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**Housing Quality, Infrastructure and Residents Satisfaction in Uyo
Metropolis, Akwa Ibom State, Nigeria**



Housing Quality, Infrastructure and Residents Satisfaction in Uyo Metropolis, Akwa Ibom State, Nigeria

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Abstract

Purpose: This study sought to assess the quality of housing and infrastructure as well as residents satisfaction in Uyo metropolis.

Methodology: The multi-stage random sampling technique was applied to select 5 residential areas, 15 residential streets and 240 residential units in the study area. A checklist containing different measures of housing and infrastructure evaluation was used to collect relevant data alongside the questionnaire of housing satisfaction. Tables, simple percentages, 3-point Likert scale and the Pearson's correlation were employed to analyze data and test relevant hypothesis.

Findings: Results showed that most residential buildings were lacking in ventilation, wall maintenance, adequate painting and parking space. Furthermore, the residential neighborhoods were compromised with poor road condition, poor security, inadequate waste disposal, noise pollution, poor street lighting and epileptic power supply. There was significant relationship between residents housing satisfaction and their socio-economic status.

Unique Contribution to Theory, Practice and Policy: These findings re-echo calls for stringent enforcement of extant building codes as well as adoption of public-private engagement in design and implementation of housing scheme and provision of infrastructure in the urban setting in developing countries.

Keywords: *Housing, Housing Quality, Infrastructure, Residents Satisfaction, Uyo Metropolis*

1. INTRODUCTION

Housing refers to the construction and assigned usage of houses or buildings individually or collectively, for the purpose of shelter (Zubairu, 2021). It can also be viewed as any place people live that provides for the basic human needs for shelter of all human needs. Housing is by far the most crucial only second to food. According to WHO (2020), housing is not just a roof over one's head. It transcends mere shelter or dwelling. It embraces both the physical and social components of the environment including the facilities, amenities and services necessary for human comfort, safety and health.

Housing is a basic human need, and it plays a critical role in shaping the quality of life for individuals, families and communities. The UN-habitat (2019) acknowledges that access to safe, affordable and stable housing is essential for a person's health, safety and well-being. Housing can also impact a person's economic, social and cultural opportunities as it influences their access to education, employment, healthcare and social networks (Jaspa, 2023). In view of these facts, the United Nations Declaration of Human Right of 1948 acknowledges the right to adequate housing as one of the fundamental human right. This is also the reason the Sustainable Development Goals (SDGs) of United Nations outlines the provision of livable cities and housing as one of her goals (Goal 11). At the National levels, many countries including Nigeria have developed housing policies and programs as to address issues related to availability, affordability and adequacy to ensure that everyone has access to quality housing (Henilanelnita, 2016). However, evidence have shown that decades of direct government interventions in the housing sector have not been able to combat the problems of insufficient quality housing in Nigeria (Jiboye, 2019; Zubairu, 2021).

In Nigeria, the problem of insufficient quality housing persists in Urban and Rural areas; but the crisis is more serious in Urban areas as most people live in poor quality housing and unsanitary environments (Adetunji, 2015; Brkanie, 2017). Quality housing are measured in terms of its acceptability at a given time, place, in a given set of cultural, technological and economic conditions (Adewela et. al, 2024). According to Tunrayo (2024), criteria for evaluating housing quality include: economic criteria such as relationship between rent and income; physical criteria such as the integrity of the dwelling and social criteria, such as the incidence of diseases and the degree which overcrowding of housing occupies. Essentially therefore, quality housing connotes adequate privacy; adequate space; physical accessibility; adequate security; security of tenure; structural stability and durability; adequate lighting, heating, ventilation; adequate basic infrastructure, such as water, sanitation and waste management facilities; suitable environmental quality and health related factors and adequate and accessible location with regard to work. All these components of housing are critical for housing satisfaction (Mohit and Adel, 2014; Ukoha and Beanish, 2018).

Housing satisfaction refers to the feeling of contentment an occupant has or achieved from the house. Housing satisfaction is determined by several factors such as neighborhood characteristics – the physical and social environment surrounding the residence such as the quality of public spaces, availability of convenient facilities and social cohesion (Thomas and Hassan, 2018). Some researchers have come to define housing satisfaction as an individual's subjective assessment of whether or not his/her needs are being met (Jiboye, 2019; Akande, 2021). This goes to show that studies or residential satisfaction are critical for promoting better understanding of the key sources of satisfaction and dissatisfaction among residents.

Uyo metropolis is a rapidly growing and developing Nigerian city and the capital of Akwa Ibom State. The city has witnessed a surge in her population in recent times largely due to influx of people from the rural areas as well as those from other parts of Nigeria in search of opportunities. This phenomenon portends huge consequences in promoting quality housing for the ever-bulging urban population. This study therefore seeks to assess the quality of housing and infrastructure provided in the area as well as the satisfaction level of residents. It is hoped that findings would provide the much needed empirical evidence for further improvement in the supply of adequate housing and infrastructure for the teeming population of the city.

2. THEORETICAL FRAMEWORK

Housing Need Theory

Rossi (1995) propounded the housing need theory to conceptualize residential satisfaction/dissatisfaction. In his theory, Rossi posited that changing housing needs and aspirations as household's programme through different life cycle stages often place households out of conformity with their housing and neighbourhood situations. The lack of 'fit' between their current and desired housing needs creates stress or dissatisfaction with their current residence. Household responds to such stress and dissatisfaction through migration which brings a family's housing into adjustment with its housing needs. Life cycle changes may generate different space requirements, which are considered the most important aspect of the needs. Thus household are likely to feel dissatisfied if their housing and neighbourhood do not meet their residential needs and aspirations.

