

# **Assessment of the Characteristics of Slum in the Core of Akure, Nigeria**

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## **Author's contribution**

*The sole author designed, analysed, interpreted and prepared the manuscript.*

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## **ABSTRACT**

This paper examined the characteristics of slum in the core of Akure, Nigeria, with a view to suggesting means of correcting the abnormalities caused by the slum environment. A sample size of 350 households amounting to 5% of the household population was randomly selected across eight selected neighbourhoods in the study area for questionnaire administration. Personal interview was conducted with the residents while field observation was made on the condition of the environment. Google Earth imagery was digitized to ascertain the number of buildings in the environment. Secondary data were collected from relevant journals, articles and textbooks. Data collected using the questionnaire was coded into the IBM Statistical Packages for Social Sciences (SPSS) version 23, where it was analyzed with the use of descriptive statistics such as frequency distribution and percentage. The results of the analysis were presented in Tables. Findings revealed that majority of the houses in the study area were informal. Majority of the buildings were old and dilapidated. Residents of the study area mostly use poorly maintained shared pit latrine as means of convenience. Residents engage in dumping wastes in open spaces and drains. Majority of the buildings in the study area were in an extreme poor condition. The study therefore proposed urban renewal exercise to take place in the slum environment; constant sanitation routine checks,

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legislation by the State House of Assembly to guide urban sanitation and public enlightenment of the residents to be aware of the need to ensure a safe and clean environment.

*Keywords: Slum; core; environment; urban renewal; buildings.*

## 1. INTRODUCTION

“Slum is a highly populated urban residential area consisting mostly of closely packed, decrepit housing units in a situation of deteriorated or incomplete infrastructure, inhabited primarily by impoverished persons” [1]. “While slums differ in size and other characteristics, most lack reliable sanitation services, supply of clean water, reliable electricity, law enforcement and other basic services” [1]. “Slum residences vary from shanty houses to professionally built dwellings which, because of poor-quality construction or provision of basic maintenance, have deteriorated” [1]. “Due to increasing urbanization of the general populace, slums became common in the 18<sup>th</sup> to late 20<sup>th</sup> Centuries in the United States and Europe” [2]. “Slums are still predominantly found in urban regions of developing countries, but are also still found in developed economies” [1].

“UN-Habitat defines a slum household in operational terms, as lacking one or more of the following indicators: a durable housing structure; access to clean water; access to improved sanitation; sufficient living space; and secure tenure. The first four rely on conventional definitions; the last is the most difficult to assess and is not currently used in slum measurement” [3]. “About 1 billion people currently live in slum settlements and this is almost a third of the world’s urban population and this could increase to 3 billion by 2050” [4].

“The rise of urban slums in developing countries like Nigeria is a thing of worry and concern for her national government and all stakeholders. In the parlance of reality, the astronomical trajectory of urban slums over the years in Nigeria with its attendant negative implication on health is one that calls for urgent attention as it has led to environmental degradation and depreciation of health of residents in slum communities” [5].

“Slums develop in major Nigeria cities due to increasing urban poverty, failed government policies and capitalist forces such as globalization that have brought further hardship to the urban poor” [5]. “It is obvious that without active intervention by national governments, rapid unplanned urban expansion will greatly exacerbate what is already a human disaster as

slum life consists of insecure employment, state persecution and eviction miserable existence and extreme poverty” [5]. Slums are noted for the destruction of aesthetics and human health through environmental degradation such as erosion, indiscriminate dump of refuse, open defecation and many more.

“The core of a city is a place of earliest settlers, having the highest concentration of human population characterized by old dilapidated buildings, with the worst environment due to poor sanitation” [6]. Slums are not restricted to the core, of course, there are slum environments which are seen at the peripheral of the city. The focus on the core is because it usually serves as the city centre which is dominated mainly by high density residential activities housing huge population. As the population increases due to the earlier influx of people, the city centre tends to be damaged due to poor management of the environment.

The core of Akure core is characterized by a very high population due to the earlier influx of people to the city centre and thus fall short of appropriate planning. Houses were built to be so compact with little or no airspace, owing to lack of planning. Most of these houses were constructed with very old and dilapidated materials. The quality of housing is very low due to poor quality of building materials used for construction and poor planning standards. It is on this note that this paper examines the characteristics of slum in the core of Akure, with a view to suggesting the best solution to correct the abnormalities caused by the slum environment. This paper thus provides answers to the following questions: what are the characteristics of slum in the environment, where is the slum located in the study area and how can these slum activities be mitigated?

## 2. LITERATURE REVIEW

Global Urban Observatory [7] reveals that slums exist in marginal or less valuable urban land such as riverbanks, steep slopes, dumping grounds, abandoned or unexploited plots, along transportation networks, near industrial areas and market places, and in low lying areas or wetlands. The main issue here is that the

interests of the occupiers of such land are not protected by law which means that the interests are not secured against any government decision. Implicitly, slum can occur at the fringe or in the core. For proper identification of a slum area, the following yardstick or criteria can be useful as identified by Chandramoulis [8] as area with dilapidated and infirm housing structures, poor ventilation, acute overcrowding, faulty alignment of streets, inadequate lighting, paucity of safe drinking water, logging during rains, absence of toilet facilities and non-availability of basic physical and social services. The living conditions in slum are usually unhygienic and contrary to all norms of planned urban growth and vulnerable to all forms of pollutions and water borne disease [9].

The word 'slum' has mainly been used to describe people living under substandard conditions and squalor. For example, Cities Alliance [10] describes slums as "neglected parts of cities where housing and living conditions are appallingly poor". However, some would argue that there is a distinct difference between slums and informal settlements [11]. Usually, as argued by UN-Habitat [3], most characteristics of these environments, whether slum or informal settlement, are not found in isolation, leading to multiple levels of deprivation for slum dwellers. Whether slums and informal settlements are viewed separately or as a single entity, they represent disadvantaged communities continuing to have large impact on the physical and economic landscapes. The vast majority of the slums are located in less developed countries, and most of the growth in slum populations is expected to occur in such countries.

