

# Assessment of Qualitative Adequacy of Public Housing Schemes in Ado-Ekiti, Nigeria

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## Abstract

Nigeria is a developing country with severe housing deficiency. The quality of housing is particularly poor, and there is a high magnitude of housing needs while the vast majority of the populace does not have the wherewithal to make effective demand. There has been public sector intervention to ameliorate the appalling situation over the years, beginning from the pre-independence era. Public housing schemes have been embarked upon by government in various locations nationwide. This paper appraises public housing schemes in Ado-Ekiti, the capital city of Ekiti State, Nigeria in terms of their qualitative adequacy and hence their livability. Twenty-five (25) variables were examined in 146 buildings comprising 243 cases. Quality indices were derived for the variables which enabled the determination of a numerical value for the qualitative adequacy for each of the housing schemes studied. The qualitative adequacy values obtained indicate that the estates are barely above average in livability and thus are deserving of critical attention by the authorities concerned (the Federal Ministry of Housing and Urban Development, and the State Housing Corporation).

**Keywords:** development, housing, public, quality, variables.

## 1.0 Introduction

Housing studies in Nigeria have shown that there is a monumental deficiency in housing quality in the country's urban centres (Daramola, Oluwole, Aduwo and Ogbiye, 2005; Adegbehingbe, 2011; Olotuah, 1997, 2000). The rural areas do not fair better. Rural areas lack safe, sanitary and secure housing. Rural dwellers do not have access to public infrastructure and services such as safe drinking water, electricity and sewage disposal (Olotuah, 2005).

The rate of provision of new housing stock in Nigeria lags severely behind the rate of population growth resulting in staggering housing shortages (Adejumo, 2008, Olotuah 2002). Nigeria requires more than 70,000 housing units to cope with the population trend (Onyebueke, 2002; Isimi, 2005; Okedele, Adebayo, Iweka and Uduma-Olugu, 2009, Olotuah & Aiyetan 2006). Public intervention to resolve the housing quagmire in Nigeria has taken various forms. The earliest involvement of government in housing in Nigeria was as a result of the bubonic plague in Lagos between 1925 and 1928 (Abiodun, 1985). This sensitized the government on the public health hazard consequences of poor housing which has since informed government participation in order to set standards of space and quality (CASSAD, 1993).

Since the late 1960s, government's involvement in housing has covered such areas as:

- i. provision of staff quarters;
- ii. staff housing loans to government workers;
- iii. direct house construction in public schemes; and
- iv. site-and-services schemes.

The involvement of government in direct house construction in Nigeria dates back to the pre-independence era when staff housing was constructed in Government Reservation Areas (GRAs) in regional capitals. Massive direct house construction was however first initiated in 1973 when Federal Government planned to build 15,000 housing units at different locations throughout Nigeria (FGN, 2004). The Federal Housing Authority (FHA) was established that year to oversee the housing programme of the Federal Government. In 1979, the second civilian government embarked on construction of low-cost houses on a very large scale. Forty thousand (40,000) houses were to be constructed annually in the country for the 4-year period; 2,000 in each of the nineteen states and Abuja, the Federal Capital Territory. Out of these, 80 percent was earmarked for low-income earners. However the target set was not met in any state of the federation. By the end of its tenure in 1983 only 1280 units had been completed in the old Ondo State (which includes figures for Ekiti State carved out of Ondo State) out of a target of 8,000. The public housing scheme of the Federal Government in Ado Ekiti is one of the estates of the old Ondo State where the low-cost houses were built.

State Governments have similar programmes of housing provision which were mainly executed through the housing corporations or property development authorities of the various states. The corporations embarked upon the construction of houses in estates for the general public. The old Ondo State housing corporation built a number of housing units in various estates. The state housing estate at Ado Ekiti is one of such estates. These two estates at Ado-Ekiti form the subject of this appraisal, to evaluate their qualitative adequacy which is an indicator of their livability.

## 2.0 Research Methodology

The research instrument used in the research reported in this paper was a questionnaire designed to investigate a number of variables that impinge upon housing quality. The variables were structured in question form and responses were sought in pre-coded alternatives given. The questionnaire was administered by research assistants who had been properly trained in this regard. Two public housing schemes were selected for study, namely the Federal Low–Cost Housing Estate, and the State Housing Estate, both at Ado-Ekiti, Nigeria.

A total of 243 cases were examined on both estates comprising 97 semi-detached houses (194) cases and 49 single-family houses. A copy of the questionnaire was administered in each case with the head of each household being the respondent. The questionnaire was written in English Language and in a situation where a respondent was not literate it was translated into Yoruba which is the local tongue. In the event of the absence of the household head the most elderly person available completed the questionnaire. The entire population was reached in the survey which lasted a week.

