#### **RESEARCH ARTICLE**

# Slum Prevalence and Crime incidence in Calabar, Nigeria

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#### Abstract

The problems faced in slums go beyond defacing the city's aesthetic quality and poor housing supply but extend to crime increase. In Calabar, the weaknesses of the government/development partners towards preparing and implementing urban renewal programmes/projects has resulted in sporadic increase in the prevalence of slums. Obviously, places of functional obsolescence with derelict features create breeding ground for crime to thrive. In Calabar, areas mainly in the city core are characterized with moribund environments, deteriorating/deteriorated housing units and poor sanitation systems all of which points to slum development. Crime is prevalent in such areas hence the need to carry out this study. The study focused on ascertaining slum prevalence and crime incidence. A sample of 400 respondents was taken using Taro Yamene formular. Data were obtained from both primary and secondary sources. Questionnaire and housing/environmental quality checklists were the major instrument for data collection. Data were analysed using relative index, frequencies and percentages. It was noted in the study that slums are prevalent in the study area and it prevalence contribute to increasing crime levels. This is because the absence of certain facilities constrain security operation in the slum prevalent area. The study recommended that there should be urgent urban renewal in the study area. Facilities and infrastructure that will increase security level should also be provided

Keywords: Slum; crime; housing/environmental quality; urban renewal; sustainability

### Introduction

On a general basis, slums are developments that show attributes/characteristics of overcrowding, dilapidation, deterioration and poor environmental conditions. Infrastructure, facilities and amenities are usually inadequate within such areas. In simple terms, slums are areas of severe deterioration and obsolescence. Instances of infrastructure and facilities that are usually lacking in such areas include potable water, electricity, good roads, recreational ground, schools, clinics and communication facilities. However, the absence of adequate infrastructure and facilities endanger the health, safety and general wellbeing of residents within such deteriorating neighbourhoods. In other words, slums are areas of serious environmental degradation that are characterized by absence of facilities and services that are required to make urban living meaningful (Ekundayo, Faringoro and Job, 2019). Residents within slum areas are therefore subjected to inaccessibility to basic amenities and left to dwell in derelict and areas of functional obsolescence.

Slums are caused by several factors. For instance, urbanization and population growth has been recognized as the leading cause of slums (Okafor and Onuoha, 2016;

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Yaode, 2019). The fact that urbanization and population growth contribute to slum prevalence suggest that slums can be described as areas that are heavily populated which shows attributes of substandard housing units and squalor. Therefore, the ever-increasing nature of human population has made it difficult to combat with the corresponding development of slums in our urban environment especially in developing countries of the world. Earlier, Roy, Lees, Palavalli, Pfeffer, and Sloot, (2014) established that over half of the population of the world are living in urban areas. They predicted that by 2050, at least 7 out of every 10 human beings will be living in urban areas. While there are serious indications that urban population will increase sporadically, there appear to be no corresponding measures to provide housing units to accommodate the teeming and existing population. At present, most urban residents turn to informal housing and squatters for shelter due to issues relating to housing inaccessibility, increased house rent, acute contention for land/building use. Due to the foregoing reasons, the urban poor have limited chances in accessing housing units with necessary facilities and amenities. Specifically, the inability of the urban poor to comfortably afford housing with necessary facilities and in required standard is not unconnected to the increasing rental values which the urban poor and even the middle class in some areas are usually unable to afford. Although there is slum prevalence in both developed and developing nations, the level at which slums are prevalent in developing countries outweigh it availability in developed nations.

Yaode (2019) reported that in 2001, there were 924 million globally. Specifically, the figure suggest that 32 percent of the world's total urban population are residing in slum. This figure therefore attest to the prevalence of slums in town and cities. Equally in 2001, about 43 per cent of the combined urban populations of all developing regions and 78.2 people of those in least developed countries were slum dwellers. The situation is not different in Nigeria. Although statistics are inexact, current realities suggest that over 45 percent of urban residents in Nigeria are slum dwellers. The figure is likely to increase especially due to inadequate attention which the housing sector is receiving coupled with the increasing poverty level in Nigeria. Clearly, urbanization and slum prevalence in our towns and cities have serious implications on city sustainability through creating diverse problems. For instance, urbanization promote alienation, traffic congestion, pollution, vulnerability, criminality and slum growth/prevalence. Earlier studies (Agbola and Agunbiade, 2007; Ola-Adisa, Enwerekowe and Ella, 2015; Yaode, 2019) have shown that there is serious criminality in slum prevalent areas. The increased level of crime is not unconnected to the fact that the residents of slum areas are economically disadvantaged and socially relegated. Equally, slums are characterized with poor inhabitants that are delinquent in nature, hence crime is relatively on the increase in slums. Most importantly, residents within slum areas are disadvantaged in terms of security. For instance, they are deprived of street lights while police protection is very minimal. All of these give a thriving ground for criminality at various levels.