Slums are characterized by: high rate of poverty, high incidence of unemployment, huge extent of urban decay, breeding grounds for social problems like crime, drug addiction, alcoholism etc., high rates of mental illness and suicide etc., low level of economic status of its residents, inadequate infrastructural facilities, acute problem of malnutrition, lack of drinking water, lack of basic healthcare, unsanitary environment, low standard of living or poor quality of life [12].

## 2.1 Conceptual Framework

**Concept of urban renewal:** "This study adopts the concept of urban renewal as an operational framework to guarantee a safe and healthy environment for slum dwellers in the study area. Urban renewal refers to a set of plans and

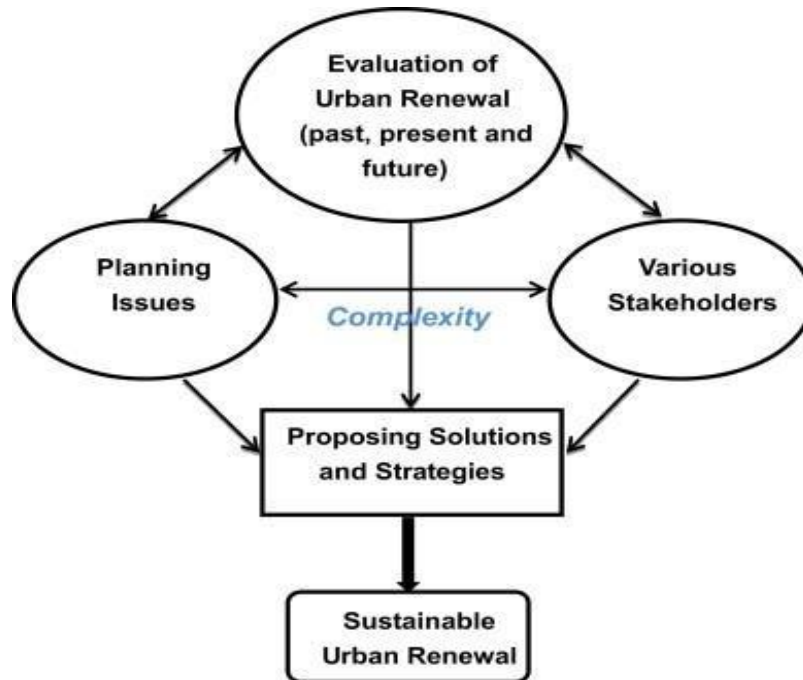
activities to upgrade neighbourhoods and suburbs that are in state of distress or decay. Urban renewal programs address the physical aspects of urban decay. Urban problems such as deteriorating housing, poor physical infrastructure [including water and sanitation services], and poor community services such as sports and recreational amenities are addressed through such programs" [13]. Urban renewal was considered as an alternative to the unpopular policy of "slum clearance" involving demolishing decaying housing and slum areas and relocating the people living there to other parts of a city. Urban renewal is the clearing out of blighted areas in inner cities to clear out slums and create opportunities for higher class housing, businesses, and more. A primary purpose of urban renewal is to restore economic viability to a given area by attracting external private and public investment and by encouraging business start-ups and survival [14].

"Urban renewal is a process where privately owned properties within a designated renewal area are purchased or taken by eminent domain by a municipal redevelopment authority, razed and then reconvened to selected developers who devote them to other uses. The concept of urban renewal as a method for social reform emerged in England as a reaction to the increasingly cramped and unsanitary conditions of the urban poor in the rapidly industrializing cities of the 19th century. The agenda that emerged was a progressive doctrine that assumed better housing conditions would reform its residents morally and economically" [15].

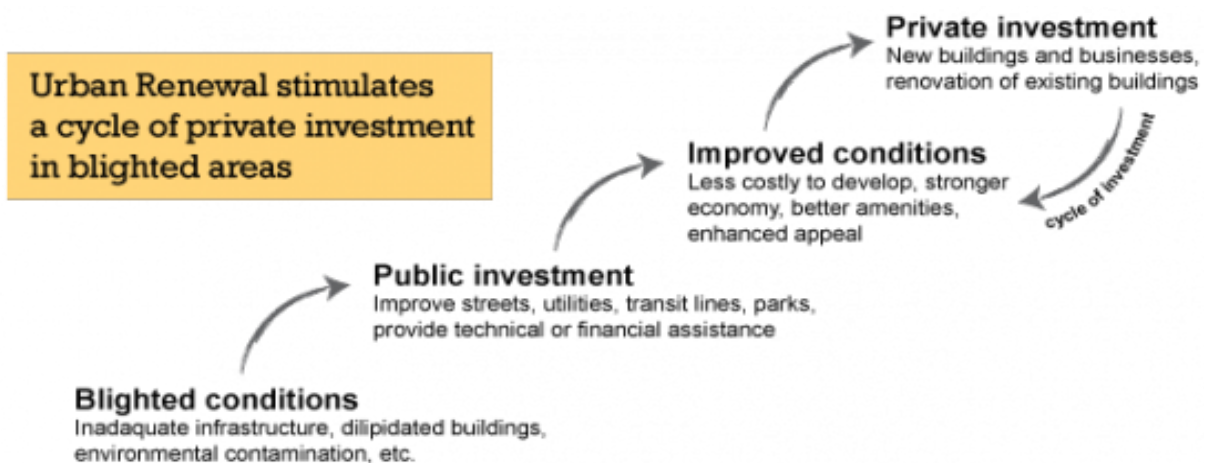
Urban Renewal is an economic development tool used by local governments across the country to ensure serenity in a decaying environment. More specifically, it is a method of economically revitalizing areas of "blight" through public investments that stimulate private development. Examples of blight include buildings that are unsafe or unfit for occupancy, inadequate streets, or environmentally contaminated areas. Due to these conditions, private real estate developers, property owners or business owners are unable to generate a sufficient profit on potential development in the area. As a result, private investment stalls and the blighted conditions remain. Public investment is sometimes necessary to support and enable private investment. Public investments might include; improving roads and infrastructure, technical and financial assistance to developers, or enhancing community amenities. Once private

development becomes economically practical, investment returns to the area [Fig. 1]. As physical and economic conditions improve over time, further private investment is stimulated and the local economy is strengthened. The economic vitality, livability, and environmental sustainability of the wider city are often improved by Urban Renewal investments. Urban Renewal works because it stimulates a cycle of private

investment by removing the blighted conditions that act as a barrier to new development [Fig. 2]. This concept when adopted helps to curb all forms of abnormalities and decays caused by the slum environment. The concept is relatable, in that, it addresses the issues in the study area. Hence, it is recommended for adoption and implementation to bring about sanity in the neighbourhoods.



