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Assessment of People's Perception of Housing Quality in Down Quarters, Kaduna Metropolis

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Abstract

Man's perception of the environment is considered so fundamental that it becomes the main point of departure for any analysis of man-environment relations. Man reaches decisions and takes action within the framework of his perceived sets of elements and links rather than any externally defined "objective set". Though studies have shown that quality of housing development in most parts of Nigeria's urban area are of less quality compared to other parts of the developed world, but that of Down Quarters area, which is a neighbourhood within Kaduna metropolis is not yet ascertained. Therefore, this study aimed at assessing the housing quality status using; Perception of Households on Infrastructure Quality and Perception of Households on Housing Quality in the study area. The study was carried out at Down Quarters which is located within Nigeria Railway Corporation in Kaduna Metropolis of Kaduna South local Government Area. The survey method was adopted in the survey of residents, a sample size of 321 drawn by systematic sampling from the total research population of 1982. Questionnaires were administered to 321 respondents and retrieved. The research instruments used were: satellite imagery, questionnaire, camera, reconnaissance survey/observation, and personal interview were utilized as data collection instruments. The data collected with these instruments were analysed with a variety of statistical tests; descriptive statistics, and inferential statistics (Likert scale and Chi (x^2) Distribution for the analyses) using the SPSS packages. The overall condition of infrastructure was rated poor (2.21). That is, resident's ratings of the conditions of infrastructure give a HQI of 2.21 (poor). The current deteriorated state of housing in Down Quarters is in terms of poor building condition, roofing, walls, floor, window, door, toilet bathroom, ceiling, ventilation and lighting. The paper

recommends that people's perception should be sought in all physical planning to reveal the level of understanding of residents and their habitats to have adequate and better information that lead to more enlightened decision of the policy makers.

Keywords: *People, Perception, Housing, Quality, Infrastructure, Household*

Introduction

Housing quality studies can be justified because it is an indispensable, social and physical infrastructure whose quality and quantity, serves as an instrument for measuring the standard of living, the level of technological advancement, culture and civilization (Mbina, 2007). The problem of deficiency in housing quality in Nigeria is common both in urban and rural areas. The situation is very severe in urban areas due to the fact that most people live in houses that are poor in terms of quality with unsatisfactory environments. The population growth resulting from rural–urban migration and rapid urbanization is the cause which leads to homelessness, the growth of slums and overcrowding (Olotuah and Adesiji, 2005; Adeleye and Anofojie, 2011).

Housing is a dwelling unit that people live in and make a living. Providing adequate housing is a concern, not only of individuals but also of governments. Although, global data on housing quality is limited, yet the (UNCHS, 1996) asserts that the cost of doing nothing is detrimental in all spheres because the urban slums are potential breeding places for social and political unrest. Thus, international concerns have been growing over the deteriorating housing conditions in urban areas of developing nations. It is estimated that over a billion of the world's city residents live in insufficient quality housing, mostly in the sprawling slums and squatter settlements in developing countries (UN – Habitat, 2006). Such areas are regarded as areas of most visible expressions of human poverty. The quality of a residential area reflects a city's planning, development and resources allocation between socio-economic groups, and the quality of life of the residents (Coker, Awokola, Olomolaiye, and Booth, 2007). Hence, improving housing quality is a matter of great concern, especially in developing countries, including Nigeria (Olotuah, 2006).

In Nigeria, housing is generally qualitatively inadequate in the rural areas and to some extent deficiency in the supply of the required number of units. On the other hand, the major problem in urban areas is inadequacy in both quantity and quality. Since housing has been known to be highly capital intensive, the investment by government and other stakeholders should be properly directed towards achieving good quality housing environment. This is very important in order to achieve value for money for their investments.

The National Housing Policy in Nigeria was formulated in 1991 to provide

sustainable solutions to the qualitative and quantitative housing challenges confronting citizens of this country [Federal Government of Nigeria (FGN, 1991). It was revised in 2004, 2012 (FGN, 2012; Olofinji, 2015). In spite of these efforts to develop a good and workable policy framework for the housing sector, millions of citizens across Nigeria, including Kaduna are living in sub-standard houses. This suggests that Nigeria as a country is yet to get it right in meeting the housing needs of her citizens and residents.