In Calabar, evidences of slums abound in the city core. For instance, surveys within the study area has shown that residential districts such as Akim Neighbourhood, Ikot Ansa, Ikot Eneobong, Mbukpa, Henshaw Town, Cobham Town, Duke town and several other residential neighbourhoods are habouring slums. Further observations during pilot surveys in the study area explained that residents within this slum prevalent areas are exposed to serious crime levels. Therefore, criminal activities such as rape, robbery and stealing are increasingly high in the districts that have slums. From all indication, it is not out of place to recall that districts of poor housing environments are characterized with inadequate police protection, absence of street lights and other security gadgets which the residents of the slum prevalent areas are suffering tremendously from. From the foregoing, it is clear that slum prevalence has implications on crime incidences in Calabar, Nigeria. In spite of the fact that observations has made it clear that crime incidences

abound in the study area specifically in slum prevalent areas, available studies have not been able to discuss the level of crime in slum areas, the specific causes and the effects that it has on residents of the area. Furthermore, an understanding of the level in which slum prevalence and crime incidences inter-relate will be useful in guiding policies that will be useful in guaranteeing urban sustainability. Although the term sustainability is highly contentious in it basic tenets, in this study, the term is used in understudying the level to which the environment can operate in such a way that slum prevalence will be minimized in spite of growing urbanization in the study area. most importantly, the study will contribute to existing knowledge as well as make policies that will stem the tide of slum prevalence and crime incidence in the Calabar, Nigeria.

### **Conceptual Framework and Literature Review**

### **Concept of Sustainable Development**

Holistically, the concept of sustainable development of sustainability is very vital to the present study. The concept is underpinned in the use of available resources in such a way that the future would not be compromised. Therefore, the basic tenets of sustainable development is the use of the resources and environment in such a way that the gains of future generations or the possibilities of future generations to make use of the environment will not be traded off. This suffice that the environment has to be used in such a way that the needs of the present generations will be achieved and future aspirations of generations will not be compromised. Therefore, Nkwocha (2014) suggested that sustainable development is a process of change in which the exploitation of resources, the direction of investment, the orientation of technological development, and institutional changes are all in harmony and enhance both current and future potentials to meet human needs and aspiration. Sustainable development thus emphasis the activities channeled towards preserving the remaining resources and rehabilitating resources that have been treated carelessly in the past.

In a broad sense, sustainable development emphasizes the provision of adequate and affordable basic needs of life such as water, forest and land for the present generation without jeopardizing the prospects of subsequent generations as well as the wise use of the environment to avoid deterioration. Sustainable development planning sense is approached as the development of the environment in such a way that different land uses such as residential, commercial, residential and industrial would operate in such a way that each would not affect the prospects of the other. Basically, the environment as an accommodating base is for facilities, infrastructure/utilities and municipal services as well as different land uses is expected to be managed in such a way that orderliness would be achieved. The goal of sustainable development is to ensure that the needs of the future are not traded off. This supports what Gbadegesin and Aluko, (2011) considered sustainable development as a movement, a notion and an approach which has developed into a global wave of concern, study, political mobilization and organization around the issues of environmental protection. This is because of the indispensability of the concept in ensuring orderly environmental development and protection.

Sustainable development also reflects the attempt to achieve simultaneously the goals of an improved environment, better economy and a more just and participative society, rather than trading off any one of these against the others (Ilesanmi, 2010). In addition, sustainability issues are considered to ensure that the potential negative significant impacts of development are not allowed to dispute the existence of others having in mind that the environment as an accommodating base is designed to harbour different kinds of activities, infrastructures and so on which should all co – exist in harmony (Ogbazi, 2002; George, 2006).

In his study, Bamidele, Bamidele and Obaseki (2016) sees sustainable development as a socio - ecological process characterized by the fulfillment of human needs while maintaining the quality of the natural environment indefinitely. He adds that if sustainable measures are not established, the environment would face drastic deterioration which would have several negative impacts on man's health and well being. The concept of sustainable development is aimed at preventing resource waste through conservation, maximization of product utility and availability, minimization of environmental degradation and deliberately steering and directing actions and attitudes of resource producers and users towards the maintenance of safe, resilient, clean and healthy environment. Nkwocha, (2014) further asserts that the achievement of the above and more sustainable strategies in the human landscape is 'sine qua non' for the realization of development. In Town Planning, sustainable development is used to bring lasting improvements in the economic, physical, social and environmental conditions of an area. This corroborates the submission by Mbaiwa (2003) that economic viability, social acceptability, technical visibility and environmental compatibility are the key features of sustainable initiatives. In the light of the above, Ibem, Uwakonye and Aduwo (2013) concluded that the adoption of the concept of sustainability of programmes is to ensure that specific social, economic and environmental needs of the present generation are met without compromising the potential of the posterity to meet their needs.