**Fig. 1. Concept of Urban Renewal**  
 Source: Adapted from Zheng, Shen & Wang, 2014 [16]



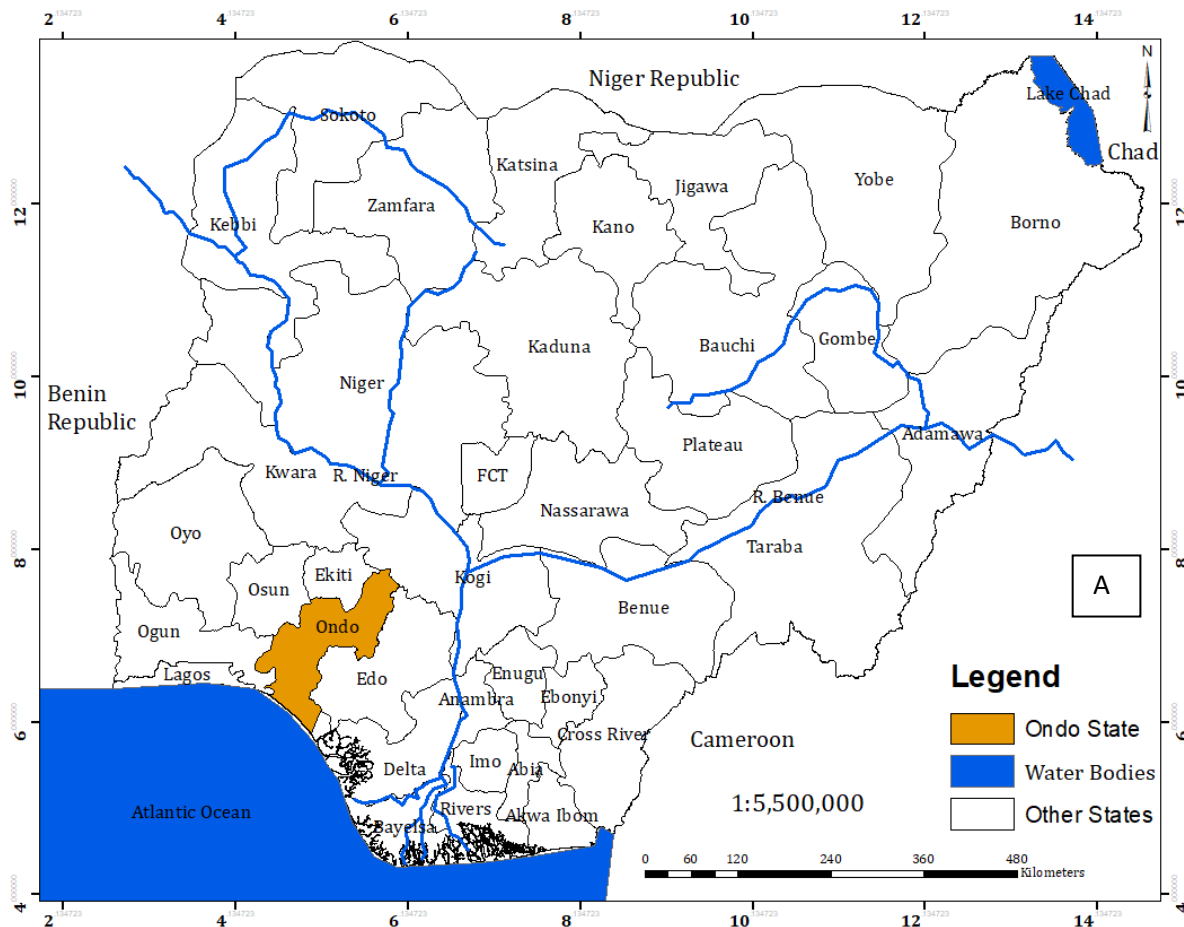
**Fig. 2. Public and Private Investment in Aiding Urban Renewal**  
 Source: Adapted from Oregon City Economic Development, 2020 [17]

