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# Housing Conditions and Socio-Economic Characteristics in Wulari Settlement, Maiduguri

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***Abstract:*** *The study focused on assessing the physical and social economic characteristics of housing in Wulari settlement and to establish the relationship between them. Spatial data was collected using GIS technique and physical observation while questionnaire was used to collect socioeconomic data. A total of 220 questionnaires was administered to household heads using a sample size of 10%. Descriptive statistics was employed in assessing both physical and socioeconomic characteristics while correlation statistics was also employed to establish the relationship between certain purposively selected physical and socioeconomic attributes of Wulari settlement. Among the findings are: 44% of the buildings being the oldest, 52% having poor roofing condition, 50% having poor wall condition, 60% having poor floor condition and the majority are industrious but low-incomed. Also, negative correlation was returned for education level and income status, while a positive correlation was returned for occupational status. Establishement of an urban renewal scheme for Wulari, capital improvement programmes for community and private participation and policy formulation for the mitigation of building cost were recommended for improvement.*

***Key words:*** *Housing, Housing Condition, Socioeconomic Characteristics, Slum*

## 1.0 Introduction

From time immemorial, man has sought to establish a place of refuge for him to serve as a defense fortress and a place of survival. This phenomenon is translated as housing which is a canopy over his head. In recent times, housing is generally recognized as one of the basic needs of man and as such, has attracted a great deal of attention in national planning and international discussion on development. The term housing is not just a simple structure intended to provide shelter, but encompasses all the ancillary services and community facilities which are necessary to provide all the well-being of the people (Suleiman, 2015 and United Nations, 1975). By quantifying housing condition, external influences: both natural and man-made which impinges on man and affects his well-being have to be critically looked-at (Bamigboye and Ogunkeyede 2005). It is therefore, of paramount importance to put this complex product called housing in a better condition to guarantee an environment with health security and also serve as crucial criteria for the development of human welfare.

Areas with poor housing conditions (especially slums), have been earmarked as safe

havens for ill and social vices that affect entire settlements (World Bank 2000 and Un-Habitat 2003). Nwaka (2010), asserted that, the medium and low income in Nigeria do not just constitute the bulk of the population, but are concentrated in slums with very poor conditions. (Owoyeye, and kayode (2012), Owoyeye, (2006) and Owoyeye, (2010), asserted that, poor living conditions can be attributed to lack of awareness and poverty. They describe these two phenomena as a major setback towards achieving a livable and sustainable environment.

There are two different perspectives/types regarding slum creation and condition of housing. The first is that, slums originate as slum from the onset due to material type for building, origin of arrangement, construction type and total absence of adherence to planning regulations. The other are settlements that became slums as a result of misuse of dwelling units originally planned for less intensive use (George 1999). Irrespective of the type, slums are generally characterised as poor housing conditions and serves a pull-factor for all sorts of social vices such as theft, burglary, rape, juvenile delinquency, sexual harassment, bullying among others (Bello and Egresi, 2017). This paper hereby describes the physical and socioeconomic characteristics of Wulari settlement in Maiduguri town and relates housing conditions to socio-economic characteristics with a view to understand the extent to which they affect one another.

## 2.0 The study area

Wulari is located on latitude $11^0$ 51’ 2.84’N and longitudes $13^0$ 7’ 54.34”E and $13^0$ 7’ 54.00”E. It is a traditional settlement within Maiduguri Township, situated at the North West fringe of Maiduguri. It is bounded by the railway line that links Maiduguri and Buni Yadi to the north, Wulari primary school to the west and Wulari police barrack to the south and east. Being therefore, purely traditional settlement the compounds are closely linked together with sometime about 10 compounds to a hectare of land; this made the settlement to be classified as high density. The compounds are open and characterised by narrow alley-like unaligned streets. Its major linkage with Maiduguri town centre is through sir Kashim Ibrahim Avenue. It is a high-density settlement predominantly characterised by low income earners who indulge in small business (Adamu, 2016) and has total land area coverage of 10.3699 hectares. Wulari has a total population of 20,374 (projected from 2009) (NPC, 2009) with an average of 4 households per compound.

