AN EVALUATION OF THE LEVEL OF COMPLIANCE WITH HOUSING STANDARDS IN BENIN CITY, NIGERIA

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Abstract
Housing and building standards are standards that govern how a given housing provision within a locality or environment is planned/regulated. Therefore, there is need for the urban environment to be well regulated. However, several studies have explored how development controls are contravened in Nigeria but limited studies have explored the level of compliance with housing standards in Benin City. This paper explores the level of compliance with the housing standards in addition to identifying the factors responsible for the level of compliance with the housing standards in Benin City. A quantitative method was adopted for this study. A total of 365 questionnaires were sampled and used as subjects for the study and the population utilized for the study were household heads in Benin City. The study made use of frequency count, percentages to analyse the data for the study. The study revealed that housing standards in Benin City is typified by a non-compliance especially with regards to the type of toilet facilities provided, number of persons per room and plot size and site coverage of households. The paper recommends that the government should organise enlightenment programmes for the people in order to facilitate adherence to housing standards in Benin City and Nigeria at large.

Keywords: Housing, Standards, Compliance, Planning Regulations

INTRODUCTION

Developing countries have always been plagued with high rising level of urbanisation due to the movement of rural dwellers to the urban centres in search of greener pastures. This has placed very great pressure on land and housing resulting in the formation of slums and informal settlements within these countries. Consequently, African countries are usually beset with the phenomenon of poor housing quality despite the existence of substantive housing standards, planning regulations and the provision of housing stock within these countries (Muoghalu, 1987; Awotona, 1988; Payne and Majala, 2004; Olayiwola, Adeleye, & Ogunshakin, 2005 & Omuta, 2008). This was why it has been asserted that whenever and wherever man has lived under urban condition, the need has always been felt to regulate the housing environment in the interest of safety and health, aesthetics, comfort and overall welfare (Omuta, 2004). From the above, the importance of standards in the housing environment need not be overstressed, as they play key roles in protecting the living condition of the housing environment. Successive governments in Nigeria over the years have initiated various planning polices/regulations to improve housing standards, based on the resolutions adopted at the first United Nations Conference on Human Settlement held in Vancouver, Canada in, 1976. Apart from providing some regulations, the country has also formulated strategies to ensure the provision of decent housing for the people.

Public dissatisfaction in Nigeria with the process and output of planning and other regulatory standards is becoming increasingly articulate and vocal. Symptoms of mass rejection of planning, include non-identification with the planning process and non-compliance with the planning regulations. Consequently, in many developing countries such administrative failures serve as bottlenecks towards the enforcement of planning standards (Kievani, 2010). This is because it is essential for developers not to flout the minimum planning standards that regulate setbacks around domestic buildings in urban areas (Olujimi, 2008).

While several studies (Arimah & Adeagbo, 2000; Alnsour & Meaton, 2009; Atamewa, 2019) have examined housing standards and development controls, there is less information about the level of compliance of housing standards in Benin City.

This study therefore, aims at filling this research by evaluating the level of compliance of housing standards in addition to providing a nuanced understanding of the factors responsible for the non-compliance of housing standards in Benin City. This study is vital as it will help to reduce the level of contravention of housing standards in Benin City and enable policy makers to take the right step in the right direction.

LITERATURE REVIEW

Planning Regulations

Planning as a tool for guiding the building and maintenance of residential settlements was developed as far back as the mid-nineteenth century within England (Dockerill, 2016) and this was later introduced to countries in the Global South.

Payne and Majale (2004) classify regulatory standards into administrative procedures; Planning standards; and Planning regulations. Payne and Majale (2004) define an administrative procedure as one that establishes the track, procedures, and organisations that people must use to have legal rights or ownership to their land. Planning standards are codes that specify how the settlement should be in terms of minimum lot sizes and width of roads, as well as with regard to supplies for economic and social uses. Planning regulations are rules that govern how the plot can be used or developed; this can include issues relating to zoning regulations, the setbacks of buildings, and restrictions upon plot use, amongst others.

