018)

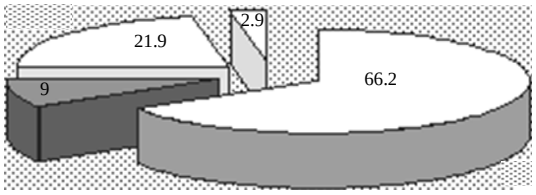

Fig. 10: Type of ceiling in Osogbo (Researcher's field work, 2018)

Construction material of buildings in the study area: Table 12 shows that houses made of cement block dominates the study area with 61.9%, following closely are those built with mud/clay which accounts for 33.3% and lastly are those built with concrete accounting for 4.8%.

Wall types of buildings in the area of study: Table 13 shows, it is observed that houses with plastered wall accounts for 66.7% while those that are not plastered are just 33.3%. Although, the walls been plastered did not conceal the great deal of decadence of the structural wall quality of houses in the study area. It could also be attributed to the ages of the building.

Roof types in Osogbo: Figure 9 shows that iron sheet dominates the type of roof being used for houses in Osogbo with a percentage of (92.9%). Asbestos also takes a smaller percentage of (6.7%) while only few building is found with a concrete which has 0.5%.

Type of ceiling in Osogbo: Figure 10 shows, the type of ceiling of the sampled houses in Osogbo. The most type of ceiling found is asbestos with 66.2% while mat and cardboard have a percentage of 21.9 and 9.0% respectively as ceiling type. However, it is seen that smaller percentage of houses are without any ceiling which has 2.9%.

Floor types in Osogbo: Figure 11 shows, the type of floor. It is seen that (86.2%) of the buildings are

floored with concrete while mud floor and concrete compact accounted for 1.9 and 4.3%. Tiles have 7.6%.

Types of window in Osogbo: Figure 12 shows the type of window. Louver has the highest percentage with 49.5% followed by Wooden which has 37.6%. Slide glass has the minimum percentage with 12.9%.

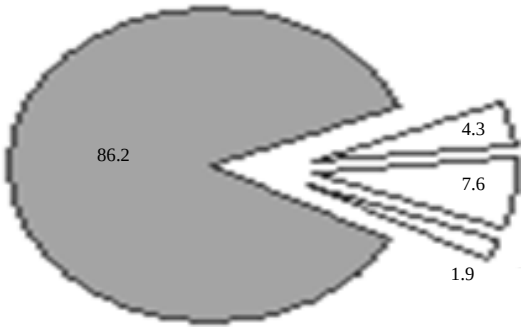

Fig. 11: The type of floor (Researcher's field work, 2018)

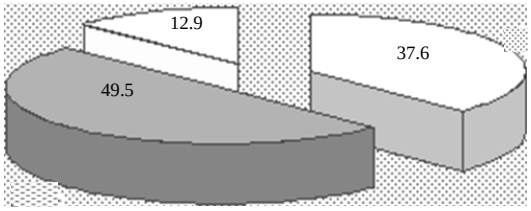

Fig. 12: The type of window (Researcher's field work, 2018)

Fig. 13: Structurally and qualitatively deficient buildings, jumbled together in Isale Osun area (Researcher's field work, 2018)

Condition of buildings in the study area: Table 14 the data reveals that the buildings in very good condition claim just 14.3%, buildings in good condition account for 19.0%, those that are fair, 42.9% while those in poor condition accounts for a whopping 23.8%. This can be attributed to the old age of the buildings in question.

Building defects in the area of study: Table 15 reveals, the building defects in the area of study where the case of in Osogbo and they include the accessibility, drainage system, lighting type, source of water, toilet, cooking place and bathroom.

Accessibility to buildings in the study area: Table 16 shows that the area of study has majority of their roads tarred with a rating of 62.9%, the un-tarred roads coming up next with 23.8 %, buildings that are not accessible 3.8% and lastly those are only accessible via footpath 9.5%.

