



DOI: <https://doi.org/10.38035/sncsr.v1i2>  
<https://creativecommons.org/licenses/by/4.0/>

## Urban Informality and Its Economic Consequences: An Empirical Study of Slum Effects on Property Values in Asaba Community, Delta State

**Benedicta Njideka Okafor<sup>1</sup>**

<sup>1</sup>Department of Estate Management, Nnamdi Azikiwe University, Awka, Nigeria, [bnj.okafor@unizik.edu.ng](mailto:bnj.okafor@unizik.edu.ng)

Corresponding Author: [bnj.okafor@unizik.edu.ng](mailto:bnj.okafor@unizik.edu.ng)<sup>1</sup>

**Abstract:** Urban degradation is caused principally by urbanization process, however, most of the environmental problems in Asaba metropolis suburbs result largely from its unplanned land uses, swampy nature of built areas and weak development control. Other critical problems that bother minds also include lack of open space, poor management of flood channels and substandard housing. This paper discusses the possible intervention strategies in the regeneration effort of Asaba slum area. The research method which is both narrative and statistically descriptive in nature enables the author engage in a detailed literature study of the chronological development of Asaba metropolis with view to determining how the city came about the current level of degenerating infrastructural facilities. The study found that the principle of cooperative leadership by government at all levels is fundamental to making important difference in qualitative development controls of the study area. It however concluded that the duo role of the public and traditional power structure of the community leaders must be involved in the conception and implementation of Delta State environmental planning programmes

**Keyword:** Effects of Slum, Property Value, Environmental Problem, Development Control, Nigeria.

### INTRODUCTION

Most housing decay and deterioration comes in various forms and their existence is more evident in densely populated parts of the city. Some of the characteristics of slum include inadequate and deficient facilities obsolete buildings, filthy environment, etc. Much concern was been shown about the problems of the slum areas particularly on the level of decay exhibited by such areas and the plight of the low-income households which dwell in them, this put lives and health of the residents in danger (Okpala et al. 2024; Nwamekwe et al., 2024; Igbokwe et al., 2024; Okeagu et al., 2020).

Asaba experienced a large rapid population growth because of the influx of people from different part of the east as a result of the development from the colonial era, hence houses constructed of hands materials sprang up all over the settlement. Thus, the area is crowded with

poor housing structures most disorderly located. The settlement has now grown and developed in an unplanned manner resulting in the deterioration of the values of the property and social status of the estate environment (Vitalis et al., 2024; U-Dominic et al., 2024; Onyeka et al., 2024).

Asaba is characterized by slum, where the structure is blighted, high level of occupancy mostly low-income group, overcrowding, under supply of public amenities, bad roads, this is the basis for this research work, trying to examine the effects of slum on the values of property, located there and also to show or establish that slum development is the major setback in urban growth/development (Nwamekwe & Igbokwe, 2024; Nkemakonam et al., 2025).

### **Aim and Objectives of the Study**

The aim of the study is to examine the effects of slum on rental property values in Asaba. To achieve this aim, the following objectives were raised, they are:

- a. To identify the causes and effects of slum on rental property values in the study area.
- b. To establish the negative and positive effects of slum on rental property values in the study area.
- c. To establish whether slum environment makes investment in real estate and property market transactions, a viable venture.
- d. To then recommend the best and possible strategy towards eradicating the slum of Asaba area and hence create a suitable environment that will enhance the property value in the areas.

### **Literature Review**

According to literature, the earliest use of the word ‘slum’ is reported as having occurred in the year 1812 and the introduction of slumming as a fashionable pursuit in 1884. Going by history Britain was affirmed the first country to have formed a definition under section 1 of the Housing Act, 1930 for administrative purposes.

The UN-Habitat (2007) simply defined slum as “a heavily populated urban area characterized by substandard housing and squalor”. This straightforward definition reflects the essential physical and social features of slums. Generally, slums in the traditional sense includes housing areas that were once desirable but which deteriorated after the original dwellers moved on to new and better parts of the city. The condition of the old homes declined as they were progressively subdivided and rented out to lower income people. A slum is also a heavily congested and often poorly built temporary human settlement, mostly with no security of tenure and prone to antisocial activities, which is characterized by a shortage of safe drinking water, inadequate power supply, lack of proper sanitation and scarce medical and social facilities. The settlements are mostly erected using plastic sheets, mud walls, tin sheets or cardboards which often leak during rains and are very risky in case of fire outbreaks. These settlements are also destroyed by local authorities or land owners at frequent intervals. The narrow and winding paths of slums provide a favourable environment for criminal and antisocial activities because the area becomes almost inaccessible to security forces. Chasing and capturing criminals in slums is difficult, as they have better knowledge of the escape routes and hideouts. Utilities are mostly non-existent and there are often pools of stagnant dirty fluids along with rubbish dumps. The drainage system is open and poorly maintained and that often mixes with drinking water due to leakages in pipes. This exposes the residents of slums to various ailments and diseases.

The definition also encompasses housing areas that were once respectable or even desirable, but have since deteriorated, as the owners have moved to new or better areas of the cities. The quality of dwellings in such settlements varies from the simple shack to permanent structures, while access to water, electricity, sanitation and other basic services and

infrastructure tends to be limited (Okpala et al., 2025; Igbokwe et al., 2025; Nwamekwe et al., 2025).