It has been noted that some countries in Africa, such as Nigeria, Tanzania, Ghana, Kenyan, Egypt, and Sierra Leone, acquired their development guidelines from the colonial Town and Country Planning Ordinances of the United Kingdom (Arimah and Adeagbo, 2000; Berrisford 2013, Watson, 2009). Therefore, various scholars (Awotona, 1988; Lussanga Kironde, 2006; Collier & Venable, 2014; Watson, 2009 & Makinde, 2013) argue that the planning standards in use in African municipalities are derivatives of western and colonial standards which are not appropriate to the indigenous cultures in Africa. Moreover, the codes are elitist as they are deficient to indigenous economy and difficult to execute in practice. This relates to the inability of the formal regulatory system to take account of the realities of informal planning mechanisms which control land and housing development, and how community leaders shape the changes occurring in Nigerian cities.

It is also notable that the planning and implementation of spatial plans are centred on archaic planning regulations. As discussed earlier, some of the archaic planning regulations include unattainable building codes and westernised standards which no longer conform to present-day needs. Consequently, in several countries in the Global South, regulatory development planning requirements are of limited significance in relation to house builders who are of a lower income level (Lowe and Schilderman, 2001; Payne, 2000; Majale, 2001; Lall, 2001 and Makinde, 2013).

The most renowned critic of planning laws is De Soto (1989), who observed the difficult official steps required to legalise informal settlement in Lima where it took an average of 20 years to attain. Furthermore, Dowall (2003, 7-14):

Citing cases from Asia and Latin America, criticises excessive land use and development controls, which in the end, drive up the cost of shelter and reduce affordability. He cites three broad areas where regulations over land use and development adversely affect land and housing markets: land supply constraints, excessive plot-size standards and sub-division design and procedural delays and red tape.

Payne (2000) maintains that a review of the regulatory framework by lowering the legal hurdles to construction can encourage low-income earners to own and build houses. This is important within the Nigerian context because lowering the standards will encourage all socio-economic classes to build more houses. In addition, Berrisford (2013) observes that although planning laws are significant in defining the political, economic, and social life of settlements, in addition to controlling issues of land use and development. They also offer an all-encompassing basis for infrastructure development; they additionally define buildings that are legitimate and not legitimate. He further stresses that the hold of colonial law on the mindsets of lawmakers and practitioners remains solid. Planning regulation is therefore exercised in an "exclusive, not inclusive manner" in which government bureaucrats and political elites perceive themselves to be the legal framework as a "bastion against

informality, illegality and ultimately anarchy" (Berrisford, 2013, 2). Consequently, formal planning regulations in Nigeria are usually not followed (Arimah and Adeagbo, 2000; Ogu, 1999).

Housing and Building Standards in Nigeria

Housing and building standards are standards that govern how a given housing provision within a locality or environment is planned/regulated (Omuta 1986). The official standards refer to the laws which are in use and have been coded as a means of regulating the type and nature of housing provided in Nigeria. This classification offers guidelines within which urban development and physical planning regulations can be executed within Edo State and is adapted from the Nigeria National Building Codes. This review is necessary to understand in subsequent analysis why people do not build according to standards.

Official standards have been categorized into three distinctive types, based on the function performed by the individual standard. The Town and Country Planning Laws (Cap 123) of 1946 (Omuta, 1986) was the first-ever comprehensive planning law in Nigeria. Different states of the federation have adopted their own building laws or codes from it. The Town and Country Planning Laws (Cap 123) of 1946 was amended under the Bendel State Town and Country Planning Law (Cap 165) of 1968 and these rules have over time been changed to accommodate the building norms that are endorsed in Edo state. The Edo state of Nigeria *Gazette* identifies these forms of standards for providing or constructing residential buildings of Housing and Urban Development in Edo state. Environmental and general building requirements regulate ventilation transference of sound and the means of light in buildings proposed for human habitation as spelt out in the National Building Code (NBC) of 2006.

