Vol.9, No.2 pp.40-57, 2021

Print ISSN: 2056-7537(print),

Online ISSN: 2056-7545(online)

VARIATION OF HOUSING QUALITY AMONG COMMUNITIES IN WARRI SOUTH-WEST AREA OF DELTA STATE

^{1.} Mogborukor Joseph Oghenero

Department of Geography, Taraba State University, Jalingo, Nigeria

^{2.} Boyitie, Odiyirin Paul,

Department of Meteorology & Climate Change, Faculty of Marine Environmental Management, Nigeria Maritime University, Okerenkoko, Delta State, Nigeria

^{3.} Okogwu Joel

Department of Social Studies Education, Taraba State University, Jalingo, Nigeria.

ABSTRACT: The study examined the residential variation of housing conditions among communities in Warri South- West Local Government Area in Delta State. The study adopted a multi-stage random and systematic sampling technique. In adopting random sampling techniques, 16 communities were selected for questionnaire administration. The data were presented in tables, statistical diagrams and analyzed with the aid of percentages, mean, analysis of variance statistics and multiple regression was employed. Simple descriptive analyses of the distributions and cross tabulation of variables were carried out. The result of the study shows that the study area is dominated by residential houses and as one moves from one community to the other, there are differences in the internal components of the houses such as locations of toilet and bathrooms and in some neighbourhood, these are found outside the building. Therefore, it was recommended that residential housing quality should be upgraded to approve standards using modern facilities and such houses should be built in accordance with the recommended standard of building and housing in the country.

KEY WORDS: variation, housing quality, among communities, Warri South- West

INTRODUCTION

Housing is fundamental to national development and socio cultural growth in any human society. Housing is generally accepted as the second most basic needs of every individual, the family and community in general after food and it's considered a major asset of cultural, social and economic value of a society. Housing refers to as buildings or structures on long-lasting root with physical infrastructure and social amenities adequately in planned, safe, and clean neighbourhoods in meeting the elementary and extraordinary needs of the populace" (Kuroshi and Bala, 2005). Housing quality play major role in individual the health status, as a wide variety of housing features have been reported to influence the physical, social, economic and the mental well-being of occupants (Turunen et al., 2010).

Different housing situations vary from one residential to another depending on age, family, or geographical location (Oche, Ogbole Okeke and Alaga, 2015). Housing quality refers to structural qualities and facilities provided for the occupants of a building to live a decent life. This structural features are materials used to build houses which comprises of mud, thatch, sharp sand, corrugated iron sheets, wood, while the internal facilities include pipe water, access to toilets, electrical appliances etc (Adetunji and Isah, 2015).

Olotua (2016) asserted that the entirety of residential environment or micro district including the physical building, all necessary services, facilities, utilities and apparatus for the health and social well-being of the individual and family within the neighborhood is referred to as housing. It is therefore seen as the natural environment which family and society's basic units are developed. According to Mbazor (2018), housing structures encloses people which are housed for lodging, accommodating and living or even working places.

Generally, housing quality can be regarded as the entirety formal of physical, environmental, satisfaction and sanitary level of a particular residence measured against some unit of variables of livability in particular. These unit of variables according to Omole (2010), include the dwellings age, building materials types used for construction and adequate provision of facilities in various aspects of housing construction handling such as site preparation, foundational lying, walls and roofing construction as well as the roof types.

Housing in all of its upshots is more than ordinary shelter and more than roofing over one's head. A community or neighborhood becomes a livable environment when housing encirclements all of its social and utilities services. It also displays features such as adequate space, privacy, safety, ventilation, lighting, water supply, sanitation, and waste facility required for environmental health (Parry, 2015). The foregoing provides the necessary structure for assessing housing conditions in Nigeria. As the Nigerian population increases at average rate of 3.2% per annum (NPC, 2007), concerns about the provision of adequate housing for its citizenry continue to heighten which attract researches into the Nigerian housing situation. However, such efforts are been directed at the urban housing with scanty researches on the rural housing conditions (Jaitman and Brakarz, 2013). Housing, as one of the most important basic necessities of mankind, is known to adversely affect human health and well-being.