Winter (1998) introduced the notion of 'housing deficit' to conceptualize residential satisfaction/dissatisfaction. In their housing adjustment model of residential mobility, they theories that individuals judge their housing condition according to normatively designed norm, including both cultural norms, which are dictated by societal standard or rubs for life conditions and family/personal norms, which amount to household's own standard for housing. This is an incongruity between the actual housing situation and the cultural and/or familial housing norms result in a housing deficit, which in turn gives rise to residential dissatisfaction. Households with a housing deficit who are hence dissatisfied are likely to consider some form of housing adjustment. They may attempt to make in-situ adjustment to reduce dissatisfaction by revising

their needs and aspirations to reconcile the incongruity or by improving their housing conditions through remodeling.

Housing Habitability Theory

Housing habitability refers to the physical condition of dwelling and the condition of the environment surrounding the home. It also comprises the social, behavioural, cultural and personal characteristics of the inhabitants and the nature of the institutional agreement under which the house is managed (Jiboye, 2020; Rahum, 2011; UN Habitat, 2019). In recent time, researchers have relied upon the concept of habitability to assess and evaluate the condition and quality of housing. However, the perspectives adopted are divergent. Some based their analysis primarily on a set of predetermined physical parameters. This school of thought views housing habitability in terms of the physical condition of the dwelling (structural, internally and externally) the existence of basic amenities and the condition of the environment surrounding the home (structurally, internally and externally); the existence of basic amenities and the condition of the environment surrounding the home. In other words, habitability means housing that provides people, a needed space to live in dignity and peace, and has protection from the natural elements, structural hazards and disease vectors, which threatens their physical well-being (WHO, 2020; James and Essien, 2018). One major assumption underlying this proposition is that the stability of health of occupants is linked to the stability of the physical attributes of the house. Viewed in this light, the Australian institute of Health and welfare (2011) defines habitability as a dwelling being fit for human habitation, processing basic amenities in working order and not being in substantial disrepair.

Some researchers believe that the above definition raises a number of issues including the choice of indicators or measurable attributes by which an evaluator would adjudge a dwelling fit for human habitation (Ikurekong, 2009; Zhonghura, 2015; UN-19 Habitat, 2019). There are no generally acceptable indicators. What is considered as habitability standard are evolved by respective national housing agencies and lack international applicability. Furthermore, the specifications of what is termed “basic amenities” vary across cultural and geographical boundaries. Some authors therefore have criticized the over-reliance on physical parameters to define habitability (Jiboye, 2019; Othman and Jumal, 2023; Ezeanah, 2024). They argued that what is acceptable as minimum standard and habitability elements in a developed country may not be acceptable in a developing country. In view of the ambiguity and lack of uniformity in choice of indicators of habitability across international space, and the non-inclusion of social elements in determining habitability, a new perspective of habitability focusing on the human, socio-cultural and psychological consideration emerged. The proponents of this theory assume habitable housing as a function of the ratings of the individual’s tenant’s satisfaction with his dwelling unit in relation to his neighbourhood (Ukoha and Beanish, 2018). In other words, assessing habitability would mean evaluating the social and cultural elements operating within the residential environment upon which satisfaction is based. This is the reason Adedire and Adegbte (2020) asserted that habitability of a house should be defined in terms of the quality of spaces to provide satisfaction

and to allow a healthy biological, psychological and social development of the residents. Essentially therefore, this study hinges its assessment of housing quality on the assumptions provided in the habitability concepts, particularly on the assumption that habitable or quality housing should be measured by the level of satisfaction felt by the inhabitants for their houses which in turn is a function of their needs and expectancies.

3. LITERATURE REVIEW

Housing Quality and Infrastructure

Good quality housing means more than a roof over one's head. According to Adeleye et al., (2014), quality housing should possess the necessary ingredients such as adequate privacy, space, accessibility, security and tenure. Other authors believed that quality housing criteria transcends structural stability and durability and key parameters such as lighting, ventilation, infrastructure and location are critical (Thomas and Hassan, 2018; Brkanie, 2017; Akande, 2021; Babalola et al., 2020; Tunrayo, 2024).

The UN-Habitat (2018) asserted that poor quality of housing has repercussions across a whole range of other aspects of life, such as employment, because housing not only fulfills the basic human physical needs for shelter but also satisfies social requirements. Henilanelnita (2016) opined that a house provides a centre for individual and the basis for family life, emerging as an important symbol of social standing and aspirations; whereas Jiboye (2020) opined that a good housing must possess a general layout of good appearance, and comply with the general customs and habits of the people without which it may turn into a slum. Adeleye et. al. (2014) affirm that standards in housing are measure of acceptability at a given time, place and in a set of cultural technological and economic condition.

A number of studies had attempted to empirically verify the quality of housing at different location and time. For instance, Adetunji (2015) examined the housing quality in Lokoja Metropolis and its health implications. Both primary and secondary data were employed. Structured questionnaire was designed and used for data collection. Descriptive and inferential statistics were employed to analyses data. Findings revealed that more than 60% of the inhabitants live in indecent houses without basic infrastructure and sanitation. In the case of Lagos as reported by Babalola, Ibem and Fulani (2020), the outcome of descriptive statistics and categorical regression analysis showed that over 50% of the respondents in the survey perceived their housing to be good. Around 66% of the variance in R² was explained in the regression model. Adequacy of housing units, type and characteristics of housing, level of security, and the state of repairs of the building emerged as the top four prediction of housing quality. In Ibeju Lekki, a peripheral settlement outside Lagos metropolis, Adedire and Adegbite (2020) took a purposive sample of 370 housing units from clusters of 16 peri-urban settlements in order to assess the quality of housing. The authors used structured questionnaire/interview to assess four dimensions of housing quality namely neighbourhood quality, locational quality, dwelling quality and building material/infrastructure.