Drainage type of buildings in the study area: Table 17 data, further reveals the adequacy of drainage facilities showing the number of respondents with no drainage as 24.3%, those with open drainage rates 61.4% while those with covered drainage accounted for 14.3%. From the statement above, there is cause to worry about the outbreak of diseases as we have more of open drainage which breeds bacteria and viruses.

Types of bathroom: Table 18 shows, the respondents have their bathrooms located outside their buildings as 28.6% indicated, so, 59.5% of them have it located within their buildings, 9.5% do not have it at all while 2.4% gave no response and efforts ask them of where they have their baths proved futile (Fig. 14).

Table 14: Condition of buildings in the study area

Categories	Frequency	Percentage
Very good	30	14.3
Good	40	19.0
Fair	90	42.9
Poor	50	23.8
Total	210	100.0

Researcher's field work (2018)

Table 15: Building defects in the area of study

	Yes		No		Total	
Building defect	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Cracked walls	40	19.0	170	81.0	210	100
Broken floor	41	19.5	169	80.5	210	100
Sagging roof	30	14.3	180	85.7	210	100
Distressed windows	31	14.8	179	85.2	210	100
Leaking ceiling	29	13.8	181	86.2	210	100
Dilapidation	20	9.50	190	90.5	210	100

Researcher's field work (2018)

Table 16: Accessibility to buildings in the study area

Categories	Frequency	Percentage
Un-tarred	50	23.8
Tarred	132	62.9
Not accessible	8	3.8
Footpath	20	9.5
Total	210	100.0

Table 17: Drainage type of buildings in the study area

Categories	Frequency	Percentage
Covered	30	14.3
Open	129	61.4
No drainage	51	24.3
Total	210	100.0

Table 18: Types of bathroom

Categories	Frequency	Percentage
Indoor	125	59.5
Outdoor	60	28.6
None	20	9.5
No response	5	2.4
Total	210	100.0

Table 19: Cooking place in Osogbo

Categories	Frequency	Percentage
Private kitchen	60	28.6
Shared with other household member	90	42.9
Passage within the building	40	19.0
Detached kitchen	20	9.5
Total	210	100.0

Researcher's field work (2018)

Fig. 14: An outdoor bathroom in the area of study at Oja Oba (Researcher's field work, 2018)

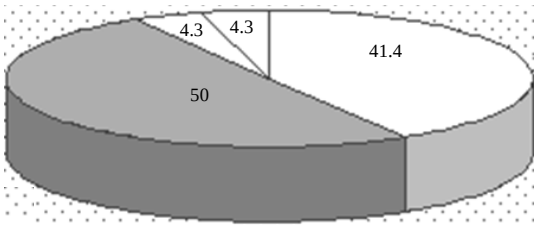

Fig. 15: The type of toilet (Researcher's field work, 2018)

Toilet system in Osogbo: Figure 15 shows, the type of toilet used in Osogbo Local Government. From figure, (50.0%) of the houses use pit latrine while (41.4%) uses water system, (4.3%) uses public toilet while (4.3%) also have no toilet facilities (Fig. 16).

Table 20: Water supply

Categories	Frequency	Percentage
Regular	87	41.4
Not regular	120	57.2
No response	3	1.4
Total	210	100.0

Fig. 16: An outdoor toilet in the area of study (Researcher's field work, 2018)

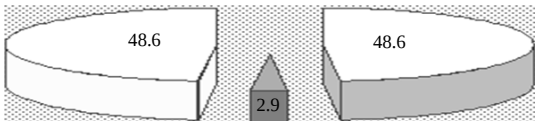

Fig. 17: The sources of water in Osogbo (Researcher's field work, 2018)

Cooking place in Osogbo: Table 19 shows, the cooking place in Osogbo local government that the percentage of those sharing kitchen with others is higher with (42.9%) while those using private kitchen is (28.6%). Those using house passage within the building have a percentage of (19.0%) while those using detached kitchen has the lowest percentage with 9.5%. The problem of theft of foodstuffs, cooked food and even kerosene has been a major complaint of cooking in the passage and detached. So, the safety of cooking is also in doubt as cooked foods are exposed to micro-organisms and other dangerous bacteria. Also, the emission of carbon from mostly those who make use of firewood is dangerous as it diffuses with the air breathe in by the respondents and also stains the walls of buildings.