### 2.1 Quality index and qualitative adequacy value

In order to determine a quantitative value for the qualitative adequacy of each of the housing estates, quality indices were calculated for the variables under examination. There were 25 variables taken into consideration under three broad headings:

1. Facilities: The facilities provided in the dwelling units were assessed taking into consideration their provision and use, room sizes and comfort conditions (ventilation and lighting).
2. Public and Social Services: Essential services required for human habitation such as water supply, electricity supply and telecommunication were investigated. These investigated their availability, source of supply, frequency of supply and performance.
3. Sanitation and Safety: Variables investigated include mode of refuse/waste disposal, smoke evacuation from kitchen and waste water discharge from bathrooms. The opinions of respondents on the quality of their immediate surroundings and neighbourhood were sought.

To obtain the quality index (QI) of each of the variables, the responses were scored as follows:

- (a) A maximum score of 1.0 was assigned to the most appropriate methods or solution;
- (b) An intermediate score of 0.6 was assigned to probable methods or solutions which were considered slightly above average; and
- (c) The minimum of 0.2 for least appropriate methods or solutions.

The quality index (QI) for a variable is the product of the percentage of occurrence (P) and the score (S).

$$QI = P/100 \times S \quad \dots\dots\dots 1$$

Consider the variable: *Frequency of collection of refuse/waste in the State Housing Estate* (Table 1).

**Table 1:** Frequency of collection of refuse/waste in the State Housing Estate Ado-Ekiti

	%(P)	Score(S)	QI(P/100 x S)
Daily	5.0	1.0	0.050
Weekly	17.0	0.6	0.102
Monthly	5.0	0.2	0.010
Others	73.0	0.0	0.000
Total	100.0	-	0.162

**Source:** Olotuah’s Computation, 2009

See Table 2 for the summary of the QI for all variables investigated. The qualitative adequacy value (QAv) for each of the estates is the arithmetic mean of the quality indices of the 25 variables investigated, thus:

$$QAv = \frac{\sum QI}{n} \quad \dots\dots\dots 2$$

where n is the total number of variables tested, i.e. 25.

The maximum value for the qualitative adequacy is 1.0. The QAv for the Federal and State Housing Estates are 0.683 and 0.677 respectively (Table 3). The closer the value is to 1.0 the higher the livability of the environment and conversely the closer it is to zero the lower it is.

## 3.0 Research Findings

The research findings indicate the enormity of the deficiency of essential public and social services in the study area. For instance, piped-borne water from public mains is very much irregular in the two estates. Owing to its indispensable nature, water is sought from all manners of sources of varying degrees of purity. Fifty-five and eighty-nine percent (55% and 89%) of residents of the state and federal estates respectively rely on shallow wells

(Table 4). These wells often dry up during dry season (October to March) and the residents have to resort to streams for water supply. This reflects in the responses of residents on the frequency of the major source of water supply which is mainly regarded as uncertain. The near absence of portable drinking water constitutes a threat to the health and welfare of the residents.

Electricity from public mains is connected to all buildings on the two estates. However, the performance of the supply is poor. Fifty-four percent (54%) of the respondents in the state housing estate and 50 percent of those in the federal estate claim that power supply is obtained less than 12 hours daily (Table 5). Even when the supply is on, the voltage is often so low that it cannot energize domestic electrical and electronic equipment. Erratic supply of electricity impairs health especially in situations of reliance on artificial ventilation, cold storage for vegetable and animal products and in the use of alternative light sources of poorer luminous flux which even emit smoke and offensive gases.

**Table 2: Quality Indices (QI) of Housing Variables**

S/no	Variables	QI <sub>f</sub>	QI <sub>s</sub>
1.	Toilet Type	1.000	0.950
2.	Toilet Use	1.000	1.000
3.	Kitchen Type	0.936	0.912
4.	Kitchen Use	1.000	1.000
5.	Laundry space	0.330	0.434
6.	Living/Dining Room: Ventilation	0.910	0.880
7.	Living/Dining Room: Size	0.758	0.744
8.	Living/Dining Room: Natural Lighting	0.846	0.854
9.	Bedrooms: Ventilation	0.768	0.798
10.	Bedrooms: Size	0.668	0.724
11.	Bedrooms: Natural Lighting	0.738	0.744
12.	Public Water Supply	0.060	0.090
13.	Electricity (NEPA) Supply	1.000	1.000
14.	Telecommunication	0.030	0.390
15.	Source of Water Supply	0.276	0.490
16.	Frequency of Water Supply	0.658	0.330
17.	Electricity Supply: Performance	0.382	0.352
18.	State of Repair	0.712	0.740
19.	Walling Materials	0.976	0.896
20.	Mode of Refuse Disposal	0.536	0.568
21.	Refusal Disposal Frequency	0.518	0.162
22.	Bathroom: Waste Water Discharge	0.852	0.848
23.	Kitchen Smoke Evacuation	0.708	0.852
24.	Immediate Surroundings: Quality	0.684	0.566
25.	Neighbourhood Quality	0.740	0.590
	Sum Total	17.086	16.914

**Note:** QI<sub>f</sub> – Quality indices of variables; Federal Housing Estate, Oke-Ila, Ado-Ekiti

QI<sub>s</sub> – Quality indices of Variables, State Housing Estate, Oke-Ila, Ado-Ekiti.

