

AN ASSESSMENT OF DETERIORATING URBAN ENVIRONMENT OF INFORMAL SETTLEMENTS ALONG THE BUFFER ZONE OF THE FEDERAL POLYTECHNIC ADO-EKITI, NIGERIA

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Abstract

The rate of population growth and rapid urbanization all over the world has made housing problem a global issue, confronting both the developed and developing countries although with varying degree of severity. The aim of this research work is to assess the housing conditions in terms of overcrowding, inadequate infrastructural facilities, physical conditions of the buildings, surrounding environmental quality and socioeconomic characteristic of the residents, along the buffer zone of the Federal Polytechnic Ado Ekiti. The area was digitized through Google map. Housing and population survey revealed a total population of 1860 inhabitants in the area. According to Neuman (1991), larger population permits smaller sampling ratio for equal good samples. Therefore 10% of the 1860 people were sampled given 186 copies of questionnaire that were administered; while data analysis utilized simple descriptive statistics such as frequency counts and percentages. Findings revealed that, the presence of illegal occupants has implications for infrastructure and services, with inadequate sanitation facilities, overburden public utilities, and the absence of essential amenities creating environmental challenges for both residents and the host institution. Policy measures were recommended based on research findings to improve on the development planning of the area.

Keywords: Buffer zone, Population, Housing conditions, Illegal occupants, Overcrowding.

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1. Introduction

Urbanization in Africa has been on the rise, leading to the emergence of informal settlements. These settlements are often characterized by poor housing conditions, inadequate infrastructure, and lack of basic services, leading to poor living standards for the residents (Owuor, 2017). Informality and illegality in human settlements have been the subject of academic and policy debated since the turn of the 21st century. Bolanle Wahab (2017), said, informal settlement issues have attracted more attention of governments and development agencies in recent times, because of the effects on people and national economy. according to him, informal settlements, which are found in both rural and urban settings, are seen more as the fallout of rapid and uncontrolled urbanization, as manifested in their extemporaneous growth both in number and spread in most cities of the world.

The current scale of urbanization has outstripped the capacity of urban managers to provide and sustain adequate and functional public health facilities, physical infrastructure, environmental safety and economic vitality in the cities. This consequences are reduction in housing quality and quality of human life in general these. These have led to high proportions of informal settlements, also referred to as slums, shantytowns, barrios and favelas, in the marginal, leftover land of most cities, especially in the developing world (Karlsson, 2012).

The rapid urbanization of Ado-Ekiti, Nigeria, has led to the proliferation of informal settlements along the buffer zone of the Federal Polytechnic Ado Ekiti, resulting in a deteriorating urban environment characterized by poor housing, inadequate sanitation facilities, limited access to basic services, and inadequate infrastructure. This situation has significant implications for the health and well-being of the inhabitants of these settlements.

The buffer zone of The Federal Polytechnic Ado Ekiti, which is located in the outskirts of the city, has not been spared from the proliferation of informal settlements. The buffer zone is an area of land that surrounds the Polytechnic and is designated as a green belt to protect the Polytechnic from encroachment by informal settlements. However, due to the high demand for housing, many people have settled in the buffer zone, and this has led to the deterioration of the urban environment in the area. The deteriorating urban environment of informal settlements along the buffer zone of The Federal Polytechnic Ado Ekiti has significant implications for the health and well-being of the inhabitants of these settlements. It is therefore necessary to undertake a study to identify the factors contributing to the deterioration of the urban environment in these settlements and to

propose sustainable solutions to improve the situation.

2. Literature Review

2.1 Informal Settlements

Although the economy, employment and poverty were the starting point of discussions of informality in the 1970s, the literature has expanded the term to now cover physical development issues or the non-economic aspects of rural and urban settlements, such as informal housing, land or property development Bolanle Wahab (2017) in (United Nations, 1997; Hasan, 1998; Huchzermeyer, 2001; UN-Habitat 2003; Ogundiji, 2006; Wahab and Agbola, 2017). Durand-Lasserve (2006) avers that the term “informality” raises the same definitional problems for human settlements as when it is applied to economic activities and to employment, with negative definitional connotations. While the main characteristics of informality are known, the borderline between formal and informal remains blurred. A settlement with the same characteristics regarding land, urban planning and housing, depending on the contexts and public authority interpretations, can thus be considered either as formal or informal.