With sustainability as a concept, it is evidently easy to ensure the orderly organization and development of our cities and towns without necessarily causing harm. The reasoning in sustainable development is to ensure that our environment is safe for human habitation and to check the adverse effects of emerging environmental problems which may be caused by parasitic, uncomplimentary and incompatible activities.

From all indication, urbanization and population growth cannot be completely discouraged hence, slum prevalence and criminality is always at the verge of occurrence unless sustainable approaches are adopted in the management of our cities and towns. This imply that adoption of sustainable development as a concept in managing slum prevalent areas will seek for ideas to build channels of crime incidence prevention/protection without necessarily discouraging population explosion in urban areas. This can be done through encouraging economic diversity such that job opportunities will be maximized in urban areas. As expected, one of the leading causes of crime incidence and habitation in slums remain urban poverty hence, giving the economic standard of living adequate attention and expanding sources of earning livelihoods can create a balance between crime, slum prevalence and population growth.

# Literature Review

Slum development has become inevitable in urban areas due to the ever increasing number of persons that reside in cities together with the increasing demand for housing development urban infrastructure/facilities. and Holistically, humans have attendant needs for housing since it is a major need of man (Eteng, Mfon and Okoi, 2022). Specifically, housing is ranked second only to housing in the daily needs of man sufficing that it is only food that tops in the chart of human needs (Eteng et al., 2022). Against this backdrop, the increasing number of people suggest a corresponding housing demand. More so, population increases more in the urban areas when compared to rural areas thus, slum development remains inevitable in urban areas due to the foregoing. Although there exist several definitions of slums, salient features for defining slums include inadequate shelter, poor access to basic services, facilities and amenities and low quality of life (Eni and Abua, 2014). Yaode (2019) regard slums as byproduct of the social and economic impacts of rapid urbanization. What constitute slums, it effects and characteristics differ according to scholars. For instance, Yaode (2019) noted that slums are aftermath of migration which is inhabited by the urban poor. He explained that occupants in slums are usually constrained to choose such housing facilities due to poverty, inaccessibility to good housing facilities among other reasons. In his study on the analysis of slums in Ilesa, Yaode obtained data using questionnaire. His respondents were basically slum occupants which he systematically selected. His study revealed that slums in the core area are the product of inadequate housing, lack of timely maintenance of infrastructure and structures, poor environmental quality, environmental degradation, insecurity, disappointment with the unmet need for housing and social amenities. He further showed that slums have negative implications on human health and comfort. With the observation that residents of the study area are faced with such menace, he suggested for urgent urban renewal in Ilesa. He equally recommended the adoption of an integrated planning approach that can reduce rural poverty and improve urban livelihoods since these appear to be the main causes of slum growth in developing nations.

In Akure, Omole and Owoeye (2011) assessed slum characteristics of a deplorable residential district in Akure, Nigeria. Their study adopted the tenets Burgess's planning model to describe the spatial distribution of land-use in Akure with reference to investigating the factors that are responsible for slum formation and city degradation. They further examined the existing environmental situation in Akure with reference to the housing system and the condition of infrastructure facilities. They further assessed the socioeconomic status residents of Akure, their perception of the living environments and problems experienced using questionnaires observation, housing demographic and facility survey as instruments for data collection. Their study showed a high degree of deplorable condition of living environments and the inadequacy of essential facilities for comfortable living. They also noted that the area was overcrowded with derelict buildings that lack basic household services. Due to this, residents lack access to certain facilities and services. They therefore recommended the upgrade of the residential area.

Okafor and Onouha (2016) in Asaba, Delta State observed that urban degradation is caused principally by urbanization process. They claimed that most of the environmental problems in Asaba metropolis suburbs were due to unplanned land uses, swampy nature of built areas and weak development control. Ekudayo et al., (2019) conceived that slums are heavily populated urban informal settlement characterised by substandard housing and squalor. They noted that slums are unavoidable in districts that are thickly populated without corresponding supply of housing units. They showed that slums are characterized by absence of good drainage system, sanitary system, refuse disposal and waste management, sources of water, standard buildings which make living very difficult for the people and also have negative effects on the housing quality of the dwellers within the area. They revealed that slums dwellers are exposed to unhealthy and unsafe environments.