Findings showed a poor housing quality for some of the clusters and that socio-economic characteristics, predominantly income of households play a major role in shaping the quality of housing of the households.

Other studies have also highlighted the dwelling and environmental attributes as key indicators of quality housing. Adewale, Olabisi and Olawumni (2024) examined the quality of housing in Ede, Nigeria. The study used a sample of 388 housing units to assess the quality of housing in the area. Findings showed that housing quality in the area was relatively fair, the age of buildings, as well as the adequacy of living environments were despicable. The situation was linked to the large household size reported in most of the housing units. In the Greater Kanu area in Nasarawa State, Nigeria, Tunrayo (2024) adopted a cross sectional survey of 289 households to assess their housing quality. A semi-structured validated questionnaire was used to generate data for the study. Findings showed that residents of the area live in house with no toilet system, no water source, cracked/damp wall, plumbing defects, no drainage, no proper waste disposal, no protection from noise. It was concluded that most of the houses failed to meet standards for quality housing.

Housing Satisfaction

Some researchers have come to define housing satisfaction as an individual's subjective assessment of whether or not his/her needs are being met (Adrianse, 2017; Ukoha and Beanish, 2018; Daya and Butu, 2022). Similarly, Gong and Bo (2023) opined that studies on residential satisfaction promote better understanding of the key sources of satisfaction and dissatisfaction among residents. According to Ajayi et. al. (2015), satisfaction in housing means the sentiments of happiness to the place which create the feelings. To them, housing is often viewed as an entity involving a large number of units displaying aspects such properties as physical attributes of the building, location, standard of services as well as neighbourhood characteristics.

According to Mohit and Adel (2014), satisfaction is a process of evaluation between what was received and what was expected. Satisfaction in this context connotes the perceived discrepancy between aspiration and achievement, ranging from the perception of fulfillment to that of deprivation. Afon (2016) found that satisfaction was not only conditioned by physical aspects but also by the ability to form social networks. This means that satisfaction is a subjective response to an objective environment. Residential satisfaction involves an extensive range of experts and professionals; some of them try to define the term from one dimension, while others try to define it from multi-dimensional perspectives. For instance, Mbazor (2018) defined residential satisfaction as a spatial aspect; housing satisfaction encompasses satisfaction with dwelling unit and satisfaction with the neighbourhood and the area.

Most empirical studies on housing satisfaction have used a number of theories to demonstrate their findings. A host of variable representing housing and neighbourhood characteristics, individual perspective of housing and neighbourhood condition have been analysed in most housing studies. For instance, Umeora and Ike (2021) assessed the level of residents satisfaction in private estates

in Enugu State. The study adopted a survey design and questionnaire administration to generate data for the study. Findings from the study showed that residents were satisfied with sizes of bedrooms and kitchen but dissatisfied with condition of wall finishes and toilet facilities. Whereas, in Stockholm, Sweden, Gong and Bo (2023) found that kitchen facilities, cleanliness and access to public transport were the top predictors of occupant's satisfaction in the area.

4. METHODOLOGY

Study Area

Uyo Metropolis is located between latitudes $4^{\circ}58^1$ and $5^{\circ}5^1$ North and Longitudes $7^{\circ}5^1$ and $8^{\circ}1^1$ East of Greenwich. Uyo is founded on a plain of about 60.96m above sea level covering a landmass of 214.3sqkm (Figure 1).