Informal settlements also referred to as squatter settlements and shantytowns (Tipple, 2000; (Simone, 2001) are human habitations where groups of people live on land to which they have no legal claim or where home construction and land subdivision procedures are performed without the consent of the proper planning authorities and hence do not follow prescribed codes and regulations (Hasan, 1998), Informal settlements are illegal development which can be a form of real estate speculation for all income levels of urban and pen-urban residents, including both the affluent and the poor (Potsiou and Boulaka, 2012). Wahabe Agbola (2017) opine that some, but not all, informal settlement processes are illegal. Informality can arise when land is occupied or developed before the area is planned (that is, when development precedes the preparation and approval of layout/development plans or the provision of infrastructure). Pre-colonial settlements and many post-colonial small towns and rural settlements in Nigeria and elsewhere fall within this category of informality. The lands and buildings are occupied legally, but there is an absence of development (master) plans to direct the growth and development of the settlements.

Similarly, slums are often perceived to be informal settlements because they exhibit similar characteristics, especially lack of planning and development permit. Roy (2009) describes slums as the most deprived and excluded form of informal settlements characterized by poverty and large agglomerations of dilapidated housing often located in the most hazardous land. UN- Habitat defines slums as contiguous settlements where inhabitants are characterized as having: (i) insecure residential status; (ii) inadequate access to safe water; (iii) inadequate access to sanitation and other basic infrastructure and services; (iv) poor structural quality of housing; (v) overcrowding (UN-Habitat, 2003). However, Economic Commission for Europe (ECE) (2008) argues that, in many parts of the ECE region, informal settlement housing does not necessarily equate to slum dwellings because, although many informal housing settlements lack secure tenure, some settlements which have evolved without the proper planning permit on illegally subdivided land have good quality housing, serviced by infrastructure but lack government documents, such as development permits or land registration.

2.2 Settlements for Vulnerable Groups

Some informal settlements in Nigeria are creations of the federal, state or local governments which established them for vulnerable groups as a rapid response to emergency situations or crises (conflicts, fire or flood disasters) in different parts of the country. The various camps currently occupied by refugees and internally displaced persons (IDPs) in the north-eastern part of Nigeria and other conflict-ridden areas, or those occupied by flood victims in Lagos and Ibadan in 2011 and 2012, and in Delta, Bayelsa and Benue States are squatter settlements. . These “new” settlements often have extremely poor conditions (Ogunmorayo, 2015) and exhibit all the physical, social, environmental and poverty-related characteristics of the very old informal settlements as they attract more people who are seeking free feeding and protection which the camps offer. In 2015, there were close to 2 million refugees and IDPs in Bornu, Yobe and Adamawa states made up 1.2 percent of the total population (IDMC, 2015).

2.3 Characteristic Features of Informal Settlements

Informal settlements may contain a few houses or several hundreds of them. Whatever the number and land area covered, informal settlements are generally characterised by features including uncontrolled and unhealthy population densities, illegal subdivision of buildings, inadequate dwellings, and inadequate infrastructure and services in this paper, the characteristic features of informal settlements are discussed in the context of their physical, environmental, social, economic, and structure.

2.4 Physical Characteristics

Informal settlements are characterized by high population densities (Kamalipour and Zaroudi, 2014); lack of secure tenure and effective administration by the municipality (UN-Habitat, 2003); rapid, unstructured and unplanned development (Napier et al., 2000), installment housing not being constructed according to proper layout plans (Dovey, 2013), and plots usually accommodating more than one household (sometimes up to 35 households) (Dovey and King, 2011). Housing in informal settlements are also characterized by natural ageing of the buildings, lack of maintenance and neglect, wrong use of the buildings and poor sanitation in the disposal of sewage and solid waste (UN bitat, 2003; 2007). They contain large agglomerations of dilapidated houses that are either permanent or temporal (Hakim, 2007), located in unsuitable environments, on marginalized and hazardous land (brownfields, railway reserves, steep riverbanks, steep slopes, canals, wetlands and floodplains, waste dumps and landfill sites or situated on top of hills) with poor infrastructure (e.g. roads, drainage, walkways) and services (e.g. solid waste collection) (Mardeusz, 2014) and poor access to health and education facilities. The land on which they are located is often an object of speculation of power-brokers (Bunnell, and Harris, 2012) and obtaining land for the construction of communal infrastructure (such as roads, drainage, water management facilities, water kiosks and public sanitation facilities) is usually a challenge (Durand-Lasserre, 2006). Owing to poor or lack of planning, public or green spaces are lacking.

