

Public Education on the Relationship of the Scarcity of Adequate Housing in Squatter Settlements to the Economic and Health Status of Squatters

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Abstract

This paper enlightens the public on the relationship of the scarcity of adequate housing to the economic and health status of the residents of squatter settlements in Onitsha metropolis. Three (3) areas in Onitsha with squatter settlements were considered. These areas are Okpoko, Odoakpu and Fegge. Secondary and primary sources of data were used as means of getting information used for the purpose of the research work. Primary sources included Questionnaire administration, personal interview and direct observation while secondary data sources were online publications. About four hundred (400) questionnaires were distributed in the three residential areas, but only three hundred and sixty seven (367) questionnaires were duly completed utilized for analytical purpose. For the purpose of this research, the use of chi-square method for the test of the null hypothesis (H_0) which states that there is no significant relationship between inadequate residential areas and the economic situation of the residents in the study area was adopted. After testing the hypothesis, the result showed a calculated value of 32.53 against a table value of 0.352 at a 95% level of significance. The null hypothesis (H_0) was rejected in favour of the alternative hypothesis (H_1) which states is that there is a significant relationship between inadequate residential areas and the economic situation of the residents in the study area. It shows that most people live in squatter settlements owing to their low income earnings. Table 5.4 also reveals that squatter settlements are characterised by pollution from waste dump site and health problems. Based on the findings, it is recommended that government should embark on massive construction of low-cost housing units that would be affordable to the low income earners in Onitsha metropolis. It should be mandatory for government at all levels to embark upon public housing programmes. The programme should integrate government's incentives to enable families to acquire their own houses and the housing development should be monitored to meet the accepted standard of sustainable housing infrastructure. The government should also enforce a downward review of loan interest rates by mortgage banks to housing investors.

Keywords: Education, Health, Environment, Settlement, Squatters.

1. Introduction

A squatter settlement can be a residential area in an urban locality inhabited by the very poor who have no access to tenured land of their own or without the consent of the land owner, and hence "squat" on vacant land, either private or public. As these settlements are growing illegally on vacant lands, therefore, urban policies are not very active regarding the development of these areas. The simple shelters that the slum dwellers construct with the help of their rudimentary building skills can be erected and re-erected at short notice. Cities like Mumbai, Dhaka, Caracas; also Bogotá, Mexico City, Cairo, Lagos, Johannesburg are some of the examples where growth of squatters and slums are taking on such a fast pace that they are encroaching on a significant portion of the urban fabric. It is further projected that in the next 30 years, the global number of slum dwellers will increase by approximately 2 billion, if no decisive action is taken. National approaches to squatter settlements have generally shifted from negative policies (such as forced eviction, benign neglect and involuntary resettlement) to more positive policies (such as self-help and in-situ upgrading, enabling and rights-based policies) (United Nations Center for Human Settlements (UN-Habitat) (2003).

1.1 Brief historical background of squatter settlements

Squatter settlements have been in existence over a long time. The term "squatter settlement" is a more recent western-initiated development, which came about by the writings of Charles Abrams and John Turner and particularly during and immediately after the Habitat Conference of 1976 in Vancouver, Canada. This delineation of such informal or spontaneous settlements as "squatter" settlements represented a growing change in attitude from outright hostility to that of support and protection (United Nations Centre for Human Settlements, 1976).

Nigeria has been struggling to ensure qualitative housing developmental control through urban planning but the solution to the problems of urban planning still seems elusive in Onitsha and many other urban areas in

Nigeria (Amujiri 2001).

The Squatter settlements in 21st century urban cities are inevitable phenomena. Living condition in these settlements suffer from overcrowding, inadequate accommodation, limited access to clean water and sanitation, lack of proper waste disposal system and deteriorating air quality (Taher, M. T, and Arefeen, I. 2014).