Housing is recognized world-wide as the basic necessity of life and a pre-requisite to survival of man (UN–Habitat, 2006; Adeleye and Anofojie, 2011). That is why the United Nations Habitat has a global concern of the existence of the phenomenon not in just urban areas but with rural areas inclusive. However, the question here is that "how habitable should a house be?" which has brought us to the issue of housing quality. Housing quality is the state at which a house is habitable. Habitability of a house is determined by various indicators some of which are classified into external/internal indicators. Some are also classified into physical, social, environmental, building, infrastructural attributes. These indicators include condition of building, building density, occupancy rate, availability of sanitary services, public water supply, public power supply, ventilation, lighting, aesthetic, security, drainage, landscape, sanitation, type of construction materials and external environment of the house, open spaces and existence of waste management systems. Others include road accessibility, availability of health services (such as health offices, dispensaries, maternity home and clinic, health centre, neighbourhood hospital etc.) within 500m service radius for urban areas, educational services (such as nursery school, primary school, secondary school and higher institution) within a service radius of less than 200m for nursery school, 500m for primary school, one km for secondary school and 10-20kms for higher institutions, postal service, recreational services. Irrespective of the perspective at which one is viewing the subject, housing indicators determine the quality of a house.

Perception of housing quality is the process of attaining awareness or understanding of the environment by organizing and interpreting sensory information. All perception involves signals in the nervous system, which in turn result from physical stimulation of the sense organs (Amao, 2012). Since the beginning of man, everyone has different perceptions of the environment, but these perceptions are also an expression of the time, context and culture in which the individual lives. Man's perception of the environment is considered so fundamental that it becomes the main point of departure for any analysis of man-environment relations. Man reaches decisions and takes action within the framework of his perceived sets of elements and links rather than any externally defined "objective set". The understanding of resident's perception provides better information on their reaction to issues which may lead to more enlightened decision of the policy maker Quality assessment research is an expository study which gears toward revealing the existence of the state of indicators in housing policies of study. It cut across all the components of the housing development in a study area. Though studies have shown that quality of housing

development in most parts of Nigeria's urban area are of less quality compared to other parts of the developed world, but that of Down Quarters area, which is a neighbourhood within Kaduna metropolis is not yet ascertained. Therefore, this study aimed at assessing the housing quality status using; Perception of Households on Infrastructure Quality and Perception of Households on Housing Quality in the study area.

STUDY AREA

Down Quarters is located within Nigeria Railway Corporation in Kaduna Metropolis of Kaduna South local Government Area. The area lies approximately between Latitudes 10^0 2' 0''N and 10^0 45' 0''N and to Longitudes $7^0$15' 0''E and 7^0 35' 0''E (Enoch, 1987). The area has a population of 17,178 persons (NPC, 2006) and projected to be 23,778 in 2017. It is mainly a residential area within Nigeria Railway Corporation premises. It is bounded to the West by Kachia road, to the North by River Kaduna and Kinkino, to the South by Ungwan Mission and to the East by Makera (Figure 1 and 2). The major river has great influence on the growth of the area; since some of the residents practice dry season farming in the area. Down Quarters is dominated by Gbagyi with few other ethnic groups like the Hausa, Igbo, Yoruba, and Southern Kaduna.