Contemporary West African cities are described by poor housing, aquatic sanitation, and community health infrastructures. From ancient time, mankind adaption to unfriendly environment and building transform their shelters. Globally, housing crisis are due to the growing population and rapid urbanization, both in developed and developing countries are currently facing with inconsistent level of harshness. According to Femi (2019), housing overcrowding among others such as traffic, poor drainage system and sewage, discharge of liquid and solid waste indiscriminately, environmental contamination, inadequate community facilities and over-utilization of existing infrastructural facilities are seen as indicators of environmental resources deficiency.

The desire to live in a house depends on how conducive and attractive the housing unit is. Conduciveness of a housing unit can be expressed by certain factors such as circulation space within the unit, the availability and affordability of basic amenities such as water, electricity, toilet facilities, occupancy ratio etc. Attractiveness on the other hand is a function of the neighbourhood facilities (accessibility, shopping centers, schools, security, hospital etc) and quality of the environment (drainage system, method of refuse collection and disposal, road network etc), personal taste, social value and affordability. Quality of housing and that of the environment have direct bearing on the lives of people in the community. Therefore, for people to function as they should, they need adequate housing in a conducive environment and functional housing units in a planned environment accorded the basic necessities for livability. Assessing the conditions for housing in the study areas/communities, therefore becomes a necessity in order to determine their functions, conduciveness and livability. Among the diverse environmental challenges facing the riverine dweller in Nigeria, the issue of housing is one of the most fundamental. Housing is not just a roof over one's head; it is the conjunction of the dwelling, the home, the immediate environment and the community, however, Housing in most riverine area are described as "inadequate" because they does not have basic facilities, infrastructure and services such as adequate space, waste collection and disposal facility, sanitation, electricity, adequate water supply and general environmental quality.

In Warri Southwest area, most of the housing qualities varies from one community to the other, in the sense that some communities have basic housing facilities such as adequate space, enough water supply, waste collation and waste disposal facilities, while others lack this housing infrastructures. The ones that lack this modern facilities still depends on traditional and outdated housing structures hence the need for such upgrtade to approved standard in order to enhance the general housing quality. The purpose of this research therefore, hinges on looking at the variations of such housing qualities among residential houses in various communities that makeup Warri Sourthwest Area of Delta State.

METHODOLOGY

Study Area

Warri South -West is a Local Government Area in Delta State, Nigeria located between latitudes $5^{\circ}20N$ and $5^{\circ}51N$ of the Equator and between longitude $5^{\circ}05'E$ and $5^{\circ}47'E$ of the Greenwich meridian. It was created in 1997 and its headquarters is situated at Ogbe-Ijoh (Figure 1).



Figure 1: Warri South -West Showing Study Area Source: Ministry of Lands, Survey and Urban Development, Asaba (2010) It has a population of 116,681 from the census of 2006 and has since been on the increase. Its projected population is put at 175,723 using annual growth rate of 3.2% by 2019. It also has an estimated land area of 1,722 Square / km. Warri South-West consists of the Ijaw and Itsekiri ethnic groups in Delta State. The Ijaws occupies Ogbe-Ijoh, Gbaramatu, Isaba and Diebiri Kingdoms while the Itsekiris occupies the Ugborodo, Ogidigben, Ajadibo, Ugbogungun, Orere, Bateren, Deghele, and Madangho communities. This Local Government Area can boasts of some largest proven of oil and gas reserves in Delta State and the Niger Delta as a whole.

The community's major sources of livelihood include fishing and subsistence agriculture. However, the most prominent means of livelihood is fishing, as majority of the people are mostly fishermen who utilize the rivers and creeks which are involved in processing of fish, marketing and other agricultural practices. The region is also of great socio-economic importance to Nigeria because of her enormous reserves of petroleum of various types of civil engineering infrastructure.

The community's economic activities have started declining and believed to have collapsed due to the oil exploration and production activities in the area. Today, fishing can no longer guarantee the indigene's stable incomes to keep the family. As a result, many of them particularly the (youths and adult males) have turned to miscellaneous contract jobs with Chevron, Nigeria Petroleum Development Company and Shell Petroleum Development Company, Nestoil Nigeria Limited, Neconde Nigeria Limited. Many jobless youths still roam the villages.

