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HOUSING QUALITY ASSESSMENT IN SELECTED PUBLIC RESIDENTIAL ESTATES IN AMUWO-ODOFIN L.G.A, LAGOS, NIGERIA

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ABSTRACT

Lagos State has witnessed rapid population and urbanization growths over the last three decades. However, demand for housing far exceeds supply to carter for this increase. This has resulted in acute deterioration in existing housing stock. This study therefore examines the quality of housing in Amuwo-Odofin in Lagos State. Data was collected from primary and secondary sources. Questionnaire was administered to both residents and management of selected estates. Results of the study showed that majority of the houses and infrastructure were in poor condition. Analysis of data shows that a large proportion of infrastructure is in deplorable condition with an index of 1.80, measured on a 5-point scale. The study concluded that Amuwo-Odofin housing estates are in deplorable condition; hence, the need for urban renewal.

Keywords: AOHE (Amuwo-Odofin Housing Estates); infrastructure; management (Lagos State Development and Property Corporation - LSDPC); Housing Quality Index (HQI)

1. INTRODUCTION

Adequate housing represents one of the most basic needs of every individual, having a profound impact on his health, welfare, social attitudes and economic productivity. Providing adequate housing is a concern, not only of individuals but also of governments. Although, global data on housing quality is limited, yet the United Nations (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 (Awake, 1988; UN – Habitat, 2006). Such areas are regarded as areas of most visible expressions of human poverty.

Olu-Sule (1990) and Akeju, (2007) affirmed that government investment in housing in the third world is limited and wasted on expensive projects designed to woo electorates rather than directed to meet real needs for housing. This scenario has resulted in the deplorable situation in most existing public housing schemes, Nigerian being no exception. While decent housing is regarded as the right of every individual, a great proportion of the Nigerian population lives in substandard, deplorable and unsanitary residential environments. These exacerbate by rural-urban migration, which in effect proves to be a heavy burden on cities that are already plagued with rapid population growth and urbanization (Onibokun, 1982; Oni, 1988; and Olayiwola, Adeleye, and Ogunshakin, 2005).

Howbeit, the crisis of insufficient quality housing persists and is more serious in urban areas as many people live in poor quality housing and unsanitary environments. This is because of high population growth, which is as a result incessant rural-urban migration and rapid urbanization, which manifests in homelessness, overcrowding and growth of slums (Olotuah, 2006; Lawanson, 2006). In effect, because built-up structures degenerate in quality with age and obsolescence, the high rate of neglect and consequent deterioration of housing have made blight and lack of residents' satisfaction common features in

many public housing estates in Nigeria. Lagos State is no exception and a good example of these anomalies. The reality of housing situation in Lagos State is below ideal; hence, the need therefore to appraise the condition of public housing estates vis-à-vis quality and residents' satisfaction.

2. LITERATURE REVIEW

The provision of adequate infrastructure such as good roads, electricity, water, telecommunications, sewage and drainage are basic requirements that determine the socio-economic wellbeing of an area. In Africa, statistics indicate that urban dwellings are generally overcrowded, lack elementary amenities and are surrounded by a deplorable urban landscape (Acquaye, 1985; Aduda, 2002; Olayiwola, Adeleye and Jiboye, 2006; Jiboye, 2009; NPC and ICF Macro, 2009). This exacerbate by a population growing rapidly through natural increase and the tides of industrialization in relation to the acute shortage of existing housing stock. The resultant effect is the rapid deterioration of housing in the urban centres. Nigeria falls in this category. In Nigeria, as in other African countries south of the Sahara, this problem is not only quantitative but also qualitative.

Housing, in Nigeria, is in short supply, poor quality and expensive for the generality of the populace. The rapid population growth witnessed in the country has not been adequately matched by a corresponding increase in housing stock. Adejumo (2008) asserts that the Nigerian housing needs have been high because of population growth, which has averaged 3.0 per cent per annum, rapid urbanization due to rural-urban migration, the high cost of building materials, ineffective housing policies, amongst others. Thus, Peterside (2003) noted that Nigeria's drive towards "housing for all" as contained in the National Housing Policy, which aims at providing affordable and qualitative housing for all had so far been on paper with no serious efforts, deliberate or otherwise, at implementation and continued to be an illusion and a frustration to the larger population. He further affirmed that efforts of successive governments at meeting every set target have failed as housing deficit still stood at over 16 million units.