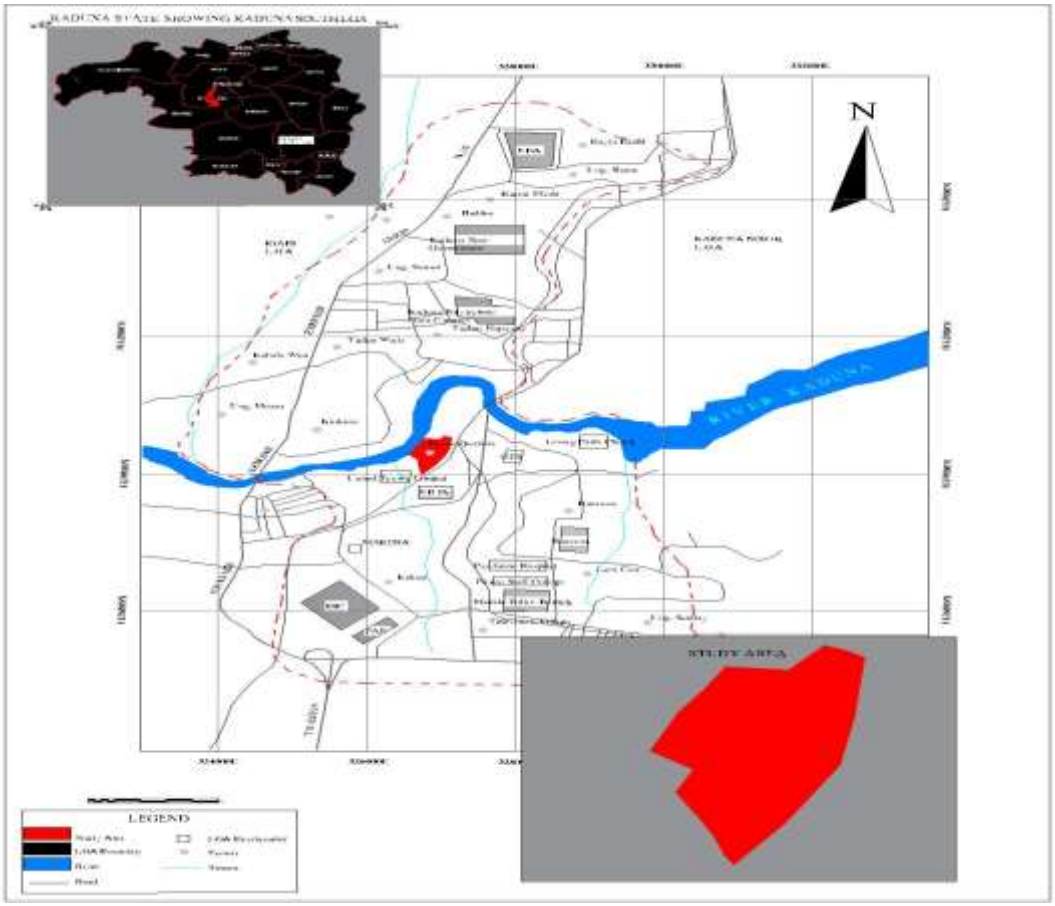


Figure 1: Kaduna South Local Government Area Showing Down Quarters

Source: Dept of Cartography and GIS, Kaduna Polytechnic (2017)