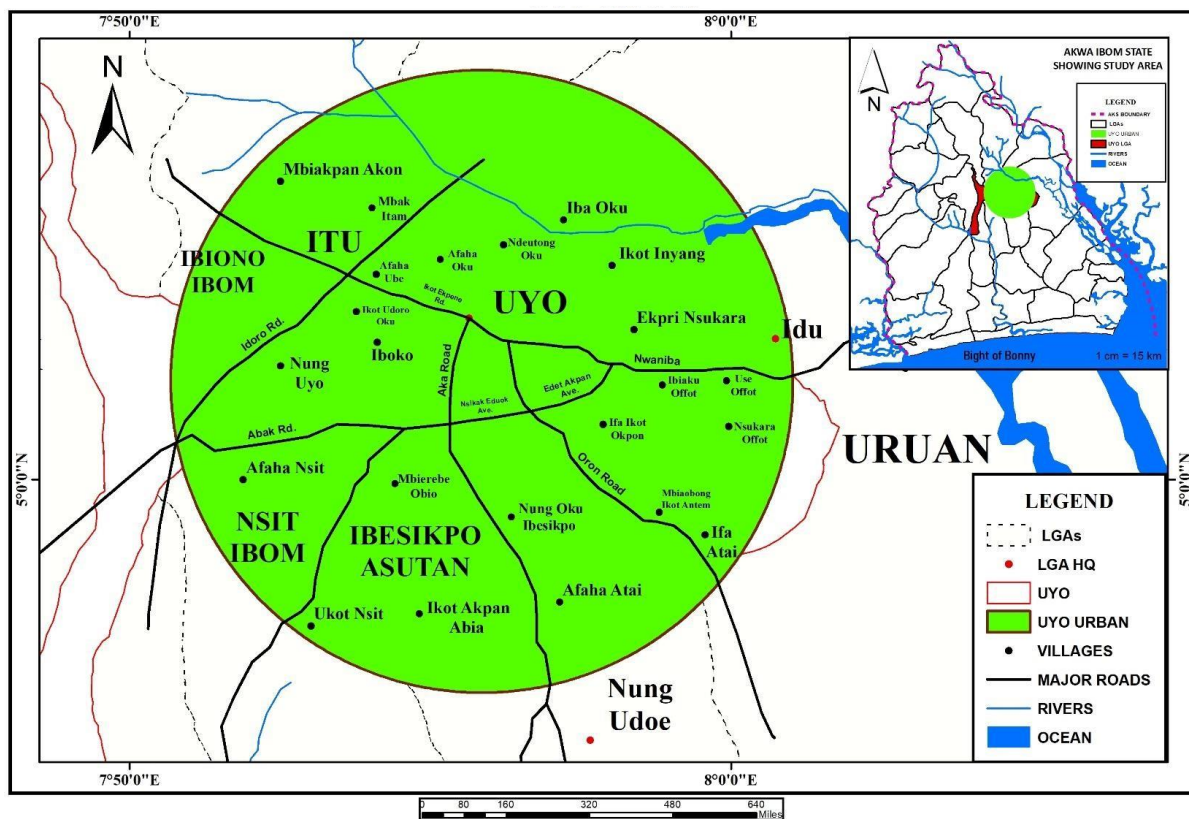


Fig. I: Location of the study area

Uyo Metropolis shares the tropical rainy climate that dominates the coastal region in Nigeria. The annual mean rainfall is between 2,500mm and 3,200mm while the annual temperature is between 36°C and 38°C . Throughout the year, relative humidity is constantly high with mean values ranging between 75% and 95%.

Uyo is home to about 1,329,000 people. A rapid growing urban centre - largely due to rural-urban drift and tourism. Housing remains a major challenge due to limited supply and sky-rocketing rent. Uyo being the State capital enjoys a central location within the Akwa Ibom space (Figure 2).

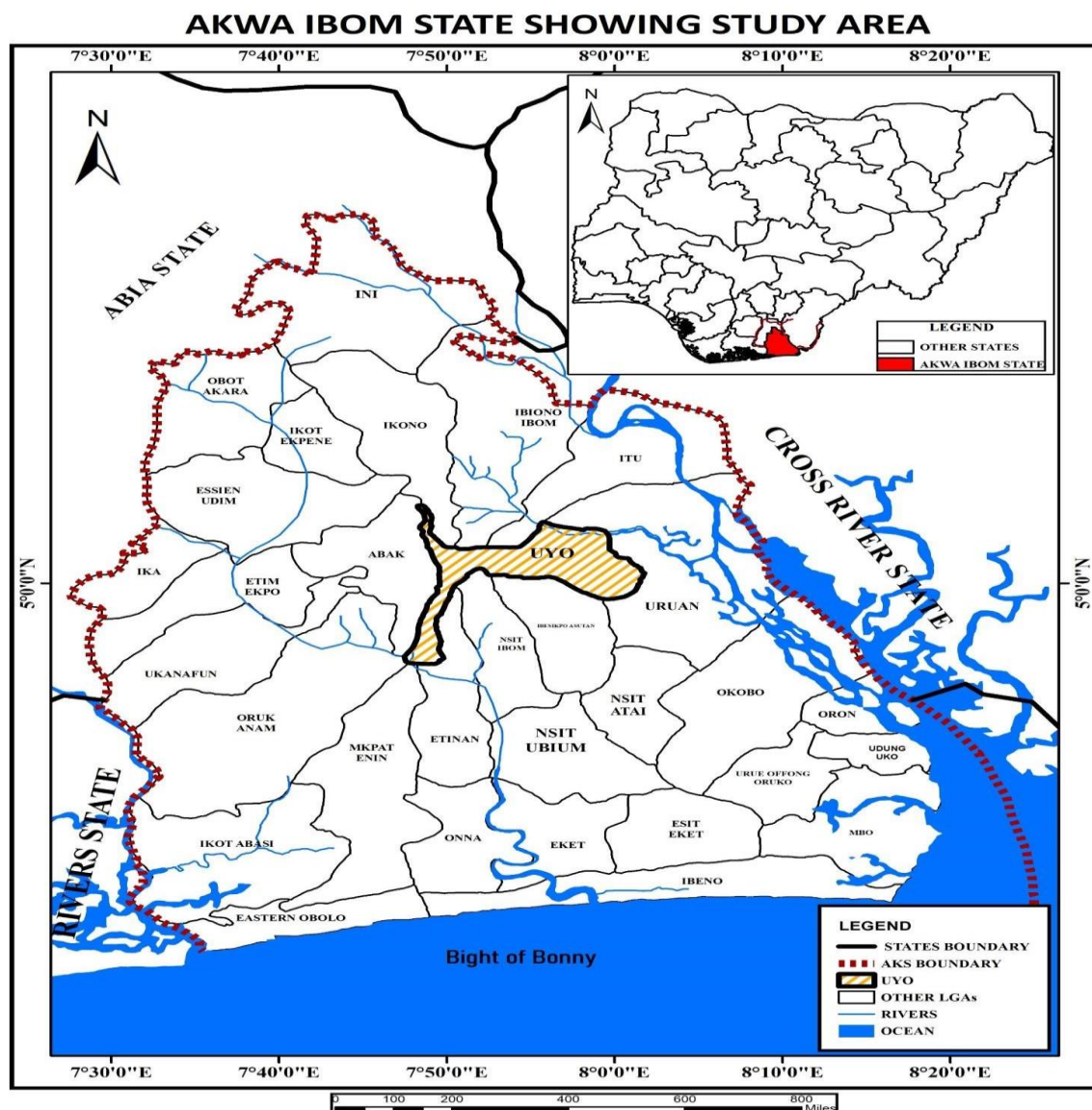


Figure 2: Akwa Ibom State showing Uyo Metropolis

Sample and Sampling Technique

According to James and Essien (2018), Uyo metropolis are stratified into 40 residential zones/communities. For this study 5 residential zones were purposively selected and they represent 12.5% of the population (40) of residential communities in the study area. According to Udofia (2005), 10% sampling fraction is acceptable for statistical generalization of research findings. The

5 selected residential areas include: Abak Road residential area, Ikot Ekpene Road, Aka residential area, Nwaniba and Oron Road. In each residential area, 3 residential streets were sampled to give a total of 15 residential streets while 16 residential housing units were sampled in each residential street to give a total sample size of 240 housing units. During the field exercise, the systematic random sampling technique was applied to target the housing units and the heads of household or representatives were the respondents.