Arimah (nd) opined that the proliferation of slums and informal settlements contribute to the enduring physical manifestations of social exclusion in African cities. Arimah observed that slum dwellers are experiencing deplorable living and poor environmental conditions. Due to the characteristic nature of slums, residents within such areas are excluded from participating in the economic social, political and cultural spheres of the city. This is due to the fact that basic facilities, services and amenities are lacking in such environs. Arimah also observed that slums in Africa are derived from low income level, no financial stability and absence of investment in infrastructure. However, he pointed out that the external debt burden of African countries, high levels of inequality, unplanned and unmanaged urban growth, and the exclusionary nature of the regulatory framework governing the provision of planned residential land are the indicators to slums and squatter settlements in Africa.

From the literature, it is obvious that slums abound in major cities and towns of the world. The causes and effects of slums are multifaceted. However, literature agree to the fact that slums derive largely from urbanization and increasing population. Specifically, while people migrate, they do not move with houses implying that they demand housing units in their new areas of residence. Inadequacies in housing supply which is occasioned by increasing housing demand without corresponding supply therefore make the situation grave. The situation is not different in the study area as increase in housing demand without corresponding supply brings about congestion in existing housing properties and facilities further resulting in deterioration and dilapidation of facilities implying that slum development becomes inevitable. This study therefore seek to address the issue.

### **Materials and Methods**

### **Study Area**

Calabar is the capital city of Cross River State in Nigeria. Calabar is located between latitude 4°50' North and 5°67' North of the Equator and at longitude 8°18' East and 8°26' East of the Greenwich Meridian. Between 1882 and 1906, Calabar served as the first administrative capital of Nigeria. The city has been growing astronomically over the years. Going by the population trend, the city had a total of 82,100 in 1975 while in 1978, the population had increased to 159,599. The total number of persons increase to 140,200 in 1985 and by 1991, the population was 217,800 320,862. The 2006 population census results put the total number of humans at 375,196 (Agbor et al., 2022). The bulk of the population is made up of migrants from rural areas. Migration into the city has become inevitable due to disparity in the provision of facilities and services of the area when compared to the adjoining rural areas. The people are largely engaged in commercial, industrial, educational and small scale farming activities. Although urbanization is the main factor that trigger population growth in the study area, natural increase through birth rate also account for population growth. The increase in human population without corresponding provision of housing, infrastructure and facilities fast track the level of slum development in the study area.

# Methods

In order to obtain data for the study, 20 residential neighbourhoods in the study area that require renewal due

to slum prevalence were identified through reconnaissance surveys. From the 20 neighbourhoods, 10 residential neighbourhoods were randomly sampled out. The selection of 10 neighbourhoods represent 50 percent of the districts of serious slum prevalence in the city. In order to obtain relevant data from respondents. The population of the sampled 10 districts was obtained with reference to the 1991 population census results of the study area. According to the 1991 population census results, the sample areas had a population of 85,715. Although the 2006 population census tend to be more recent, the 1991 population results were preferred. This is because in 1991, the population census was reported on the basis on neighbourhoods while the 2006 results were reported on the basis of Local Government Areas. Furthermore, the 1991 population census of the 10 samples areas was projected to 2021 using a growth rate of 3 percent which is the acceptable growth rate for projections in urban areas in Cross River State (Bassey, Amba and Eteng, 2021). The formular is given as follows;

$$Pn = po (1 + r/_{100})^n$$

Equation 1

Where; pn = projected population, Po = existing population, 1 = constant, r = rate of growth (3%), n = number of years projected (30).

The results of the projection showed that a total of 208,288 persons were residing in the study area by 2021. Specifically, data were collected at the household level hence, to have a knowledge of the total number of households in the study area, the average household size of 6 persons was maintained which is the average household size in Calabar (Eteng and Ajom, 2021). The exercise

**Table 1:** Population and Sample Size

showed that the area comprised of a total of 34,715 households. Therefore, there population of the study comprised of the total household size in the study area. Obviously, the said population is too large and obtaining data from such a large population is unrealizable. Therefore, a minimum sample was drawn from the entire population. To draw an appropriate sample, the Taro Yamene formular was used. The formular for the calculation is as follows;

$$n = \frac{N}{1 + N(e)^2}$$

Where; n = Sample Size, N = Finite Population e = Level of Significance (Limit of tolerable error =0.05)

Equation 2

Therefore, 
$$n = \frac{34,715}{1+34,715 (0.05)^2}$$
  
 $n = \frac{34,715}{1+34,715 X 0.0025}$   
 $n = \frac{34,715}{86.79}$   
 $n = 400$ 

Therefore the sample size for the study was 400.