Despite this acute shortage, problems of inadequate or complete absence of amenities in existing housing become major setbacks or hindrances to the quality of these estates and safety of residents. In many parts of the country, adequate and functional facilities do not exist and in places where

they do, they are not in good condition because of inadequate maintenance. In Edo State, for instance, Ebehikhalu (2004) affirmed that portable water, which is one of the most basic needs of man is scarce, and where available it is impure. So also are sanitary facilities, and the likes. Aduda (2002), Abiodun and Segun (2005), amongst others, established in their studies that inadequate or complete absence of infrastructure was a bane to economic and social development in Nigeria, an attestation to the afore-stated anomalies. The importance of the availability of these facilities in residential neighbourhoods cannot be over-emphasized.

3. THE STUDY AREA

Lagos State is the smallest state in terms of landmass in Nigeria, the second most populated state after Kano, with a population of 9,013,534 (NPC, 2006) and the centre of commerce and industry of the country. Although essentially a Yoruba-speaking state, it acts as a socio-cultural melting pot that attracts both Nigerians and foreigners alike. She was created on May 27, 1967 by virtue of State (Creation and Transitional Provisions) Decree No. 14 of 1967, which restructured Nigeria's Federation into 12 states. She lies in South-Western Nigeria, on the Atlantic coast in the Gulf of Guinea, west of the Niger River Delta located between Latitude 6° and 7° North of the Equator and Longitude 3° and 4° East of the Greenwich Meridian (See Figure 1).

Figure 1: Map of Nigeria indicating Lagos State
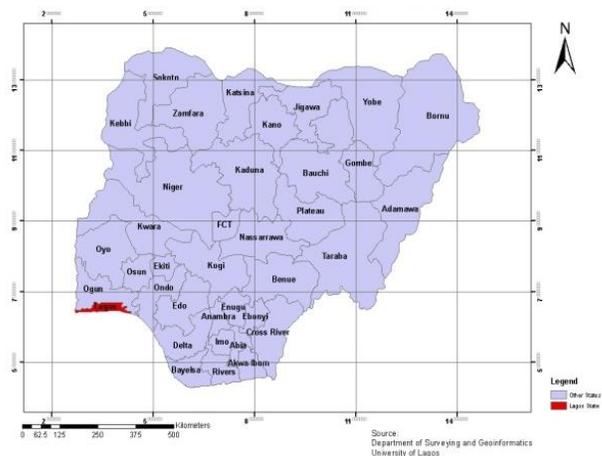
Source: Department of Surveying and Geoinformatics, University of Lagos

Amuwo-Odofin (LSDPC) housing estates are in Amuwo-Odofin Local Government Area of Lagos

State. The local government was one of the many local government areas created by the head of State, Gen. Sanni Abacha in 1996 (See Figure 2). It has a land mass of 153 square kilometres and the water area is 26.1 sq. km, which make up 179.1 sq. km. The population is very high. Government housing provision started in 1979 with the Civilian Administration's zeal to provide housing for all classes of people in Lagos State. The administration adopted a dynamic housing policy with LSDPC as the implementation agency. Hence, the 80s witnessed a rapid increase in the provision of housing for all classes of people in the state between 1981 and 1989.

Figure 2: Map of Lagos State indicating her Local Government Areas

Source: Lagos State Secretariat, Alausa, 2009.

AOHE comprises five public residential estates. These are Amuwo-Odofin low-cost housing estate, popularly called 'Jakande Estate,' Raji Rasaki estate, Crystal housing Estate, Amuwo-Odofin terrace housing estate, and Canal View estate. The scheme is located at a distance of about 3.2 km east of Lagos along Lagos-Badagry Express Way, which forms the scheme's southern boundary. The canal that receives Festival Town's storm water forms the boundary between the scheme and Festival Town on the western side. On the east, the Apapa-Oshodi Express Way bound it. Okota, which is under Isolo Local Government Area, bounds the north. A vivid description of the estates are attempted below.

i. **Amuwo-Odofin low-cost housing estate** comprises 2,948 housing units of blocks of flats of 2-storeys 2-bedrooms and 3-bedrooms. It comprises 256 blocks of 2-bedroom flats and 232 blocks of 3-bedroom flats. It also contains single units of housing built by individuals, which are not accounted for in this study. Road networks serve buildings in the estate. There

are primary and secondary schools, and football pitches.