Light and ventilation requirements in the NBC (2006) specify that all rooms or space specified for human habitation should have natural light or be provided with artificial source of light; all bathrooms and toilet room should have a source of natural light or artificial light provided and the average intensity of 50 lux measured at a level of 75cm above the floor of illumination; and, all habitable rooms shall be provided with natural or mechanical source of ventilation. The room dimensions for minimum height of living rooms, other than kitchens, laundry rooms shall not be less than 2.4m from floor to ceiling while corridors, toilets, bathrooms and kitchens shall not be less than 2.2m from the floor to the ceiling. The floor area of any house shall have at least a room with a minimum of $14m^2$ of floor area and other rooms intended for occupation in exception of the kitchen shall have a minimum floor area of $10.8m^2$. The floor area for kitchen facility, conveniences (toilet and bathroom) shall be in line with the national building code of 2006 which states that the net floor area shall be the actual occupied areas in exclusion of unoccupied areas or thickness of walls.

There should be adequate emergency exits and dimensions of stairs shall be at least 559 mm wide with risers not more and treads not less than 203mm and landings at the foot of stairs not less than 1016mm wide by 914 mm long, located not more than 203mm below the access window or door (National Building Code, 2006)

For every house built there must be sufficient setbacks and air-spaces provided to allow for suitable volume of lighting and ventilation (National Building Code, 2006). A standard size of land is defined as 30.48m x 30.48m while the minimum lot size for residential purpose shall be 15m by 30m or $450.00m^2$ (*Edo State Gazette*, 2015, B39). By implication, the guidelines have different plot sizes for three socioeconomic groups; high, medium and low-income earners. For high income residential areas, sizes of plots are 36 metres by 36 metres, for the medium income group, sizes of plots should not be less than 30.48 metres by 20.48 metres and for the low-income group, residential area plots sizes should not be less than 15.24 meters by 30.48 metres. With respect to occupancy rates, a maximum of 2 individuals in one habitable room is allowed. Therefore, an average family between 4 and 10 persons' is expected to live in a dwelling of 2-5 habitable rooms (Edo State Gazette, 1996). Table 1 shows planning standards for setbacks.

Table 1 Planning standards for setbacks.

RESIDENTIAL DEVELOPMENT	**SETBACK FOR LOW DENSITY AREAS**
Front airspace	6m
Side airspace	3m
Rear airspace	3m
General notes	45m from the centre of the federal expressway, 30m from the centre of major state road
Area coverage	40%
RESIDENTIAL DEVELOPMENT	**SETBACK FOR HIGH DENSITY AREAS**
Front airspace	4.5m
Side airspace	1.8m
Rear airspace	1.8m
General notes	45m from the centre of the federal expressway, 30m from the centre of major state road
Area coverage	45%

Source: *Edo State of Nigeria Gazette*, (2015, B40)

With reference to ventilation, lighting and thermal comfort, provisions for doors and windows in all residential dwellings are important. Similarly, the guidelines provide that materials for walls should comprise a damp proof course of cement mortar, lead or any other approved non–absorbent material. Housing standards are highly fixed but that they do account for some variety in densities and affordability.

Consequently, due the fixed nature of these standards compliance with these standards are often difficult for the common man to achieve. This is a problem because it is this low socio-economic group which forms the bulk of the population in Nigeria. Non-conformity is thus a significant problem. With respect to sewerage, it is recommended that every building and structure designed for human occupation should have a toilet, and bathrooms at a rate of one for every flat or one unit for every three habitable rooms. The provisions provide that all bath and toilet rooms shall have enclosed walls and that every bathroom or toilet or water closet shall be constructed either over or underneath a bedroom or other living space except where such a room is a convenience but must be confined by walls or brick partitions (*Edo state of Nigeria Gazette*, 2015).