### 3. MATERIALS AND METHODS

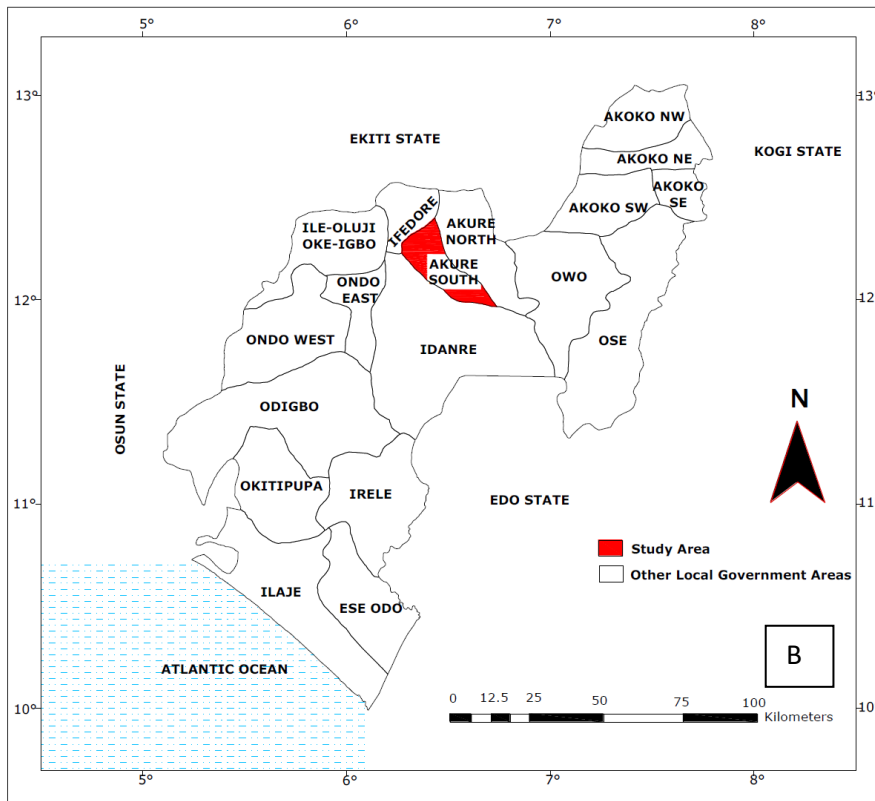
#### 3.1 Study Area

This research was conducted in the residential core of Akure, the administrative and business capital of Ondo State, Nigeria. Specifically, the research was conducted in randomly selected eight [8] residential neighbourhoods in the core of Akure. As illustrated in Fig. 3[D] these neighbourhoods were Owode [1], Imuagun [2], Odojoka [3], Araromi [4], Oja-Oshodi [5], Odokoyi [6], Isolo [7] and Ijomu [8]. Akure has a total areal degree of 340 km<sup>2</sup> [18], and locates between Latitude 7°15' and 7°17" North of the Equator and Longitude 5°14' and 5°15" East of the Greenwich Meridian [19]. The climate is hot and humid, impacted by downpour bearing southwest rainstorm twists from the sea and dry northwest

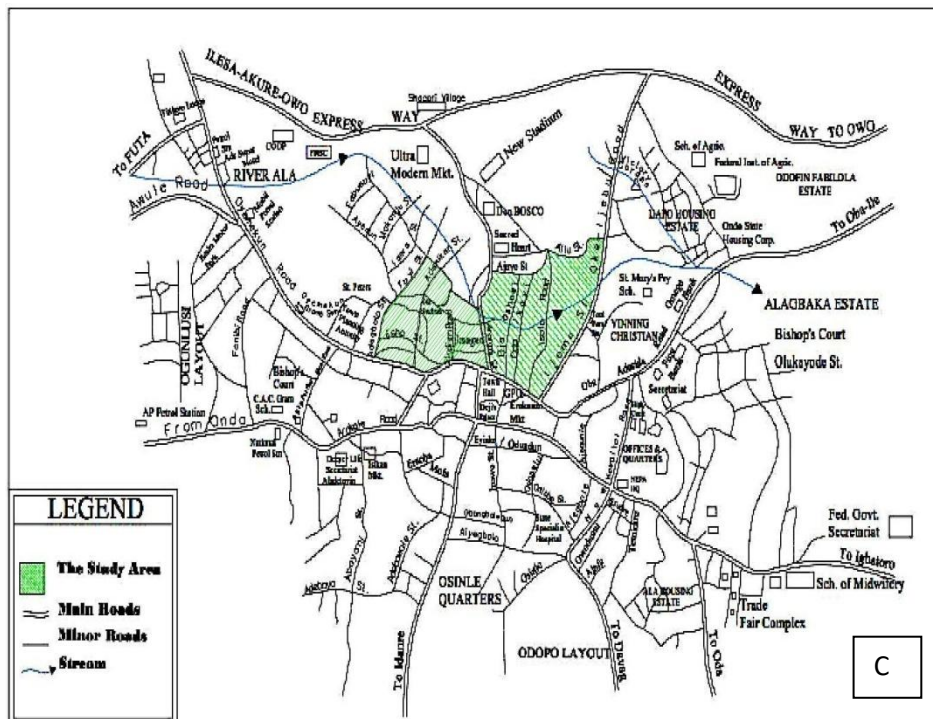
breezes from the Sahara Desert [20]. It has ferruginous tropical soils with two rainy seasons. While, the average annual temperature is 26.7 °C, the average yearly precipitation is 2378 mm [21]. Akure has mean annually relative dampness of around 77.1% [22]. It has rainforest vegetation, which is evergreen. The vegetation comprises of damp swamp timberland [23]. The population of the selected neighbourhoods which make up the study area was estimated to be 34,800 persons. The estimated figure was gotten from the digitized imagery which puts the total number of buildings in the eight housing quarters at 1,392 [Fig. 3][D]. This figure was arrived at, using the Ondo State Bureau of Statistics [24] postulation of five households per building and five persons per household. The geographic location of the study area is presented in Fig. 3 [A,B,C&D].