A slum household is a “group of individuals living under the same roof that lack one or more of: access to safe water, access to sanitation, secure tenure, durability of housing, and sufficient living area.” (Okpala et al., 2025; Nwamekwe & Chikwendu, 2025; Nwamekwe et al 2020). Slums have come to include the vast informal settlements that are quickly becoming the most visible manifestation of urban poverty in developing world cities. Such settlements are known by many different names and are characterized by a variety of tenure arrangements. In all cases, however, the buildings found there vary from the simplest shack to permanent and sometimes surprisingly well-maintained structures, but what most slums share in common is a lack of clean water, electricity, sanitation and other basic services.

The United Nation Expert Group (UNEG) recently recommended to policy makers and international bodies what they considered to be a more “operational definition” of a slum, one that is intended to enable better targeting of improvement programs aimed primarily at resolving the physical and legal problems faced by slum dwellers. According to the UNEG, a slum is an area that combines, to great extent, the following characteristics: inadequate access to safe water; inadequate access to sanitation and other infrastructure; poor structural quality of housing; overcrowding; insecure residential status.

The characteristics are being proposed because they are largely quantifiable and can be used to measure progress toward the Millennium Development Goal to significantly improve the lives of at least 100 million slum dwellers by 2020 (United Nation Habitat, 2007).

### **Concept of Residential Slum**

The ways in which people perceive the natural environment of their cities, develop and use it will reflect much about their equality of life (Nwamekwe & Nwabunwanne, 2025; Ezeanyim et al., 2025; Igbokwe et al., 2025). Also, Vitalis et al. (2024) in the book titled “Housing management was of the opinion that before a house could be regarded as habitable for human beings, it must be in good repair conditions, adequate stability, free from leakages, good internal arrangement, natural lightening satisfactory good drainage and sanitary conditions of the environment”. This means that any building or living environment shaft not of these standards passes as unfit for human, habitation, and can best be described as slum.

### **Attributes of Slum**

From the attribute discussed above a slum area is largely inhabited, by people who have migrated from other areas. Sociologically, it is a way of life, a sub-cultural, with a set of norms and values, which is reflected in poor sanitation and health practices, deviant behaviours and characterized by attributes of a party and social ills.

### **Physical Attribute**

African region has experienced high rates of urbanization and the quality of dwellings in such settlements varies from the simples’ shack to permanent structures, while access to water, electricity, sanitation and other basic services and infrastructure tends to be limited. The studies carried out by renowned environmentalist revealed that the third world countries such as Nigeria has squatter settlement which is characterized by uncontrolled substandard temporary dwellings, poor sanitary conditions, dilapidated structures, high occupancy ratio and further described urban slums in Chile as housing the poorest of the poor, the unemployed, the unskilled, and illiterate and often the alcoholics, the vagabond and the delinquents.

### **Social Attributes**

The social attribute of slum is viewed as the “zones of deterioration” which largely meant that slum dwelling areas was noted as generators of social deviation (Nwamekwe & Chikwendu, 2025; Ezeanyim et al., 2025). Also, studies conducted in Ghana, Uganda, Philippines and Venezuela by Emeka et al. (2025), showed a significant degree of correlation between slum housing and deviant behaviour. They are commonly seen as "breeding grounds" for social problems such as crime, drug addiction, prostitution, alcoholism etc. These are the product of the combined effects of physical and economic attributes and people from different neighbourhoods fear to visit the environment at night as a result of high degree of crime rate. In many poor countries they exhibit high rates of disease due to unsanitary conditions, malnutrition, and lack of basic health care. Low socioeconomic status of its residents is another common characteristic given for a slum (Nwamekwe et al., 2025; Okpala et al., 2025; Igbokwe et al., 2025).

### **Economic Attribute**

Slum dwellers are mostly of the lowest income groups with high unemployment and low wages. A greater percentage of slum dwellers are engaged as labourers, often engaged in mean work to irk out a living. These jobs often do not attract fair and good wages, hence they cannot save or feed well, not to think of planning for the future.

Thus Okafor (2018) in a note unit pass passage has described urban slum as housing the poorest of the poor, the unemployed unskilled and illiterate and often the alcoholic, the vagabond and the delinquents. The problem of slum development particularly pronounced in the old, indigenous core areas of the urban setting, poses great concern to real estate investors as it negatively affects property values (Nwamekwe et al., 2025). Many factors interplay to create property value such as: population change, changes in fashion and taste, institutional factors, technological factor, economic factors and location (Okpala et al., 2024; Okeagu et al., 2024). Factors that negatively affect the value of real property, injure ownership motives and goals. They also affect investors' interest and discourage subsequent investment.

### **Political Attributes**

This views the slum environment as an enclosure for untiring toast, political radicalism and Violence. The argument have is that the socio-economic hardships and poor living Conditions could be a potential time bomb which could erupt easily into political radicalism and Violence (Nwamekwe & Nwabunwanne, 2025). He further stated that most politicians use this slum dwellers made up of low-income earners, illiterates, delinquent, alcoholics etc, as political thugs and most times they are used as weapons against their political opponents. Those seeking political offices use these slum areas as their campaign ground, where the make empty promises, distribute all kinds of materials to them just to earn their votes and afterwards these people are abandoned and left hopeless.

Finally, the environmental implication of the social, economic and political perspectives of slum arising is the precipitation of decayed physical environments and coupled with demographic and other environmental and structural problems.