From the above calculations, 400 copies of questionnaire were administered to households in the study area. In order to deduce the sample from each neighboourhood that is, the number of questionnaire that were distributed in each neighbourhood, the number of households in each neighbourhood were divided by the total households and then, multiplied by the sampled household. Table 1 consist of the population and sample households/number of questionnaire that were distributed in the study area.

S/N	Neighbourhood	Population by 1991	Projected Population (2021)	Households	Sample size
1	Ikot Ishie	5825	14,155	2,359	27
2	Ikot Effanga	2747	6,675	1,113	13
3	Ikot Ansa	12057	29,299	4,883	56
4	Ikot Eneobong	1717	4,172	695	8
5	Ikot Omin	7872	19,129	3,188	37
5	Efut Uwanse	21090	51,249	8,542	98
7	Duke Town	2972	7,222	1,204	14
3	Mbukpa	15197	36,928	6,155	71
)	Anantigha	12655	30,752	5,125	59
10	Henshaw Town	3583	8,707	1,451	17
	Total	82742	208,288	34,715	400

Source: National Population Commission, 1991 and Feld Survey, 2022

From Table 1, it is obvious that 400 copies of questionnaire were distributed at the household level in slum prevalent zones of the study area. Specifically, the copies of questionnaire were systematically distributed using appropriate skipping range. Various statistical approaches were used in carrying out analysis. Specifically descriptive statistics such as frequencies and simple percentages. In order to establish the difference in the causes of slum development and it effect, the relative index (RI) was adopted. RI is mathematically represented as follows: RI =  $(5n_5+4n_4+3n_3+2n_2+1n_1)$  /5N. The study adopted a fivepoint likert scale. The grading of the likert scale is as follow; 5 = Very high, 4 = high, 3 = medium, 2 = low and 1 = very low.

Finally, slum prevalence was judged using certain criteria (variables) for housing quality. To this end, housing condition survey checklist was designed in order to understand the quality of the house and draw inferences on the level it is in the slum classification which was adopted in the study. A guide for scoring in order to determine slum prevalence in housing units was designed. As shown in the scoring guide, values were assigned to each option depending on the state of the houses/environment. The highest number in each of the options shown in the scoring guide was used in capturing data for the most suitable element under investigation. For instance, in appraising a house whose walls were intact/sound, 7 was recorded while a cracking wall had 2 and a dilapidating wall was given 1. This was replicated among all the options in the checklist. After each house survey, the outcomes averages were taken. Any house/environment that scored from 50 and above was considered sound, those houses/environment that scored between 40 and 49 were graded as dilapidating house/environments while those that had below 40 were accepted as dilapidated houses/environments. The adoption of the scoring guide help a lot in deducing the prevalence of slums in the study area. The scoring guide is shown below:

#### **Scoring Guide**

<b>(a)</b>	Condition of Wall				
(i)	Sound/intact $= 7$				
/···>					

(ii)	Cracking	= 2
(iii)	Dilapidating	= 1

(iii) Dilapidating =

Total = 10

<b>(b)</b>	Condition of Roof				
(i)	Sound/intact	= 5			
(ii)	Leaking	= 3			

- (iii) Sagging = 1
- (iv) Part missing = 1

Total = 10

$$Total = 10$$

(d) Ventilation (i) Well ventilated = 7

(ii) Poorly ventilated = 3

Total = 10

(e)	<b>Environmental conditions</b>
(1)	Drainage
(i)	Free $= 2$
(ii)	Blocked $= 1$
(2)	Erosion
(i)	Sheet $= 2$
(ii)	Gully $= 1$
(3)	Flood
(i)	Not flooded $= 2$
(ii)	Liable $= 1$
(iii)	Flooded $= 1$

Total = 10

The outcomes were summed to determine housing quality for instance, 7+5+6+7+6

$$=\frac{31}{50}=62$$

The qualities of the houses were determined as follows;