ii. **Canal View estate** is bound by the canal that receives Festival Town's storm water from which it derives its name. It comprises nine blocks of four apartments, comprising thirty-six apartments. Each apartment comprises four bedrooms. Refuse disposal is by PSP. There is no playground but a building called conference hall, where meetings hold and which also serves as an indoor sport centre. The buildings are arranged linearly with only a road leading in and out of the estate. There are no provisions for gardens.

iii. **Crystal estate** comprises fifty-nine semi-detached houses (118 housing units), twenty fully developed private layouts (not accounted for in this study), and a football pitch. Water supply to the estate is by privately built boreholes. Sewage disposal is by septic tanks and soak-aways, and private sewage managers. The road and drainage systems are not in very bad state. There is a shopping complex comprising ten shopping units. Refuse disposal is by PSP. There are no gardens or place of aesthetical beauty in the estate.

iv. **Raji Rasaki estate** comprises one hundred and forty two duplexes. It has six streets named after six precious stones and metals. They are Copper Avenue, Gold Drive, Platinum Way, Silver Road, Diamond Close and Emerald Close. It has a football field and a proposed shopping complex at inception by the entrance gate. There is no provision for playgrounds or parks but the estate is neat with good drainage system and sidewalks. Sewage disposal is by septic tanks and soak-aways while refuse disposal is managed by PSP. Supply of portable water is by private water tankers or privately sunk boreholes.

v. **Amuwo-Odofin terrace housing estate**, constructed under the first term administration (1999 – 2003) of Governor Ahmed Tinubu, is recent in the list of public residential estates. It is located in-between Amuwo-Odofin low-cost housing estate and Crystal estate, which forms its boundary. The estate comprises thirty-eight units of medium-income 3-bedroom terrace houses. Laid out in an almost J-shape pattern,

these housing units are contained in two 5-unit blocks, three 4-unit blocks and four 4-unit blocks. Water supply to the estate is by individual sunk boreholes, while refuse disposal is by PSP. As in the previous medium income estates, there are no provisions for playground and open spaces.

Source: Researcher's field survey

4. RESEARCH METHODOLOGY

A multi-staged sampling technique was adopted for the study. A sample frame of 3,070 housing units was adopted for the study. The low-cost housing estate was purposively selected, while a random sampling was employed to select an estate within the medium density. Hence, Raji Rasaki estate was randomly selected. The systematic random sampling method was used to select one out of every forty housing units in each density. Thus, 77 housing units relative to the size of each stratum; 73 from high density and 4 from medium density were selected. This sample size was, however, 2.5% representative of the sampling frame. The instruments for data collection were questionnaire, oral interview and personal/physical observation. Two sets of questionnaire were administered. The first was administered to selected household heads in the estates, while the second was administered to the management (LSDPC). The questionnaire elicited information relating to the present quality of housing in estates.

The respondents and management were directed to rate the quality of the estates from selected parameters or variables. The Likert Scale was employed to analyse the results. The scale used the following attributes: very bad, bad, fair, good and very good. Each attribute was coded accordingly: very bad = 1, bad = 2, fair = 3, good = 4, and very good = 5. Each coded attribute was multiplied by number of respondents, which gave the Weighted Value (WV). Number of respondents (n) to arrive at each component Mean Weighted Value (MWV) divided the Summation of the Weighted Values ($\sum$WV). The Mean of Mean Weighted Value (MWV) was then obtained by dividing Summation of Mean Weighted Value ($\sum$MWV) by total number of infrastructure or building elements (y) surveyed in the study. This gave the overall conditions i.e. Housing Quality Index (HQI). Thus,

MWV = $\sum$WV/n, where n = population of respondents.

HQI = Mean of MWV = $\sum$MWV/y, y = total number of variables.

The results from the estate managers/professionals were juxtaposed with those of the respondents to suggest a link or emphasize the contrast between them. The result was presumed to be the actual condition of infrastructure and buildings in the estates.