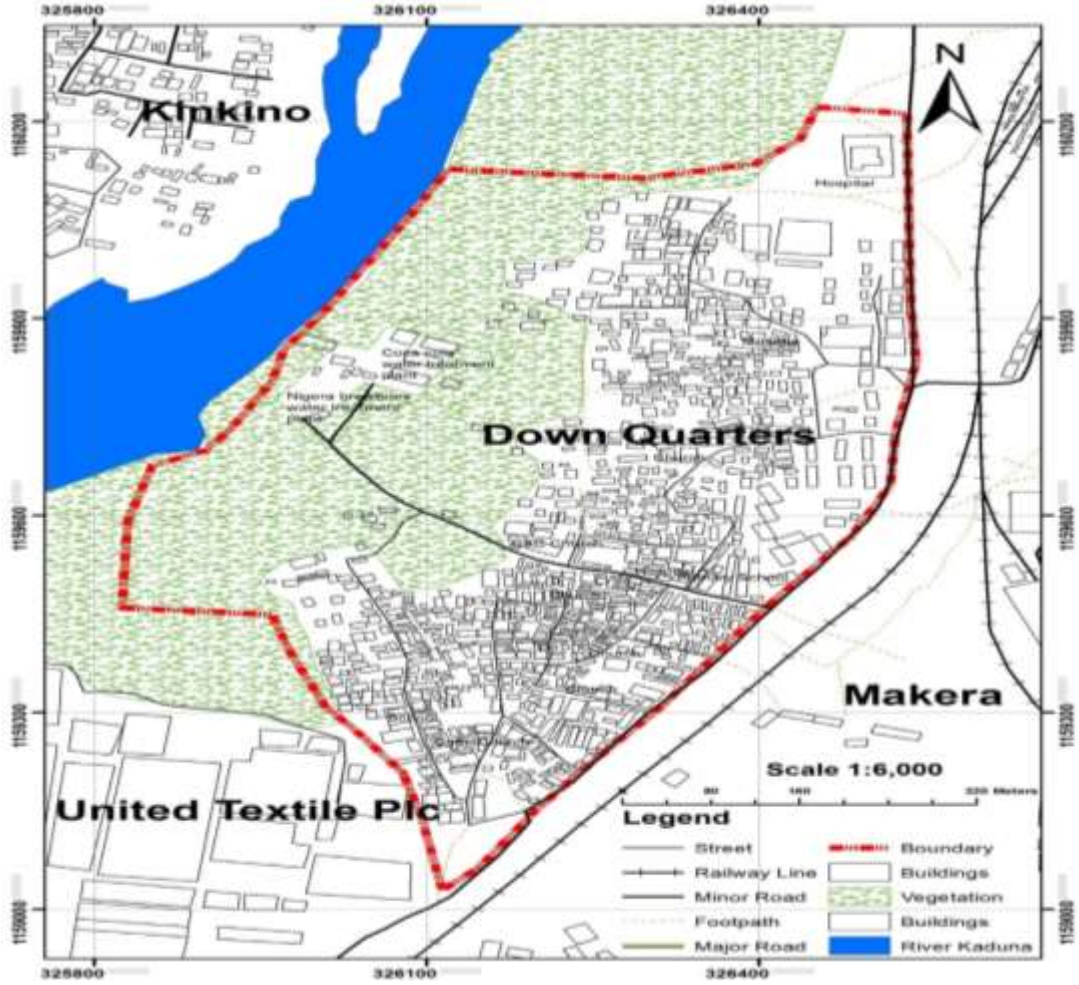


Figure 2: Existing Situation of Down Quarters
Source: Dept of Cartography and GIS, Kaduna Polytechnic (2017)

METHODOLOGY

The survey method was adopted in the survey of residents. A sample size of 321 was drawn by systematic sampling from the total research population of 1982 (1288 old Down Quarters and 694 new Down Quarters respectively). Questionnaires were administered to 321 respondents and retrieved, indicating a return rate of 100%. However, examination of the responses to the questionaire showed 11 omissions in the returned questionnaires, indicating a response rate of over 97% (310) in terms of number with complete responses. The research instruments used are: satellite imagery, questionnaire, camera, reconnaissance survey/observation, and interview guide were utilized. The data collected with these instruments were analysed with a variety of statistical tests; descriptive statistics, and inferential statistics (Likert scale and Chi (x^2) Distribution for the analyses) using the SPSS packages.