The morphology of the area has changed over the time to take up its present-day housing problems, as experienced similarly in a medium sized urban centres in Nigeria. The rate of economic development has been outpaced by the rate of urban development in Warri South-West. The vegetation of the study area is dominated by mangrove swamp forest, although further inland, it becomes rainforest. This natural vegetation setting has been extensively altered by human activities such as lumbering and in many cases, has been replaced by grassland. The vegetation is characterized by mangrove forests and drain forests. The Mangrove Swamps are low lying, generally at less than about 5m above sea level, drained and crisscrossed by tidal creeks. The typical vegetation is made up of mangrove plants of different species (red and white mangrove). The climate of the area and the soil favor the growth of mangrove trees. The study area is characterized by tropical wet and dry seasons with constant wind and waves from the Atlantic Ocean.

However, swift increase in the population of urban centres has resulted increases the cost of living due to higher demand of urban commodities. There is a high cost of housing, which is often in short supply and out of the economic reach of the majority of the dwellers households. The urban/ rural centres are inhabited by a large mass of people on low wage and who face irregular employment. This part of the urban/rural population is actually poor, and is forced to limited, insufficient, crowded, cold and dirty shelter and a generally degraded environment. Warri South- West Local Government Area is associated with a variety of problems which may include poor urban environment and housing planning leading to poor housing conditions and scattered developments. These man-made problems in turn give rise to other environmental problems such as soil erosion, flooding and general environmental degradation which are exacerbated by natural forces especially

in the face of a changing climate. However, the study focuses on the problems of variation of housing quality as they are related to the growth process.

MATERIALS AND METHODS

The data that used for this research was based on both primary and secondary sources. The primary data was gotten from field generated data through the administration of questionnaires, direct observation, oral interview and field photograph, whereas, the secondary source of data used in this research includes qualitative and quantitative data from prior works on urbanization, quality of housing and related areas from published materials. Published sources of secondary data was derived from multiple references such as books, research work, conference/seminar and working paper, government records and reports.

The study adopted a multi-stage random and systematic sampling technique. Adopting random sampling techniques, 16 communities were selected for questionnaire administration. The selected communities includes Ogbe-Ijoh, Isaba, Diebri, Oporoza, Okerenkoko, Benikrukru, Kokodiagbene, Kurutie,Ugborodo, Ogidigben, Ajadiabo, Madangho, Ugbogungun, ,Orere, Bateren, Deghele. The study through multi-stage random sampling choose a total of 16 communities with Thirty (30) respondents consisting mainly of household heads in each of the communities totaling Four hundred and Eighty (480) respondents. The data were presented in tables, statistical diagrams and analyzed with the aid of percentages, mean, Analysis of variance statistics and multiple regression analyses. Simple descriptive analyses of the distributions and cross tabulation of variables were carried out.



RESULTS AND DISCUSSION OF FINDINGS

Figure 2: Household Status in Warri South-West

Figure 2 presents the household status in Warri South-West. The result shows that 61% of the respondents indicated that their housing status is owner-occupier, while 16.3% indicated that theirs is inherited and 22.7% indicated that they are in rented apartment as tenets.

International Journal of Environment and Pollution Research Vol.9, No.2 pp.40-57, 2021 Print ISSN: 2056-7537(print), Online ISSN: 2056-7545(online) 30 Years of Stay in the area 25 20 15 Below 10 years 10 10 – 20 years 5 20 years and above 0 Ogidigben Overenkoko Benkukwu Jeborodo Jebeeuneun oebeilon Aiadiabo Kokodiasbere Diebiri Bateren Kurutie Deghele 15303 Orere Madaneho Oporola Communities

Figure 3: Years of Stay of Respondents in the Area

Figure 3 presents the years of stay of respondents in their communities. This indicates that 6% of the respondents have lived in their community for less than 10 years, while 9.6% of the respondents have lived in their community between 10-20 years and 84.4% of the respondents have lived there for over 20 years. From the result, it is evident that more of respondents have lived in their neighbourhood for 20 years. This has some implication on the study as a respondent's long time knowledge of his immediate housing quality would impact positively on their assessment of the quality of housing and environment. Therefore, the 84.4% of the respondents in this study is adequate for this kind of study on assessment of housing and residential environmental quality in Warri South-West Local Government Area, Delta State.



Figure 4: Mode of Transport of Households

In figure 4, the mode of transportation for households in the study communities are presented. From the figure, 0.8% of all respondents travel by wooden boats, 98% travel by speed boat while 1.7% travels by car. From this result, it is evident that in the 16 communities under study, the speed boat is the major mode of transport. The reason for this may not be unconnected with efficiency and time saving using speed boat as against the wooden boat where you have to paddle. The transportation by car is low because the communities are in the riverine areas of the Niger Delta which are yet to be properly linked by road. Also, the economic capacity of the people is another important factor.



