

Assessment of Housing Condition and Socio-Economic Level of Tudun Wada Slum Dwellers

Garnvwa Jennifer Dawi

Nigerian Building and Road Research Institute
(NBRR) Jos Zonal Office
Plateau, Nigeria
garnvwajay@gmail.com

Yakubu Yohanna Adamu

Department of Architectural Technology
Abubakar Tatari Ali Polytechnic.
Bauchi, Nigeria
yaaxx4u@gmail.com

Zinfat Moses John

Nigerian Building and Road Research Institute
(NBRR) Jos Zonal Office
Plateau, Nigeria
zingfatzz@yahoo.com

Faizah Mohammed Bashir

Department of Interior Design,
College of Engineering, University of Hail
Hail, Saudi Arabia
faizahbash@yahoo.com / fai.bashir@uoh.edu.sa

Abstract— In Nigeria, there has been a unsettling increase in the number of shanty dwellings, squatter settlements, and slums in most cities. This is due to a chain of factors that stem from low socio-economic levels and cultural lifestyles of the inhabitants. The purpose of this study was to investigate the characteristics of housing condition and the socio-economic lifestyle of Tudun Wada Jos (Nigeria) slum dwellers with a view to determining the factors that are actually responsible for the formation of slum conditions in urban settings. Data was collected using the mixed method research approach. A 9,599 buildings was taken and considered reasonable for the study which is around 20% sample size used amounting to the Angwan Miayangu via Apolo crescent using systematic random sampling approach to select respondents in the area; every 5th house in each of the eight wards involved was taken for assessment. Likewise, one household were interviewed in each of the buildings selected. Findings revealed that the quality of housing in the study area is very low due to the low quality materials used for construction and the inadequate technology as well as poor planning standards. The study concludes with recommendations of upgrades by means of rehabilitation, renovation, and a new layout approach, as well as provision of urban basic services. In improving the existing infrastructures as well as providing new ones these would improve the structural quality and aesthetic values of the area. Economic revitalization is highly needed in the area.

Keywords—housing assessment; Tudun-Wada; slum dwellers, socio-economic level

I. INTRODUCTION

Housing is often regarded as one of the basic human need, it rated second after food, and thereafter clothing, it is a prerequisite for the survival of man [1]. Housing as a unit of the environment has profound

influence on the health, efficiency, social behaviour, satisfaction, and general welfare of the community. It reflects the cultural, social, and economic values of a society, as it is the best physical and historical evidence of the civilization of a country. Reference [2] argued that housing issues affect the life of individuals as well as that of a nation; hence both nature and society ascribed great importance to the role it plays to bring about human comfort. The importance of providing adequate and quality housing in any country cannot be overstated nor disputed in time or space. It is a stimulant to the national economy. However, the re-curent nature of housing needs and the unending desire for good housing tend to confirm the widely impression that there is hardly any society that has been able to cope satisfactorily with its housing requirement [3]. The proliferation of shanty dwellings, squatter settlements, and slums in most of our cities in the Nigeria and other less developed nations of the world is attributed to a chain of factors. Of course, such factors are closely associated with the low level of socio-economic and cultural lifestyles of the inhabitants. This paper, therefore, intends to investigate the characteristics of housing condition and the socio-economic lifestyle of Tudun Wada Jos (Nigeria) slum dwellers with a view to determining the factors that are actually responsible for the formation of slum conditions in urban settings.

II. BACKGROUND

The World Health Organisation (WHO) describes housing as residential environment which includes the physical structure used for shelter and all necessary facilities, services, equipment's and devices needed or desired for the physical and mental health and social well-being of the family, individuals and society at large. The United Nations Ad-Hoc Group of Experts on Housing and Urban Development equally asserted that housing is neither a mere shelter nor household facilities alone. The United Nations Habitat Report affirmed that a large proportion of the third world's urban population lives and works in very poor condition [4].

Apart from the fact that the poor inhabit many different low quality forms of housing, there are two other basic environmental problems that are evidently noticeable:

- The presence of pathogens in the human environment due to lack of basic infrastructure and services.
- The second is cramped and crowded living conditions.

Slum is believed to be an element of urban decay, which [5], described as permanent dwelling areas which have become derelict through age and neglect. It is clearly defined by [6], as a group of buildings or an area characterized by overcrowding, deterioration, unsanitary conditions, or absence of basic and essential facilities like portable water, drainage system, schools, health facilities, recreational grounds, post office, among others. The impacts of slum condition on socio-economic lifestyles and health conditions of its residents are real and obvious. In a study by [7], argued that the neglect of buildings occasioned by low capital base of the inhabitants bring about the emergence of slum while the physical deterioration of the area encourages springing up of slum development.

Earlier studies focused much on the physical appearance of dwelling units with the aim to assess the dimensions of the slum problem externally. But recent studies have considered socio-economic aspect of slum as well as the health of the inhabitants very crucial. In a related study carried out by [8], it was affirmed that environment has great and obvious effects on health as poor residents are often seen at zones, which imply poor health. They observed slum dwellers to be group of people who live in old houses with bad structures located in poor environments where they are exposed to ill health from polluted water, such houses are without toilet and other essential utilities. Their drains are often filled with refuse deposits, which hamper the free flow of run-offs.