The exterior of such spaces should be well plastered with cement or polished marble or any suitable material. Every room should have a door that completely closes the entrance to it and it should not open directly into any kitchen or cooking space. Health and sanitation standards are meant to be observed by the public authorities. They contain standards relating to water supply, sewerage, noise and air pollution standards. In addition, community facilities and service standards seek to define the access of citizens to specific communal facilities and health, recreation and open space, trade and commerce. In general, such standards are expressed in plan documents and master plans.

Few studies have examined the level of compliance with development control standards in Nigeria. Arimah and Adeagbo (2000) and Omuta, (1986) in their study argued that although there is an awareness of urban planning and building regulations by some households in Oyo State and Bendel State problems of compliance persist. They further argued that the building norms that are mostly contravened are; size of rooms, provision of infrastructural amenities, stipulations relating to setbacks, and the use of a residential building for multiple uses- as a home and as a business enterprise. Reasons given for contravening these guidelines include; the nature of urban planning laws; the contempt and lethargy of the community towards official development laws in the town, the lack of monitoring and

supervision and poor income levels of most people. Non-compliance to the codes and building standards have resulted in the production of poor quality housing in Oyo State and Bendel State.

Compliance with Urban Development and Planning Regulations in Nigeria

Few studies have examined the level of compliance with development control standards in Nigeria. Arimah and Adeagbo (2000) investigate the extent to which private residential development complies with urban development and planning regulations in the city of Ibadan, Nigeria. Findings indicate that while the average household is aware of the existence of planning regulations, this does not necessarily translate into compliance with these regulations. The study also reveals that the most violated aspects of building regulations are plot coverage, setback stipulations, room size, provision of utilities, as well as a change of use from a wholly residential use to the incorporation of home-based enterprises. The factors explaining the relatively low levels of compliance with these regulations include: the institutional context of urban development and planning regulations; the administrative machinery for physical planning implementation which does not make for inter-agency coordination; poverty of the general populace; and the disdain and apathy of the public towards formal planning institutions in the city.

In a study conducted by Alnsour and Meaton (2009) on the factors that impacted the extent at which residential developments complied with physical planning standards in the Old Salt City, Jordan. The study revealed that Building Coverage Ratio (BCR) were the standards mostly not complied with. Also Ahmed and Dinye (2011) revealed that developers (57%) who had knowledge of the recommended physical planning standards did not comply with such standards because of inadequate development control. Jimoh, et al., (2017) in the study of contravention of development measures in Auchi noted that compliance/ contravention of development control was high and that while 48% had plan approval 52% of the respondents constructed their buildings without plan approval and these were because the income level of most respondents was low

Another study carried out by Gyau, Awuah, & Hammond, (2014) on determinants of low land use planning regulation compliance rate in Ghana, revealed that the poor hardly complied with the existing housing standards but the elites had high level of compliance. Similarly, Atamewan (2019) in her study on the factors affecting implementation and compliance with housing standards for sustainable housing delivery in Bayelsa State, Nigeria showed that a very small portion of houses built complied with the stipulated minimum housing standards for space sizes while the provision and location of some required useful spaces like bedrooms, living room/dining room, kitchen, store, toilet and bathroom spaces were inadequate. Reasons adduced for the non-compliance are high standards beyond their cultural inclinations and non-awareness. Furthermore, she noted that the level of compliance in terms of the design and planning of the units reveal that only 16.5% expressed some elements of planning and design by professionals while a larger 83.5% lacks planning and design. Also, the location of kitchen, toilets and bathrooms as service facilities was also carried out. Results showed that most of the kitchens 70.2% were located outside the houses while (18.6%) were located within and some respondents did not have kitchen at all 11.2%. The summary of the findings, therefore, was that the violations of development control standards was a result of the unrealistic standards that do not meet the cultural realities of the present day.