1.2 Statement of the research problems

The characteristics problems associated with squatters and slums vary from place to place. Slums are usually characterized by urban decay, high rates of poverty, and unemployment. They are commonly seen as "breeding grounds" for social problems such as crime, drug addiction, alcoholism, high rates of mental illness, and suicide. In many poor countries they exhibit high rates of disease due to unsanitary conditions, malnutrition, and lack of basic health care. In spite of all these issues, people choose to live in squatter settlements for many reasons. The prime reason is the inability to afford any other type of accommodation and the freedom from rent and civic obligations. "The Challenge of Slums: Global Report on Human Settlements 2003"; the largest study ever done by the United Nations Human Settlements Program (UN-Habitat) found that urban slums were growing faster than expected. The number of people living out their days in the squalor of a slum is almost one billion; one out of every three city dwellers, a sixth of the world's population. Without radical changes, it is believed that the number could double in 30 years. By 2050, according to the report, there may be 3.5 billion slum dwellers, out of a total urban population of about 6 billion. Squatter settlements in urban areas are inevitable phenomena as long as urban areas offer economies of different scales as means for improving quality of living and environment for millions of poor in developing areas of the world. Large cities will always continue to grow- attracting migrants from rural areas mainly, and also from underdeveloped urban areas. This trend of rural-to-urban migration has led to the result of more squatting in urban regions, particularly in the last three decades. Squatter and slum settlements have formed mainly because of the inability of city governments to plan and provide affordable housing for the low-income segments of the urban population. Hence, squatter and slum housing is becoming the housing solution for this low-income urban population (United Nations Center for Human Settlements, 2003).

1.3 Aim and Objectives of the study

The aim of the study is to evaluate the conditions of housing in the squatter settlement in Onitsha metropolis with the objective of:

- a. determining the level of severity of environmental issues in the study area
- b. understanding the relationship between the economic status of squatters and their choice of residents in squatter settlement,
- c. recommending the best feasible strategy to solve the problems of squatter settlement in Onitsha Metropolis area and hence create an enabling environment that will enhance the property value in the area.

1.4 Research Questions

The following research questions are structured for the purpose of this study.

- What are the environmental problems associated with squatter settlements in Onitsha?
- Does any relationship exist between the socio-economic situation of squatters and adequate housing infrastructure?
- What are the ways of ameliorating squatter settlement development in Onitsha metropolis?

1.5 Research Hypothesis

The following null hypothesis has been formulated to guide the study.

H₀: There is no significant relationship between inadequate residential areas and the economic situation of the residents in the study area.

1.6 Justification of the study

Squatter settlement is associated with social problems such as rape, burglary, drug addiction, alcoholism, high rates of mental illness, poor sanitary conditions, and ill-health. There is the need to institute change in the Slum settlement in Onitsha as it is the economic hub of Anambra State.

1.7 Significance of the study

This research will help in solving problems associated with squatter settlement in Onitsha and will be beneficial not only to the resident living in a squatter settlement but also to other resident living in non squatter settlement, the adjacent local government areas, the state government and the federal government.

2. Literature Review

This chapter gives the review of the existing literature associated with squatter settlement.

2.1 Features of squatter settlement

Squatter settlements are characterized by unauthorized use of vacant public or private land, illegal subdivision and/or rental of land, unauthorized construction of structures and buildings, reliance on low cost and locally available scrap construction materials, absence of restrictive standards and regulations, reliance on family labour and artisanal techniques for construction, non-availability of mortgage or any other subsidized finance (Laquian, A.A., 2003).

Olotuah (2005) stated that high cost of housing and lack of good financial schemes and the increasing population have forced people to live in substandard housing and unhealthy conditions giving rise to informal settlement which is also known as squatter settlement.

Majale (2002) observed that squatter settlements in Nigeria are increasing and posing serious problems to their own personal life and health. Slums and squatters are experiencing a massive change in the housing quality as they retain in the settlements that are characterized by numerous problems such as overpopulation, inadequate basic amenities and non-conventional housing.

According to UN-HABITAT (2003), squatter settlements are often studied in the context of informal housing, recognizing the fact that they incorporate predominantly informal housing development. The squatter settlements range from sub-standard slums to housing that does not have the proper development permit. Informal housing can be described as housing that does not conform to the laws and regulatory frameworks set up in a particular city. Squatter settlements are mainly characterized by informal land tenure, inadequate access to basic services, both social and physical infrastructure and housing finance. Other characteristics of squatter settlements include Lack of secure tenure, Housing that contradicts city by-laws, Housing built on land not owned by the housing owner, Lack or inadequate access to basic public services, Substandard housing and inadequate building structure, Illegal subdivision of buildings, Poverty, criminality and social exclusion, Unhealthy living conditions and hazardous location.