5. DATA ANALYSIS AND DISCUSSIONS

The standard for any residential estate should be one with an ideal population size, which relates to the provision of facilities, services, and the retention of identity. Hence, the provision of infrastructure in any estate should not only be adequate, meeting residents' needs, but also functional. Presented on Table 2 is respondents' perception of condition of infrastructure in the selected estates. It was established that public transportation ranked 2.48 (bad), private secondary schools ranked 2.38 (bad), while recreational facilities, housing units and power supply ranked least - 1.03, 1.23 and 1.33 (very bad) respectively. The overall condition of infrastructure in the estates was rated bad (1.75). On management rating of infrastructure presented on Table 3, public transportation was rated 4.0 (good), security was rated 3.0 (fair), while roads, drainages, sewage management, water supply, power supply and recreational facilities were rated 1.0 (very bad) each. The overall condition of infrastructure (HQI) is 1.80 (bad).

In further analysing the quality of selected estates, the different house types were appraised. From Table 4, lighting and ceiling were ranked highest 3.13 and 3.01 (fair) respectively. Roof, door, and ventilation followed, with rankings of 2.90, 2.74 and 2.71 (fair) respectively. Painting was ranked 2.17 (bad). The overall condition of building elements in the estates was rated fair (2.66). However, physical appraisals of houses, particularly the blocks of flats showed that the plumbing and paintings were bad, while the walls, roofs and staircases were dilapidated. It could be deduced that the residents lacked maintenance culture, which is a plague in the overall Nigerian system.

Factors adduced to be responsible for the current deteriorated state of buildings in estates might not be unconnected to overpopulation, low-income levels, lack of maintenance, tenure state of respondents and

the age of the estates. For instance, these estates were designed and constructed for a lesser population as compared to what obtains today. Overpopulation exerts pressure on infrastructure, thereby accelerating deterioration. Lack of maintenance of available buildings and infrastructure is another major factor, which is related to tenure state. For example, a tenant would naturally want his Landlord/property owner to effect repairs and maintenance on buildings. When the Landlord fails to meet this obligation, the tenant invariably leaves the situation as it is because he would not want to waste his resources repairing another man's property. Thus, blight and acute deterioration set in. The study showed that a good proportion of respondents (38.5%) had leasehold/rental rights on their dwellings. This is presented on Table 5.

An overview of sewage management in the study area showed that it has not been given the needed attention. Coupled with government neglect of maintenance of such infrastructure, the low-income levels of residents and the high cost of living in Nigeria have rendered residents incapable of undertaking any major maintenance or improvements. The situation was worse at the low-cost housing estate. Respondents reported that the central sewage system never worked in the low-cost housing estate in the first place, as it was not completed at inception. As at the time of this study, the toilet systems were so bad that excreta were present and visible in virtually all drainages. Excreta flushed from toilets on blocks of flats oozed out from the sewage pipes attached to buildings and flowed directly into the drainages. The respondents lamented that the rainy seasons were much better than the dry as the rainwater washed the drainages of the excreta, thereby ameliorating the stench. The estate smelled awfully due to improper sewage disposal. For the medium residential estates, the system of septic tanks and soak-away pits were employed at inception and exists to date. Although the problem of inefficient waste disposal was general in the study areas, the high residential densities were more affected. Population congestion, improper use of infrastructure, and lack of maintenance cannot be overruled as major causes of this anomaly.

Data collected further showed that the estates were not properly managed. Management's responses to requests of maintenance and development control exercises were very poor. From Table 7, 100% of the respondents were not satisfied with the managements' attitudes towards maintenance of infrastructure. Development-control was no better as 96.1% of

respondents were not satisfied with the service. These findings support those of Oladapo (2006), and Jiboye (2010), amongst others that negative management factors constituted a major source of dissatisfaction to public housing residents in Nigeria. The managers of the estates were observed to be negligent in the discharge of their duties; hence, the maintenance of the estates was poor. It was also observed that infrastructure in the estates were not adequate and functional (See Table 8, and Plates 1, 2, and 3). This anomaly might not be unconnected to the fact that the concept of the Neighbourhood Principle Unit was not taking into consideration when the estates were constructed.