From the foregoing discussions, this study therefore aims at evaluating the level of compliance within selected neighbourhoods in Benin City with a view to understanding what aspects of the housing standards are contravened and the possible factors responsible for the non-compliance to the housing standards.

MATERIALS AND METHODS

Study area

Benin City is the biggest urban centre in Edo state (see Figure 1). Benin City has an extensive history dating back to the 12th century, if not before. Within the modern contemporary era, it became the headquarters of the Midwestern region in 1963, after which it experienced a marked increase in urban development (Omuta, 1986, 60). Currently, Benin City is enclosed in

Oredo Local Government Area with an aggregate space of 1,225 sq. km. The other local government zones, parts of which make up the city are Ovia North-East and Ovia south-West local government area which have a merged region of 5119 square kilometres and Orhionmwon Uhunmwonde and Local Government Areas with a joined region of 4,385 sq. km, the current size of the planning zone in Benin City is 804 sq. Km (Edo State Government, 1996).

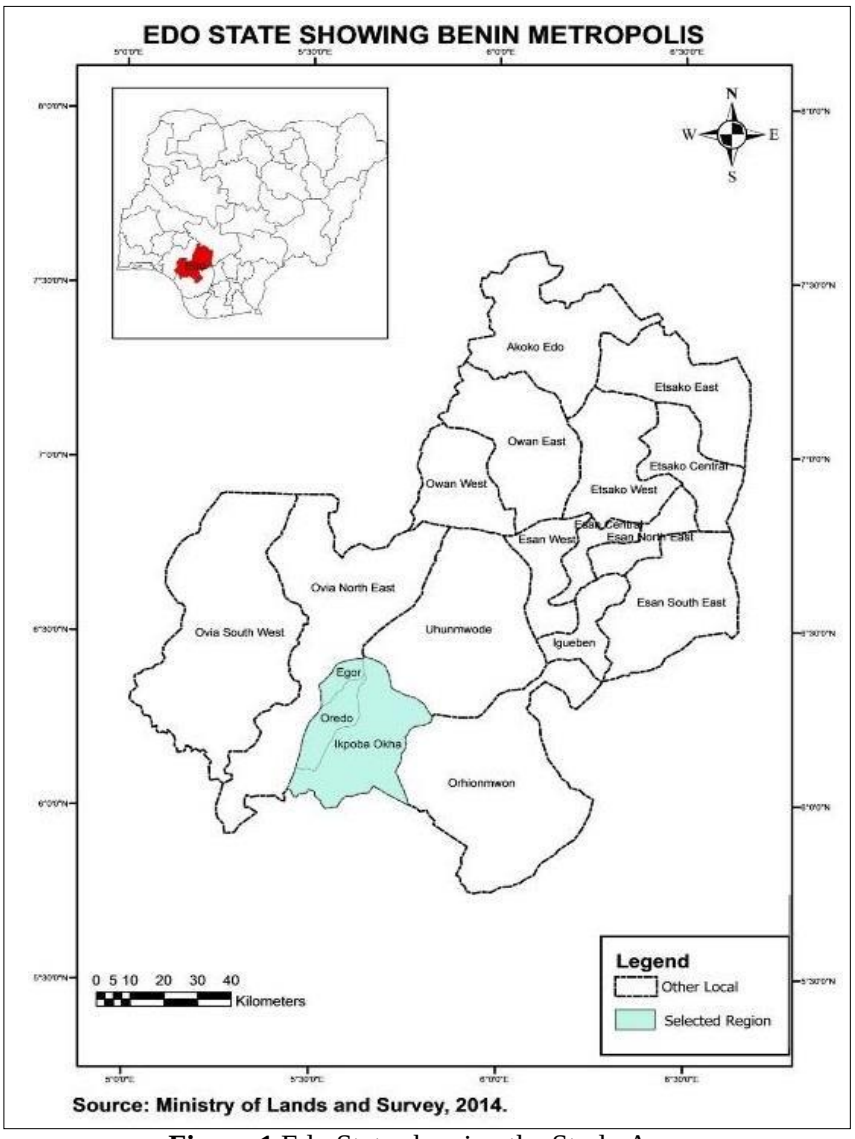

Figure 1 Edo State showing the Study Area

The growth of Benin has been matched by population increases. In 1952, the number of residents in Benin was put at 53,753 (Nigeria Census, 1963). In 1963, the population had increased to 100,094 while in 1991, the population of residents living in the city grew to 780,976 and in 2006 to 3,233,366 n (NPC, 2006).