Data Requirement

The following sets of data were generated and used for the study. These include:

a. Residents socio-economic characteristics: (Age, Gender, Marital status, Household size, Educational status, Occupation, Income and Housing tenure).

b. Measures of Housing quality: These include availability of Burglary Installation (Yes, No), No. of rooms (1-2, 3-4), No. of windows (1 or 2) per room, Presence of flush toilet (Yes/No), Tiled bathroom (Yes/No), Tiled kitchen (Yes/No), Presence of Borehole/Tap (Yes/No), Electricity supply up to 12 hours daily (Yes/No), Noise pollution (Yes/No), Good street road network (Yes/No), Good drainage (Yes/No), Street lighting (Yes/No), Good waste disposal (Yes/No), security (Yes/No), State of disrepair (Low/High), State of painting (Good/Bad), Adequate parking space (Yes/No).

c. Measures of Housing Satisfaction: These include: Level of satisfaction with security (High – 3, fair – 2, low – 1, Nil – 0), Level of satisfaction with size of space of building (High – 3, fair – 2, low – 1, Nil – 0), Level of satisfaction with ventilation (High – 3, fair – 2, low – 1, Nil – 0), Satisfaction with space of living room (High – 3, fair – 2, low – 1, Nil – 0), Space of bathroom (High – 3, fair – 2, low – 1, Nil – 0), Space of toilet (High – 3, fair – 2, low – 1, Nil – 0), Functionality of bathroom/toilet facilities (High – 3, fair – 2, low – 1, Nil – 0), Design of the building (High – 3, fair – 2, low – 1, Nil – 0), Parking space (High – 3, fair – 2, low – 1, Nil – 0), Refuse disposal (High – 3, fair – 2, low – 1, Nil – 0), State of electricity supply (High – 3, fair – 2, low – 1, Nil – 0), State of water supply (High – 3, fair – 2, low – 1, Nil – 0).

Method of Data Collection

A checklist containing the parameters of housing quality and infrastructure was constructed. During the field exercise, the field assistants used the checklist as a guide to observe the infrastructure and quality of housing in each residential area and noted same in the checklist. The questionnaire of housing satisfaction was also designed and deployed for data collection. Specifically, questionnaire was used to generate data on the resident's socio-economic status and their level of satisfaction with their housing. The questionnaire consists of two sections. Section A captures questions related to the residents socio-economic status while Section B outlined questions related to residents satisfaction. During the field work, 240 pieces of questionnaire were administered to heads of household in each housing units. The respondents were schooled on how

to fill the questionnaire and return same immediately. Of the 240 set of questionnaire administered, 220 were correctly filled and deemed suitable for inclusion in the data analysis. On the whole, 91.6% questionnaire return rate was achieved.

Method of Data Analysis

Tables and percentages were used to show the volume of housing units with good or bad housing quality. Weighted scores ranging from 3 – Highly satisfied; 2 – fairly satisfied; 1 – Low satisfaction and 0 – no satisfaction was used to assess the level of housing satisfaction. Furthermore, the Pearson's Product Moment Correlation Technique was employed to examine the relationship between Residents' level of housing satisfaction and their socio-economic status and to test the null hypothesis that there is no relationship between the two variables: Y: Residents housing satisfaction and X₁, X₂, X₃...X_n: Resident socio-economic status. The specific socio-economic attributes used in the analysis were:

X₁ – Educational status (Tertiary – 2, Primary/Secondary – 1, No Education – 0)

X₂ – Income Status (> 62k – 2, 30-62 – 1, <30k-0)

X₃ – Gender (Male – 1, Female – 0)

X₄ – Occupation – (Public Service – 2, Trading/ artisan – 1, Farming – 0)

X₅ – Tenure Status (Owners – 1, Renters – 0)

As indicated in the above material, weighted scores were assigned to different categories of the residents socio-economic attributes and the data transformed into interval scale for inclusion in the SPSS for correlation analysis.

5. FINDINGS

Residents Socio-economic Characteristics

The examination of the resident's socio-economic characteristics formed an integral component of this study. This is so because, theoretically, housing quality satisfaction has been linked to the resident's socio-economic profile. In this study, the following socio-economic attributes of the residents were captured: age, gender, marital status, family size, educational status, employment status, income, and tenancy regime. The results are presented in Table I.