2.5 Environmental Characteristics

Informal settlements usually lack or have limited access to basic services, such as safe water, proper hygiene and sanitation, as the existing infrastructure is usually in poor technical condition, not user-friendly and poorly managed (Guevara,2014). Residents rely on informal 'water and sanitation service providers (water resellers) with theft unregulated prices (Kamalipour, 2016). Drainage and solid waste management facilities are lacking (Angel et al., 2011). Where water supply and sanitation services are available, they are usually shared (Kamalipour, 2016), while the use of flying toilets is a common practice in areas with very high population densities (Roy, 2011), which exposing residents to diseases. Residents of Kpakungu in Minna, Niger State defecate openly and dump solid waste indiscriminately within their neighbourhood

2.6 Social Characteristics

The urban poor living in informal settlements lack access to services, safety nets and political representation (Duarte, 2009). The residents are constantly exposed to criminality, social exclusion and eviction. There are high levels of teenage pregnancy, alcohol and drug abuse as well as high levels of domestic violence and crime (robbery, theft, vandalism, prostitution etc.) in some informal areas (Ferguson, 2007). There are no public spaces for social interaction, networking and recreation but social cohesion in informal settlements tends to be higher than in planned low income settlements (UN-Habitat (2015a). Community participation in neighbourhood infrastructural development and provision of other community services is often lacking (Kamalipour and Peimani, 2015). Residents often lack information on many relevant issues and, as a result, many of them do not know their rights (UN-Habitat (2015b). Combined disadvantages to the residents, often defined along the lines of gender, age and ethnicity, create widening social differences between social groups, with low-income, single-parent or women- led households worst off (Kamal, 2016).

2.7 Economic Characteristics

Informal settlements are a vital element of the informal economy and real estate market (UN Habitat, 2003). Many residents of informal settlements lack security of tenure, are especially vulnerable to economic shocks, have low income levels (Duarte, 2009) and are constantly exposed to poverty. Many residents engage actively in the informal sector of the local economy and derive an income from small-scale businesses, trade and casual labour such as shop attendants, security guards, drivers and Waste collectors (Doyey, 2012; Wabab and Ola, 2016). Although many residents of informal settlements are often described as being very poor, the areas sometimes have pockets of well-to-do local entrepreneurs and landlords (Bunnell and Harris, 2012) who reside in good quality houses with own electricity and Water supply facilities and Waste collection arrangement. Housing and land in informal settlements are traded without the involvement of real estate agencies, registration in the cadastre and required payments of state taxes and dues (UN-Habitat, 2003). While this makes housing more affordable and reduces transaction costs, it cannot be mortgaged or used as collateral for other business purposes, (Dovey, and King, 2011). The informality of the market is not attractive to the owners, nor is it to the lawyers, banks, insurance companies (Edensor and Jayne, 2012), architects, land and quantity surveyors.

3. Data Base Description

The target population for this study is the residents of informal settlements along the buffer zone of The Federal Polytechnic Ado Ekiti, Nigeria. According to the housing survey carried out, there are 186 houses in the study

area, with an average of 10 persons per house in the informal settlements. According to Newman. W. L (1991). Larger populations permit smaller sampling ratio for equally good samples, therefore 10% was used to determine the number of questionnaire to be administered, with an average of 10 persons per building of 186. The sample size was determined using a stratified random sampling technique.

Stratified sampling involves dividing the population into subgroups or strata based on certain characteristics (such as location within the buffer zone). A proportional number of respondents were selected from each stratum to ensure that the sample is representative of the population.