A quantitative method was adopted for this study. The decision to use this method was based on its reliability and validity. The population of the study consists of selected household members in Benin City. A household in this study is taken as all members of the family that eat from the same pot as at the time of this study. Data were collected using quantitative approach, this involved the use of questionnaires which were administered to households in the sampled neighbourhoods. A total of 365 questionnaires were administered to

the respondents. For ease of data collection**,** Benin City is stratified into four the medium neighbourhood, the Government Reservation neighbourhood and the City fringe neighbourhoods

The stratification of Benin City into four neighbourhoods is based on the observed socio-economic characteristics of the city which tends to vary within these strata. This is important as it will facilitate the identification of the level of compliance with households in these varied strata of the city. The inner neighbourhood covers areas around the Oba Palace which represent the core of Benin City. The medium neighbourhoods cover areas around Owina, Uselu, Ugbowo, Okhoro, Upper Lawani, First and Second East Circular and Dumex Road. The Government Reservation Covers Boundary Road, Adesuwa, Ihama and other areas in GRA. The fringe neighbourhood covers Oluku, Aduwawa, Ikpoba Hill, Oka I and II, Ugbiyoko and other fringe areas in Benin City. A list of streets was compiled from each of the four identified neighbourhoods.

neighbourhoods (Ikhuoria 1984, Ogu, 2005), namely: The inner neighbourhood,
This serves as the sampling frame. From the list, two streets were randomly selected using table of random numbers while the respondents were selected from the streets using systematic sampling with a random start and a sampling interval of five. The data collected were analysed using quantitative techniques. Descriptive statistics namely, tables, frequencies, mean, percentages, are used to present and describe information sought by the study. Findings and discussion of data is presented below.

RESULTS AND DISCUSSION

In this section, we sought to determine the level of compliance with the minimum housing standards across the sampled neighbourhoods in Benin City. In doing this, various housing standards were considered such as: available toilet facility, number of persons per room amongst others. The results are presented in the tables below:

Table 1 Types of toilet facilities

	Name of Neigbourhood				
Types of Toilet Facilities	GRA	Ogbe	1st and Second Eastcircular/Okhoro	Ikpoba Hill/ Aduwawa	Total
Water closet	85 (93.4%)	52(65.0%)	76 (76.0%)	63 (67.0%)	276 (75.6%)
Pit toilet	6 (6.6%)	28 (35.0%)	12(12.0%)	26(27.7%)	72(19.7%)
None	0 (0.0%)	0 (0.0%)	12 (12.0%)	5(5.3%)	17 (4.70%)
Total	**91**	**80**	**100**	**94**	**365**

Source: Fieldwork, 2018

Table 1 indicates that about 75.6 per cent of the sampled household complied with the minimum standard for toilet facility in the study area. It also indicates that about 23.0% per cent of the sampled households do not comply with the prescribed minimum standard for toilet facilities. Spatially, the level of compliance was higher in the GRA neighbourhood, followed by 1st and Second East circular/Okhoro and Ikpoba Hill/ Aduwawa neighbourhoods with percentages of 93.4 per cent, 76.0 per cent and 67.0 per cent respectively. The lowest level of compliance was observed in Ogbe Neighbourhood with percentage of 65.0 per cent. The highest level of non-compliance was recorded in Ogbe and Ikpoba Hill/ Aduwawa neighbourhoods with percentages of 35.0 per cent and 33.0 per cent respectively. The level of higher compliance in GRA is due to high socio-economic status and level of education, this is because with the passage of time this area became the abode of the rich politicians and senior officers in the administrative sector after Nigeria gained her independence in 1960. Today it is still dominated by the elite class (Aribigbola, 2000). The implications of this is that if housing standards are not reviewed to meet the common needs of all and to ensure active public participation in the formulation of housing

standards, then there will be a sustained level of non-compliance by the urban poor in Benin.