Water source in Osogbo: Figure 17 shows the sources of water in Osogbo. Water is no problem except in the dry season when a relative severe draught is felt. It could be seen from Fig. 17 that both the tap water and well water sources has the same percentage which is 48.6 and 48.6%, respectively while (2.9%) of the sampled building uses bore hole.

Frequency of water supply in the study area: Table 20, although, those who have access to borehole do not get it regularly as a result of the erratic power supply and as for the well water too, the regularity at which they have access depends on the season of the year. In the table

Table 21: Energy source

Categories	Frequency	Percentage
PHCN	138	65.7
Generator	32	15.2
Others	40	19.1
Total	210	100.0

Table 22: Sources of power supply

Categories	Frequency	Percentage
Regular	59	28.1
Not regular	151	71.9
Total	210	100.0

Table 23: Proximity of health centre

Categories	Frequency	Percentage
Very far	41	19.5
Not too far	115	54.8
Near	44	20.9
Not available	10	4.8
Total	210	100.0

Table 24: Parking space

Categories	Frequency	Percentage
No response	5	2.4
On street parking	125	59.5
Garage	20	9.5
Frontage	60	28.6
Total	210	100.0

Researcher's field work (2018)

above, 57.2% claimed that the frequency of supply is not regular. 41.4% deemed it to be regular while 1.4% gave no response.

Sources of energy in the area of study: Table 21 revealed that 65.7% of the respondents rely solely on electricity generated from the power holding company of Nigeria, 15.2% make use of generating sets while 19.1% resort to other means such as traditional lamps, lanterns and so on as they are not connected to electricity.

Frequency of power supply: Table 22 revealed that 71.9% of the respondents attested to not having regular power supply while just a few 28.1% claimed it is regular. With the incidence of irregular power supply on the high side, so, many activities are being crippled as they are mainly dependent on it. For instance, welders, people who sell ice drinks, tailors and the like complained about it as the irregularity reduces their efficiency. Although, the area is powered by the same source but that did not affect the perception of some respondents as in the case of 28.1% who claimed it was regular. This could be attributed to their economic status and as to what use they put electricity.

Proximity of health centre: Table 23 shows that 19.5% of the respondents have to cover long distances to get to the nearest health centre, 54.8% accounts for those that do not travel too far, 20.9% claimed it is near them while 4.8% do not have access to the health centre at all.

Table 25: Recreation facilities

Categories	Frequency	Percentage
Very far	100	47.6
Not too far	20	9.5
Near	5	2.4
Not available	85	40.5
Total	210	100.0

Table 26: School facilities

Categories	Frequency	Percentage
Very far	5	2.4
Not too far	50	23.8
Near	155	73.8
Total	210	100.0

Table 27: Market facilities

Categories	Frequency	Percentage
Very far	6	2.9
Not too far	47	22.3
Near	157	74.8
Total	210	100.0

Table 28: Mode of waste disposal

Categories	Frequency	Percentage
Inside the drainage	10	4.8
Open dumpsite	60	28.6
Backyard	15	7.1
Refuse container	100	47.6
Nearby bush	25	11.9
Total	210	100.0

Researcher's field work (2018)

Parking space: Table 24 shows that on-street parking is preponderant in the area, rating at 59.4, 28.6% of the respondents have their vehicles parked in the front of their buildings, 2.4% gave no response while 9.5% have theirs parked in the garage. Although, these so-called garages happened to be spaces inside fenced buildings with gates.