2.2 Causes of squatter settlements

Squatter and slum housing is becoming the housing solution for this low-income urban population. According to United Nations Center for Human Settlements (2003), the prevailing factors causing squatter settlements are:

- Poverty.
- Rapid urbanization and influx of people into urban areas.
- War, natural disasters and earthquakes leading to massive movement of people to places of opportunity and safety.
- Ineffective housing policies.
- Inefficient public administration, inappropriate planning and inadequate land administration tools.

3. Study area

This section presents the physical set-up such as the location, topography and vegetation, climate, population and socio-economic set up of the study area.

3.1 Physical and socio-economic set-up of Onitsha metropolis

Onitsha, the gateway to Eastern Nigeria and economic nerve center of Nigeria is located on latitude 6.1413° N, 6.8029° E in the Anambra North senatorial zone of Anambra state. It occupies the Eastern bank of River Niger. Onitsha is strategically located and accessed through the East-West national main road from Lagos through Benin which links the Eastern North-South route via the Niger Bridge at Onitsha. Onitsha, is known for its river port, and as an economic hub for commerce, industry, and education. Onitsha as at 2016, had an estimated urban population of 7,425,000. The indigenous people of Onitsha are Igbo and speak the Igbo language. The Onitsha people like to be referred to as Ndi Onicha. The main concentration of population and industrial activity and the areas showing the greatest potential for growth are situated along this transportation axis. Her location, which combines both roads and waterways access points, makes her to be one of the four main potential industrial and commercial growth areas in Nigeria. It occupies a landmass of about 28.91km². It is bounded in the North by Idemili local Government and in the south by Asaba through River Niger, and also in the west by Ogbaru (Demographia 2016).

Onitsha has grown to become one of Nigeria's most significant market towns and its Main Market, one of the largest markets in West Africa, a center point where billions of naira are transacted every day (Nwolisa Okanga, Eloka C. P. 2003)

4. Research methodology

This chapter shows the materials and methods for the determination of sample size, data analyses and testing of the hypothesis.

4.1 Research design

It describes the data needs of the study and the procedures for determining whether the hypothesis is true or false.

4.2 Data needs of the study

The data needed for this research includes age, sex, educational qualification, demographic data, economic data, and environmental data.

4.3 Sample Size Determination

According to Demographia (2016), Onitsha metropolis had an estimated [urban](#) population of 7,425,000 as at 2016. The sampling population for questionnaires distribution was selected from the total population using Taro Yamane's (1967) formula which is stated below as;

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

Where; S_n = Sample size

N = total population

e = error factor (0.05)

$$S_n = \frac{7,425,000}{7,425,000 \times 1 (0.05)^2}$$

$$S_n = \frac{7,425,000}{7,425,000 (0.0025)}$$

$$S_n = 400$$

Therefore, a total of 400 were represented as the sample size.

4.4 Sampling techniques

Three (3) areas in Onitsha with squatter settlements were considered. These areas are Okpoko, Odoakpu and Fegge. About four hundred (400) questionnaires were distributed in the three residential areas, but only three hundred and sixty seven (367) questionnaires were utilized for analytical purpose being the number that was duly completed by the respondents. About thirty six (33) questionnaires were not used for analytical purpose, due to improper completion, provision of fiction addresses and some were not returned.

Table 4.1: Distribution of sample size

Study area	Questionnaire administered	Questionnaire completed	Percentage (%)
Okpoko	120	106	28.85
Odoakpu	130	128	34.89
Fegge	150	133	36.26
Total	400	367	100

Source: Researcher's Field survey, (2017)

5. Data Presentation and Analyses

This chapter analyzes the data collected through questionnaire and tabular presentation

Table 5.1: Educational Level of Respondents

Level of education	No. of respondent	Percentage %
Primary school Certificate	164	44.69
Secondary school Certificate	139	37.87
Tertiary school certificate	41	11.17
Informal Education	23	6.27
Total	367	100

Source: Researchers field survey (2017)

Table 5.1 indicates that 44.69% of the respondents was primary school certificate holders, 37.87% of the respondents was secondary school certificate holder, 11.17% of the respondents was tertiary certificate holders, while 6.27% of the respondent had informal education.

Table 5.2: Occupation of Respondents

Class	No. of respondent	Percentage (%)
Civil servant	92	25.07
Trader	126	34.33
Artisan	68	18.53
Unemployed	81	22.07
Total	367	100

Source: Researchers field survey (2017)

Table 5.2 indicates that 25.07% of the respondents was civil servants, 34.33% of the respondents was traders, 18.53% was artisan, while 22.07% of the respondents was unemployed.