A. Objective

The study seeks to assess the condition of housing and the socio-economic life style of slum dwellers in Tudun-Wada Jos urban centre. To effectively carry out this assessment, the various components of the buildings need to be examined in terms of materials used for construction, age of building, structural condition of building, level of household facilities and infrastructural facilities available within the neighbourhood.

B. Study Area

Various expressions have described slum areas as congested district, characterized by deteriorating, unsanitary housing environments and noticeably poverty area. Hence, the area chosen for this study is Tudun Wada via Apolo crescent in Jos exhibit evidence of slum environment. This is a community located in Jos North Local government area of Plateau state having a land area of about 1,204km² and a

population growth of about 318,100 as at 2016, although there was a projection of about 335,985 as at 2018. It is a hilly place surrounded by valleys both of which are occupied and use for residential purpose. It is located in the north-eastern part of the town; its geographical coordinates are 9° 54' 0" North & 8° 53' 0" East. The main access road is through the Hill station hotel opposite the Gbongwom Jos palace.

Fig. 1. An aerial view of the study area



Source: Field survey (2018)

III. RESEARCH METHODOLOGY

The data for this study was collected through primary and secondary sources; questionnaire administration constitutes the major instrument used in information collection. Information from related ministries and government departments, particularly the Jos Metropolitan Development Board, the state Ministry of Environment and Town Planning Office were also used. Altogether, there are 47,997 estimated buildings in the area of about 1,204 square kilometres, From this study a 20% sample size was used amounting to 9,599 buildings was taken and considered reasonable for the study which is around the Angwan Miayangu via Apolo crescent using systematic random sampling approach to select respondents in the area, every 5th house in each of the eight wards involved was taken for assessment. Meanwhile, one household was interviewed in each of the buildings selected. Each questionnaire contains 15 variables, which were thoroughly investigated to obtain information on sex, marital status, and age of respondents. Also, the residences socio-economic characteristics, structural condition of buildings, the level of infrastructural facilities as well as resident's perception of their environment were investigated.

IV. FINDINGS AND DISCUSSION

The research findings from this study are presented primarily on the existing situation in the area, considering the socio-economic characteristics of respondents, the structural condition of the buildings, the state of the existing infrastructural facilities, the general condition of the environment and the effects of slum on the residents. Meanwhile, twenty (20) of the two hundred and fifty (250) questionnaires distributed could not be retrieved leaving two hundred and thirty (230) which were used for the analysis. This represents 92% of the total expected responses. It is still considered reasonable when taking into

consideration the homogeneous characteristics of slum areas.

A. Assessment of Housing Quality

The quality of housing in the study area is very low due to the low quality materials used for construction and the inadequate technology as well as poor planning standards of handling the building components. Over 50% of the buildings have spent more than 20 years. Only 10.5% of the total housing stocks in the areas are buildings of recent construction, which are below 15 years. The Fadamiro, (2001) work become relevant here in which he argued that there is a correlation between relative habitability of the housing and their ages. According to him, buildings erected in more recent times tend to be more habitable than buildings built much earlier. Hence, a large number of the housing stocks in the areas of study have relatively low habitability, which has direct effects on the state of health, socio-economic well-being, and emotional stability of the residents. Roofing materials of the buildings in the area are 97.8% of zinc coated corrugated iron sheets types, only about 2.2% are made of other materials. This shows that the level of technology of building construction in the area is yet to catch up with modern age. It still remains crude and traditional so is the level of maintenance. Over 80% of the buildings need either minor or major repairs, out of which 18.3% are completely old and dilapidated. Only 15.2% exhibit evidence of physical soundness. See Table 1, 2 & 3 below.

TABLE I. BUILDING CHARACTERISTICS
 SOURCE: FIELD WORK (2018)

Construction Material	Percentage (%)
Walling-mud or mud blocks	79
Cement	20.9
Roofing-zinc/corrugated sheet	97.8
Other material	2.2

TABLE II. BUILDING CHARACTERISTICS
 SOURCE: FIELD WORK (2018)

Building Condition	Percentage (%)
Wall	
Plastered/half plastered	51.3
Plastered and painted	32.6
Not plastered	13.9

Cracked	2.2
Roof	
Good	37.4
Leaking	29.1
Patched	33.5
Physically sound structure	15.2
Structure	
Physically sound	15.2
Needs minor repairs	34.8
Needs major repairs	31.7
Dilapidated and old	18.3

TABLE III. BUILDING CHARACTERISTICS
 SOURCE: FIELD WORK (2018)

Age of Building	Percentage (%)
Below 15 years	57.8
15-25 years	23.9
25-35 years	5.7
35-40 years	7.8
40 years and above	4.8