Recreational facilities: Table 25 shows that 47.6% of the respondents have to cover long distances to get to the nearest recreational facilities, 9.5% accounts for those that do not travel too far, 2.4% claimed it is near them while 40.5% say recreational facilities is not available.

School facilities: Table 26 shows that 2.4% of the respondents have to cover long distances to get to the nearest school, 23.8% accounts for those that do not travel too far, 73.8% claimed it is near them.

Market facilities: Table 27 shows that 2.9% of the respondents have to cover long distances to get to the nearest school, 22.3% accounts for those that do not travel too far, 74.8% claimed it is near them.

Environmental management in your neighbourhood

Mode of waste disposal of respondents in the area of study: Table 28 shows that the predominant mode of

Table 29: Waste disposal techniques

Categories	Frequency	Percentage
By burning	10	4.8
Tipped in the public refuse container	70	33.3
Tipped in storm water drains	15	7.1
Collection by government agent	105	50.0
Collected by waste contractors	10	4.8
Total	210	100.0

Table 30: Respondent's perceptions of condition of houses

	Rating and weighted values						
Building elements	VB(1)	B(2)	F(3)	G(4)	VG(5)	SWV	MWV
Roof	1(1)	5(10)	51(153)	33(132)	20(100)	396	1.9
Walls	3(3)	7(14)	52(156)	43(172)	15(75)	420	2.0
Floors	2(2)	4(8)	56(168)	33(132)	15(75)	385	1.8
Doors		3(6)	70(210)	90(320)	47(235)	771	3.7
Windows	4(4)	10(20)	35(105)	91(324)	70(350)	803	3.8
Paints	3(3)	15(30)	86(258)	64(256)	42(210)	757	3.6
Staircase (steps)	-	5(10)	30(90)	120(480)	55(275)	855	4.1
Toilets	6(6)	4(8)	72(216)	54(216)	65(325)	771	3.7
Bathroom	5(5)	30(60)	70(210)	70(280)	30(150)	705	3.4
Ceilings	7(7)	25(50)	92(276)	40(160)	40(200)	693	3.3
Ventilations	3(3)	3(6)	110(330)	52(208)	42(210)	757	3.6
Lightning	3(3)	2(4)	30(90)	43(172)	42(210)	479	2.3
Total							37.2
Mean of ΣMWV = 37.2/12 = 3.1							

Researcher's field work (2018)

waste disposal is the refuse container which scores 47.6% which are usually provided by the state government located within the neighbourhood, 28.6% of the respondents dump their waste on lands which are usually vacant lands or uncompleted building located within the neighbourhood, 11.9% of the respondents make do with nearby bush while 7.1 and 4.8% of the respondents disposes off their waste at the backyard and inside the drainage, respectively.

Waste management techniques: Table 29 shows that 50% eradicates their waste by collection through government agent, 33.3% of the respondents admitted to tripping into the public refuse container provided by the government while 7.1% tipped their into storm water drains, 4.8% of the respondent's waste are collected by waste contractors and 4.8% find other technique alternative by eradicating their waste by burning which causes pollution to the environment and affected the ozone layer.

Using Likert scale, Table 30 shows respondent perceptions on the condition of houses which is weighted and it was observed that roof, wall, floor and lightning are in a bad condition having its mean weighted value as 3.5 and 3.7, respectively. Other variables such as doors, windows, paints, staircase, toilet, bathroom and ceiling are weighted to be in fair and good condition. From the result acquired it can be derived that the overall housing condition in Osogbo is fair having its ΣMWV as 3.1.

Summary of findings: From the result of the analysis, it was shown and clear that the quality of housing in Osogbo local government is not encouraging and this is due to the low level of income been earned by the inhabitants, the highest number of respondents falls within the income, is 31%. This goes a long way to tell the high level of poverty in the study area. Hence, the reason, a vast majority cannot afford decent quality house. This was observed and based on the evaluation of the characteristics of houses in the Osogbo local government like the housing type, the structural quality of the houses like the type of wall materials and the roof type, also the facilities available in the house like the lighting type, toilet, cooking place, bathroom and the garbage collection.