Table I: Residents Socio-economic Characteristics

S/N	Parameter	Frequency	Percent
1.	Age – Below 30 years	20	9
	30 – 59 years	150	68
	60 – years and above	50	23
2.	Gender – Male	165	75
	Female	55	25
3.	Marital Status – Single	40	18
	Married	120	54
	Divorced/separated	30	14
	Widowed	30	14
4.	Household Size - < 5 persons	45	21
	5 persons	135	61
	> 5 persons	40	18
5.	Educational Status – None	5	2
	Primary	10	5
	Secondary	130	59
	Tertiary	75	34
6.	Occupation - Farming	10	5
	Trading	80	36
	Artisan	60	27
	Civil Servant	50	23
	Other	20	9
7.	Income - < ₦30,000	65	30
	₦30,000	130	59
	₦62,000	25	11
8.	Housing tenure – Owners	60	27
	Renters	160	73

Source: Udoh & Essien (2025)

The age distribution of the respondents reveals a young and active population. This is a reflection of the Nigeria population structure with a dominance of the youths as against the elderly. Data in Table 1 indicates that 68% of the respondents were between aged 30 and 59 years while the senior citizens aged 60 years and above made up 23% of the respondents. Those below 30 years were 9% of the respondents. The youthful and active characteristics of the respondents have serious implications for the provision of quality housing for the teeming urban population in the study area. The distribution of respondents by gender is presented in Table I. The Data revealed a skewed distribution dominated by the males (75%). The female gender made up the remaining 25% as shown in Table I. This is understandably so considering the fact that males are more likely to migrate to the urban centres in search of employment compared to their female counter part.

The respondent's marital status is presented in Table I. The data shows a dominance of the married (54%) in relation to other marital statuses. Furthermore, data in Table I show that 18% of the

respondents were single; 14% were either divorced or separated while 14% were widowed. The high proportion of married respondent implies increased demand for quality housing in the study area.

The distribution of respondents according to the size of their household is captured and presented in Table I. As data in Table I indicated, 61% of respondents reported having 5 members in their household while 18% had more than 5 household members. In Nigeria the average household size (according to the National Population Commission) (NPC, 2006) is 5. This figure can be slightly higher for rural areas and lower for the Urban. Large household size has serious implications for accessing quality housing in the urban clusters such as Uyo metropolis. The educational status of respondents was captured on four levels, namely: No formal education (2%), primary education (5%), secondary (59%) and tertiary (34%). As data in Table I would indicate, secondary education remains the highest educational attainment for majority of the respondents. Only a few respondents (34%) attained the tertiary level of education. This is expected of a typical urban setting in, Nigeria where there is limited access to tertiary education either due to high cost of tertiary education or personal decisions of the people. The implication is that poverty and lack of capacity to access quality housing will prevail.

The respondents' occupational structure is presented in Table I. The data shows that trading (36%) artisanship (27%) and civil service (23%) are the top three occupations of the respondents and 9% are engaged in farming and other occupations respectively. The low proportion of farmers among the respondents is a time reflection of the non-farming characteristics of urban centres. However, the informal sector consists of the petty traders and artisans formed the major sector of urban employment in Nigeria. The bulk of the respondents who are artisans and petty traders may not have the wherein that to access quality housing in an emerging city such as Uyo metropolis.

The estimated monthly income of the respondents is displayed in Table I. The data shows that majority of the respondents earned less than the proposed national minimum wage of N62,000. As data in Table I indicated, only 11% of the respondents earned more than 62,000 naira per month. The income structure confirms the poverty indictment of urban population in the study area. The implication of the poor income status of majority of the respondents to quality housing access is obvious. They may not have the financial muscle to acquire or rent standard housing. This is why the low-income housing scheme of the Tinubu administration is a welcome development for the urban poor, especially those in Uyo metropolis.

A dichotomous measure of housing tenure was used to examine respondents housing tenure. These are owners versus renters. As data in Table I indicates, majority of the respondents (73%) are renters. This finding is obvious, considering the high cost of mortgage and building materials in Nigeria in the face of low economic power of urban residents in Uyo urban.

Housing Quality and Infrastructure in the Study Area

Assessment of housing quality and infrastructure remains the major thrust of this study. Two key dimensions of housing quality was considered. These are: Internal/external dwelling quality and neighbourhood/infrastructure quality. Direct observation and questionnaire response from residents were employed to generate relevant data. Table 2 displays the data for internal/external dwelling quality. As data in Table 2 indicated, 86% of the housing units had burglary installation while 14% had none. It is obvious that residents pay high premium on the security of their home than the number of rooms in the dwelling. This is evident considering the low number of dwelling with 3 – 4 rooms (27%) compared to those with 1 – 2 rooms (73%). Findings also indicated that majority of the housing units had 2 windows per room while 82% of the homes had flush toilet. Furthermore, 73% of the housing units had tiled bathroom. The large proportion of homes with double window show the value residents place on ventilation and natural lighting in the home. Regarding water and energy, there was presence of borehole in 82% of the homes whereas only 23% of the homes had power supply up to 12 hours daily. The issue of poor power supply is a national problem in Nigeria and only those who are buoyant could afford the alternative of solar energy in their homes.

Table 2: Internal and External Dwelling Quality (n=220)

S/N	Housing Quality Parameter	Frequency	Percent
1.	Burglary Installation - Yes	190	86
	No	30	14
2.	Number of rooms – (1-2)	160	73
	(3-4)	60	27
3.	Number of Windows – 1 per room	100	45
	2 per room	120	55
4.	Presence of Flush Toilet – Yes	180	82
	No	40	18
5.	Tiled Bathroom - Yes	160	73
	No	60	27
6.	Water supply (borehole) - Yes	180	82
	No	40	18
7.	Electricity supply (12hours/day) - Yes	50	23
	No	170	77

Source: Udoh & Essien (2025)

The state of neighbourhood quality measures the environmental component of housing in the study area. Table 3 displays data regarding noise pollution, drainage, waste disposal, security, state of buildings, painting and parking space. As data in Table 3 would indicate, noise pollution remains a major environmental issue in the neighbourhood as 73% of residents reported the presence of noise pollution. The source of noise pollution emanates from loud speakers used to relay church programmes within the neighbourhood. Regarding drainage and waste disposal, only 18% of

residents reported having good drainage; while 16% reported having good waste disposal. Majority of residents reported poor drainage (82%) and poor waste disposal (84%). The problem of poor drainage and waste disposal are further buttressed in Plates I and II.