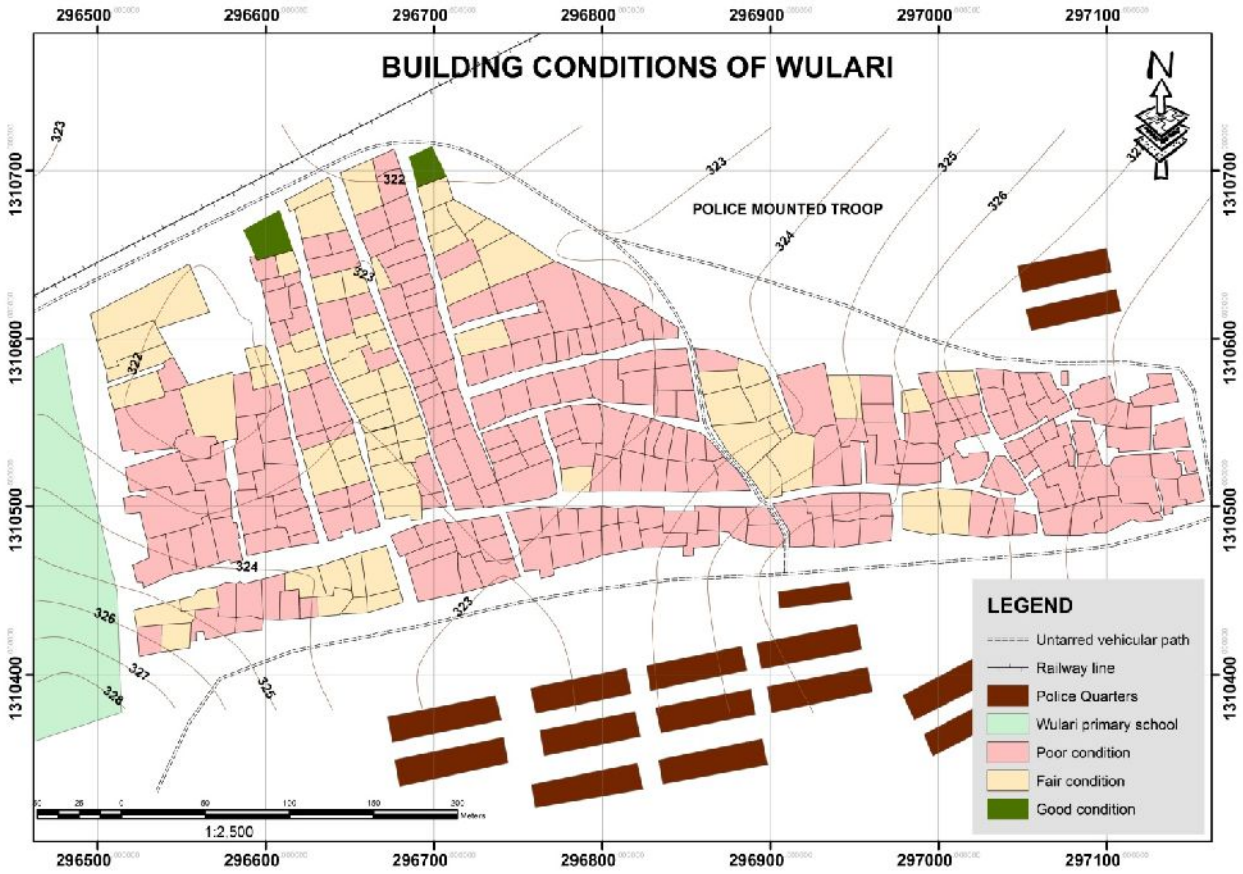


Fig 1: Condition of Housing in Wulari (Source: Modified from Open-Street Map (OSM) Data 2019)

## 3.0 Methodology

Both spatial and socioeconomic data were collected for this study. The spatial data was collected using GIS technique and physical observation. It was used to identify the extent of dilapidation of the structures and individual compounds. This was obtained through the spatial and attributes data contained within the GIS data frame. For the socioeconomic data, a 10% sample size was adopted for the 550 compounds present. There are an average number of 4 households per compound, giving rise to a total number of 220 questionnaires administered to household-heads in Wulari using systematic sampling technique. Pictures were also taken to depict the extent of dilapidation. Descriptive statistics was employed in the first stage analysis, assessing both physical and socioeconomic characteristics in Wulari. Inferential statistics was also employed to establish the relationship between certain purposively selected physical and socioeconomic attributes of Wulari. Roofing condition as the dependent variable was selected alongside educational level, income status and occupational status as independent variables. Correlation analysis was run for the variables to establish the level relationship using SPSS version 26.