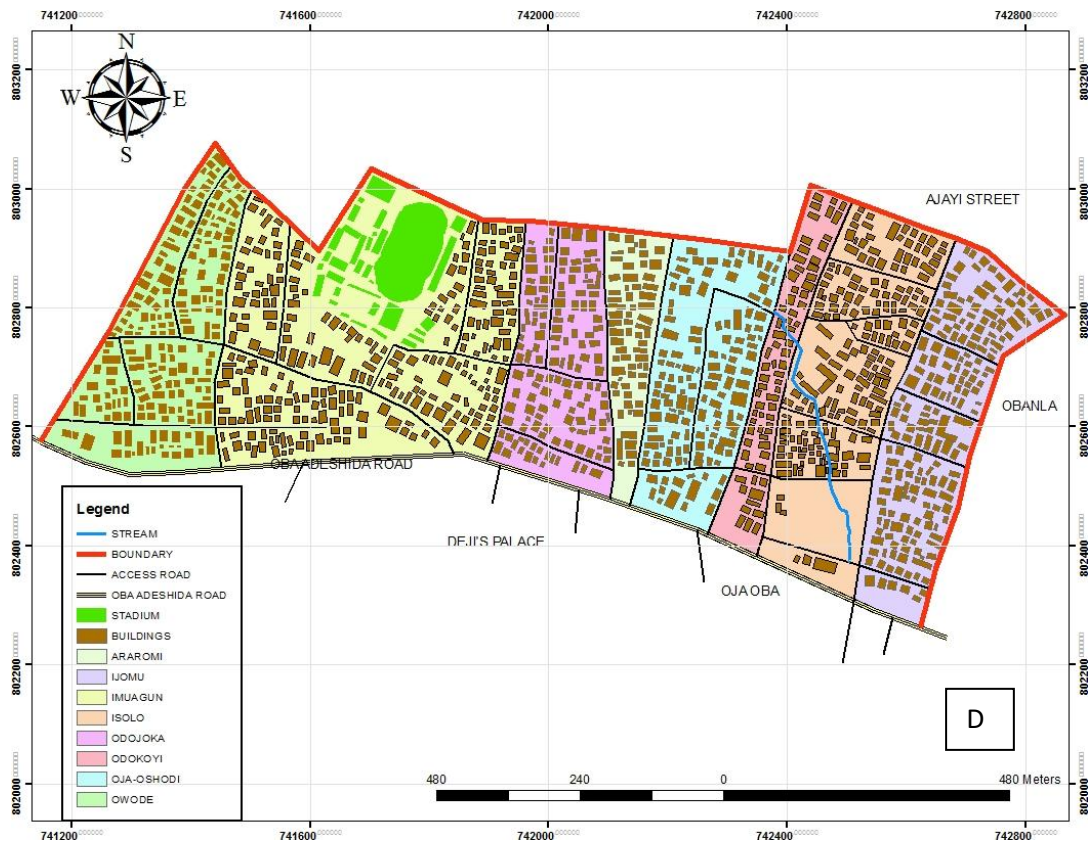
**Fig. 3A. Map of Ondo State in National Context**  
 Source: Ondo State Ministry of Physical Planning and Urban Development, 2021



**Fig. 3B. Map of Akure South Local Government in Ondo State Context**  
 Source: Ondo State Ministry of Physical Planning and Urban Development, 2021



**Fig. 3C. Map of Akure Showing the Study Area**  
 Source: Adapted from Owoeye and Omole, 2012 [Modified by the Author]



**Fig. 3D. The study area**  
 Source: Google Earth Imagery, 2022 [Modified by the Author]

### 3.2 Methodology

This study began with a reconnaissance survey to the eight selected neighbourhoods of Akure core, this was done to be familiar with the attributes of the environment as relating to slum in the study area. The selected neighbourhoods were Owode, Imuagun, Odojoka, Araromi, Oja-Oshodi, Odokoyi, Isolo and Ijomu. The choice of these neighbourhoods was justified by [25] who identified these areas as the core with high prevalence of slum. This survey, established the fact that the environmental condition of this residential core calls for urgent attention, hence; a thorough investigation needs to be conducted to be sure of its continuous negative effect on the environment and the residents. This paper made use of the research design method which focused on data collection about the characteristics of slum through the use of questionnaire and interview and field observation.

Data were obtained from household heads selected at random across the eight neighbourhoods in the study area. This study

used household population for the administration of questionnaires. Building demography survey was conducted to ascertain the number of buildings in the study area [Fig. 3d]. Google earth imagery of the study area was utilized and digitized on ArcMap 10.6; the building population was arrived at 1,392 buildings. Considering Ondo State Bureau of Statistics [24], estimated household size of five people for each family and five families for every building, the estimated family population of the study was arrived at 6,960 households [1,392 buildings x 5 households per building = 6,960 households].

A sample size of 350 households which amounted to 5% of the household population was chosen randomly across the study area for questionnaire administration. The sample size is conceivable considering the homogeneity of the slum environment and residents of the neighbourhoods. Likewise, Owwoye and Omole [26] utilized a lesser size of 250 households in a related study and yielded scientifically and statistically acceptable results. The systematic random sampling technique was utilized to select respondents at every 4<sup>th</sup> residential building in

the study area. Data codification and analyses were analyzed using the IBM Statistical Packages for Social Scientists [SPSS] version 23 and Microsoft Excel 2016. Data were presented in Tables.

#### 4. RESULTS AND DISCUSSION

This paper assessed the characteristics of slum in the selected neighbourhoods of Akure core, Ondo State, Nigeria. This study looked at the characteristics of slum in the environment and where the slum is located. The characteristics considered are: legal status of buildings, type of buildings, age of buildings, location of kitchen, type of toilet facility, building construction materials, roofing materials, condition of drainage and mode of refuse disposal.

##### 4.1 Legal Status of Buildings

Slum are well known with informality, judging by the fact that many of the buildings in the study area are aged and were erected before modern planning came into existence. That is, development precedes the preparation and approval of layout/development plans. This study further proved the fact that slum environment is characterized with high level of informality as developers do not seek for, and were not granted approval before commencing development. Table 1 revealed a huge 86% of houses surveyed to be informal as the developers do not possess building plan approval from the relevant planning authorities; only an appalling 14% of the buildings possess building plan approval. It was discovered during the survey that those buildings that had an approval were those constructed in recent times, that is, newly constructed buildings.

This further affirmed the words of Alabi [27] who refer slum to a location where people live with no legal claim of their environment and where buildings are constructed without the consent of the planning authorities.