Sound = 50 percent and above

Dilapidating = 40 to 49 percent

Dilapidated = 39 percent and below

### **Results and Discussions**

Table 1 shows the prevalence of slums in the study area based on certain criteria. As discussed in the methodology, the approaches for deducing the prevalence of slums was the use of housing/environmental condition survey. Housing/environment that depicted dilapidating and dilapidation based on the scoring guide that was adopted were classed as slums. From the information as contained in Table 1, slum prevalence in the study area is high. The prevalence of slums based on spatial locations explained that Henshaw Town with 82 percent drawn from the sample consisted of the largest number of slums in the study area. This is due to the fact that the area is in the city core and most of the landlords that own properties do not pay interest to upgrading/improving the structure. Most of the roles in the area are inaccessible while there is serious absence of infrastructure/facilities which are expected to contribute meaningfully to urban living. Equally, the table showed that the prevalence of slums in Efut Uwanse and Duke Town is very high. The increasing slum prevalence in the area is not unconnected to poor city planning, absence of facilities to carter for the populace and associated issues.

The table further explained that Mbukpa and Ikot Ansa neighbourhoods constitute the least percentage of slums while slums are found at high levels in Ikot Ishie, Ikot Effanga, Ikot Eneobong, Ikot Omin and Anantigha. In all, the observations in the table suggest that slums are prevalent in the study area based on different levels. The prevalence of slums basically constitute serious threat to safety, health and convenience of the residents of the area and even adjoining neighbourhoods. For instance, most residents within the area are deprived of potable water, waste management services while housing units that they are occupying are fast depreciating and deteriorating.

S/N	Neighbourhood	Sample	Level of Slum Prevalence			Slum Pre	Remark	
			Sound	Dilapidating	Dilapidated	Number	Percent	_
1	Ikot Ishie	27	9	8	10	18	66.7	High
2	Ikot Effanga	13	5	5	3	8	61.5	High
3	Ikot Ansa	56	26	13	17	30	53.6	Medium
4	Ikot Eneobong	8	3	2	3	5	62.5	High
5	Ikot Omin	37	14	19	4	23	62.1	High
6	Efut Uwanse	98	27	46	25	71	72.4	Very High
7	Duke Town	14	3	6	5	11	78.6	Very High
8	Mbukpa	71	32	18	21	39	54.9	Medium
9	Anantigha	59	23	17	19	36	61	High
10	Henshaw Town	17	3	6	8	14	82	Very High
	Total	400	144	140	115	255	100	400

4.1 Level of Slum Prevalence/Housing Quality

Source: Field Survey, 2022

### Level of Crime Incidence

Level of crime in the study area was shown in Table 2. The table explained that crime incidences are occurring at various levels. Specifically, respondents revealed that only 14 percent are not experiencing criminal activities.

In most locations specifically in Duke Town, Henshaw Town and Efut Uwanse neighbourhoods, crime levels are increasingly very high. This is in line with the level of prevalence of slums in the area which is equally high. Increasing crime level is also associated with poor security architecture and lack of technologies for mapping out crime and managing criminal activities in the study area. In most locations within slum prevalent areas, the roads leading to residences are less accessible and as such, it is difficult for police and other security operatives to embark on patrol. Even more, streetlights in the metropolis are not functioning and there are no attempts by the government and it agencies to ensure repairs and maintenance of the streetlights.

All these give rise to unwholesome incidences of criminal activities in derelict areas of functional obsolescence in the study area. It should be noted that one critical feature for defining slum is it lack of necessary facilities/amenities hence, criminal activities are likely to abound where the above and more facilities are lacking.

### Table 2: Level of Crime Incidence

Crime Rate	Frequency	Percentage
Very High	92	23
High	57	14.3
Medium	121	30.2
Low	74	18.5
No crime	56	14
Total	400	100

Source: Field Survey, 2022

### **Slum Prevalence: It Causes**

Slums are prevalent in the study area due to certain factors. Table 3 provide detailed summary of causatives of slums in the study area based on ranks/levels. In order to understand vividly the variations in the levels/rank in terms of contribution to slum prevalence in the study area, the Relative Index (RI) was investigated using a 5-point likert scale indicating the levels. In all, it was observed that the major factor that promote slum development in the area was urbanization. Through the process of urbanization, people leave their original places of abode and relocate for reasons such as availability of opportunities, facilities and amenities. In this case, residents in adjoining rural areas migrate to Calabar. Among the indicators to urbanization include the presence of the University of Calabar, the Cross River University of Technology, Calabar, the School of Nursing, College of Technology and several government ministries and agencies all of which exert pull factors on rural residents. Equally, Calabar play host to the two largest markets (Marian and Watt markets) in Cross River State which attract people for commercial activities.