### **Types of Slums**

The phenomenon slums have been identified in various ways by different authors. According to Chidiebube et al. (2025) slum can be classified into the following three ways.

- a. The original slum
- b. The departure slum
- c. The slums of transition.

Original Slum: Here the environment at its early period is marked with very unsuitable buildings and this requiring clearance and development. This type of slum is observed in Wichita, Mexico.

Departure Slum: This type of slum occasioned by the mass movement of middle- and upper-class families to other areas. As a result of lack of maintenance and regular repairs the area became deteriorated. Typical examples are found in parts of New York and Chicago in USA, and also some parts of Enugu State and Ibadan in Nigeria.

Slum of Transition: This arose from blight which emerges around the central business district. There is evidence of rapid deterioration of the physical and social environment. Most residents of this area are usually transient touts, habitual beggars, alcoholics, criminals, drug addicts and homeless people.

There are therefore, other types of slums recognized by many writers include stroke, which he indicated four types of slums

1. Slum of hope with escalators
2. Slum of despair with escalator classes
3. Slum of despair with non escalator classes
4. Slum of hope with non escalator classes.

### **Causes of Blight and Factors Leading to Slum Formation**

According to Vitalis et al. (2024), he traced slum in Asaba to coal mining. He showed how the coal camp was developed to house miners, consequently, displaced farmers in the rural area started migrating from the rural area to the coal city and its environs like Asaba, Asata, Ogui Urban etc, hence the genesis of slum in Enugu in general.

Although the age and quality of the initial buildings are relevant to the slum formation, they are not the only factors. Two areas of housing built at the same time and of the same quality may show significant difference in their rate of deterioration. The following are the main factors that have governed slum formation in the UK as identified by Okeagu et al. (2024).

- a. Diseconomies external to the house but internal to the area.
- b. Encroachment of non-housing uses
- c. Diseconomies generated by used external to the area
- d. Intensity of use
- e. Controls on rents and security of tenant
- f. Low income
- g. The problem of depreciating/deteriorating public services in city centres.
- h. Planning blight

These were explained by Emeka et al. (2024) in their most obvious ways that the quality of the neighbourhood, in terms of used infrastructures, uses, governing ordinance and planning efforts focused to managing the estate environments employ a lot of things for the properties of the estate. Rapid urbanization and industrialization in Enugu Nigeria from the 1960s through 1989 resulted in two housing related problems. The first was the shortage of low- income housing units, and the second was the increasing price of affordable housing. The affordable housing shortage coupled with the rising cost of available units made it increasingly difficult for low-income households to maintain an acceptable standard of living in Enugu, thereby pushing them to live in slums where they caused devastations to the environment. The issue turned into an environmental threat to the government because of the pollution generated by the “slum” dwellers (Chidiebube et al., 2025).

### **Role of Slum**



In spite of the abhorable negative impact of slum on housing accommodating, human health and the environment, slum plays the following functions which are considered useful in the city according to Nwamekwe et al. (2025) and other authors on the subject.

1. Accommodation for new immigrants: The new arrivals to the city that have no other place to stay in the larger section often find resources in the squatter settlement. As middle classes left the smoke of cities, poorer people, new comers from the country side and immigrants move into the old housing stock. The first get acculturated and as the years go by, they put interest on how to make a comfortable and successful city living.
2. Accommodation for the poor: The low-income earners, fortune seekers and adventures who immigrates to the city with no person or relation to stay with often find a slum area more economic to secure accommodation.
3. Sources of unskilled and semi skilled labour.: The slum area usually provides affordable rental accommodations of this class of people most of who engage in menial jobs, brick layers, apprentices etc.
4. Promotes group association: The members of slum area or district usually know each other, interest in close association fight for common cause nature the same attitude and sentiments to social situations and also, they feel deposed and down-graded by those living well planned and elated areas.
5. Refuge or hideouts for criminals: Slum areas are notorious for harbouring arch criminals, miscreants, people of questionable character, mean drug addicts, prostitutes, and characters which are threat to the society.
6. Sources of income for slum landlord: Since the mean aim for the continuous existence of slum dwellings is because the slum dwellers are not able to pay for better alternative accommodations, the slum landlords surprisingly charge high rents as a result of high demand despite the fact that these building standards, and often not in tenable repairs. According to Okpala et al. (2024), slum landlords are seriously in non profitable business.

### **Slum as a Critical Environmental Problem**

The sporadic growth of urban population has been blamed for the poor environment condition in most cities of the developing countries of the world. According to Ojikutu, population growth is inimical and a serious threat to healthy living and if not properly checked, it could result to unprecedented increase on slum area food poisoning and shortage, dysentery, technical and malnutrition. He further opined that drinking water supplies, sewage disposal, refuse collection, disease prevention measures, and primary health care were minimal as a result of the trend.

### **Theoretical Aspects of Slum**

- a. Slum as a product of urban spiral to fringes: The word “sprawl” is a process of urban growth in which a city invades the surrounding hinterlands. In Asaba area the growth of settlement could be referred to what Harvey and Clark (1965) called “frog sprawl”. They constructed that slums developed in the process of uncontrolled urban sprawl, composed of areas of essentially urban character located at the urban fringe or periphery but which are scattered or surrounded by or adjacent to undeveloped pre-exactly Agro based village settlement.
- b. Slum as a socio-cultural traditionalism Nwamekwe (2020) stated that some parts of Ibadan are typical slum area in the core of the city and in describing the more phonology of the area, he asserted that “the core area of Ibadan is made up of the core of mid

dwellings, mostly of old architectural design, juxtaposed chaotically and at a high density on the urban landscape.