## 4.0 Result and Discussion

### 1. Building Conditions

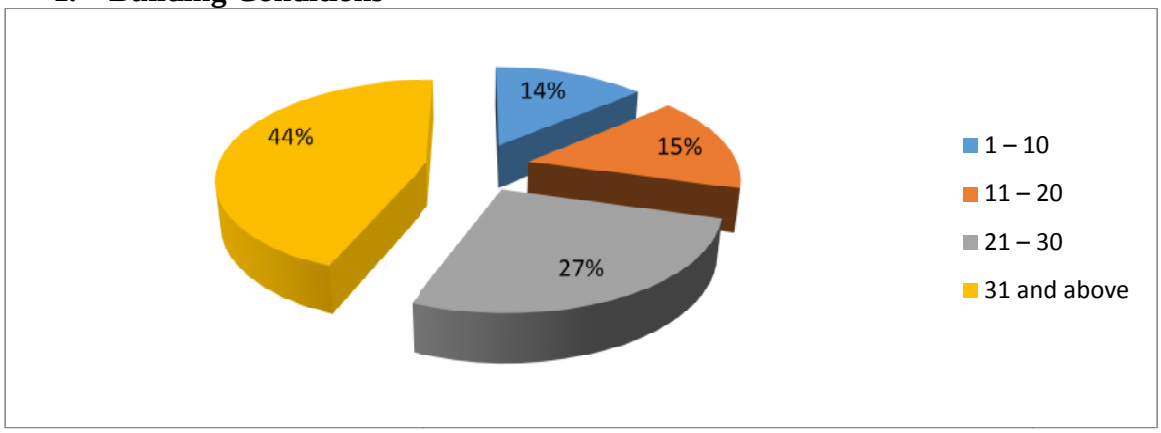


Fig 2: Age of Building in Wulari

A bi-majority of the houses in Wulari constituting 44% are the oldest structures. These houses have stayed for not less than 33years. Though, only 14% of the houses are not more than 10years old. This showed that, new developments are continuously springing up in Wulari.

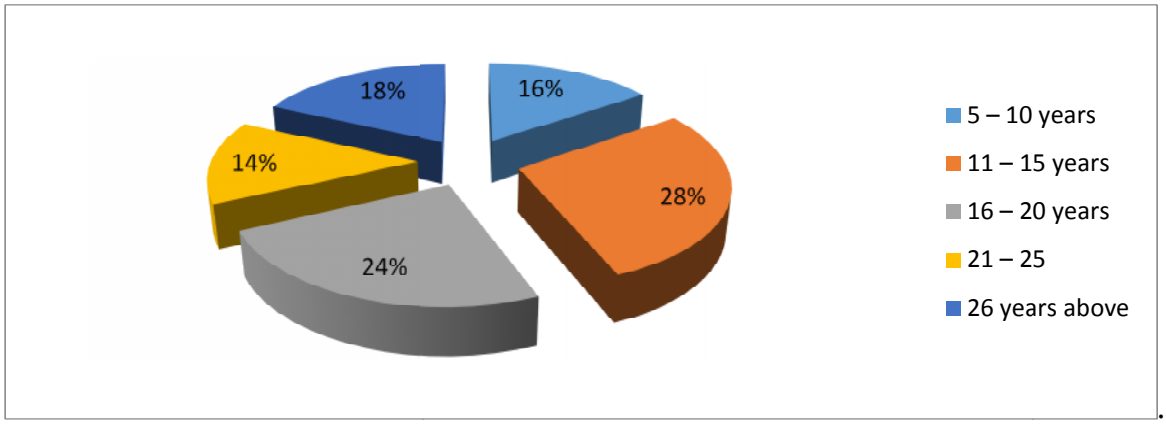


Fig 3: Building Maintenance Duration in Wulari

Majority of the buildings constituting 71% have been built more than 20 years ago. Also, 56% of the structures have not gotten any form of face-lift for more than 10years. This indicates that, there have been and going to be a rapid level of deterioration of the structures.