B. Socio-economic Lifestyle of Respondents

The questionnaire administration was concentrated mainly on adults within age bracket of 25 years and above. This constitutes about 92.6% of the sampled respondents. There was fair distribution between the two genders of 51.3% male to 48.7% female. Out of these 70.4% are married, 15.2% are single, and 13.9% are widow while 0.4% separated. Information gathered on educational background reveal that almost half of the inhabitants in the area are illiterates who do not enjoy the benefits of formal education. This constitutes about 43.1% of the respondents and out of 56.9% who claimed to be literate, 27.5% have only primary school leaving certificate, while 16.6% attempted secondary school and only 12.8% have tertiary education. The implication of the low level of education of the people in the area undermined the importance of healthy environment therefore live below the minimum environmental standards stipulated in the planning code of the country. The occupational and income

distribution are closely related, the nature of occupation determines their level of income. About 31% engage in trading activities, 19.1% engage in different craftwork like weaving, tailoring, vulcanizing, mechanics etc. while 13.5% engage in farming. Only 8.3% are civil servants while the remaining are either unemployed or apprentices. The findings here revealed that the general income is below the national average of N18,000 per month and also found to be below the state average income level of N9,500 per month. With this low income distribution, to afford good quality housing or proper maintenance of the existing ones and adequate feeding might be very difficult if not impossible. Besides this, the household size distribution is high majority of the households were made up of between 6 to 8 people

TABLE IV. SOCIO-ECONOMIC CHARACTERISTICS OF RESPONDENTS
 SOURCE: FIELD WORK (2018)

Household Size	Percentage (%)
No formal education	40.8
Primary	40.8
Secondary	5.2

Fig. 1. Showing the passage from one house to the other

Source: Field survey (2018)



Fig. 2. Showing the passage from one house to the other
 Source: Field survey (2018)



Fig. 3. Showing activities within a household
 Source: Field survey (2018)



Fig. 4. Showing the housing condition in the area



Source: Field survey (2018)

Fig. 5. Showing the housing condition



Source: Field survey (2018)

Fig. 6. Showing an overview of the area
 Source: Field survey (2018)



Fig. 7. Showing an overview of the area
Source: Field survey (2018)

V. CONCLUSION

General observation made during the course of survey reveals that the nonchalant attitude and lack of positive action of residents constitute major cause of environmental problems in the area. These make the environment much healthier and generate hazards that threaten the lives of the people in the area. The research has been able to establish that the growth of slum in Tudun Wada Jos has been influenced by series of activities ranging from growth and expansion in both government and the state crisis. The deplorable state of the slum area requires urgent attention to ameliorate the harsh and unhealthy condition experienced by the dwellers; it has become imperative to look for the way forward that will lead to the development of slum across cities and urban centers out of the unprecedented growth rate that generated various problems.

VI. RECOMMENDATIONS AND POLICY GUIDELINE

Based on major findings in the study, the following recommendations are put towards as policy guidelines towards sustainable management of the area of study. There is need for upgrading programme through rehabilitation, renovation and a new layout approach as well as provision of urban basic services. It also involves improving the existing infrastructures as well as providing new ones these would improve the structural quality and aesthetic values of the area. Economic revitalization is highly needed in the area. This will help to improve the level of capital base and potential formation among the residents that will enhance their level of provision for basic household facilities and proper maintenance of buildings. This approach offers future proceed that can sustain any improvement effort that may be put in place to revive the area. The state government is therefore called upon to support the initial effort of Ecological Department of the Federal Ministry of Environment in redeeming the image of the area, the assistance of international bodies like UNICEF and the United Nation for Human Settlement (HABITAT) is requested for an effective and enduring renewal programme to be carried out in the area.

REFERENCES

- [1] A.G. Onibokun, *Housing in Nigeria: A book of reading*, Ibadan, Nigerian Institute of Social and Economic Research (NISER), 2005.
- [2] Y.M.D. Adedeji, "Sustainable housing for low-income industrial workers in Ikeja-Ilupeju Estate: Materials initiative option," School of Environmental Technology, Federal University of Technology Akure, 2004.
- [3] O. Modupe, "Housing provision in a depressed economy," Ondo State Polytechnic, Owo, 2006.
- [4] United Nations Habitat Report, Report of the commission on human settlement on the work of its twelfth session (forty-fourth session supplement No 8 (A/44/8), New York: United Nations general assembly, 2009.
- [5] A.G Onoekerhoraye and F.K. Omole, *Basic issues in housing development*, Ondo, Nigeria, FemoBless Publication, 2002.
- [6] J.O. Basorun, *Basic elements of urban and regional planning*, Akure, Ondo State, Nigeria, Shalom Publishers, 2003.
- [7] C.K. Basic principles and methods of urban and regional planning. Lagos, Nigeria, Libra-gen Limited, 2009.
- [8] D.O. Olanrewaju and O.B. Akinbamijo, "Environmental health and target audience: A programmatic panacea for poverty alleviation in Nigerian cities," *African J. of Environmental Studies*, vol. 3, pp. 82-89.