- c. Slum as an institutional characteristic of urban development. Ezeanyim et al. (2025) restated and concerned with the view of Charles Abrams that perhaps, in the formation years of industrialization, slum environment will be inevitable byproduct of the industrial environment like the abdominal distortion that precedes birth and growth. Hence, Onyeka et al. (2024) hypothesized, “that if the process producing autonomous settlement is essentially normal processes of urban growth, then autonomous urban settlements are both the products of and the vehicle for activities which are essential in the process of urbanization. The argument of Onyeka et al. (2024) was to the effect that autonomous urban settlement (urbanized nearly native village) and any other parcel of land within the urbanized area which is subject to land tenure and free market economy is often liable to develop into a slum environment over time. Thus, slum prevalence and settlements lead to be seen as an institutionalism characteristic of colonial urban development.

### **Property Values**

There is no one common definition of the word “VALUE” as there all many schools or thought on the meaning. Hence many text writers have different approaches to the meaning of value. For a valuer, value means market value. It simply means an indicator of the power of a commodity to command other commodities in exchange ordinarily; the meaning of value is something of worth held at high esteem. Economists and Estate Surveyors normally express value in monetary terms, which indicate the power of a commodity to command other commodities in exchange, they are primarily concerned with both economic and market values and further use the term “value” in a very different context and with different adjectives to mean different things. Hence the terms: mortgage value, capital value, rental value etc. For an object or a commodity to have value, it must possess certain economic and legal characteristics. Therefore, for this research work, it is pertinent to understand what the term “Rental value” is all about.

**Rental Value:** Rental value is a term that is used to describe the monetary amount that would be paid to rent a piece of property that is similar in nature to another property. The comparison allows for factors such as both properties offering similar amounts of square footage for both the structures on the property and the lot on which the structures were located, and the similarity in locations for both of the properties used in the comparison (Nwamekwe et al., 2025). This approach is often used in the process of determining the fair market value of a given property, based on the current value of a similar property located in an equally desirable location.

## **METHOD**

### **Research Design**

In the course of this study, the researcher adopted the survey research design. The survey research method was employed because it involves collection of data to objectively describe the existing effects of slum on rental property values. Thus, it is aimed at determining the nature of the effects of slum as they affect rental property values as at the time of investigation. This design adopted as instruments of data collection, observation, questionnaires and interviews.

### **Population**

According to sources from Nigerian population commission (NPC) final census result total population estimated was 41,237 (1991) projected to 47,600 (by 1996).

In the present day considering the geographical nature of the study area, a marginal growth rate of 2% was applied to using the formula  $Pr = Po [1+r/100]^n \times 100$  where  $Pr$  = required population,  $Po$  = initial population,  $r$  = growth rate and  $n$  = time interval; in which 66,651 was arrived at as the estimated as at [2024].

### Sample Size and Sampling Technique

The sample size was determined with the formula  $N/1+N(e)^2$ . But however, it was practically impossible for the researcher to reach all the people, and also considering the resources at his disposal in order to collect relevant data from them therefore a sample was taken, using stratified random sampling techniques owing to circumstances like time factor and financial constraints, a total of 135 respondents were selected.

### Data Collection Instrument

The data collection instruments employed are oral interviews, personal observation and questionnaires and also review of vital literature and books.

### Data Collection Procedure

The nature of the environment was taken note of through observation, including the conditions of the public amenities, housing and other infrastructural facilities. Then, a total number of 135 questionnaires were distributed to the residents of Asaba, which was divided among the 9 streets selected for this research and each 15 questionnaires were given out and the information that was collected from the questionnaire were analysed to find out the appropriateness of the questionnaire items to the research questions and objective of the study. Then also oral interviews were conducted to land the validity to the information contained in the returned questionnaires. The representation was a very encouraging one.

## RESULTS AND DISCUSSION

Data collected from this research is presented in statistical tables. This descriptive method helps in understanding the phenomenon.

The researcher took a selection from 9 streets from Asaba and over a hundred and thirty-five [135] questionnaire was distributed of which 15 was distributed to each street [see table 1]

Table 1 Presentation of Data on Location of Streets.

O	S/N	NAME OF STREET
	1.	Cable Point
	2.	Jaret ending
	3.	Mechanic Village
	4.	Okwe (kwale Camp)
	5.	Achala Igbuzor Road

Source; filed work (2024)

From the above table nine streets were chosen from Asaba due to the nature of the area. Concentration will be focused only on the chosen streets.

Table 2: Response from Respondents to Questionnaire Distributed



Street studied	Questionnaires Shared	No of Questionnaire Collected
Cable Point	15	13
Jaret ending	15	15
Mechanic Village	15	14
Okwe (kwale Camp)	15	15
Achala Igbuzor Road	15	15

*Source field work (2024)*

From the table 2. 93.33% was the total percentage distributed in Asaba in which 135 questionnaires were distributed and 126 was collected. From this we can see that Cable Point, Jaret Ending, Mechanic Village, Okwe (Kwale Camp) and Achala Igbuzor Road has the highest responses from the whole of Asaba.