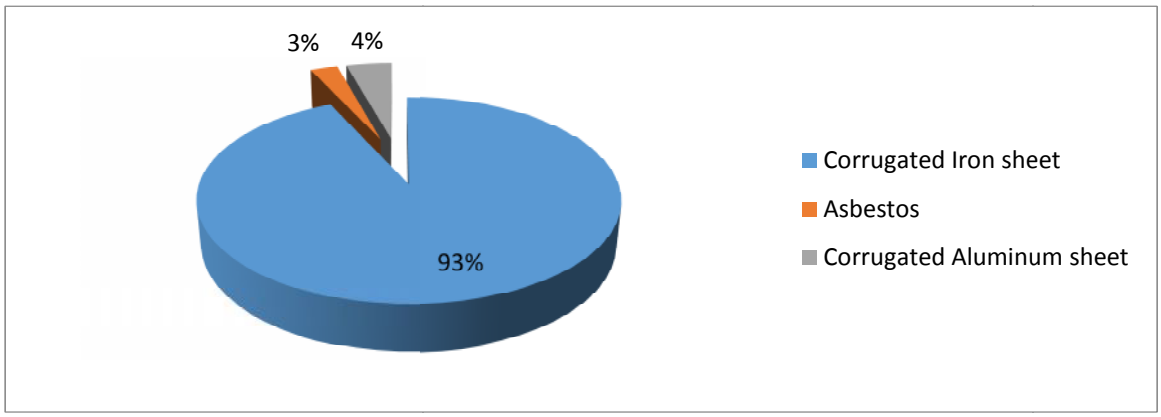


Fig 4: Roofing Material type in Wulari

Corrugated iron sheet was used mostly as the major roofing material in Wulari, summing up to 93% of the population. This can be as a result of cost and availability of the material. Only 3% and 4% utilize Asbestos and corrugated aluminum sheet respectively for roofing.

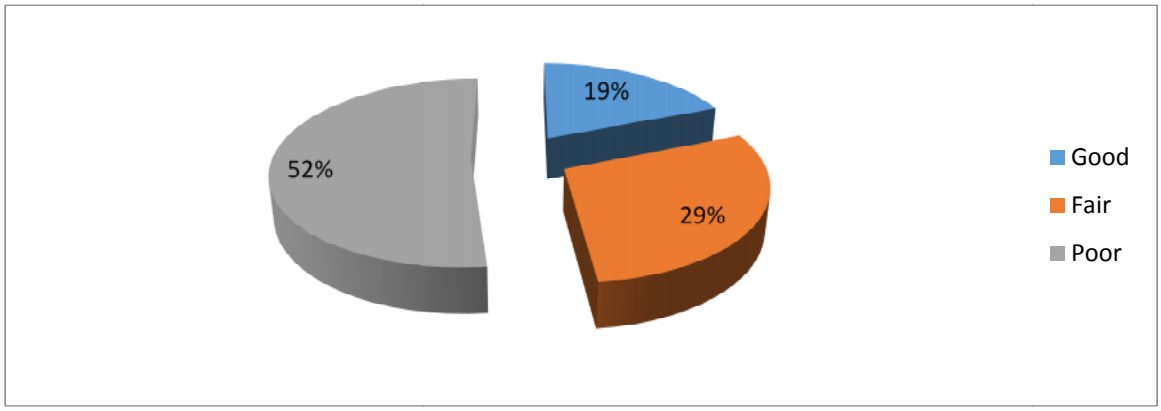


Fig 5: Roofing Condition in Wulari

Majority of the structures constituting 93% were covered with corrugated iron sheet which is susceptible to the Sahara weather associated with accelerated rusting. This explains why more than half, constituting 52% of the structures are in poor condition.

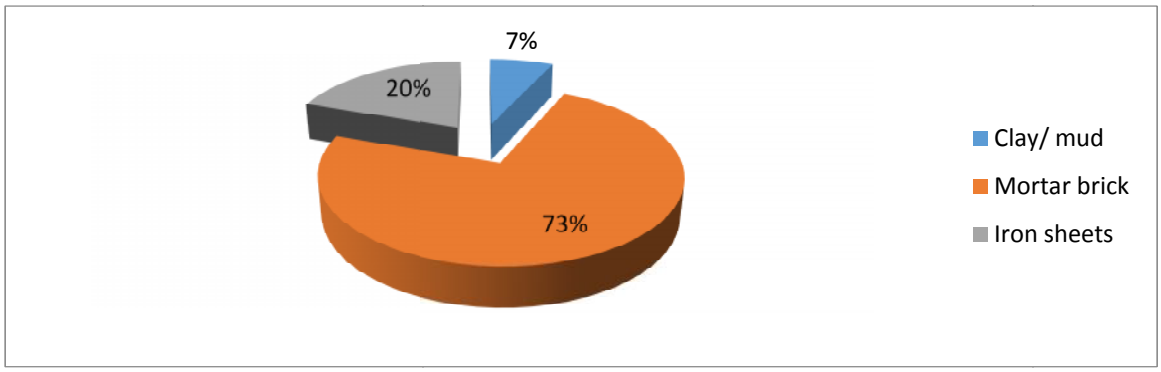

Fig 6: Wall Material in Wulari

Though, 20% of the respondents still live in Bashas, while 7% utilized clay or mud bricks respectively, the majority of the respondents (73%) utilized mortar bricks for construction.