Plate 1: A blocked drainage at Jakande Estate

Source: Researcher's field survey

Plate 2: Road (with potholes) flooded with sewage, and overgrown vegetation at Jakande Estate

Source: Researcher's field survey

Plate 3: Roads flooded with sewage at Jakande estate

Source: Researcher's field survey

The aforementioned anomalies can be attributed to lack of effectiveness of management in charge of these estates and the fact that the responsibility of government in maintaining housing infrastructure in Nigeria has been long neglected (Oladapo, 2006; Jiboye, 2010). The LSDPC has reportedly vested the powers of control of the estate in the hands of Lagos Building Investment Company (LBIC). Respondents reported that the LBIC was only interested in collecting rents without due consideration to their welfares. A visit to the LBIC head office at Ikeja was futile, as it had no information on the estate it supposedly now controlled. Visits to LSDPC office were less positive, there was also absence of data.

It is therefore adduced that communication flow between residents and managers of the estates was very poor, perhaps, non-existent. In addition, residents' rights were violated in the respective estates because their needs for maintenance of their properties and development control to keep the estates in good quality were not met.

6. CONCLUSION AND RECOMMENDATIONS

This study has been able to show that the estates, mostly the low cost housing estate in Amuwo-Odofin L.G.A, are deteriorated and fast degenerating into a slum. Therefore, the results of this study calls for improvement in the quality of the estates. Hence, the urgent need for urban renewal exercise which will help at improving the quality of houses, infrastructure, aesthetics of the estates and the general housing environments. This will invariably improve the quality of life of residents in the respective estates. A periodical review of the master plan of study area is advocated. Reviews of master plans are necessary to

monitor the growth of estates and thereby control spontaneous developments that are detrimental to the well-being of residents and the estates. This should be implemented to update and regularise changes in the master plan to incorporate uses that are hitherto absent in the plan due to their significances. Lastly, community participation is advocated and educations of residents as to the right usage of facilities as many of their activities are detrimental to the quality of the estates. It is only when residents are effectively educated and monitored that the laudable efforts of the government can yield positive results.

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Table 1: House Types in Amuwo-Odofin Housing Scheme

Residential density	Name of estate	Description	No. of floors	No. of buildings	No. of housing units/building	Total no. of housing units
High density	Amuwo-Odofin low-cost housing estate	Block of Flats	3	254	6	1,524
		Block of Flats	4	2	8	16
		Block of Flats	3	232	6	1,392
Medium density	Canal view	Block of Flats	2	9	4	36

Amuwo-Odofin terrace houses	Terrace houses	2	4*, 3#, 2+	16, 12, 10	38
Crystal estate	Semi-detached	2	58	2	116
Raji Rasaki	Semi-detached	2	71	2	142
Total			**655**		**3,264**

Note: *4* = Four blocks of four housing units each*
          3# = Three blocks of four housing units each
          2+ = Two blocks of five housing units each

Source: Researcher's Field Survey

Table 2: Respondents' Perception of Condition of Infrastructure

S/N	Infrastructure	Rating and Weighted Values					SWV	MWV
		1 VB	2 B	3 F	4 G	5 VG		
1.	Security	15	45	11	5	1	163	2.12
2.	Housing unit	60	16	1	0	0	95	1.23
3.	Car park/lay-bys	38	39	0	0	0	116	1.51
4.	Refuse management	25	29	16	5	2	161	2.09
5.	Roads	39	38	0	0	0	115	1.50
6.	Drainages	29	38	8	0	2	139	1.81
7.	Sewage management	42	17	14	4	0	134	1.74
8.	Water supply	34	22	19	2	0	143	1.86
9.	Public health facilities	33	29	15	0	0	136	1.77
10.	Private health facilities	36	27	12	2	0	134	1.74
11.	Public primary schools	27	46	4	0	0	131	1.70
12.	Private primary schools	23	41	8	5	0	149	1.94
13.	Public secondary schools	27	41	9	0	0	136	1.77
14.	Private secondary schools	10	37	21	9	0	183	2.38
15.	Power supply (PHCN)	52	25	0	0	0	102	1.33
16.	Traditional market	5	55	16	1	0	167	2.17
17.	Shopping centres/shops	46	25	5	1	0	115	1.49
18.	Recreational facilities	75	2	0	0	0	79	1.03
19.	Public transportation	13	29	20	15	0	191	2.48
20.	Public toilets	54	18	3	2	0	107	1.39
	Total							**35.05**
	Mean of ∑MWV = 35.05/20 =1.75							