### **Presentation of data on level of deterioration within the area**

The researcher used the multiple index methods to ascertain the result on the level of deterioration. This method is defined as the method employed in finding out the planning action to use in urban renewal i.e. whether conservation, rehabilitation or Clearance.

In this case some factors or characteristics are selected that are relevant to the problem. They are selected and studied and compared with the city level. The various characteristics have their own indexes. These indexes are computed for arithmetic mean. In table 3 below are the factors that might be considered in a residential area.

**Table 3: MULTIPLE INDEX TABLE FOR ASABA**

S/No	Factors	% of area study	% of base city (Enugu) Level	Indexes
1	% of household with an income a grade level 01	80	40	200.0
2	Room density	8	30	26.6
3	% of household without electricity	35	20	175.0
4	% of household without pipe borne	95	32	296.8
5	% of household without water borne sanitation	85	48	177.0

6	% of household living in temporary structures	95	50	190.0
---	---	----	----	-------

Source: Field work (2015)

$$\text{Multiple index formular} = \frac{\%Area\ of\ study}{\%Area\ of\ city\ base} \times \frac{100}{1}$$

$$\text{Arithmetic mean for factors} = \frac{1065.4}{2} = 532.7$$

Therefore, the multiple indices for study area are 532.7, the planning action stipulates that multiple index equal to or less than 75 is for conservation, 76 to 124 for rehabilitation and anything greater than 125 is for clearance, hence Asaba should be earmarked for clearance. That is to say that Asaba is a slum and needs to be cleared and redeveloped

### Presentation of Data on Rental Property Values

The table below assesses the rent passing in Asaba and the surrounding neighborhoods to determine actually the effects of slum on property values when compared with Independence Layout, Trans-Ekulu and G.R.A.

Table 4: Presentation of data on rental values in Asaba and other layouts

Location	Description of Property	Rent Passing
Directing Labour Road	Flats Shops Office space	N160,000p.a N 60,000p.a N 80,000p.a
Anwai Road	Flats Duplex Office space Shops	N500, 000p.a N1,500, 00p.a N 800, 000p.a N 300, 000p.a
Nnebuisi Road	Flats duplex Bungalow	N 400,000p.a N 600,000p.a N 450, 000p.a
Bonsac Bakery Area	Flats Duplex Bungalow Shops	N500, 000p.a N800, 000p.a N 450, 000p.a N 300, 000p.a

Sources field work (2024)

From the above you will notice that the rental values of the other layout are quite higher than the ones in Asaba, Coal Camp, Asata area. The reason is because the properties in Asaba and its environs are in a slum area and that brings the essence of cons value in rent

### Presentation of Data on Effects of Slum on Property Values

Based on the third research question which states that, will investment in real estate and property market transactions in Asaba be a viable venture? The table below shows the response to the question from the streets that over 135 questionnaires were distributed and it is hence tabulated.

Table 5: Result of responses from the respondents on the questionnaire distributed

Location	Yes	No	Total
Ovim street	10	3	13
Udorji street	13	2	15
Onyuike street	8	6	14
Ebe lane	5	10	15
Ani street	12	13	25
Uli street	13	1	14
Akunike street	8	5	13
Orifite street	7	8	15
Ugwu street	11	4	15
Total	97	52	139

Sources filed work (2015).

From the above table the member of people that answered yes was 68.2% and those that answered No were 31.7%.

Presentation of data on the causes of slum in the study area

Table 6: Response on the causes of slum in the study area

S/No.	CAUSES	NO OF RESPONSE
1	Overcrowding	15
2	Neglect	10
3	Unplanned development	18
4	Lack of infrastructural facilities	8
5	Improper disposal of waste	11
6	All of the above	64

Source: field work (2015)

From the table above; 126 questionnaires collected, 15persons believed that overcrowding is the actual cause of slum in Asaba, 10persons chose neglect, 18persons chose unplanned development, and 8persons chose lack of infrastructural facilities, 11persons improper disposal of waste while 64persons believed that all these leads to the development of slum in Asaba area.

### Summary of Findings

The followings are findings emanating from Asaba environmental and facilities surveys.

1. That the state of the physical environment of Asaba settlement has reached a level which needs an immediate intervention of either the state government or the federal government.
2. That it is possible to successfully implement a sustainable environmental program in Asaba settlement through community and stakeholder participation

3. Government (whether state or federal) should take a proactive role and provide adequate support (technical/policy) to local authorities when implementing environmental programs that are supported by community efforts. With continued support the community has the potential to lead its own development.
4. Planning and implementation of any Program in the settlement should involve the community (bottom-up approach) right from inception and through all the project phases. A bottom-up approach fosters a smoother flow of information about a development program in any community and leaves little room for misinformation
5. There is need to review governance institutional framework in the country in order to incorporate community structures into the national institutional framework.
6. To maximize development benefits, there is a need to optimize, integrate and coordinate activities of the local government council, agencies and partners within the community.
7. Political will from government level to community level is fundamental in the planning, execution and success of any development program.
8. Capacity building programs and community physical infrastructure construction that is planned for the settlement may require adequate time to implement and should take into consideration inherent existing constraints in an implementing institution
9. The concept of recognizing contributions by various actors enhances participatory development.
10. Entry into development programs intended for informal settlements of this nature should always enjoy the local authority and such program processes should be absorbed within the working structure of the local authority to foster sustainability

### **Recommendations**

Usually slums are often "fixed" by clearance. However, more creative solutions are beginning to emerge such as Nairobi's "Camp of Fire" program, where established slum-dwellers promise to build proper houses, schools, and community centers without government money, in return for land on which they have been illegally squatting on for 30 years (TCSM, 2004). The "Camp of Fire" program is one of many similar projects initiated by Slum Dwellers International, which has programs in Africa, Asia, and South America. Here different approaches have been put forward to help to redeem Asaba's degenerated environment and indeed will serve as a planned action renewal strategies for other similar slum areas in Lagos metropolis.