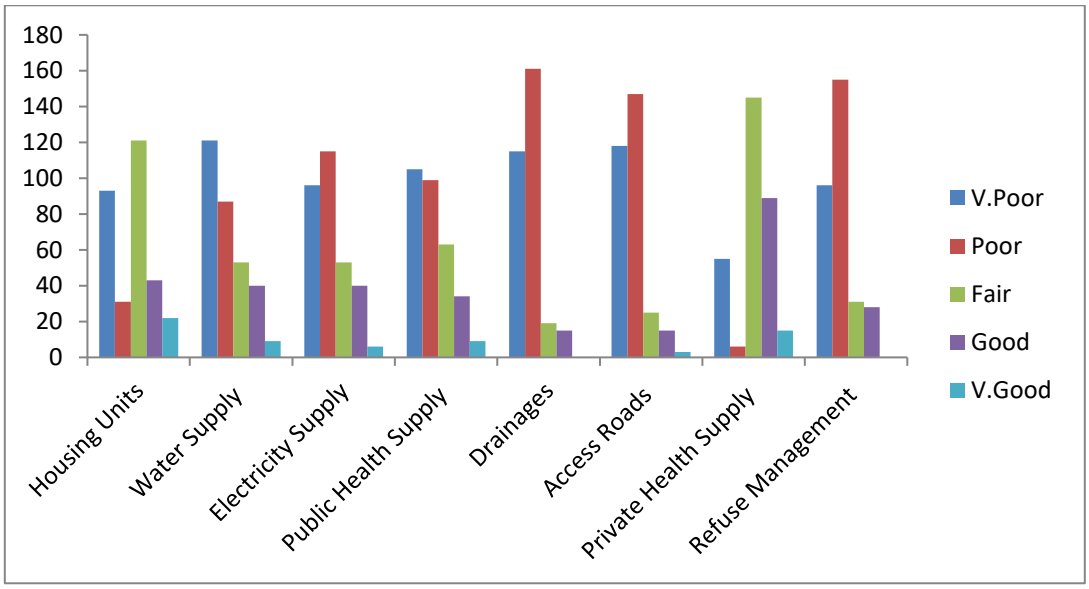
DATA ANALYSIS, RESULTS AND DISCUSSION

In assessment of housing quality status two parameters were used; Perception of Households on Infrastructure Quality in the study Area and Perception of Households on Housing Quality in Down Quarters.

Perception of Households on Infrastructure Quality in the Study Area

Eight variables were utilised to examine the infrastructure condition of the housing in the study area. These variables are housing units, access roads, drainage system, refuse management, water supply, public health facilities, private health facilities and power supply. In this examination, respondents' ratings were considered. For this study, five ratings were employed, namely: Very Poor (VP), Poor (P), Fair (F), Good (G) and Very Good (VG). Based on this rating, Figure 3 shows that access roads have the highest very poor and poor ratings. The housing units have the highest 'very good' rating, followed by public health with highest 'good' rating. In the ranking as shown in Table 1, only housing units and private health facilities ranked 2.58 and 3.03 respectively have fair rating. While water supplies, public health facilities, and electricity supply followed, each other with ranking of 2.13, 2.17 and 2.18 respectively have poor rating. Drainage system, access roads and refuse management were ranked least - 1.75, 1.83 and 1.97 respectively have very poor rating. Plate 1 shed light on the unorganised refuse disposal commonly seen in the study area. The overall condition of infrastructure was rated poor (2.21). That is, resident's ratings of the conditions of infrastructure give a HQI of 2.21 (poor).

Figure 3: Rating Status of the Infrastructures Variables



E g; Housing units

$$MWV = \frac{\sum MV}{N} = \frac{94\times1+30\times2+121\times3+43\times4+33\times5}{310} = \frac{800}{310} = 2.58$$

Where:

$MWV = \sum MV / N$, where N= population of respondents. …… (i)

$HQI = \sum MWV / Y$, where Y= total number of variables……(ii)

Housing quality index

$$HQI = \sum (MWV)/Y = \frac{2.58+2.13+2.18+2.17+1.75+1.83+3.03+1.97}{8} = 17.64/8 = 2.21$$

Table 1: Perception of Households on Housing Quality in Down Quarters

S/N	Infrastructure	Ratings and weighted values					SWV	MWV
		VP (1)	P (2)	F (3)	G (4)	VG (5)		
1	Housing units	94	30	121	43	22	800	2.58
2	Water supply	121	87	53	40	9	659	2.13
3	Electricity supply	96	115	53	40	6	675	2.18
4	Public health supply	105	99	63	34	9	673	2.17
5	Drainages	115	161	19	15	0	544	1.75
6	Access roads	118	149	25	15	3	566	1.83
7	Private health supply	55	6	145	89	15	939	3.03
8	Refuse management	96	155	31	28	0	611	1.97
Total								17.41
HQI							$\sum (MWV)/Y = 17.41/8 = 2.17$	2.17