Figure 5: Most Patronized Means of Mobility

In figure 5, the most patronized means of mobility is presented. The figure shows that in the 16 communities, 0.2% of the respondents' patronized tricycle and bus respectively while 1.5% and 1.7% of the respondents patronized taxi and wooden boat respectively. For speed boat, nearly all the respondents, 96.5% in all the communities utilized this means of mobility more. This figure is congruent with the result earlier presented in figure 4. The implication of this result is that there is strong preference for speed boat based on the demands of the people.



Figure 6: Distance from House to Work place

In figure 6 the distance covered by respondents from their homes to the work place is presented. The figure shows that 11% of the respondents travel a distance of between 1 to 500 meters from home to place of work while 18% of the respondents travel a distance of between 500 to 700 meters from home to their place of work. However, 24% and 47% of the respondents in the 16 communities makes a distance of 800meters to 1 km and 1 km and above respectively from home to their place of work and the implication of that on the economic status of the respondents is that much of their resources are committed to transportation to and from place of work on a daily basis.



Figure 7: Agricultural Practices in the study Area

Figure 7 shows the agricultural practices in the 16 communities under study. From the figure, 64.2% are engaged in fish farming (Fish pond), 29.2% are engaged in poultry farming, 5.8% are engaged in subsistence farming while the remaining 0.8% of the respondents are engaged in other types of agricultural practices such as subsistent. It is evident from figure 7 that majority of the people in the study are fisher men/women followed by those who raise birds in poultry farms. A few also practice the production of crops such as cassava for family consumption. The subsistent nature of agricultural practices here may not be divorced from the natural environmental setting of a riverine community coupled with the effects of environmental degradation of arable farmlands by oil spillage which occurs frequently in these communities.



Figure 8: Housing Types in the study area

International Journal of Environment and Pollution Researc
Vol.9, No.2 pp.40-57, 202
Print ISSN: 2056-7537(print)
Online ISSN: 2056-7545(online

In figure 8 the housing types in the 16 communities in Warri South-West are presented. It shows that 19.2% of the respondents indicated that their housing type is the compound system, while 2.5% indicated that it is the Brazilian house type. However, 72% of the respondents indicated that flats in the area, while 6.3% indicated duplexes in the area. The major housing type is flat system.

The major housing type is found to be flat system. The result equally shows that 100% of the respondents in the 16 communities indicated that houses in the area are used for residential purposes. This could be as a result of the terrain such that the few available lands are used to raise residential apartments. Many of the housing stock in Warri South-West are made of concrete blocks. This agrees with Sengupta and Tipple (2007) which suggested the use of four major indicator variables to analyze quality: housing consumption: dwelling size and occupancy rates.



Figure 9: Housing use

In figure 9, the housing use in Warri South-West is presented. The result shows that the 480 respondents (93%) in the 16 communities indicated that their houses are used for residential purposes. This could be as a result of the terrain such that the few available lands are used to raise residential apartments. However, very few houses have some commercial blocks attached to them as observed.



Figure 10: Hygiene-Sanitation Indicators in the study area

Figure 10 presents hygiene-sanitation indicators in Warri South-West. The result shows that 7.8% of the respondents indicated that there are no toilet facilities, while 3.5% of the respondents indicated the absence of bathrooms within. Similarly, 11% lacks access to water supply, while 77.7% expressed displeasure over the absence of waste disposal facilities respectively. The implication of this result is that both the environmental and housing conditions are below standard and are grossly inadequate.



Figure 11: Housing Walls

Figure 11 shows the housing walls in Warri South-West LGA. From the figure, it is evident that 0.8% of the respondents indicated their houses are made of mud, and 5.4% of the respondents indicated that their houses are made of burnt bricks. However, 84.6% of the respondents indicated

Vol.9, No.2 pp.40-57, 2021

Print ISSN: 2056-7537(print),

Online ISSN: 2056-7545(online)

that it is concrete blocks that were used in the walls of houses, while 9.2% indicated that it is normal brick that is used in the walls. From the result presented, it is evident that majority of the housing stock in Warri South-West is made of concrete blocks.