**Table 1. Legal Status of Buildings**

Legal Status	Frequency	Percentage [%]
Approved	49	14
Not Approved	301	86
<b>Total</b>	<b>350</b>	<b>100</b>

*Source: Author's Field Survey, 2022*

##### 4.2 Type of Buildings

Analysis on the types of houses the respondents occupy shown in Table 2 revealed that the tenement housing also known as the Brazilian type was predominant in the study area [72%]; while the traditional, detached/semi-detached and blocks of flats had 12%, 2% and 14% respectively. Overcrowding, no doubt influences slum development; observations made during the field survey revealed that this type of building in the study area accommodates more family households. In a single face-to-face building, households between four [4] to six [6] was observed with an average of eight [8] rooms. This of course is one major characteristics of slum [overcrowding] which affects the state of health of residents. Evans, Wells, Chan and Saltzman [28] noted that overcrowding in houses has detrimental effect on both mental and physical health. Fig. 4 showed the pattern of tenement building at Odojoka.

**Table 2. Type of Buildings**

Type of Buildings	Frequency	Percentage [%]
Traditional	42	12
Tenement [Face-to-Face]	252	72
Detached/Semi-Detached	7	2
Block of Flats	49	14
<b>Total</b>	<b>350</b>	<b>100</b>

*Source: Author's Field Survey, 2022*





**Fig. 4. Tenement Building at Odokoyi**  
 Source: Author's Field Survey, 2022

### 4.3 Age of Buildings

From the survey, it was discovered that many of the housing stock in the study area were old and mostly dilapidated. According to Table 3, 38% of the houses surveyed had spent between 76-100 years, followed closely by houses which had lived between 51-75 years with 34.9%. 17.1%, 8% and 2% were houses that had lived between 25-50 years, above 100 years and below 25 years respectively. The mean age of the buildings was discovered to be 88 years; this is a clear indication that houses in this environment had been in existence for a very long time. This cannot be unconnected with the fact that earlier settlers of Akure settled in the core, while those

buildings constructed then are still in existence but now in a poor condition due to the old building construction materials used. Agreeing with Fadamiro [29], it is of no doubt that houses constructed in recent times tend to be more habitable than those built much earlier. In this environment, aesthetic is lost as these buildings from time past lack the aesthetic value and were seen to be in a poor condition. Having this group of buildings to be more in this area characterized and degenerate the environment into slum.

### 4.4 Location of Kitchen

From the study conducted, it was discovered that most of the residents of the core do not have in-house kitchens. According to Table 4 most of the respondents' kitchen are detached and constructed separately within the same compound. Residents mostly use firewood to prepare their meals. Exposure to firewood smoke leads to respiratory diseases including acute respiratory illness and impaired lung function [30]. Food is prepared in the open where flies, domestic animals, rodents, reptiles and filth are present. It is not surprising why diarrhea and other forms of gastro-enteric disorders are common in the core districts [31]. Fig. 5 gave an example of a kitchen located outside the building at Isolo.

**Table 3. Age of Buildings**

Age of Buildings	Frequency	Percentage [%]
Below 25 years	7	2
25-50 years	60	17.1
51-75 years	122	34.9
76-100 years	133	38
Above 100 years	28	8
Total	350	100

Source: Author's Field Survey, 2022

**Table 4. Location of Kitchen**

Location of Kitchen	Frequency	Percentage [%]
Within the building	128	36.6
Outside the building	222	63.4
Total	Total	100

Source: Author's Field Survey, 2022



**Fig. 5. Kitchen Located Outside the Building at Isolo**  
 Source: Author's Field Survey, 2022

#### 4.5 Type of Toilet Facility

Analysis as shown in Table 5 revealed pit latrine to be the dominant means of convenience the residents of this community use. Majority of these toilets in the study area are located outside the building and are not well kept; the sanitation

consciousness of the toilets by the users is very low. Poorly maintained shared pit toilet facility is a breeding ground for diseases vectors and an avenue for transmission of communicable and infectious diseases [31]. Evidence of a pit latrine with modern squat-bowl at Oja-Oshodi is shown in Fig. 6.

**Table 5. Type of Toilet Facility**

Toilet Type	Frequency	Percentage [%]
Pit Latrine	199	56.9
Water Closet	123	35.1
Open Defecation	28	8
<b>Total</b>	<b>350</b>	<b>100</b>

Source: Author's Field Survey, 2022



**Fig. 6. Pit Latrine with Modern Squat-Bowl at Oja-Oshodi**  
 Source: Author's Field Survey, 2022

#### 4.6 Building Construction Materials

It was obvious from the field survey, that majority of the buildings in this study area were constructed with mud. As presented in Table 6, 72.9% of the buildings were constructed with mud while 27.1% was constructed with cement block. This clearly characterized the environment as slum. As a matter of fact, some of these buildings constructed with mud were not plastered with concrete; which is subject to wear and tear. It is not surprising that the deterioration of the environment can be linked with the construction materials employed in the study area. This housing material also established the fact that the buildings had been constructed many years ago, such as those that precedes modern planning. This shows that the level of technology of building construction in the study area is primitive. It was deduced from the survey that majority of these buildings are not in a sound state; they are mostly dilapidated and some almost falling apart. Fig. 7 showed dilapidated buildings constructed with mud at Odojoka where

people still. Residents living in old houses constructed with mud experience cold more, especially during raining season or harmattan which affects their health. This study agreed with Wilkinson [32] who opined that the older the age of dwellings, the colder it becomes.

#### 4.7 Roofing Materials

Analysis as shown in Table 7 revealed corrugated iron sheet to be the prevalent roofing material used for the buildings in the study area. Corrugated iron sheet when exposed to sunlight, rainfall and humidity over time leads to rusting which changes the colour of the roof and subsequently becomes dilapidated. It is evident from the survey conducted that majority of these roofing sheets are dilapidated, flapping and leaking. The implication is that, when rain drops, residents are exposed to leakages of water coming from the opening of their roofs. Fig. 8 gave a typical example of a dilapidated roofing sheet at Araromi.