The negligence of government towards development equally pose challenges and promote slum prevalence for instance, the government are largely unwilling to provide community development facilities/infrastructure which has adverse negative effects on survivability and general environmental conditions of certain districts fast-tracking slum development. Furthermore, poor funding for development of infrastructure, lack of partnerships and weak implementation of plans which all fall within the purview of poor funding contribute and stands as the 3<sup>rd</sup> causative factor for slums in Calabar. The public which are the project beneficiaries in most cases do not maintain the few available facilities. Sustainable approaches are not also adopted in tapping and harnessing resources which translate to unwise use of facilities that are made available for development in the study area. For instance, electricity supply materials such as cables and transformers experience loads that are above it carrying capacities based on the fact that the public continually mount pressure through extending the direction of electricity supply from such materials. The public do not also appear to be involved in adopting sustainable approaches to water supply systems, waste management systems, electricity supply systems and communication systems. Even in houses of abode, some tenants are not interested in maintaining the housing units that they are inhibiting being that they are not the real owners of the properties. The above instances were noted to be the major causes of slums in the study area.

Table 3: Causes of Slums

Variables	Very High	High	Medium	Low	Very low	RI	Rank
Urbanization	124	96	83	56	41	3.5	1 <sup>st</sup>
Government neglect	99	79	132	34	56	3.3	2 <sup>nd</sup>
Poor funding	111	62	71	99	57	3.2	3rd
Public attitude	65	71	65	97	102	2.8	4 <sup>th</sup>
Poor planning	43	88	54	31	184	2.4	5 <sup>th</sup>

Source: Field Survey, 2022

### Effects of Slums on the Environment

The effects of slums on the human environment are basically negative. For instance, Table 4 noted that the major effect of slum prevalence in the study area was that slums provide hideout and habitation to criminals and thieves. As expected, house rent in slum environments tend to be affordable due to the fact that necessary facilities are lacking while the near absence of security operatives only aggravate the issues pointing towards providing hideout to criminals to promote and heighten incidences of crime within the study area. In the order of ranking, the foregoing tend to be the first in the effects of slum while general insecurity and urban/environmental decay tend to rank second and third respectively. The fact that environmental decay is an implication that is caused by the prevalence of slum suffice that there is need to ensure that the tide in which slums are evolving in out towns and cities need to be stemmed to the lowest. Environmental/urban decay has serious implications on the general livability of residents within the area. Housing shourtage which ranks fifth is also affected by the availability of slums and it prevalence within Calabar metropolis.

Table 4: Effects of Slum on the Environm
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Variables	Very High	High	Medium	Low	Very low	RI	Rank
Hideout for criminals	201	98	51	21	29	4.1	1 <sup>st</sup>
Insecurity	151	95	91	17	46	3.7	$2^{nd}$
Environmental decay	132	87	78	91	90	3.5	3 <sup>rd</sup>
Threat to development	61	123	76	98	42	3.2	$4^{\text{th}}$
Housing shortage	89	56	87	86	82	3	5 <sup>th</sup>

Source: Field Survey, 2022

### **Conclusion and Recommendations**

The study focused on analyzing slum prevalence and crime incidences in Calabar. It was observed that slums are

prevalent and are found in alarming rate in the level. To deduce what constitute slums, both the environment and housing quality served as indicators. In all, it was observed that slums dominate in the core areas of the city due to reasons bordering around urbanization, public attitudes towards environmental/housing maintenance and government negligence on towards facilities, infrastructure and amenities provision account for slum prevalence. Poor planning and weak enforcements were also indicators to slum development and prevalence in the study area.

The study further noted that due to the prevalence of slums, crime levels are high. In terms of spatial variations in crime, it was noted that slum prevalence and crime incidences were at par in neighbourhoods. This is due to the fact that when areas are deprived of certain amenities and infrastructure such as good roads and street lights, police patrol and other activities that can scare robbers become reduced to the minimum. Street lights which provide illuminations further scaring robbers and hoodlums are mostly absent and when found, are not functioning. All this culminate into alarming levels of crime incidences in slum prevalent areas. Based on the observations, urban regeneration measures were suggested. The best way to slow down the extent in which slums are evolving is the implementation of urban renewal programmes (Ibem et al., 2013). It is therefore inferred that renewal urban plans be prepared while facilities/infrastructure that will support urban living be provided. There should also be slum clearance while site and service schemes should be introduced. Furthermore, professionals should be involved in the planning, design and development of the area. These professionals should include Town Planners, Estate Valuers/Managers, Surveyors, Engineers and Architects. Security should also given priority in slum prevalent areas of the city core.