The analysis shows that majority of the respondents in Osogbo local government lives in traditional houses and storey building 24.3 and 29.0%, respectively. Majority 92.9% of the buildings uses iron sheet as roof. Findings from the analysis also show that 57.2% claimed that the frequency of supply is not regular. 41.4% deemed it to be regular while 1.4% gave no response. It is also seen from analysis that most of the buildings are in high unsanitary condition. For instance as high as 50.0% are still using pit latrines while 4.3% had no access to toilets.

Moreover, result from findings shows that the conditions in which the inhabitants are cooking are deteriorating. As high as 42.9% shared kitchen with other household member while 28.6, 19.0 and 9.5% use private

kitchen, passage within the building and detached kitchen. Result from findings shows waste management techniques that 50% eradicates their waste by collection through government agent, 33.3% of the respondents admitted to tripping into the public refuse container provided by the government while 7.1% tipped their into storm water drains, 4.8% of the respondent's waste are collected by waste contractors and 4.8% find other technique alternative by eradicating their waste by burning which causes pollution to the environment and affected the ozone layer and also from the result acquired it can be derived that the overall housing condition in Osogbo is fair having its ΣMWV as 3.1.

CONCLUSION

Housing is one of the basic necessities of life; everyone wants to have a place of abode which is very conducive and suitable for human habitation. Housing quality has to do with the physical conditions of the housing units in a particular area in terms of their structural soundness or fitness, ventilation, natural and artificial lighting as well as essential facilities such as water, electricity, telephone services, toilet, bathroom, kitchen among others. In summary, housing quality refers to bundle of services which the house offers or is expected to offer to the household-such as shelter, independence, privacy status (including tenure) and comfort (i.e., accessibility to supporting services, facilities and utilities, convenience, safety and healthy environment).

Findings conducted in Osogbo local government shows that many houses are substandard and this is due to the low level of Income been earned by the inhabitants. Facilities such as toilets, bathroom and kitchens are inversely proportional to the number of people using them.

Policy recommendations have been put forward such that if taken and implemented would alleviate the problems enumerated above. All these positive steps and many of such would go a long way in solving the qualitative housing problem in Osogbo local government. This would greatly improve the health and living condition of people in Osogbo local government and it's environ.

RECOMMENDATIONS

Based on the summary of findings, the following suggestions and recommendations are made to improve the existing stock of housing quality and general development in Osogbo.

The important way of improving housing quality in areas where there are dilapidated structures may involve the use of housing micro-finance which consist mainly of giving loans to low-income earners. The loans can be granted by government agencies, credit cooperatives, non-governmental organizations with an urban poverty focus and micro-finance institution and the loans will be repayable between 2-24 months for home improvement and 2-5 years for land purchase of construction.

Town planning authority should be more efficient in its development control measures. They should ensure that plans conform with the planning principles before approval is made.

Both the state and the local government should embark upon programmes that will encourage the provision of social facilities in different areas. This should include among others pipe borne water, public toilet facilities and drainage system.

People should make sanitation part of their day to day activities and they should see their environment as a living organism which when altered will have a negative effect on them.

The government in collaboration with health council should provide dust-bins and organize adequate and effective waste disposal systems in different areas in Osogbo. A waste disposal board should be inaugurated and organized to educate and enlighten the public about the danger of unhealthy environment.

ACKNOWLEDGEMENT

I thank God for seeing me through this research study. He gave me sound health and stable mind to be able to cope with the stress and the demand of the research study. Also I acknowledge my colleagues for one assistance or the other in carrying out this research work.

REFERENCES

Abiodun, J.O., 1976. Housing problems in Nigerian cities. Town Plann. Rev., 47: 339-347.