Plate I: Poor drainage condition at Abak Road



Plate II: Blocked Drainage at Nwaniba



Plate III: Littered waste at Ikot Akpe Street, off Abak Road

Regarding the state of neighbourhood security, 91% of residents reported the absence of security within their residential area. In most parts of Uyo urban, neighbourhood security has become an issue of private arrangement where non-state security outfits are hired to secure the neighbourhood. Furthermore, the data in Table 3 revealed that 32% of the housing units were in the state of disrepair as 78% had bad painting as well as inadequate parking space reported by 90% of the residents.

Table 3: Neighbourhood Quality and Infrastructure (n = 220)

S/N	Parameter	Frequency	Percent
1.	Noise pollution - Yes	160	73
	No	60	27
2.	Good Drainage - Yes	40	18
	No	180	82
3.	Adequate waste disposal Facilities - Yes	35	16
	No	185	84
4.	Adequate neighborhood Security - Yes	20	9
	No	200	91
5.	Housing Units in State of Disrepair - Low	150	68
	High	70	32
6.	State of Painting of Housing Units - Good	48	22
	Bad	172	78
7.	Adequate Parking Space – Available	23	10
	Not Available	197	90
8.	Street Lighting - Yes	30	14
	No	190	86
9.	State of road – Good	40	18
	Bad	180	82

Source: Udoh & Essien (2025)

iii. Housing Satisfaction of Residents in Uyo Metropolis

The evaluation of resident's satisfaction with their housing quality was done using a self-reported level of satisfaction. Three levels of satisfaction were captured on the questionnaire of Housing satisfaction and administered to residents during field work. Residents were required to rate their satisfaction of housing on the scale of zero to three, where **0** indicated “not satisfied”, **1** – lowly satisfied; **2** – fairly satisfied and **3** – highly satisfied. The ratings by residents, rank-sum and mean ($\bar{x}$) score of rating for 12 housing parameters are presented in Table 4.

Table 4: Ratings of Housing Satisfaction by Residents (n = 220)

S/ N	Housing Parameters	Ratings				Rank sum	(x̄) mean	Remarks
		3	2	1	0			
1.	Security	20	50	50	100	210	0.95	NS
2.	Size of building space	72	58	53	37	385	1.75	S
3.	Ventilation	35	25	40	120	195	0.88	NS
4.	Space of living room	70	80	50	20	420	1.90	S
5.	Space of bathroom	20	30	80	90	200	0.90	NS
6.	Space of toilet	20	30	80	90	200	0.90	NS
7.	Functionality of toilet/bathroom	20	30	80	90	200	0.90	NS
8.	Building design	120	70	10	20	510	2.31	S
9.	Parking space Street road and lighting	20	10	50	140	130	0.59	NS
10.	Refuse disposal	20	44	46	110	194	0.88	NS
11.	State of electricity supply	5	10	35	170	70	0.31	NS
12.	State of water supply	136	50	20	14	58	2.40	S

N/B: Rating Scale, 3 – Highly satisfied, 2 – Fairly satisfied, 1 – Lowly satisfied, 0 – Not satisfied, Remarks, S = Significant, NS = Not Significant

As data in Table 4 indicated, 12 housing parameters were considered in the evaluation. Mean values were also computed for each housing parameter. A mid-value (median score) of 1.50 was adopted as bench mark for evaluating the significance of each parameter.

The significance of a housing parameter means that residents were satisfied with that component of housing. Accordingly, as data in Table 4 indicated, only four out of the twelve housing parameters had mean score of 1.50 and above. These include size of building space ($\bar{x} = 1.75$), space of living room ($\bar{x} = 1.90$), building design ($\bar{x} = 2.31$) and state of water supply ($\bar{x} = 2.40$). This implies that residents were satisfied with the above parameters but dissatisfied with security condition in their neighbourhood ($\bar{x} = 0.95$), ventilation ($\bar{x} = 0.88$), space of bathroom ($\bar{x} = 0.90$), toilet ($\bar{x} = 0.90$), functionality of toilet ($\bar{x} = 0.90$) parking space/street road/lighting (0.59), refuse disposal ($\bar{x} = 0.88$) and electricity supply ($\bar{x} = 0.31$). Of all the housing parameters considered, water supply remains the topmost ranked by residents. This is due to the fact that borehole water

as captured in plate IV are ubiquitous in most of the residential areas within Uyo metropolis; whereas the street roads are deplorable (Plate V).



Plate IV: One of the many Boreholes for road at Water Supply in the Study Area Ekpene Road.



Plate V: Poor Condition of street neighbourhood around Ikot

Relationship Between Residents Housing Satisfaction and Socio-economic Status

Earlier in this study a null hypothesis indicating that there is no significant relationship between residents housing satisfaction and socio-economic status was advanced. The Pearson's correlation analysis was employed to analyse the data and test the hypothesis at 0.05 level of significant. Data for the independent variables (X1 - educational status; X2 – income status, X3 – Gender, X4 – Occupation, X5 – Housing tenure) were collected for the 10 residential areas (streets) using the questionnaire. Weighted scores were used to measure and also compute indices for the independent variables (socio-economic status) for further input into the SPSS. The dependent variable (Y – level of housing satisfaction) was also measured on a 3 – point weighted scale and transformed to single indices for the sampled residential areas (streets). The summary is presented in Table 5.

Table 5: Summary of Pearson's Correlation Analysis (N = 10)

Residential socio-economic Status (X)	Pearson's Co-efficient	Sig.	N	Remarks
X1 – Educational Status	-.710	.001	10	S
X2 – Income Status	-.921	.000	10	S
X3 – Gender	.663	.003	10	S
X4 – Occupation	-.772	.002	10	S
X5 – Tenure Status	.866	.000	10	S

NB: S = Significant correlation at 0.05 level.