### **Two- Levels Bottom-Top Approach**

One of the viable approaches in mitigating the Asaba environmental degradation is a bottom- top approach rather than the traditional top-bottom approach. Policies should be made and executed at the three levels as follows: At the local level, where planning is brought to the grass roots through public enlightenment programs, public participation needs to be affected by regular consultations between state and local governments, stake holders, religious leaders, community groups and Non-Governmental Organizations (NGOs). The local government authority should provide action plans for public/private partnerships in the delivery of prioritized urban basic services and facilities. Monitoring of development through effective development control is crucial at this level. At the state level, the policies should deal with the distribution of population and economic activities within the state, including decentralization policies. The functions and responsibilities of State government organs, Lagos State Development and Property Corporation (LSDPC), Lagos State Ministry of Housing need to be examined and their resources harmonized. More importantly, the overlapping roles of Lagos State Ministry of Environment and Physical Planning, the Urban and Regional Planning Board

and the Urban Renewal Board need to be streamlined to ensure a comprehensive management procedure for the environment of the area.

### **The Community Development Approach**

This neglected age long method otherwise known as a participatory approach has been proved to be effective to slums upgrading. This is a source of citizens' empowerment as it builds community, maximize local control and let the people decide. A neighborhood level community development in most nations of the world is spearheading the drive to decentralization, focuses on economic revitalization and providing inner city residents with a range of services that government do not provide. This resident's initiative support program as a model for rebuilding slum settlement will go far to creating new and diverse economic opportunities; mobilizing residents to become involved in the process and in short encouraging a holistic approach to community development. This must seek to ensure consensus through the fullest possible participation and co-operation of all stakeholders with a legitimate interest in the renewal of the area. More importantly, this study also recommends that the water front and its appropriate setbacks in which majority of the buildings in the study area are situated should be reclaimed. A larger portion of the reclaimed land should be developed to a profit-making recreation center (e.g. Lagoon front, resort center, water front chalets, etc.)

### **CONCLUSION**

The active and vibrant metropolitan Lagos is a sprawling settlement located partly on poorly drained swamps, with a high-water table, poor soils and inadequate drainage. These environmental features coupled with an unprecedented rate of urbanization, have made Lagos' slums a peculiar one and therefore impose an ineffective applicability of western assumptions in its urban regeneration. In the context of Asaba slum community clearance as highlight in this paper, western approach to regeneration will not totally work bearing in mind the differences in cultural values and resources availability. As such this study has recommended strongly the strategy of cooperative leadership both at governmental and community level. For a good urban renewal to emerge in Asaba settlement, the following steps must be reconsidered: first relocation of residents on the River Niger Area to a more befitting area should be made mandatory and legal for the affected people. Structures clearance must commence after details quality assessment of those structures have been carried out. The rehabilitation of Asaba settlement would be aimed at the simultaneous adaptation of the physical fabric, social structure, economic base and environmental condition of the area. This simultaneous adaptation through the generation and implementation of comprehensive and integrated strategy that deals with the resolution of problems in a positive manner (Emeka et al., 2025). The entire scheme will ensure that the planned strategy and the resulting programs of implementation are developed in accord with the aims of sustainable development. In summary therefore it is a recommended that the public and traditional power structure of the community leaders be involved in the conception and implementation of the marked plan area.

### **REFERENCES**

- Chidiebube, I. N., Nwamekwe, C. O., Chukwuemeka, G. H., & Wilfred, M. (2025). OPTIMIZATION OF OVERALL EQUIPMENT EFFECTIVENESS FACTORS IN A FOOD MANUFACTURING SMALL AND MEDIUM ENTERPRISE. *Journal of Research in Engineering and Applied Sciences*, 10(1), 836-845.
- Emeka, U. C., Okpala, C., & Nwamekwe, C. O. (2025). CIRCULAR ECONOMY PRINCIPLES'IMPLEMENTATION IN ELECTRONICS MANUFACTURING: WASTE REDUCTION STRATEGIES IN CHEMICAL MANAGEMENT. *International journal of industrial and production engineering*, 3(2), 29-42.