Agbola, T., 1998. The Housing of Nigerians: A Review of Policy Development and Implementation in the Housing Sector. Development Policy Centre, Canberra, Australia, ISBN:9789783481930, Pages: 104.

Aribigbola, A., 2000. Conceptual Issues in Housing and Housing Provision in Nigeria. In: Handbook of Environmental Psychology, Stokols, D. and A. Irwin (Ed.). Wiley Publishing Company, Hoboken New Jersey, USA., ISBN:9780471866312, pp: 533-570.

Baumol, M.J. and E.O. William, 1979. The Theory of Environmental Policy. Prentice-Hall, Upper Saddle River, New Jersey, USA.,.

Bowen, W., 2002. An analytical review of environmental justice research: What do we really know?. Environ. Manage., 29: 3-15.

FMWH., 1991. National Housing Policy. Federal Ministry of Works and Housing, Lagos, Nigeria,.

Galster, G.C. and G.W. Hesser, 1981. Residential satisfaction: Compositional and contextual correlates. Environ. Behav., 13: 735-758.

Gilbertson, J. and G. Green, 2009. Good housing and good health?: A review and recommendations for housing and health practitioners: Sector study. Master Thesis, Department of Health, CSIP: Care Services Improvement Partnership, North West, England.

Merrill, M.D., 1997. Instructional Strategies that Teach. CBT publishing Company, Munich, Germany,.

Miles, R., 2005. Preventing Asthma through housing interventions: How supportive is the US policy environment?. Hous. Stud., 20: 589-603.

Milstead, T.M., R. Miles and N. Robbel, 2006. Housing and neighborhood conditions and exposure to cockroaches in three central and eastern European cities. J. Hous. Built Environ., 21: 397-411.

Ogu, V.I., 2002. Urban residential satisfaction and the planning implications in a developing world context: The example of Benin City, Nigeria. Intl. Plann. Stud., 7: 37-53.

Oladapo, A.A., 2006. A study of tenants maintenance awareness, responsibility and satisfaction in institutional housing in Nigeria. Intl. J. Strategic Property Manage., 10: 217-231.

Oliver, R.L. and W.S. DeSarbo, 1988. Response determinants in satisfaction judgments. J. Custom. Res., 14: 495-507.

Oliver, R.L. and W.S. Desarbo, 1989. Processing of the satisfaction response in consumption: A suggested framework and research propositions. J. Consum. Satisfaction Dissatisfaction Complaining Behav., 2: 1-16.

Olotuah, A.O., 2000. The Challenge of Housing in Nigeria. In: Effective Housing in the 21st Century Nigeria, Akinbamijo, O.B. (Ed.). Environmental Forum, School of Environmental Technology/Federal University of Technology, Akure, Nigeria, ISBN:9789783440098, pp: 16-21.

Onibokun, A.G., 1974. Evaluating consumers satisfaction with housing: An application of a systems approach. J. Am. Inst. Plann., 40: 189-2000.

Parasuraman, A., V.A. Zeithaml and L.L. Berry, 1994. SERVQUAL: Review, critique research agenda. Eur. J. Marketing, 30: 8-32.

Satsangi, M. and A. Kearns, 1992. The use and interpretation of tenant satisfaction surveys in British social housing. Environ. Plann. C. Government Policy, 10: 317-331.

Sirat, M., 1999. Low-Cost Housing in Urban-Industrial Centres of Malaysia: Issues and Challenges. Penerbit Universiti Sains Malaysia (Penerbit USM), Penang, Malaysia, ISBN: 9789838611909, Pages: 112.

Theodori, G.L., 2001. Examining the effects of community satisfaction and attachment on individual well-being. Rural Sociology, 66: 618-628.

Zeithaml, V.A., L.L. Berry and A. Parasuraman, 1993. The nature and determinants of customer expectations of service. J. Acad. Market. Sci., 21: 1-12.