Table 2 shows that more than half of the sampled households violated the prescribed two persons per room. This could be adduced to reasons such as lack of awareness of prescribed minimum standards by the respondents. Furthermore, Table 2 shows the spatial differences in the level of violation of the prescribed standard. In GRA, about 30 per cent of the sampled households violated the standards, again the low violation of this standard can be adduced to high socio economic status, high level of awareness of the standard amongst others. However, the scenario was different in Ogbe, 1st and Second East circular/Okhoro and Ikpoba Hill/ Aduwawa neighbourhoods where 59 per cent, 77 per cent and 46 per cent of the sampled households violated the prescribed two persons per standard. Reasons for non-compliance, as noted by the respondents are non-awareness, high standards, economic and cultural realities in addition to lack of efficient monitoring by the planning institutions. This resonates with Fekade (2000) which shows that standards outdated western and do not to meet the present day challenges.

Table 2 Number of persons per room

	Name of Neigbourhood				
Number of persons Per Room	GRA	Ogbe	1st and Second East Circular/Okhoro	Ikpoba Hill/ Aduwawa	Total
One	20 (21.9%)	9(11.0%)	8(8.0%)	6 (6.3%)	43(11.8%)
Two	41 (45.1%)	12(15.0%)	15(15.0%)	42(44.7%)	110(30.1%)
Three	30(32.9%)	40 (50.0%)	48 (48.0%)	29(30.8%)	147(40.2%)
Four	0 (0.0%)	19 (23.9%)	29 (29.0%)	17 (18.1%)	65 (17.8%)
Total	**91**	**80**	**100**	**94**	**365**

Source: Fieldwork, 2018

Table 3 shows the plot size of the sampled households in the study area. The table indicates that about 66.0 per cent of the sampled households used plots that were less than the prescribed minimum 450m^2 and thus violated the plot size standards. However, there were variations across the sampled households. The violations range from 74.9 per cent, 68.1 per cent, 59 per cent and 56.2 per cent for Ikpoba Hill/ Aduwawa, GRA, 1st and Second East circular/Okhoro and Ogbe neighbourhoods respectively. These shows that lack of monitoring and enforcement by the planning institutions, level of income and low level of awareness of the prescribed minimum standards contributed significantly to the violation of these standards.

Table 3 Plot size and site coverage of households

	Name of Neigbourhood				
Plot Size	GRA	Ogbe	1st and Second EastCircular/ Okhoro	Ikpoba Hill/ Aduwawa	Total
Less than 450m^2	62 (68.1%)	45(56.2%)	59(59.0%)	75(79.4%)	241(66.1%)
450m^2	21 (23.1%)	29(36.2%)	32(32.0%)	10(10.6%)	92(25.2%)
Above 450m^2	8(8.8%)	6 (7.5%)	9 (9.0%)	9(9.6%)	32(8.8%)
Total	**91**	**80**	**100**	**94**	**365**

Source: Fieldwork, 2018

Based on the above analysis (1 to 3), it can be argued that there is high level of violation of the housing standards in the study area. Apart from the toilet facilities which seem to have some level of compliance, if the required two persons per one water closet are investigated, it is obvious that the level of compliance will be low. What was investigated in the case of toilet facilities was whether the household is using water closet in their household or other toilet facilities. In the next section of the study, we attempt to identify the factors responsible for the observed level of compliance with the housing standards. These findings resonates with that of Karibasappa et al., (2016) in Bangalore, , that established that a lack of monitoring and enforcement accounted for the violations for road width, plinth height, building height, front setbacks, left setbacks, right setbacks, plot coverage and FAR.