Plate 1: Unorganized refuse disposal by the households in study area

Perception of Households on Housing Quality in Down Quarters

The parameters to assess the status of housing quality in the study area are basically the housing characteristics, which comprise 11 variables including roof, wall, floor, window, door, toilet, bathroom, ceiling, ventilation, lighting and building condition. These parameters are assessed based on respondents' perception. Although the housing unit or dwelling is a sub-sect of infrastructure, individual components of dwellings were analysed separately to ascertain their conditions. From Table 2, respondents rating of roof and ceiling were both ranked the highest with 2.40 and 2.53, which is poor. The bathroom, floor and building condition with rankings of 1.86, 1.85 and 1.83 respectively, which are also very poor. Further down the ranking is the wall and lighting which ranked 1.64 and 1.62 respectively. Window ranked least with 1.54. The overall condition of building components was rated 1.84 (very poor). This scenario is further illustrated in Figure 4 where windows recorded the highest poor rating of 207, while toilets recorded the highest poor rating of 118. Roof and ceilings recorded the highest in the very good rating of 12. However, physical studies of buildings revealed that a high proportion of structures were in very bad state for example, the walls, roofs and staircases were dilapidated, due to lack of adequate maintenance. Further finding revealed that housing facilities in the study area were over 40 years old. Since structures degenerate with age and become obsolete with time. The current deteriorated state of housing in Down Quarters cannot be unconnected to poor building condition, roofing, walls, floor, window, door, toilet bathroom, ceiling, ventilation and lighting. Plate 2 is an evidence of the Poor roofing condition in Down Quarters. In term of building material, Plate 3 shed light on the type of building material used in construction of housing in down quarters.

Table 2: Perception of Households on Housing Quality in Down Quarters

S/N	Housing Variable		Ratings and weighted values					SWV	MWV
			VP (1)	P (2)	F (3)	G (4)	VG (5)		
1	Roof		96	31	155	16	12	747	2.40
2	Walls	162	105	37	3	3	510	1.64	
3	Floors	146	96	40	22	6	576	1.85	
4	Windows	207	62	19	19	3	479	1.54	
5	Doors	192	87	16	15	0	474	1.52	
6	Toilet	149	118	25	15	3	535	1.72	
7	Bathroom	146	87	56	15	6	578	1.86	
8	Ceilings	96	32	155	15	12	785	2.53	
9	Ventilation	155	96	31	28	0	552	1.78	
10	Lighting	164	109	28	6	3	505	1.62	
11	Building condition	164	93	53	12	6	569	1.83	
Total								20.29	