The table below illustrates the sample size distribution:

Table 1:

Stratum	Estimated Population	Sample Size (10%)
Stratum 1	500	50
Stratum 2	700	70
Stratum 3	660	66
Total	1860	186

Source: Field Survey, 2024

3.1 Sampling Techniques

The stratified random sampling technique was used to administer questionnaire to residents. Within each stratum, respondents were selected using simple random sampling. A list of houses within each stratum was obtained, and a systematic random sampling approach was used to selected households for data collection. This approach ensures that every 3rd houses household was selected, so that population coverage is adequately represented.

3.2 Method of Data Analysis

Collected data from the questionnaire was analyzed using statistical tools such as frequencies, percentages, and cross-tabulations. Descriptive statistics was used for demographic characteristics, causes of deterioration, effects on health and well-being, and preferences for potential solutions.

For qualitative data obtained from open-ended questions in the questionnaire, content analysis was applied to identify common themes and patterns in respondents responses. The data was coded and categorized to provide meaningful insights into residents' perceptions and experiences regarding the deteriorating urban environment.

3.3. Materials and Method, Research Locale

The study area is located along the buffer zone of The Federal Polytechnic Ado Ekiti, Nigeria.

The Institution is located in Ado-Ekiti, the capital city of Ekiti State, Nigeria. The institution is situated on a large expanse of land in the southwestern part of the city along Ado-Ikare road, about 8 kilometers southeast of the city center.

The latitude and longitude of the Federal Polytechnic Ado-Ekiti are approximately 7.6577° N, 5.2847° E of the Greenwich Meridian.

The Institution is located in the South-Western part of Nigeria, approximately 150 km Northwest of Lagos, the commercial capital of Nigeria. The city is situated at an altitude of about 400 meters above sea level and covers an area of approximately 114 square kilometers. The climate is tropical with two distinct seasons - rainy and dry.

3.3.1 Socio-economic Characteristics

Ado Ekiti has a predominantly agrarian economy, with agriculture being the major occupation of the people. However, the city has experienced significant urbanization in recent years, leading to the emergence of informal settlements along the buffer zone of The Federal Polytechnic Ado Ekiti. The informal settlements are characterized by poor housing conditions, inadequate basic amenities, and limited access to social services. The majority of the inhabitants of these settlements are low income earners who work in the informal sector. The study area is also characterized by a high population density and a lack of proper urban planning and management.

These factors contribute to the deteriorating urban environment in the study area.