# References

- Agbola, T and Agunbiade, E. (2007). Urbanization, slum development and security of tenure: the challenges of meeting millennium development goal (MDG) 7 in Metropolitan Lagos, Nigeria. Paper presented to the PRIPODE workshop on Urban Population, Development and Environment Dynamics in Developing Countries
- Agbor, E. A., Inah S. A and Eyo, E. I (2022). Comperative analysis of major crimes in Calabar Municipality and Calabar South Local Government Areas, Cross River State, Nigeria. *International Journal of Innovative Research and Advanced Studies*, 9(2): 102-111
- Ajom, S. K (2011). *Housing environment in Calabar South Local Government Area*. Msc Thesis. University of Calabar
- Ajom, S. K., Mfon, I. E., Etim, M. E and Eteng, S. U. (2022). Residential housing satisfaction in public housing estates in Calabar, Cross River State, Nigeria. *Journal of Social Sciences and Management*, 1(2): 77–84.

- Arimah, A. C (nd). Slums as expressions of social exclusion: explaining the prevalence of slums in African Countries. United Nations Human Settlements Programme (UN-HABITAT) Nairobi, Kenya
- Bamidele, B. B., Bamidele, O. B and Obaseki, S. J (2016). Assessment of the lack of sports equipment as constraint to the teaching and learning of physical Education in the Secondary Schools in Kogi state, Nigeria. *International Journal of Scientific Research in Education*, 9(2): 91-96.
- Bassey, S. I., Amba, N. E and Eteng, S. U (2020). Assessment of domestic solid waste transportation to approved dumpsite in Calabar, Nigeria. *International Journal of Research and Sustainable Development*, 7(3): 165 – 185
- Ekundayo, A., Faringoro, U. D and Job, O. D (2019). An evaluation of slum development and its effects on housing quality in Lafia Metropolis. *African Journal of Economics and Sustainable Development*, 2(2): 94-102
- Eni, D. D and Abua, C (2014). The impact of urban renewal on the quality of life (QOL) in Calabar. *Research on Humanities and Social Sciences*, 4(17).
- Eteng, S. U and Simon Ajom, S. K (2021). Household characteristics and water consumption among residents of Calabar, Cross River State, Nigeria. *International Journal of Scientific and Engineering Research*, 12(3): 565 - 571
- Eteng, S. U, Mfon, I. E and Okoi, B. J (2022). Housing Satisfaction among students in tertiary institutions in Calabar, Cross River State, Nigeria. *Journal of Environmental Science and Economics*, 1(3): 15– 22.
- Gbadegesin, J. and Aluko, B. (2011). The programme of urban renewal for sustainable urban development in Nigeria: Issues and challenges, *Pakistan Journal* of Social Sciences, 7(3): 244-253.
- George, C.K. (2006). Basic principles and methods of urban and regional planning, Lagos: Libro-Gem Books
- Ibem, E. and Azuh, D. (2011). Framework for evaluating the sustainability of public housing programmes in developing countries. *Journal of Sustainable Development and Environmental Protection*, 1(3): 24-39.
- Ibem, E. O., Uwakonye, U and Aduwo, E. B (2013). An appraisal of urban renewal in Nigeria: A case study of the Nigerian Army Shopping Arena, Oshodi-Lagos. Journal of Place Management and Development. 6(2):155-170
- Ilesanmi, A. O. (2010). Urban sustainability in the context of Lagos mega-city. *Journal of Geography and Regional Planning*, 3(10): 240-252.
- Mbaiwa, J. E. (2003). The socio-economic and environmental impacts of tourism development on

the Okavango Delta North-Western Botswana. *Arid Environments*, 54(3): 447-467.

- Nkwocha, E. (2014). *Environmental impact assessment: Principles and process*. Owerri; Favoured House of Concept.
- Okafor B. N1 and Onuoha D. C (2016). The effect of slum on property. *British Journal of Environmental Sciences*, 4(3):17-33
- Ola-Adisa, E. O., Enwerekowe, E. O and Ella E. E. (2015). The development of a slum settlement: A study of Nyanya. Journal of Environmental Sciences and Resources Management, 7(2): 133 – 146.
- Omole, F. K and Owoeye, J. O (2011). Slum characteristics of a deplorable residential district of Akure, Nigeria. *FUTY Journal of the Environment*, 6(2): 94-103
- Roy, D., Lees, M.H., Palavalli, B., Pfeffer, F. and Peter Sloot, M.A. (2014). The emergence of Slums: A contemporary view on simulation models; Environmental Modelling & Software 59 (2014) 76-90
- Yoade, A. O (2019). Analysis of Slum Formation in Core Area of Ilesa, Nigeria. Ghana Journal of Geography, 11(1): 20 – 32