HQI	$\sum(MWV)/Y = 20.29/11 = 1.84$	1.84

Figure 4: Rating Status of the Housing Variables

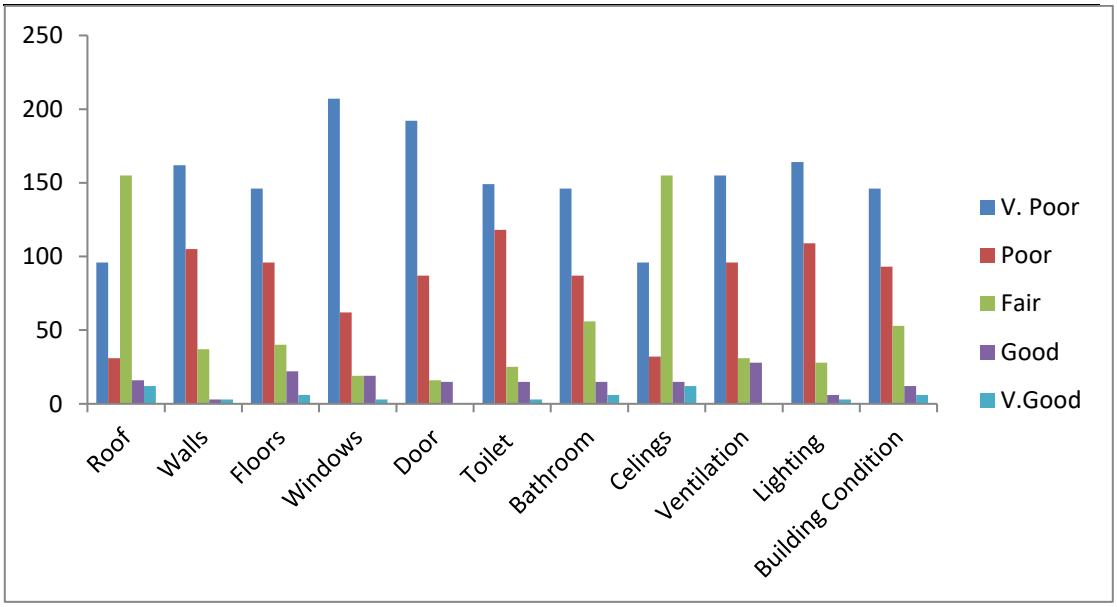


Plate 2: Poor Roofing Condition in Down Quarter

Plate 3: Type of Building Material Used in Construction of Housing in Down Quarters

Discussion

The current housing problems in the study area are low quality housing and blighted environments are inimical to the general wellbeing and quality of life of the people. Therefore there is need to appraise the perception of residents and non-residents of Down Quarters on the quality of their housing as this will go a long way to ensure the provision of quality and functional housing that will meet the need of the people in the area. The housing characteristics score of the research population, obtained from resident's perception was 1.84; suggesting that the housing quality is very poor. Efforts of the housing providers and other stakeholders in Down Quarters housing are not commendable because in all the 310 sampled dwelling units, majority of the houses were either rated as having below average quality or poor quality, thereby suggesting that the housing quality is very poor. The housing quality index (HQI) value for the study area obtained from respondent's perception is reliable since it was derived from broad-based or near-holistic design. Real HQI assessment is not just about getting the value, but about understanding the dynamics for maintenance and improving its diverse aspects.

CONCLUSION AND RECOMMENDATION

The perception of the residents on the housing quality of the area were assessed using Households on Infrastructure Quality and Households on Housing Quality in study area. This revealed the level of understanding of resident's and their habitats that provides better information on their reaction to issues which may lead to more enlightened decision of the policy makers. From the findings, the following conclusions can be made; Efforts of the housing providers and other stakeholders in Down Quarters are not commendable. The

presentation and analysis of data stated above revealed that Infrastructure Quality and the Housing Quality is very poor.

However, the paper makes some recommendations as follows:

1. i. The underlying factor responsible for people living in substandard houses with non-durable materials is absence of development plan and poverty due to low income. Measures aimed at provision of development plan and reducing poverty will have significant effect on housing quality.

i. In view of the study, result showing that over majority of the predictors of housing quality are related to housing unity, refuse management, drainages, water supply, public health facilities, private health facilities, power supply, access roads, roof, wall, floors, doors, windows, toilet, bathroom, ceilings, ventilation, lighting and building condition aspects; while few are linked to residents socio-economic characteristics, therefore more attention should be paid to the facilities parameters and improve income level of household among others in the study area.

ii. It is also suggested that steps be taken to improve the quality of housing schemes should target at the low income earners. This is in view of the fact that the houses investigated; are for low-income people and were rated very poor. This can be achieved by empowering the people which will improve their standard of living as well as quality of their housing.

iii. The situation where most of the households depend on well water for the supply of water for domestic consumption is very worrisome as this has serious health implications. It is therefore recommended that this should be addressed. One of the ways for achieving this for the residents is through Community Development Associations (CDAs) to partner with government to set up efficient water supply systems in the study area by sinking (more) boreholes and regular public water supply. This can ensure constant supply of good drinking water for residents of these study area.

iv. Government should adopt the following measures to improve the standard of living and improve housing conditions in the study area: improvement in government poverty alleviation programmes implicit in the Sustainable Development Programme, effective urban development policy, partial upgrading of the environment, effective development control, provision of development plans for the area, provision of effective loan scheme, enforcement of housing and building codes, improvement in the sanitary conditions and ensure effective implementation process. In conclusion if all the aforementioned recommendations are strictly and properly carried out, it will bring about useful result that will improve the quality of housing in the study area.

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