Source: Researcher's Field Survey

Table 3: Management's Perception of Condition of Infrastructure

S/N	Infrastructure	Rating and Weighted Values					WV
		1 VB	2 B	3 F	4 G	5 VG	
1.	Security			✓			3
2.	Housing unit		✓				2
3.	Car park/lay-bys	✓					1

S/N				
4.	Refuse management	✓		2
5.	Roads	✓		1
6.	Drainages	✓		1
7.	Sewage management	✓		1
8.	Water supply	✓		1
9.	Public health facilities	✓		2
10.	Private health facilities	✓		2
11.	Public primary schools	✓		2
12.	Private primary schools	✓		2
13.	Public secondary schools	✓		2
14.	Private secondary schools	✓		2
15.	Power supply (PHCN)	✓		1
16.	Traditional market	✓		2
17	Shopping centres/shops	✓		2
18.	Recreational facilities	✓		1
19.	Public transportation		✓	4
20.	Public toilet	✓		2
	Total			36
	MWV = 36/20 =1.80			

Source: Researcher's Field Survey
Table 4: Respondents' Perceptions of Condition of Houses

S/N	Building elements	Rating and Weighted Values					SWV	MWV
		1 VB	2 B	3 F	4 G	5 VG		
1.	Roof	3	21	34	19	0	223	2.90
2.	Walls	11	30	19	17	0	196	2.55
3.	Floors	6	36	21	14	0	197	2.56
4.	Doors	2	28	35	12	0	211	2.74
5.	Windows	10	31	20	16	0	196	2.55
6.	Painting (s)	15	39	18	5	0	167	2.17
7.	Staircase (steps)	4	33	23	17	0	207	2.69
8.	Toilet (s)	12	31	20	14	0	190	2.47
9.	Bathroom (s)	7	39	20	11	0	189	2.46
10.	Ceilings	1	26	21	29	0	232	3.01
11.	Ventilation	7	40	0	28	2	209	2.71
12.	Lighting	3	16	28	28	2	241	3.13
	Total							**31.94**
	Mean of ∑MWV = 31.94/12 = 2.66							

Source: Researcher's Field Survey

Table 5: Tenure of Respondents

Tenure	Residential density						Grand total	
	High		Medium		Low			
	Freq	%	Freq	%	Freq	%	Freq	%
Owner-occupier	34	44.2	3	3.9			37	48.1
Rental/leasehold	29	37.7	1	1.3			30	39.0
Official accommodation	10	13.0	-	-			10	13.0
Total	73	94.9	4	5.2			**77**	**100.0**

Source: Researcher's Field Survey

Table 6: House Types in the Estates

House type	Residential density						Grand total	
	High		Medium		Low			
	Freq	%	Freq	%	Freq	%	Freq	%
Block of flats	73	94.8	-	-			73	94.8
Row house	-	-	-	-			-	-
Terrace	-	-	-	-			-	-
Semi-detached	-	-	4	5.2			4	5.2
Detached	-	-	-	-			-	-
Total	73	94.8	4	5.2			**77**	**100.0**

Source: Researcher's Field Survey

Table 7: Management/Personnel Activities

Respondents' perception	AOHE			
	Yes	*No*	*Not sure*	*Total*
Maintenance	0	77	0	77
	(0%)	(100%)	(0%)	(100%)
Development control	0	74	3	77
	(0%)	(96.1%)	(3.9%)	(100%)

Source: Researcher's Field Survey

Table 8: Infrastructure in the Estates

S/N	Infrastructure	Functionality			
		Functional		Not Functional	
		Freq	%	Freq	%
1.	Nursery/Primary Schools	77	100	-	-
2.	Secondary Schools	78	100	-	-
3.	Shopping Centre/Corner Shops	78	100	-	-
4.	Traditional Markets	57	73.1	8	10.3
5.	Religious Centres	75	96.2	2	2.6
6.	Health Centre/Clinic/Hospitals	71	91.0	7	9.0
7.	Public Transportation	28		5	
8.	Power Supply (PHCN)	20	25.6	53	67.9
9.	Access Roads	20	25.6	58	74.4
10.	Drainages	18	23.1	58	74.4
11.	Car Parks/lay-bys	27		39	
12.	Library	47	60.3	28	35.9
13.	Public Toilet	26	33.3	45	57.7
14.	Pedestrian Walkways	25	32.1	46	59.0

Source: Researcher's Field Survey