Figure 12: Types of Toilet in found in the houses

Figure 12 shows the types of toilet in homes in Warri South-West LGA. It shows that 45.5% of the respondents indicated that pit latrine with slab are in place, while 39.4% indicated that there are water closet system in their residential apartments. However, only 6.3% of the respondents indicated that their challenge is that there is no toilet at all and 8.7% indicated that they practice the bucket system (they excrete into a bucket with water and later empties the content in available space respectively especially in near-by bushes and water body. From the result, it is evident that pit latrine with slab and water closet is the most used toilet type in Warri South-West.

The implication of this result is that a lot of waste water generated from the bathrooms is left to pollute the immediate and remote environment. Sanitation is practiced at low level. This agrees with Sengupta and Tipple (2007); Nkwogu (2001), Olotuah (2016), who observed the urban housing conditions in Nigeria as very deplorable. This is in spite of public sector intervention in housing situation in Nigeria. The studies affirm that 75% of dwelling units in the urban centres are substandard and the dwellings are sited in slums in Nigeria.

Vol.9, No.2 pp.40-57, 2021

Print ISSN: 2056-7537(print),

Online ISSN: 2056-7545(online)



Figure 13: Location of Toilets in the Houses

In figure 13, the location of toilets in houses in Warri South-West is presented. The result shows that 34% of the respondents indicated that their toilets are located inside the building, while 66% of the respondents indicated that the toilets are located outside the building. This goes to show that more people have their toilets outside than inside the residential buildings.



Figure 14: Location of bathroom in residence

Figure 14 presents the location of bathrooms in the residence. The result shows that 32% of respondents said the bathrooms are located inside the building, while 63.8% said theirs is located outside the buildings. However, 4.2% said there are no bathrooms at all. The implication of this result is that a lot of waste water generated from the bathrooms are left to pollute the immediate and remote environment. Sanitation is practiced at low level.

Vol.9, No.2 pp.40-57, 2021

Print ISSN: 2056-7537(print),

Online ISSN: 2056-7545(online)



Figure 15: Sources of water supply

Figure 15 presents the sources of water supply in Warri South-West. The result shows that 98.5% of the respondents indicated most of the communities have central boreholes as source of water supply, while 1.5% relies on well. Since the area is in the Niger delta region, drilling of boreholes are easy to do.

Vol.9, No.2 pp.40-57, 2021

Print ISSN: 2056-7537(print),

Online ISSN: 2056-7545(online)

	N	Mean/Std. Error	Std. 95% Confidence Interval for Mean		Min	Max	
			Deviation	Lower Bound	Upper Bound		
Oporoza	10	20.50±2.766	8.746	14.24	26.76	7	30
Okerenkoko	10	21.00±3.844	12.156	12.30	29.70	3	30
Ajadiabo	10	20.70±4.527	14.314	10.46	30.94	0	30
Kurutie	10	19.60±3.074	9.721	12.65	26.55	6	30
Isaba	10	19.40±2.227	7.043	14.36	24.44	11	30
Benikrukru	10	19.60±2.166	6.851	14.70	24.50	14	30
Ogidigben	10	16.70±2.955	9.346	10.01	23.39	5	30
Ugborodo	10	16.70±2.753	8.706	10.47	22.93	7	30
Ugbogungun	10	20.00±4.394	13.896	10.06	29.94	0	30
Deghele	10	17.60±4.352	13.761	7.76	27.44	0	30
Diebiri	10	17.20±2.598	8.217	11.32	23.08	3	30
Orere	10	20.20±4.459	14.101	10.11	30.29	0	30
Bateren	10	19.20±4.027	12.735	10.09	28.31	0	30
Kokodiagbene	10	20.50±2.222	7.028	15.47	25.53	13	30
Ogbe-Ijoh	10	15.90±3.216	10.170	8.62	23.18	0	30
Madangho	10	15.50±3.280	10.374	8.08	22.92	0	30
Total	160	18.77±.822	10.403	17.14	20.39	0	30

Table 1: Housing quality in Warri South- West varies from one residential area to another

Source: Author's analysis, 2019

Table 1 shows the descriptive statistics from the Analysis of Variance results of the measures of housing quality for the 16 communities in Warri South -West LGA used in testing the hypothesis. In each of the communities, it is indicated from the result that the standard deviations score, data dispersion, is less than the mean. A low standard deviation indicates that the data points tend to be close to the mean.