Table 5.3: Monthly Income Range of Respondents

Class	No. of respondents	Percentage (%)
Less than N20,000	199	54.22
N 20,000-N40,000	98	26.70
N 40,000-N60,000	43	11.72
N60,000 above	27	7.36
Total	367	100

Source: Researchers field survey (2017)

Table 5.3 indicates that 54.22% of the respondents earn below N20,000, 26.70% of the respondents earn a monthly income between N20,000 and N40,000, 11.72% of the respondents earn a monthly income between N40,000 and 60,000, 7.36% of the respondents earn N60,000 and above.

Table 5.4: Environmental problems of squatter settlements

Class	No. of respondent	Percentage %
Pollution from waste dump	225	61.31
Health problems	142	38.69
Total	367	100

Source: Researchers field survey, (2017)

Table 5.4 indicates that 61.31% of the respondents agreed that pollution from waste dump site is the prevailing problem while 38.69% of the respondent believed that the health problem arising from pollution is the major environmental problem.

5.1 Test of Hypothesis

Table 5.5 shows the observed frequency (see Table 5.3) from which the expected frequency is formulated.

Table 5.5: Observed Frequency (FO)

S/N	Class of Income	Male	Female	Total
A	Less than N20,000	162	37	199
B	N20,000-N40,000	56	42	98
C	N40,000-N60,000	21	22	43
D	N60,000-above	14	13	27
	Total	253	114	367

Source: Researchers statistical analysis (2017)

To obtain the expected frequency (FE) the formula below was used.

$$FE = \frac{RT \times CT}{GT}$$

RT = Row total

CT = Column total

GT = Grand total

Table 5.6: Expected Frequency

Male	Female
$\frac{199 \times 253}{367} = 137.19$	$\frac{199 \times 114}{367} = 61.81$
$\frac{98 \times 253}{367} = 67.56$	$\frac{98 \times 114}{367} = 30.44$
$\frac{43 \times 253}{367} = 29.64$	$\frac{43 \times 114}{367} = 13.57$
$\frac{27 \times 253}{367} = 18.61$	$\frac{27 \times 114}{367} = 8.39$

5.2. Calculation of the Chi-square (χ^2)

$$X^2 = \frac{(FO - FE)^2}{FE}$$

Where FO = Observed frequency
 FE = Expected frequency

Table 5.7: Chi-Square Derivation

FO	FE	FO-FE	(FO-FE) ²	$(\chi^2) = (FO-FE)^2/FE$
162	137.19	24.81	615.54	4.49
56	67.56	-11.56	133.63	1.98
21	29.64	-8.64	74.65	2.52
14	18.61	-4.81	23.14	1.24
37	61.81	-24.81	615.53	9.96
42	30.44	11.56	133.63	4.39
22	13.57	8.43	71.06	5.24
13	8.39	4.61	21.25	2.53
Grand total				32.35

Grand Total of the table = the calculated value = 32.35

For the table value of χ^2 (a, df), where a = level of significance = 0.95,

Degree of freedom (df) = (R-1) (C-1)

and R = number of rows = 4

C = number of columns = 2

Degree of freedom = (4-1)(2-1) = (4-1)(2-1)
 = 3 X 1 = 3

At degrees of freedom =3, $\chi^2 = 0.352$ (from the Chi-square distribution table) at 95% level of significance. From the calculations above, the calculated value 32.35 is greater than the table value (0.352) at 95% level of significance. H_0 is rejected and H_1 is accepted. Therefore, it is deduced that there is a significant relationship between inadequate residential areas and the economic situation of the residents in the study area.

6. Conclusion

The research concluded that living in slum and squatter settlement is associated with low income earnings, poor water sources and high level of sanitation-related health problems in the study area. It is recommended that:

- Government should prioritize low-cost housing units development to other infrastructural development in Onitsha metropolis,
- Public housing development should be compulsory at all levels and at an affordable rates,
- There should be financial packages for investors willing to acquire their own houses,
- Housing development should be monitored to meet the accepted standard of sustainable housing infrastructure, and
- The government should also enforce a downward review of loan interest rates by mortgage banks to housing investors.

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