It is obvious that, due to low income, a few members of the community cannot afford bricks for construction and resulted to utilizing mud bricks and iron roofing sheet for construction.

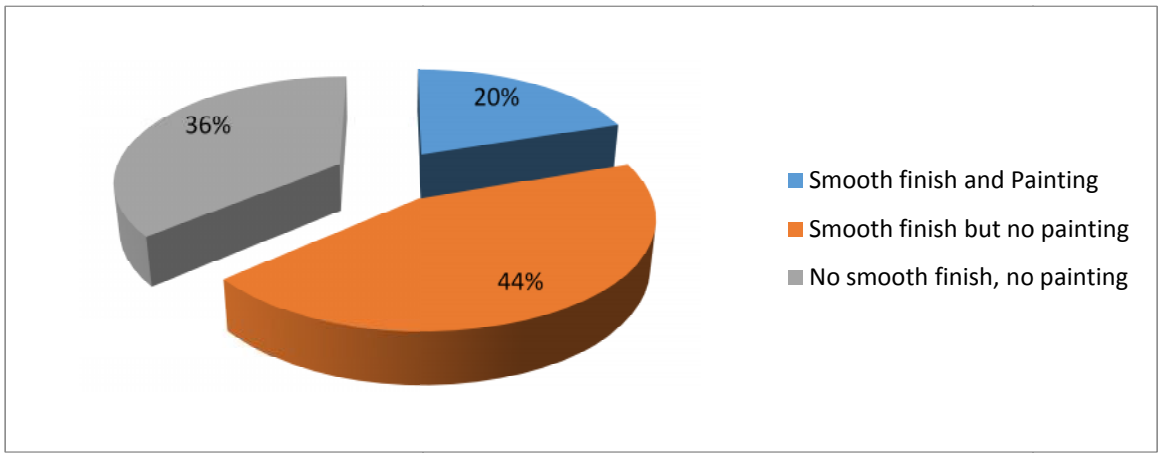


Fig 7: Wall finishing in Wulari

Finishing in a building, especially a smooth one is essential for its quality and condition. It was discovered that, in Wulari, 44% of the structures have smooth finishing but there is no painting attached. Apart from the aesthetic view, painting also qualifies its condition. Only 20% have a smooth finishing and painting attached. While a bi-majority of 36%, have no smooth finishing, which can obviously not be followed by painting.

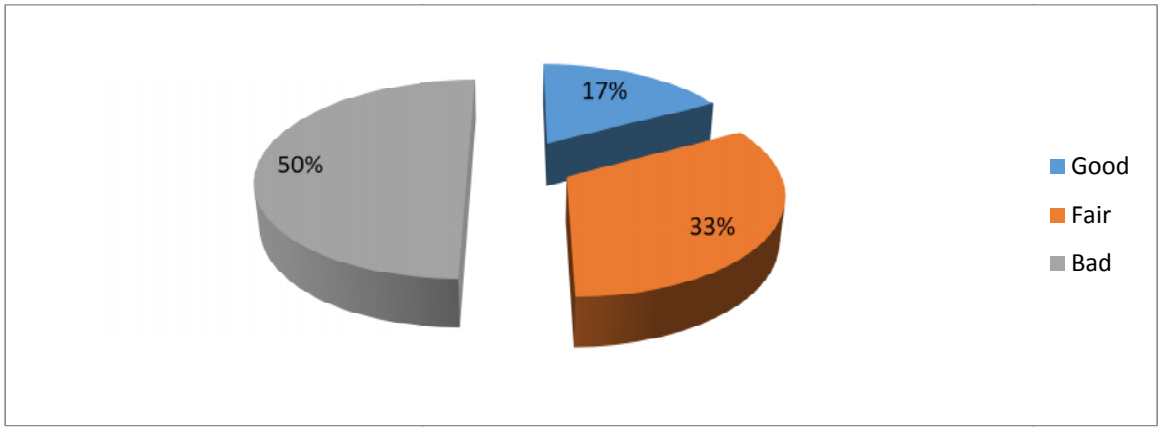


Fig 8: Wall Condition in Wulari

Majority of the structures constituting 73% are constructed with mortar bricks. 20% and 7% are Bashas constructed with wood and iron sheets and mud respectively. Majority of the structures constituting 44% have smooth finishing and were painted, 36% have smooth finishing but no

painting while 20% don't have both. Also 50% of the walls are in poor condition while 33% and 17% are in fair and good condition respectively.