Factors Responsible for the Level of Compliance with Housing Standards in Benin City

A review of the housing and urban planning literature emphasized the importance of compliance with planning standards as a fundamental element in housing development. Compliance with planning standards also reflects the ability of planning authorities in controlling and guiding the whole urban development process. Planning authorities are concerned with using planning standards to ensure proper housing conditions and infrastructure. Table 4 shows factors responsible for the observed level of compliance with the housing standards in Benin City.

Table 4 Factors responsible for the level of compliance with minimum housing standards in benin city

Factors	Number of Respondents	Percentage of Respondents
Ignorance	125	34.2
Poverty	100	27.4
High cost of Land	64	17.5
Ambiguities in Housing standrds	61	16.7
Topographic Constraints	15	4.1
Total	**365**	**100**

Source: Fieldwork, 2018

Table 4 indicates that several factors are responsible for the observed level of compliance with the minimum housing standards in Benin. The first factor identified by the respondents is ignorance on the part of the housing developers. About 34.2 per cent of the respondents noted ignorance as a major factor. Also, about 27.4 per cent of the respondents identified poverty as factor hindering their compliance with the housing standards. In addition, high cost of land was identified as another major factor. About 17.5 per cent of the respondents identified this factor. Others (16.7 per cent) identified ambiguities in the housing standard. Ambiguity in housing standards has to do with multiple definitions of standards, lack of knowledge for decision making and complexity. The relationship between the ambiguity of housing standards and poor compliance suggests that planning standards are unclear in addition to the bureaucratic bottlenecks involved in meeting such standards. Ambiguities in the standards will make people, managers and even planners to be confused. However, about 4.1 per cent of the respondents identified topographic constraints as a factor militating against their compliance with the minimum housing standards. The above finding from Table 4 has policy implications, most especially with respect to eradicating the ambiguities and reducing the ignorance among the people with respect to the housing standards.

CONCLUSIONS

This study has revealed that there is spatial variation in the level of compliance with minimum housing standards in Benin City. The

study also reveals that there is high level of violation of the minimum housing standards in the study area. Spatially, the level of compliance with the type of toilet facility was higher in the GRA neighbourhood, while the highest level of non-compliance was recorded in Ogbe and Ikpoba Hill/ Aduwawa neighbourhoods. In terms number of persons per room the study acknowledges that more than half of the sampled households contravened the prescribed minimum housing standards of two persons per room and spatial differences in the level of violation of the prescribed standard was more evident in Second East circular. Also, there were variations across the sampled households with respect to plot size and site coverage of households. The violations were more evidenced Ikpoba Hill neighbourhoods respectively. Finally, the study identifies the factors responsible whilst evidencing ignorance as the main factor responsible for the level of non compliance with Minimum Housing Standards in Benin City. This study is consistent with other similar studies and show that the major bottleneck to compliance with building standards are; poverty, lack of awareness and bureaucratic bottlenecks within the planning institution.

In the light of the above findings, the government should update the minimum housing standards with a view to reducing some of the ambiguities in the housing standards to meet our local needs. In addition, the government should embark on enlightenment campaign programmes in addition to having adequate public participation in the formulation of standards in the city. This is to improve the public understanding of the prescribed minimum housing standards in the light of the observed poor level of compliance with the minimum housing standards as the public has a key role to play in ensuring effective implementation of planning regulations. In this respect Vagale (1970, p. 31) notes that: "An enlightened and informed citizenry, a public spirited community and a sagacious political leadership are prerequisites to the success of development control".

New strategies should be provided by the government to ensure the effective implementation of the approved minimum housing standards in Benin City and finally it is recommended sub-division of lands particularly at the fringe neighbourhoods with a view to regulating the price of land which have contributed to violation of housing standards in the city should be embarked on by the government.

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