Table 2: ANOVA

Indicators of Housing Quality

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	515.344	15	34.356	.296	.995
Within Groups	16693.100	144	115.924		
Total	17208.444	159			

Source: Analysis, 2019

Table 2 Shows the ANOVA analysis test for differences in the indicators of housing quality in different residential areas in Warri South- West LGA and whether we have a statistically significant difference between our group means. We can see that the significance level is 0.995 (p = .995), which is greater 0.05 and, therefore, there is no statistically significant difference in the mean of housing quality in the different residential houses in the sixteen communities. Therefore we reject the hypothesis that Housing quality in Warri South- West varies from one residential area to another. This implies that housing quality does not differ from one community to another statistically in Warri South- West Delta State.

From the tested hypothesis which states that housing quality in Warri South-West varies from one residential area to another, the study showed that there is no statistically significant variation in the quality of residential houses in the sixteen communities. Arum et al (2006) had earlier reported that walls of the buildings are built mainly with poor sand Concrete blocks, and concrete used for construction often contain excessive quantities of dust and clay matter. Arum and Olotuah (2006) averred that, the inimical of manufacture of quality good concretes are located in squalid leading to slum conditions in most cases of the environment in which the buildings are located. Also, Udoh,(2016) found out that there was deficiency of households with necessary facilities in encouraging safety, security, comfort, hygiene, sanitation, and environmental quality.

Recommendations

Residential housing quality should be upgraded to approve standards using modern facilities. Such houses should be built in accordance with the recommended standard of building and housing in the country.

Government or certified members of the Nigerian Institution of Builders and the agents of the Ministry of Housing in the location should make sure housing projects are monitored which is important to have standard and sustainable residential houses in the environment.

Government, community, individual households, LGA and State should be involved in urban and rural management approaches. This is necessary to have firsthand information by the people who live in the environment. Appropriate relation of rural-urban areas are required for easy flow of materials and resources in terms of spatial organization and interaction

The in-depth implication of this result is that government of developing nations like Nigeria griping with the terrible conditions of rural housing by consciously planning the rural environment and upgrading the human development indices of the rural people. This study therefore re-echoes the calls for massive rural development drives among third world nations.

Government and other stakeholders involved should re-enact and implement plans for massive rural empowerment and development while extending ongoing housing intervention programmes and regulatory framework to the rural areas.

CONCLUSION

The study examined the residential variation of housing conditions among communities in Warri South- West. The study is able to show that Warri South-West LGA is dominated by residential houses and as one moves from one community to the other, there are differences in the internal components of the houses such as locations of toilet and bathrooms and in some neighbourhood, these are found outside the building. The study showed that 45.5% of the inhabitants indicated that the use of pit latrine with slab while 39.4% indicated there is water closet in residential apartments in the area. However, 6.3% of the inhabitants indicated their challenge as no toilet at all and 8.7% indicated that they practice the use bucket system for feacal disposal. From the result, it is evidently noted that pit latrine with slab and water closet are the most available toilet types in the area. However, 34% of the inhabitants agreed that their toilets are located inside the building while 66% of the inhabitants indicated that the toilets are located outside the building. This goes to show that more people have their toilets outside than inside the residential buildings. In fact, 7.8% of the

inhabitants indicated that there are no toilet facilities while 3.5% of the inhabitants also observed the absence of bathroom within the house. This is ascribed to income differentials, level of education and occupation to mention but a few. It has been shown that speed boats are the most preferred as a result of environmental determinism and the negligence of the government and its agencies to develop other means of transportation. However, we think that developing the area in terms of infrastructure will change the narrative in the future and make the major occupation there, fishing a sustainable means of livelihood. This implies that housing quality does not differ from one community to another statistically in Warri South- West LGA of Delta State. The findings of the study will also enhance citizen's awareness of their housing and residential environment. Also, the access of the people to the conditions of social amenities and infrastructural facilities would be enhanced.

The study will help residents of the study area to be acquainted with the benefits of keeping and living in a healthy environment. It will aid in policy formulation to provide decent and adequate housing units as well as healthy environment for dwellers of degraded neighbourhood.