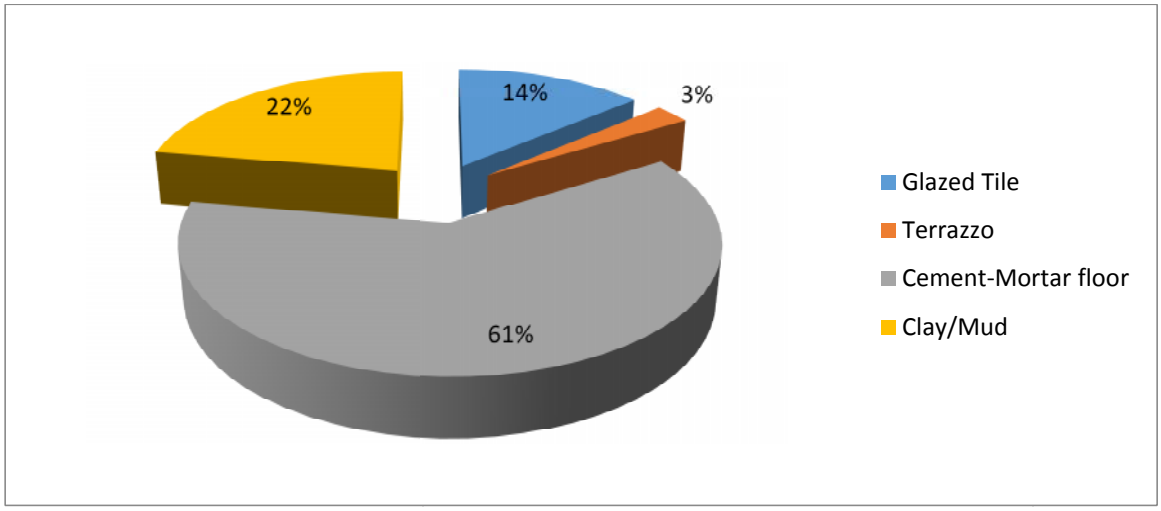


Fig 9: Floor Material in Wulari

Majority of the structures, of 61%, have a cement-mortar flooring, with only 14% and 3% having glazed tile and terrazzo flooring respectively. It is quite peculiar that 22% of the structures have clay-mud flooring. This is typical of the rural or suburb setting. Wulari on the other hand, is in the heart of Maiduguri urban area. It signifies that, there are a lot of settlers who are of low income.

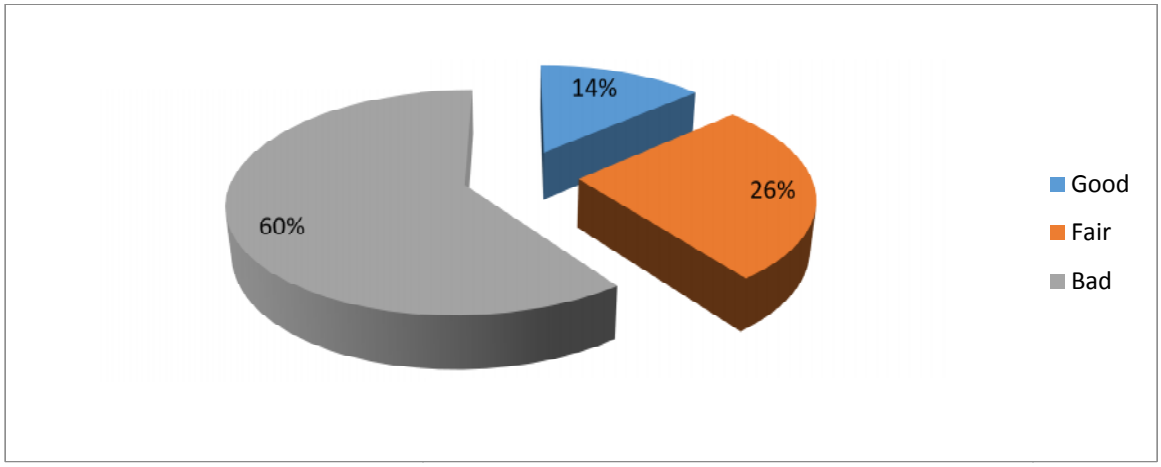


Fig 10: Floor Condition in Wulari

61% of the structures have cement-mortar floor, while 22% have mud floors. Only 17% use contemporary damp-resistant tilling materials. Majority of the floors constituting 60% are in bad condition, with only 14% and 26% in good and fair conditions respectively.