- Ezeanyim, O. C., Ewuzie, N. V., Aguh, P. S., Nwabueze, C. V., and Nwamekwe, C. O. (2025). Effective Maintenance of Industrial 5-Stage Compressor: A Machine Learning Approach. *Gazi University Journal of Science Part A: Engineering and Innovation*, 12(1), 96-118. <https://dergipark.org.tr/en/pub/gujsa/issue/90827/1646993>
- Ezeanyim, O. C., Nwabunwanne, E. C., Igbokwe, N. C., & Nwamekwe, C. O. (2025). Patient Flow and Service Efficiency in Public Hospitals: Data-Driven Approaches, Strategies, Challenges, and Future Directions. *Journal Health of Indonesian*, 3(02), 104-124. <https://doi.org/10.58471/health.v3i02.228>
- Igbokwe, N. C., Christiana, C., Nweke, C. O. N., & Onyeka, C. (2025). Data-Driven Solutions for Shuttle Bus Travel Time Prediction: Machine Learning Model Evaluation at Nnamdi Azikiwe University. *African Journal of Computing, Data Science and Informatics (AJCDSI)*, 1(1), 31-55.
- Igbokwe, N. C., Emmanuel, U. N., & Nwamekwe, C. O. (2025). ADVANCES IN POST-HARVEST FISH PROCESSING: AN APPRAISAL OF TRADITIONAL AND MODERN SMOKING TECHNIQUES FOR IMPROVED QUALITY AND EFFICIENCY. *Jurnal Integrasi Dan Harmoni Inovatif Ilmu-Ilmu Sosial* 5 (9):1-13. <https://philpapers.org/rec/IGBAIP>
- Igbokwe, N. C., Okeagu, F. N., Onyeka, N. C., Onwuliri, J. B., & Godfrey, O. C. (2024). MACHINE LEARNING-DRIVEN MAINTENANCE COST OPTIMIZATION: INSIGHTS FROM A LOCAL INDUSTRIAL COMPRESSOR CASE STUDY. *Jurnal Inovasi Teknologi dan Edukasi Teknik*, 4(11), 2.
- Nkemakonam Chidiebube Igbokwe, Charles Onyeka Nwamekwe, Patrick Sunday Aguh. Predictive Modeling of Manufacturing Defects using Machine Learning: A Comparative Performance Study in a Manufacturing SME. *African Journal of Advances in Engineering and Technology (AJAET)*, 2025, 01 (02), pp.93-115. [10.31920/2978-3224/2025/v1n2a5](https://doi.org/10.31920/2978-3224/2025/v1n2a5). {hal-05377373}
- Nwamekwe C. O., and Nwabunwanne E. C. (2025). Circular Economy and Zero-Energy Factories: A Synergistic Approach to Sustainable Manufacturing. *Journal of Research in Engineering and Applied Sciences (JREAS)*, 10(1), 829-835. <https://qtanalytics.in/journals/index.php/JREAS/article/view/4567>
- Nwamekwe C. O., Ewuzie Nnamdi Vitalis, Igbokwe Nkemakonam Chidiebube, & Nwabueze Chibuzo Victoria. (2025). Evaluating Advances in Machine Learning Algorithms for Predicting and Preventing Maternal and Foetal Mortality in Nigerian Healthcare: A Systematic Approach. *International Journal of Industrial and Production Engineering*, 3(1), 1-15. <https://journals.unizik.edu.ng/ijipe/article/view/5161>
- Nwamekwe C. O., Ezeanyim O. C., and Igbokwe N. C. (2025). Resilient Supply Chain Engineering in the Era of Disruption: An Appraisal. *International Journal of Innovative Engineering, Technology and Science (IJIETS)*, 9(1), 11-23. <https://hal.science/hal-05061524/>
- Nwamekwe, C. O., & Chikwendu, O. C. (2025). Circular economy strategies in industrial engineering: From theory to practice. *International Journal of Multidisciplinary Research and Growth Evaluation*, 6(1): 1773-1782. [https://www.allmultidisciplinaryjournal.com/uploads/archives/20250212103754\\_MGE-2025-1-288.1.pdf](https://www.allmultidisciplinaryjournal.com/uploads/archives/20250212103754_MGE-2025-1-288.1.pdf)
- Nwamekwe, C. O., & Chikwendu, O. C. (2025). Machine learning-augmented digital twin systems for predictive maintenance in highspeed rail networks. *International Journal of Multidisciplinary Research and Growth Evaluation*, 6(1), 1783-1795. [https://www.allmultidisciplinaryjournal.com/uploads/archives/20250212104201\\_MGE-2025-1-306.1.pdf](https://www.allmultidisciplinaryjournal.com/uploads/archives/20250212104201_MGE-2025-1-306.1.pdf)