References

- Adetunji, M.A., and Isah, I.O., 2015. Urban Housing Quality and Its Health Implications in Nigeria: An Example of Lokoja, Kogi State, Nigeria. *Ethiopian Journal of Environmental Studies* & Management, 8, pp. 1-9
- Arum, C., and Olotuah, A. O., 2006. Making of Strong and Durable Concrete' *Emirates Journal* for Engineering Research (EJER), 11 pp. 25-31
- Federal Ministry of Lands, Housing and Urban Development, 2012. Federal Republic of Nigeria National Housing Policy, Abuja.
- Femi, A.B., 2019. Rapid Urbanization and Environmental Poverty in Residential Areas of Agbowo, Ibadan, Nigeria. Journal of Humanities and Social Science (IOSR- JHSS). 24,pp. 9-11
- Holne, D. 2015. *Rural Housing Policy Review*. Hastoe Group: Summary Report of Rural Housing Alliance seminar, 9 July, 2015
- Jaitman, L., and Brakarz, J. 2013. Evaluation of slum upgrading programmes: literature review and methodological approaches, Inter-American Development Bank, Technical Note, No. IDB-TN-604
- James, E., and Essien, A. 2013. The Pattern of Housing Health Status among Residential Zones in Uyo Metropolis, Akwa Ibom State. *Journal of Environmental Design*, 1,pp. 1-23
- Kuroshi, P. A., and Bala, K. 2005. Development of Housing Finance in Nigeria. *Nigerian Journal* of Construction Technology and Management, 6, pp. 7-18.
- Mbazor, D.N. 2018. Assessment of Housing Quality and Environmental Conditions in Selected Areas of Akure, Nigeria. *International Journal of Development and Sustainability*, 7,pp. 11-19
- Nkwogu, U. O. 2001. Sustainable urban development policy issues in Nigeria, In U. O. Nkwogu (Ed.) *Architects and architecture in Nigeria: a tribute to Prof. E. A. Adeyemi*, Association of Architectural Educators in Nigeria, pp.177 208

Vol.9, No.2 pp.40-57, 2021

Print ISSN: 2056-7537(print),

Online ISSN: 2056-7545(online)

- NPC 2007. Population and Housing Census of the Federal Republic of Nigeria, Abuja: National Population Commission 2006. *Population and Development Review*, 33,pp. 206-10
- Oche, J.O., Ogbole, J.O., Okeke, H.U., and Alaga, A.T. 2015. Geospatial Assessment of Housing Quality in Moro, Ife North Central Local Government, Osun State, Nigeria. *Greener Journal of Environmental Management and Public Safety*,
- Olotuah, A.O. 2016. The State of Repair of Buildings in Akure, Nigeria, Proceedings of CIB W107 Construction in Developing Economies International Symposium, "Construction in Developing Economies: New Issues and Challenges", 18-20 January, Santiago, Chile, paper 3.1 CD ROM.
- Olotuah, A. and Aiyetan, A., 2006. Sustainable Low-Cost Housing Provision in Nigeria: a bottomup, participatory approach. In: Boyd, D. (Ed.), Proceedings of 22nd Annual ARCOM Conference, 4 – 6 September, Birmingham, UK, Association of Researchers in Construction Management, 2, pp.633–639
- Omole, K. 2010. An Assessment of Housing Condition and Socio-economic lifestyles of Slum Dwellers in Akure, Nigeria. *Contemporary Management Research*, 6, pp.273-290
- Parry, J., 2015. From slums to sustainable communities: The transformative power of secure tenure, issue paper on secure tenure for urban slums, Habitat for Humanity in conjunction with Cities Alliance.
- Sengupta, U., and Tipple, A.G.,2007. Performance of public-sector housing in Kolkata, India, in the post-reform milieu, *in Urban Studies*, 44, pp. 2009-2027
- The Republic of Uganda 2016. *The Uganda National Housing Policy: "Adequate Housing for All"*. Ministry of Lands, Housing and Urban Development
- Turunen, M., Paanala, A., Villman, J., Nevalainen, A.,and Haverinen-Shaughnessy, U. (2010). Evaluating housing quality, health and safety using an Internet-based data collection and response system: a cross-sectional study. Environmental Health, 9, pp.69-73
- Udoh, U., 2016. Housing Conditions in Rural Nigeria: Empirical Evidence from Oil-Rich Akwa Ibom State. *Iranian Journal of Health, Safety & Environment,* 3, pp.555-564