As data in Table 5 indicated, the independent variables (socio-economic status of residents) correlated highly (positive and inverse) with the dependent variable (Residents housing satisfaction). Specifically, the correlation coefficient for X1 – education status and Y – housing satisfaction ($r = -.710$, $P < 0.05$) was significant. Income status (X2) with housing satisfaction was significant ($r = -.921$, $P < 0.05$). Gender with housing satisfaction ($r = -.663$, $P < 0.05$); Occupation with housing satisfaction ($r = -.772$, $P < 0.05$) and housing tenure with housing satisfaction ($r = .866$, $P < 0.05$) were all significant at 0.05 level of significance. This means that the null hypothesis remains invalid and rejected. The result therefore indicates that there is significant relationship between residents housing satisfaction level and their socio-economic status. The implications of these findings are discussed in the next section.

6. DISCUSSION OF FINDINGS

The socio-economic characteristics of the residents revealed that the study area has a youthful and active population. The age cohort, marital status and family size revealed that the study area is sitting on a time bomb of population explosion in the near future. This situation however has dire consequences for housing provision, particularly for the poor, low income earners and the vulnerable group. These findings have been corroborated by Adetunji (2015) who asserted that Nigeria is going to face a huge housing deficit in the near future considering the large population that are youths and prospective parents. This is why the current “Renewed hope housing programme” of the federal government of Nigeria is a laudable step for improving the supply of quality housing for the urban residents.

However, Adeleye, Azeez and Yusuf (2014) have warned that such programme should ensure public participation right from the design stage to implementation stage. This is because for any housing development scheme or programme not to fail, the beneficiaries must be consulted and be part of every phase of the implementation and development of the program.

The internal and external quality of housing in the area revealed major issues with electricity supply. Majority of residents in the area do not have electricity supply up to 12 hours daily. The problem of epileptic supply of electricity in Nigeria is perennial; and only rich household can afford alternative solar-powered energy in their homes. According to Adetunji (2015), the quality of housing in Nigeria is diminished largely due to lack of electricity supply in homes and neighbourhoods as this situation can lead to serious health challenges for the occupants. The state of neighbourhood quality revealed five main issues ranging from noise pollution, poor drainage, inappropriate waste disposal, inadequate parking space and neighbourhood security. The findings have shown that the noise pollution in the area emanates largely from the proliferation of churches in the neighbourhood. These churches employ large outdoor public address system to relay their programs thereby generating noise. The neighbourhood watch scheme initiated by the State Government to improve neighbourhood security has failed to deliver. The security apparatus in the study area are porous and non-state actors seems to be the remedy.

Findings have also revealed the level of satisfaction of residents with their housing. The residents ratings showed significant dissatisfaction with security, electricity supply, refuse disposal, parking space, ventilation including the size of their bathroom and toilets. Most of these issues are matters of enforcement of extant laws and legislation to improve the situation. For instance, the normal size of rooms, bathrooms and toilets including the provision of parking space and drainage are encapsulated in the building code of Uyo capital city development authority. However, some private developers can violate the regulations for certain reasons and made away with it due to corruption. The significant relationship between residents satisfaction and their socio-economic status have far reaching implications. First, the high inverse correlation between residents education status and housing satisfaction means that the more educated people are bound to be dissatisfied with certain housing anomalies in as much as they possess the knowledge of what the ideal and normal situation should be. Whereas, with the lowly educated would be satisfied with the status quo lacking knowledge of the ideal situation. Furthermore, the high inverse correlation between residents income status and housing satisfaction implies that the richer a person is, the less satisfied he is with his housing. Rich people are bound to invest more to improve their housing quality compared to the poor. This finding is in line with studies by Adedayo and Amole (2020) who found that income plays a major role in shaping housing quality in Ilesa-land, Osun State of Nigeria.

7. CONCLUSION AND RECOMMENDATIONS

The study has assessed the housing quality, infrastructure and satisfaction of residents in Uyo Metropolis. From the findings and field evidences, it is clear that the quality of housing and infrastructure in Uyo Metropolis is a reflection of the people's culture and their economic status. Though the internal and external components of the housing units were standard; the neighbourhood quality and infrastructure were grossly inadequate, particularly on security, power supply, waste facilitation, street lighting, and noise pollution. Additionally, building regulations have been violated in the area of provision of spaces for parking and ventilation. The housing satisfaction of the residents was significantly tied to their socio-economic status. This implies that public housing programmes need to carry the beneficiaries along in order to provide those housing components that meet occupant's expectation.

Based on the findings of the study, the following recommendations were made:

- i. A deliberate effort at improving the economic base of residents in a panacea for their socio-economic empowerment. Improving the earnings of residents would translate to uplift in their choice housing especially for the renters.
- ii. Inadequate parking space and poor ventilation in the residential areas require the enforcement of extant building regulation by the relevant authorities to enhance the habitability of housing in the area.

iii. Neighbourhood quality in the study area can be improved by making laws against noise pollution in churches, strengthening the neighbourhood watch scheme to enhance security; and enforced monthly clean up (sanitation) to evaluate waste and desilt drainage.

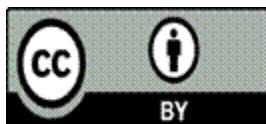
iv. Residents are not satisfied with security, electricity supply, road/lighting and parking space in their residential areas. These conditions can be transformed through private – public partnership to strengthen security, provide incentives for solar power and regulate building siting to provide space for parking. The respondents have serious implications for the provision of quality housing for the teeming urban population in the study area.

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