- Nwamekwe, C. O., & Nwabunwanne, E. C. (2025). Immersive Digital Twin Integration in the Metaverse for Supply Chain Resilience and Disruption Management. *Journal of Engineering Research and Applied Science*, 14(1), 95-105.
- Nwamekwe, C. O., and Igbokwe, N. C. (2024). Supply Chain Risk Management: Leveraging AI for Risk Identification, Mitigation, and Resilience Planning. *International Journal of Industrial Engineering, Technology & Operations Management*, 2(2), 41–51. <https://doi.org/10.62157/ijietom.v2i2.38>
- Nwamekwe, C. O., Chidiebube, I. N., Godfrey, O. C., Celestine, N. E., & Sunday, A. P. (2025). Resilience and Risk Management in Social Robot Systems: An Industrial Engineering Perspective. *Culture education and technology research (Cetera)*, 2(2), 1-12.
- Nwamekwe, C. O., Chidiebube, I. N., Godfrey, O. C., Celestine, N. E., & Aguh, P. S. (2025). Human-Robot Collaboration in Industrial Engineering: Enhancing Productivity and Safety. *Journal of Industrial Engineering & Management Research*, 6(5), 1-20.
- Nwamekwe, C. O., Chinwuko, C. E. & Mgbemena, C. E. (2020). Development and Implementation of a Computerised Production Planning and Control System. *UNIZIK Journal of Engineering and Applied Sciences*, 17(1), 168-187. <https://journals.unizik.edu.ng/ujeas/article/view/1771>
- Nwamekwe, C. O., Ewuzie, N. V., Okpala, C. C., Ezeanyim, C., Nwabueze, C. V., Nwabunwanne, E. C. (2025). Optimizing Machine Learning Models for Soil Fertility Analysis: Insights from Feature Engineering and Data Localization. *Gazi University Journal of Science Part A: Engineering and Innovation*, 12(1), 36-60. <https://dergipark.org.tr/en/pub/gujisa/issue/90827/1605587>
- Nwamekwe, C. O., Ewuzie, N.V., Igbokwe, N. C., Nwabunwanne, E. C., & Ono, C. G. (2025). Digital Twin-Driven Lean Manufacturing: Optimizing Value Stream Flow. *Letters in Information Technology Education (LITE)*, 8 (1), pp.1-13. <https://hal.science/hal-05127340/>
- Nwamekwe, C. O., Okpala, C. C., & Nwabunwanne, E. C. (2025). Design Principles and Challenges in Achieving Zero-Energy Manufacturing Facilities. *Journal of Engineering Research and Applied Science*, 14(1), 1-21.
- Nwamekwe, C. O., Okpala, C. C., and Okpala, S. C., (2024). Machine Learning-Based Prediction Algorithms for the Mitigation of Maternal and Fetal Mortality in the Nigerian Tertiary Hospitals. *International Journal of Engineering Inventions*, 13(7), PP: 132-138. <https://www.ijeijournal.com/papers/Vol13-Issue7/1307132138.pdf>
- Nwamekwe, C., Ewuzie, N., Igbokwe, N., Okpala, C., & U-Dominic, C. (2024). Sustainable Manufacturing Practices in Nigeria: Optimization and Implementation Appraisal. *Journal of Research in Engineering and Applied Sciences*, 9(3). <https://qtanalytics.in/journals/index.php/JREAS/article/view/3967>
- Okafor, B.N (2018). Compliance with Road Setbacks Standards in Siting of Structures in Awka Capital Territory: Implications for Environmental Management. Unpublished Postgraduate PhD Research in Environmental Management: Submitted to the Department of Environmental Management, Faculty of Environment Sciences, NAU Awka Nigeria.
- Okeagu, F., Nwamekwe, C., & Nnamani, B. (2024). Challenges and Solutions of Industrial Development in Anambra State, Nigeria. *Iconic Research and Engineering Journals*, 7(11), 467-472. <https://www.irejournals.com/formatedpaper/1705825.pdf>
- Okpala C. C., Chukwudi Emeka Udu, & Charles Onyeka Nwamekwe. (2025). Sustainable HVAC Project Management: Strategies for Green Building Certification. *International Journal of Industrial and Production Engineering*, 3(2), 14-28. <https://journals.unizik.edu.ng/ijipe/article/view/5595>.

- Okpala, C. C., Ezeanyim, O. C., & Nwamekwe, C. O. (2024). The Implementation of Kaizen Principles in Manufacturing Processes: A Pathway to Continuous Improvement. *International Journal of Engineering Inventions*, 13(7), 116-124. <https://www.ijeijournal.com/papers/Vol13-Issue7/1307116124.pdf>
- Okpala, C. C., Udu, C. E., & Nwamekwe, C. O. (2025). Artificial Intelligence-Driven Total Productive Maintenance: The Future of Maintenance in Smart Factories. *International Journal of Engineering Research and Development (IJERD)*, (21)1, 68-74. <https://www.ijerd.com/paper/vol21-issue1/21016874.pdf>
- Okpala, C. C., Udu, C. E., & Nwamekwe, C. O. (2025). Sustainable HVAC Project Management: Strategies for Green Building Certification. *INTERNATIONAL JOURNAL OF INDUSTRIAL AND PRODUCTION ENGINEERING*, 3(2), 14-28. <https://journals.unizik.edu.ng/ijipe/article/view/5595>
- Onyeka, N. C., Vitalis, E. N., Chidiebube, I. N., U-Dominic, C. M., & Chibuzo, N. (2024). Adoption of Smart Factories in Nigeria: Problems, Obstacles, Remedies and Opportunities. *International journal of industrial and production engineering*, 2(2), 68-81. <https://journals.unizik.edu.ng/ijipe/article/view/4167>
- U-Dominic, C. M., Orji, I. J., Nkemakonam, C. I., Onyeka, N. C., & Nwufo, M. A. (2025). A Decision Methodology for Six-Sigma Implementation in the Nigerian Small and Medium Scale Enterprise (SME). *Unizik Journal of Technology, Production and Mechanical Systems*, 5(1), 186-202.
- UN-Habitat. (2007). *Slums of the World, The Face of Urban Poverty in the New Millennium*. Nairobi: UN-Habitat Journal, Vol. 6 (3) 365-380.
- Vitalis, E. N., Nwamekwe, C. O., Chidiebube, I. N., Chibuzo, N., Nwabunwanne, E. C., & Ono, C. G. (2024). APPLICATION OF MACHINE-LEARNING-BASED HYBRID ALGORITHM FOR PRODUCTION FORECAST IN TEXTILE COMPANY. *Jurnal Inovasi Teknologi dan Edukasi Teknik*, 4(12), 1-9