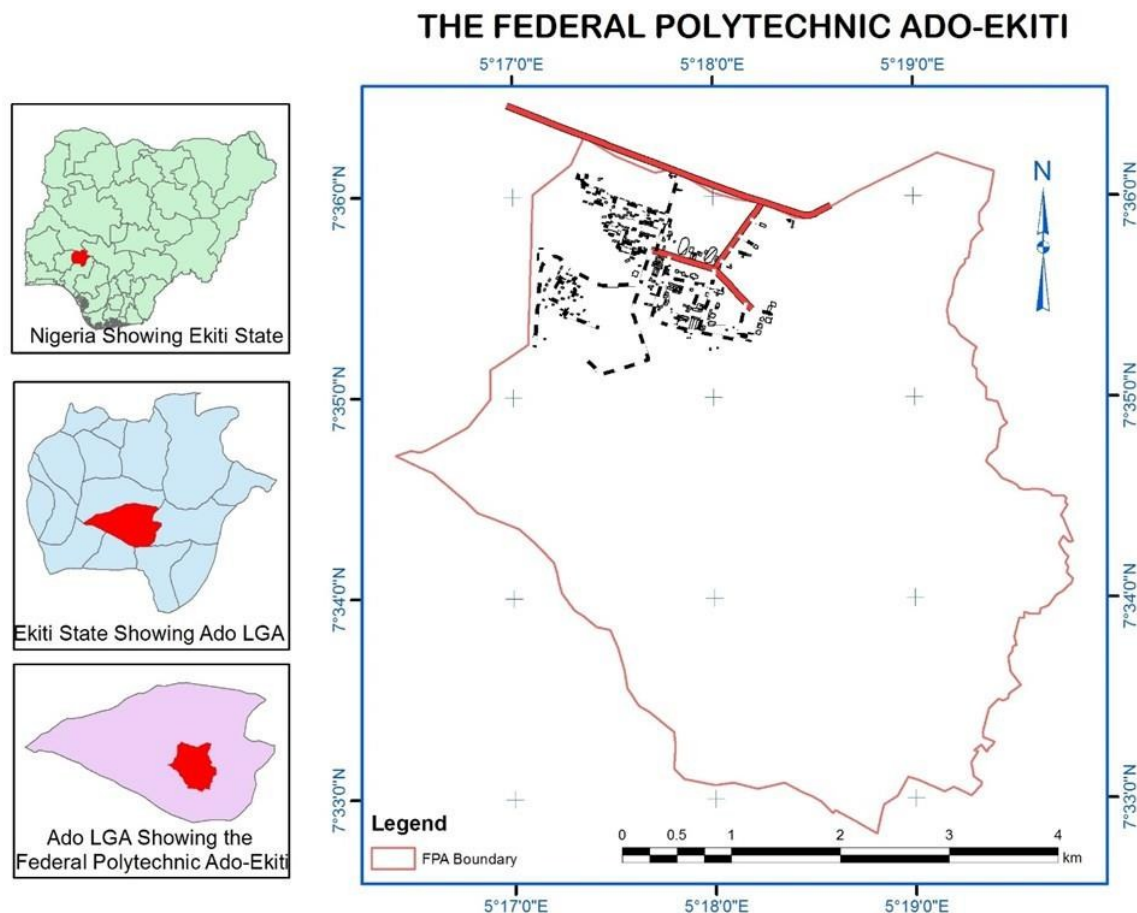


FIGURE 1: MAP SHOWING THE STUDY AREA

Source: Google 2024.

4. Results and Discussion

Findings on the socio economic characteristics of the people in the study area revealed 55.3% were females while 44.7% were male, while 64.3% were married farmers, 25.5% were traders and 63% servants working in both private and government establishments Artisans (who were self-employed) rendering service like plumbing, auto mechanic, vulcanizing, carpentry, hairdressing etc. made up 85.3% while 14.7% were unemployed. 6.8% of the respondents had tertiary education ranging from National Certificate of Education (NCE) to Degree level; 41.3% stopped at secondary level, 16.5% had primary education while the remaining 35.4% were illiterates. The income level of the respondents revealed that many of them were poor as 36.4% earned below ₦30,000 per annum, 23.6% earned between ₦30,001- ₦50,000, 22.4% between ₦50,001- ₦80,000 while 17.6% earned between ₦80,001- ₦100,000. Electricity power supply in the study area was very poor as 72.6% of the respondents use generator as source of power supply, 25.4% use Electricity Distribution Company (BEDC) while 2% use solar power. There is no major market or industry in the settlement. Research findings showed that 86.4% of the respondents sell their produce in front of their buildings while the remaining 15.4% sell in urban centre (Ado-Ekiti).

There are no recreational facilities in the study area 11.6% spend their leisure time and weekend within the settlement while 88.4% recreate in Ado-Ekiti.

Assessment of infrastructural facilities in the study area revealed acute shortage. Water supply is regarded as a proxy for weather the sources of water available for the dwellers of housing within the study area is safe within the study area. 92.5% and 1.6% rely on open well water and water vendors respectively while 5.9% made use of

water from borehole. This connotes that majority of the dwellers of the study area are not having access to safe water for use within the houses. There is no proper health facilities in the study area. There is no clinic or health centre in the entire area. 33.9% of the respondents have access to medicine shops while 66.1% do not have access to it. The condition of structure and materials of housing within the study area is not conducive for safe habitation due to poor quality materials used in the construction of the houses and dilapidated state of the building components. Majority of the buildings in the area have no access to vehicular traffic. The buildings were constructed without any adequate planning standard.

5. Conclusion and Recommendations

The study found that the deteriorating urban environment in informal settlements along the buffer zone of the Federal Polytechnic, Ado-Ekiti was associated with several health risks, including malaria, diarrhea, respiration diseases, and skin diseases. Majority of the respondents believed that the government had not provided adequate infrastructure and services to address the situation.

The policy recommendation is to relocate all the inhabitants of the study area to a new location well planned with all necessary infrastructural facilities for a sustainable human settlement. The buffer zone will be revealed to its natural environment to serve its purpose e.g planting of trees and provision of other facilities to create aesthetic environment to have good scenery.

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