**Table 6. Building Construction Materials**

Wall Material	Frequency	Percentage [%]
Mud	255	72.9
Cement Block	95	27.1
<b>Total</b>	<b>350</b>	<b>100</b>

Source: Author's Field Survey, 2022



Source: Author's Field Survey, 2022

**Fig. 7. Dilapidated Building Constructed with Mud at Odojoka**

**Table 7. Roofing Materials Used for The Buildings**

Roof Types	Frequency	Percentage
Corrugated Iron Sheet	336	96
Aluminium Sheet	14	4
<b>Total</b>	<b>350</b>	<b>100</b>

Source: Author's Field Survey, 2022



**Fig. 8. Dilapidated Corrugated Iron Sheet for Building Construction at Araromi**  
 Source: Author's Field Survey, 2022

#### 4.8 Condition of Drainage

Analysis presented in Table 8 revealed the drainage condition in the study area. 76.6% of respondents agreed to have a free-flowing drainage beside the road leading to their homes, 10% had theirs blocked 3.4% experienced a water logged drainage while 10% do not have a drainage system at all. Although, some of the respondents while interviewing them noted that the drainage system becomes waterlogged especially when there is heavy downpour. This is due to the fact that some of the residents engage in depositing their waste into the drainages

during this period. It was observed that some of the drainages produces obnoxious odour, this is connected to the attitude of some of the residents who deposit liquid waste from kitchen, bathroom and laundry indiscriminately to the drainages. This type of drainage condition breed mosquitoes which is the causative organism for malaria. The deposition of urine into the drainages also contribute to the foul smell emitted from these drainages, thus making it look unattractive. Fig. 9 [A & B] gave a clear picture of a water-logged and clogged drainage system respectively at Araromi and Owode.

**Table 8. Drainage Condition in the Study Area**

Condition of Drainage	Frequency	Percentage [%]
Free flow	268	76.6
Blocked	35	10
Water logged	12	3.4
No drainage	35	10
<b>Total</b>	<b>350</b>	<b>100</b>

Source: Author's Field Survey, 2022



**Fig. 9A. Water logged drainage at Araromi, B: Blocked Drainage at Owode**  
 Source: Author's Field Survey, 2022

**Table 9. Mode of Refuse Disposal**

Mode of Refuse Disposal	Frequency	Percentage [%]
Open dump site	14	4
Open drain	19	5.4
Waste Management	317	90.6
<b>Total</b>	<b>350</b>	<b>100</b>

Source: Author's Field Survey, 2022



Source: Author's Field Survey, 2022

**Fig. 10A. Indiscriminate Disposal of Waste at Imuagun, B. Accumulated Waste in Odokoyi Drainage**

#### 4.9 Mode of Refuse Disposal

Analysis presented in Table 9 showed the waste management practices of the residents of the area under study. Data obtained from respondents revealed that the Ondo State Waste Management Board are in charge of waste collection in the area. A large proportion of the respondents [90.6%] revealed that the Waste Management Board do come with their trucks to evacuate waste generated by residents from the area. Despite the effort of the government in ensuring that the environment is kept clean, some still deposit their waste into open drains especially during rainfall, which causes the drainage to be water logged or completely blocked. Others deposit theirs in open spaces. This act harbor insects, rodents and some reptiles that is dangerous to the health of the residents. Fig. 10 [A&B] depicts the indiscriminate waste practice of residents at Imuagun and Odokoyi

#### 4.10 Delineate the Slum Location

Having examined the characteristics of slum in the study area, it is expedient to delineate the location or the extent of the slum in the study area. The condition of the buildings in the area as one of the characteristics of slum was used to

analyze the degree of slum in the environment. As explained earlier, the conditions of the buildings in this environment were in an abysmal situation as majority of the buildings were old.

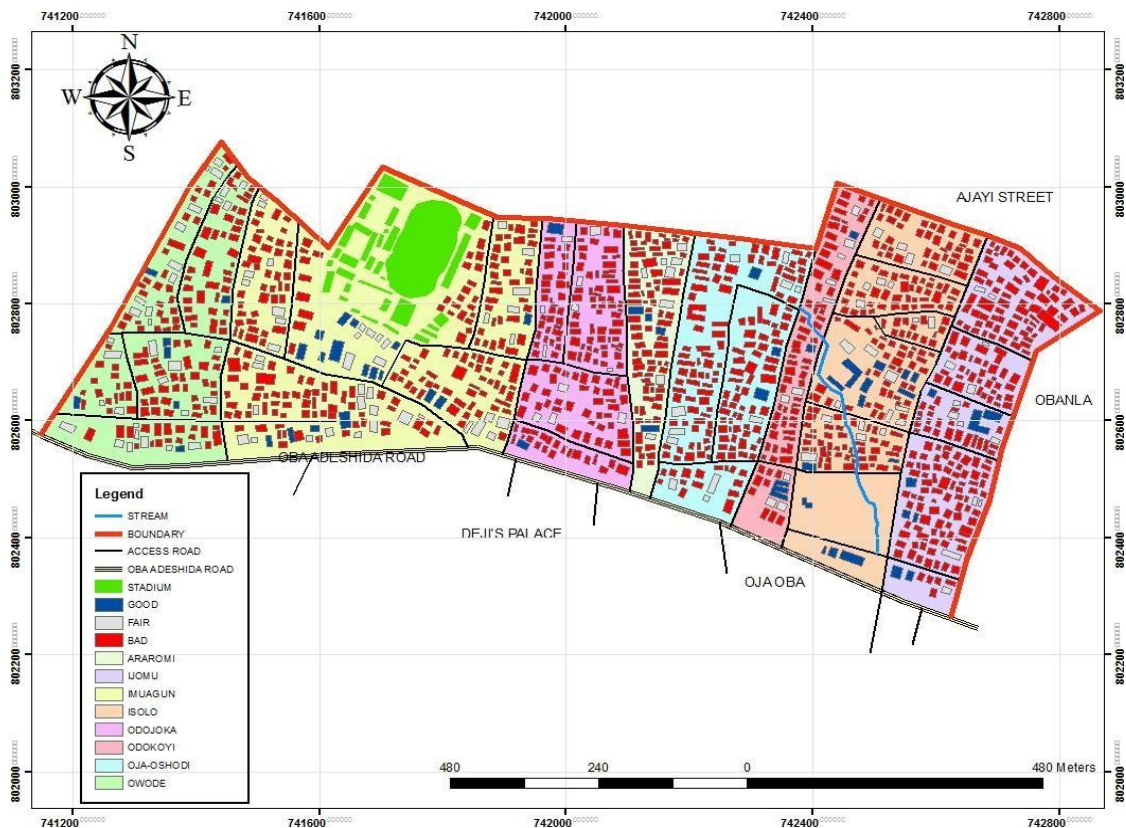
The Geographic Information System [GIS] was used to ascertain the extent of slum in the study area. Through this application, the condition of buildings in the study area was known and classified according to their extent. Fig. 11 presents the condition of the buildings in each of the neighbourhoods according to their degree of decay. It was discovered that out of the total 187 buildings in Owode, 147 [78.6%] were bad, 33 [17.6%] was fair and only 7 [3.7%] buildings were in a good condition. With this high number of poor buildings, this housing quarter can be regarded as a slum environment. At Imuagun, a large number of 217 [78.9%] buildings out of the total 275 were bad, 41 [14.9%] was fair while 17 [6.2%] was in a good condition. Here also, the poor buildings supersede the good ones therefore classifying the area as slum. 173 [93%] out of the total 186 buildings at Odojoka were bad, 11 [5.9%] was fair while a paltry 2 [1.1%] was good. This shows that Odojoka of Akure core had a huge number of poor buildings over the good ones, hence referred to as a slum environment. At Araromi, 74 [86%] buildings of the total number of 86 buildings were in a