**Source:** Author's Computation, 2009

**Table 3: Qualitative Adequacy value for Federal and State Housing Estates Ado Ekiti**

	QI	n	QAv
Federal Housing Estate, Ado Ekiti	17.086	25	0.683
State Housing Estate, Ado Ekiti	16.914	25	0.677

**Source:** Author's Computation, 2009

**Table 4: Source of Water Supply**

Source	Federal Housing Estate Ado-Ekiti (%)	State Housing Estate Ado-Ekiti (%)
Tap water inside	6.0	9.0
Tanker service	2.0	26.0
Borehole	3.0	5.0
Well	89.0	55.0
None	0.0	5.0
Total	100.0	100.0

**Source:** Fieldwork, 2008

**Table 5:** Performance of Electricity Supply from Public Mains

Source	Federal Housing Estate Ado-Ekiti (%)	State Housing Estate Ado-Ekiti (%)
24 hours service	6.00	0.0
12 - 24 hours service	44.00	46.33
6 - 12 hours service	29.00	37.00
Less than 6 hours service	3.00	10.00
Uncertain	18.00	6.67
<b>Total</b>	<b>100.0</b>	<b>100.0</b>

**Source:** Fieldwork, 2008

**Table 6:** Mode of Refuse/Waste Disposal

Source	Federal Housing Estate Ado-Ekiti (%)	State Housing Estate Ado-Ekiti (%)
State/Local Government	0.0	3.0
Refuse dumping	16.0	11.0
Burning	84.0	86.0
<b>Total</b>	<b>100.0</b>	<b>100.0</b>

**Source:** Fieldwork, 2008

Of definite importance in the determination of housing quality is the mode of refuse/waste disposal in the estates. Wastes are continually generated in man's daily living and disposal of same must be thorough to ensure healthy living. Burning of refuse constitutes the major mode of disposal in the two estates; 86 and 84 percent for the state and federal estates respectively (Table 6). Others simply dump their refuse on unsightly sites on the estates. Refuse burning is a source of air pollution which could constitute health hazard. It is however minimal if it is done on individual plots and on small scale.

A component part of the livability of the estates investigated is the perception of the residents on the quality of their environment. This suggests the level of satisfaction of the residents with their housing conditions and general socio-economic circumstances. The research data show that 78 and 79 percent of the residents of the state and federal estates respectively consider their neighbourhoods as either satisfactory or fair. This is in spite of the deficiencies in infrastructural and social services. The social needs of the users and their aspirations which might have been met by home ownership are probable causative factors. Another factor that might be responsible for a high level of satisfaction with the neighbourhood is pleasant social relations with neighbours. This fosters communal living which is very much a part of the culture of the people. The quality of their immediate surroundings depends on the environmental conditions prevalent in each of the dwelling units and the use to which they put the surroundings. This variable was highly rated on both estates.

#### 4.0 Recommendations

The research has shown the inadequacy in the supply and performance of public infrastructure and services on both estates. These facilities are essential for the well-being of the residents and thus the livability of the estates should be improved upon. Of particular importance are water and electricity which are explanatory variables of housing quality measured as quantitative adequacy value (QAV).

Government should ensure steady supply of electricity to the estates to avoid health hazards that could emanate otherwise, as well as social menace such as robbery during blackouts at night. The estates require supply of transformers exclusively for their use to ensure that the current supplied is adequate and to eradicate the incidence of over-loading often complained of by the electricity authority. Boreholes should be sunk on both estates and overhead reservoirs constructed with capacity large enough to supply the estates. The management agencies for both estates should do this as a matter of utmost importance. Reliance on well water in Ado-Ekiti portends danger as well water in the city is largely unsafe for drinking (Akande, 1998). This is aside from the grievous hardship the residents experienced when the wells dry up during the dry season.

The State Waste Management Board should be involved in the clearing of wastes generated on both estates. The board should construct incinerators on the estates and work procedures out for removing the wastes

from individual plots at a reasonable fee to be paid by the residents. Residents should be required to build external drains to take discharged waste water from their bathrooms and kitchens, into the side drains of the estate roads. The perception of the residents on the quality of their neighbourhoods is an explanatory variable of housing quality. This is highly rated by the residents in spite of the deficiencies in the essential services. A number of social factors were found to have informed it which implies that users' needs are contributory factors to housing quality. In this regard government has to improve on the provision of facilities that can enhance communal living. These include civic centres and recreation facilities. These communal facilities bring people together and enable them to share experiences and ideas. This goes a long way to fostering a sense of belonging on the residents and consequently enhancing the quality of life on the estates.

## 5.0 Conclusion

This paper appraises the qualitative adequacy of public housing schemes in Ado-Ekiti Nigeria which were built to ease the housing problems of the city's populace. The quality of life in the estates is of paramount importance as housing needs have qualitative dimensions. The qualitative adequacy values obtained indicate that the estates are barely above average in qualitative adequacy and thus are deserving of critical attention by the authorities concerned i.e the Federal Ministry of Works and Housing and the State Housing Corporation.

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