Figure 11: Structural Condition in Wulari Settlement

## 2. Socio – Economic Characteristics

**Table 1: Age Structure**

| S/No | Age Group | Frequency | Percentage |
|---|---|---|---|
| 1 | 5 – 10 | 296 | 16.49 |
| 2 | 11 – 15 | 225 | 12.50 |
| 3 | 16 – 20 | 361 | 20.02 |
| 4 | 21 – 25 | 285 | 16.01 |
| 5 | 26 – 30 | 207 | 11.51 |
| 6 | 31 – 35 | 145 | 8.45 |
| 7 | 36 – 40 | 90 | 5.49 |
| 8 | 41 – 45 | 56 | 3.48 |
| 9 | 46 – 50 | 45 | 3.00 |
| 10 | 51 – 55 | 31 | 1.74 |

| | | | |
|---|---|---|---|
| 11 | 56 – 60 | 8 | 0.75 |
| 12 | 61 and above | 11 | 0.57 |
| | **Total** | **1,760** | **100%** |

Field survey, 2019.

Table 12 reveals that the majority of the respondents which are between the ages of 16 and 40 constituting the independent population are the highest with a total of 61.48%. The children which are the between the ages of 5 and 15 of the respondents are 28.99% while the elderly, between the ages of 41 and above are 9.54% respectively, constitute the dependent population.

**Table 2: Sex Composition**

| S/No | Variable | Frequency | Percentage |
|---|---|---|---|
| 1 | Male | 616 | 35.0 |
| 2 | Female | 1,144 | 64.99 |
| | **Total** | **1,760** | **100%** |

Field survey, 2019.

Table13 shows that 64.99% of the respondents which constitute the majority are females while 35.01% are male.

**Table 3: Religious Background**

| S/No | Variable | Frequency | Percentage |
|---|---|---|---|
| 1 | Muslim | 190 | 86.48 |
| 2 | Christians | 30 | 13.54 |
| | **Total** | **220** | **100%** |

Field survey, 2019.

Table 14 maintains that 86.48% of the respondents which constitute the majority are Muslims while 13.54% are Christians.

**Table 4: Educational Level**

| S/No | Variable | Frequency | Percentage |
|---|---|---|---|
| 1 | Primary | 20 | 16.31 |

| | | | |
|---|---|---|---|
| 2 | Secondary | 190 | 75.38 |
| 3 | Tertiary | 10 | 8.31 |
| | **Total** | **220** | **100%** |

Field survey, 2019.

Table 15 indicates that 75.38% of the respondents which are the majority are of secondary level of education.16.31% and 8.31% are of primary and tertiary levels of education respectively.

**Table 5: Occupational Status**

| **S/No** | **Variable** | **Frequency** | **Percentage** |
|---|---|---|---|
| 1 | Civil servant | 22 | 10.00 |
| 2 | Business man | 79 | 35.91 |
| 3 | Artisan | 106 | 48.18 |
| 4 | Unemployed | 13 | 5.91 |
| | **Total** | **220** | **100%** |

Field survey, 2019.

Table 16 agrees that 48.18 which are the majority of the respondents are artisans. Civil servants and businessmen constitute 10.00% and 35.91% respectively. The unemployed constitute the least with 5.91%. this indicates that the majority of the population are very industrious.

**Table 6: Income Status**

| **S/No** | **Variable N** | **Frequency** | **Percentage** |
|---|---|---|---|
| 1 | 10,000 – 50,000 | 28 | 12.86 |
| 2 | 51,000 – 100,000 | 112 | 50.71 |
| 3 | 110,000 – 150,000 | 55 | 25.00 |
| 4 | 151,000 – 200,000 | 14 | 6.43 |
| 5 | 210,000 – and above | 11 | 5.00 |
| | **Total** | **220** | **100%** |

Field survey, 2019.

Table 17 reveals that, 50.71% of the respondents which constitute the majority, earns N51,000 – **N**100,000 per annum while the lowest which is 5.00% of the respondents, earn **N**200,000 and above. Going by the minimum wage for the country, the entire population is low income.

3. **Housing Condition and Socioeconomic Characteristics**

**Table 7: Relationship between Housing Condition and Socioeconomic Characteristics**

| | | Educational Level | Income Status | Occupational Status |
|---|---|---|---|---|
| Roofing Condition | Pearson Correlation | -.092 | -.135* | .021 |
| | Sig. (2-tailed) | .088 | .012 | .697 |
| | N | 220 | 220 | 220 |

*. Correlation is significant at the 0.05 level (2-tailed).