deplorable condition while 8 [9.3%] was considered to be fair and only 4 [4.7%] was in a good condition. The conditions of the buildings at Araromi were seen to be generally poor, hence, its classification as a slum environment. Out of the 167 buildings recorded at Oja-Oshodi, 152 [91%] was discovered to be in a poor condition, 12 [7.2%] were considered fair, while only 3 [1.8%] was realized to be in a good condition. With this prevalence of the poor buildings over the good ones, Oja-Oshodi which form part of the core can be identified as a slum environment. At Odokoyi, a total of 72 [83.7%] buildings were identified to be in a poor condition, 11 [12.8%] was fair, while 3 [3.5%] was discovered to be in a good condition. With the present situation of this housing quarter, the area hence regarded as a slum environment. At Isolo, out of the 184 observed buildings, 148 [80.4%] were seen to be in a poor state; 22 [12%] were fair while 14 [7.6%] were observed to be in a good condition. This huge number of dilapidated buildings categorize the environment as slum. At Ijomu 221 buildings was observed, of which a huge number of 200 [90.5%] were in a total deplorable condition, with 13 [5.9%] fair buildings, while 8 [3.6%] were observed to be in a good condition.

With the deplorable condition of these buildings, Ijomu can as well be regarded as a slum environment. 85% of the buildings in the study area were in an extreme poor condition.

Other parameters considered which distinguished the environment as slum were: overcrowding in homes, age of the buildings and mode of refuse disposal. Overcrowding in homes was discovered to be dominant throughout the quarters which formed the study area. It was discovered throughout the study area that the houses in the environment were old, the construction materials were primitive, and the buildings were already dilapidated. Residents throughout the study area were caught in the act of dumping their wastes in open spaces and open drains; this created an ugly outlook of the environment.

With the deplorable condition of buildings in this area, the eight [8] housing quarters which made up the study area is an obvious reflection of a slum environment. Agreeing with Osore [33] who also noted that the area is an obvious reflection of slum formation.



Source: Author's Field Survey, 2022

Fig. 11. Housing Condition of the Study Area

## **5. CONCLUSION AND RECOMMENDATIONS**

This paper has assessed the characteristics of slum in the core of Akure. Results obtained revealed that many of the houses in the study area were informal, as developers do not possess building plan approval from relevant planning authority. Tenement housing also known as the Brazilian type was predominant in the study area; this type of building suggests overcrowding as households between 4 to 6 was discovered to be common. The mean age of the buildings was discovered to be 88 years. Aesthetic is lost in this environment as these buildings from time past lack the aesthetic value and were seen to be in a poor condition. A large number of the respondents have out-house kitchens. Food is prepared in the open where flies, domestic animals, rodents, reptiles and filth are present. Residents of the study area mostly use pit latrine as a means of convenience. These shared pit toilets were poorly maintained and serve as breeding ground for diseases vectors. Majority of the buildings in the study area were constructed with mud and discovered to be in a poor state. Corrugated iron sheet was used for roofing most buildings in the study area; these iron sheets were found to be unattractive and in a very poor condition. The study revealed the state of the drainages to be free-flowing but becomes waterlogged during heavy downpours. This is as a result of some residents who deposit wastes into the drainages during this period. The Ondo State Waste Management Board is in charge of waste collection in the area. Despite the government's effort, some still engaged in the act of dumping their wastes in drainages and some open spaces. 85% of the buildings in the study area were in an extreme poor condition.

Based on the empirical analysis results, this study proposed that urban renewal exercise should take place in the slum environment. The state government can partner with the private organization to achieve this feat. During this stage, rehabilitation of dilapidated buildings should be done, rehabilitation of dilapidated roads and the provision of basic infrastructures. There is the need to go back to the old sanitation inspection conducted by the Ministry of Environment; this routine inspection will help checkmate the sanitation practices of residents of the area. The State House of Assembly should also make a legislation that will guide urban

sanitation which will give room for the authorities to make it obligatory for households and service providers to play their part in ensuring a full sanitation practice. Public enlightenment via radio and television jingles, newspapers, and community meetings should be done so as to enlighten the residents on the need to ensure a safe and clean environment and how poor and unkempt environment can damage their health.

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## **COMPETING INTERESTS**

Author has declared that no competing interests exist.

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