There tends to be a negative correlation between roofing conditions and education status and income status returning a correlation coefficient of r=-0.92 and r=-0.135 respectively, at a significant level of 0.05. This shows that, an appreciation in roofing condition is found to be associated with a decline in both educational and income level of the households. This goes against the findings of Nwaka (2010) which established that, an increase in these two variables leads to good conditions of housing. This can likely be as a result of attitudinal issues as posited by (Owoyeye, and kayode 2012, Owoyeye, 2006 and Owoyeye, 2010). On the other hand, an appreciation in roofing conditions was found to be associated with an increase (though weak) in occupational status, in conformity with Nwaka (2010). The result returned a correlation of r=0.021 with a 0.05 significant level.

## 5.0 Conclusion and Recommendations

Most Nigerian cities being re-organised (Sharifi, 2019) are not void of developmental issues such as creation of slum areas especially at the suburbs. In Wulari, aesthetic is lacking with most of the houses being small with poor ventilation and lighting. The disposal of waste is by open dumping and burning which may cause severe consequences e.g. cholera, malaria typhoid etc. There is indeed an urgent need for government, community and individual intervention and synergy in tackling housing development issues.

- Wulari is in dire need of an elaborate urban renewal scheme, which according to this study has been discovered to be suffering from serious deterioration. This will serve as a panacea giving the settlement a total face lift checkmating the problem of housing condition.
- The development control unit of the Borno state urban planning and development board should be very active in their duties in Wulari to prevent further occurrences of slum creation which will lead to bad housing conditions.
- Capital improvement programmes should be strongly encouraged for Wulari settlement in order to give room for private participation and subsequently community contributions

to the upgrading of the settlement. This will boost private sector participation in the provision of good houses so as to give the impetus to individuals to be able to construct and own houses of good condition and to their taste.

- Policies that enforce the subsidizing of general building materials in the market so as to ensure a rapid mitigation of sub-standard housing construction and hence opening all corridors to easy and quick housing delivery, where-by leading to good housing condition. This will be achieved through a price control policy by the government and other economic policies such as the fiscal policy and open market operations policy.

**Reference**

Adamu, M. M. (2016). An Assessment of the Influence of Informal Economic Activities on Landuse in Maiduguri. *International Journal of Arts and Combined Science*. Vol. 5 No.1, March/April 2016. ISSN 2315-8034

Bello, A. and Egresi, I (2017). Housing Conditions in Kano, Nigeria: A Qualitative Assessment of Adequacy. Analele Universităţi din Oradea, Seria Geografie. Year XXVII, no. 2/2017 (December), pp. 205-229 ISSN 1221-1273, E-ISSN 2065—3409

Ede, P. N., Ebakpa, A. F., and Chukuigwe, E. C. (2007). Determination of Housing and Neighbourhood Quality for Yenagoa, Bayelsa State of Nigeria: *Journal of the Nigerian*

George, C. K. (1999). Basic Principles and Methods of Urban and Regional Planning. Libro-Gem Books. Lagos.

National Population Commission (NPC) (2009). Federal Republic of Nigeria Official Gazette. No. 2 Vol. 96. A Legal Notice on Publication of 2006 Census Final result, Abuja Nigeria.

Oweyeye, J. K. and kayode, O. (2012). Analysis of Housing Condition and Neighbourhood Quality of Residential Core in Akure. *Mediterranean Journal of Social Science*, Italy. pp 471-481 (2012). Doi:10.5901/mjss.2012.v3n3p471

Owoeye, J. O. (2010). Assessment of Environmental Habitability of a Residential Core Area in Akure, Nigeria: *Journal of Environmental Technology*, Federal University of Technology Akure; 2(1):34-41

Owoeye, J. O. (2006). Analysis of Slum Formation and Its Associated Effects on a Residential Core Area of Akure; Unpublished M. Tech. Dissertation submitted to the Department of Urban and Regional Planning, Federal University of Technology Akure.

Sharifi, A. (2019). Resilient Urban Forms: A Macro-scale Analysis. Cities, *The International Journal of Urban policy and Practice* 85 (2019) pp 1-14 https://doi.org/10.1016/j.cities.2018.11.023

Suleiman, A. O. (2015). Introduction to Housing: Basic Concepts and Applications. KingJames Publishing House, Minna (Revised Edition).

UN-Habitat (2003). A Practical Guide for Conducting Housing Profiles. Nairobi: United Nations Human Settlements Programmme.

World Bank (2000). “Cities without Slums: Moving Slum Upgrade to Scale” Urban Notes (2)1