

# Abandonment of Housing Projects in Nigeria: Appraisal of the Environmental and Socio-Economic Implications

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## ABSTRACT

The rate of housing project abandonment in Nigeria is alarming and increasing by the day. Housing projects are supposed to be beneficial to both the individuals and society at large as it depicts the level of a country's development. But the incessant abandonment of these housing projects undoubtedly has some negative impact on the people, real property values, the construction industry and the built environment. This study aimed at reviewing the effects of housing project abandonment with the objective of identifying the causes in Akwa Ibom and Cross River States respectively. The study employed a combination of literature review, site visitations, discussions with focal group (occupants and host of abandoned housing projects) and quantitative research approach using Linkert Scale structured questionnaires. The questionnaires were distributed to respondents mainly professionals in the building industry as well as users of abandoned housing project using purposive sampling method. The data collected was analyzed using Relative Importance Index (R.I.I). Findings reveal that 38 causes of project abandonment and 22 negative effects of abandonment of housing projects include defacing the aesthetics of the urban environment, visual defects on the environment/project site; distortions of the landscape/urban planning, structural failure of building, environmental pollution, increased health problems, threat to lives/insecurity, and decreased economic activities among others. The study recommended availability of funds for project execution, proper costing and appropriate schedule of project duration, transparency in selection of competent and trusted contractors, involvement of stakeholders in project selection and approval, policy of continuity of project by successive administration.

**Keywords:** Abandonment, Akwa-Ibom, built environment, building industry, Cross River, housing project

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## I. INTRODUCTION

The Nigerian building industry is plagued with several challenges, the central being abandonment of projects across the towns and cities of Nigeria. As a developing country, Nigeria is witnessing several incidences of uncompleted and abandoned building projects both from the private individuals and governments at all levels. Abandoned building projects create a negative impact on the environment and people due to its adverse effects on the built environment as well as posing serious threat to security and welfare of live of the individual and the environmental sustainability [1], [2].

However, it has been discovered that the problem of abandoned housing projects is not only the identity of Nigeria but a global phenomenon which is harmful to the stakeholders and the environment. The planning and initial construction of housing projects apart from giving a new and valuable product and services to the generality of the people also gives visual impressions to the environment; hence when these projects are abandoned or uncompleted; the people's aspiration/expectations are dashed [3], [4].

When a building project manifest in the inability to deliver on schedule, projected cost, quality specifications and inability to satisfy the end users, that project is termed a failed project. In most cases, uncompleted and abandoned projects are components of failed projects. Any building project that is uncompleted and does not provide users complete satisfaction by not fulfilling the expected purpose is regarded as abandoned building project. Thus, an abandoned building project is any project in which the construction work is incomplete and suspended [1], [5].

Housing means a complete bundle of goods and services that enhance good living and does not only refer to buildings or shelters but a combination of both the buildings, services, utilities and other components of the environment that connect man with the environment thus providing comfort for humans [6], [7]. Therefore, in discussing the effects of abandoned housing projects, other form of services that make the houses functional and liveable such as drainages, roads, water supply etc will also be highlighted but emphasis will be placed on buildings of all categories namely residential, commercial, institutional and recreational.

The rate of abandonment of housing projects in developing countries including Nigeria is worrisome and

need to be urgently tackled as it is becoming a norm in our society eating deep into the national fabric.

Accordingly, it is no longer a surprise to see a project initiated and abandoned after the foundation laying ceremony. Thus, [8] expressed the worry that projects start failing and get abandoned from the initial stage of its construction both public and private building projects leaving the environment with a defaced landscape littered with several abandoned projects.

In Nigeria, initiation of development housing projects are no longer celebrated by the supposed end-users due to the pervasiveness of abandoned projects because from the onset, it is believed that the project will be uncompleted and abandoned. This is the highest level of distrust from citizenry to the government. Hence, [9] sum up this effect that sometimes, benefitting communities make projections about the outcome and probability of the project being out rightly abandoned by simply evaluating the reputation of the contractor selected to handle the project or the usual politicking of project by elected leaders.

Undoubtedly, abandoned housing projects create an unhealthy and unsafe environment. It is serious problem that need concerted effort and solution to reduce its incidence and put a stop to it. In Akwa Ibom and Cross River State, there are several uncompleted or abandoned housing projects all around the cities and towns ranging from privately owned or publicly owned housing projects including residential, commercial institutional and other forms of buildings. Therefore, this study appraised the causes of housing project abandonment and examines the negative effects of abandoned housing projects in the built environmental of Akwa Ibom and Cross River States respectively.

## II. LITERATURE REVIEW

The contributions of the construction and building industry to the growth and development of any nation are enormous and unquantifiable. This is because it plays a key role in the socio-economic improvement of countries globally [10]. Therefore, the availability and functionality of the infrastructure in any nation enhance the well-being of individuals and the built environment at large.

In developing nations, building projects that are meant to bring succour and improve the welfare of the populace are usually abandoned by government agencies to the detriment of the people. In Nigeria today, the rate of abandonment of building construction projects is rising and alarming and has become a source of concern to the people as even building projects are abandoned soon after commencement [9].

Project abandonment refers to a situation in which a client refuse to provide maintenance and working services to a building; the incompleteness and suspension of construction work in a project [9], [5]. An abandoned building project means any building project that is unusable, uninhabitable, non-functional and uncompleted.

Although the thrust of this study is not on the causes of housing project abandonment, it is important to outline the causes so to have a clearer understanding of the effects.

Several reasons have been adjudged to be responsible for housing project abandonment in Nigeria and other developing countries. Although, a few of these causes are natural and climatic factors such as death of client and poor weather conditions, which are unforeseen and beyond the control of humans, most of the major causes are purely controllable with proper planning and effective management of available funds in addition to prioritization. Several authors namely [11], [12], [13], [14], [15], [16] and [17] agreed that the major cause of housing project abandonment is lack of adequate funding, noting that the commencement and completion of any project is determined on the level of funding available.

The problem of inconsistencies in government policies due to regular change in government is another cause of project abandonment as successive administration abandons uncompleted projects from previous government and embarks on new projects for political and other reasons [18], [11]. In addition, interruptions and interference by community leaders, youth and other organizations in project developments in communities across the states of Nigeria is another major cause of project abandonment. Most times these categories of people demand for 'settlement' in form of compensation which is usually unreasonably high before projects are cited in their areas [11], [13], [19].

Other causes of housing project abandonment as outlined by various authors such as [20], [21], [22], [4], [23], [14] and [17] are: inadequate/improper planning; inflation; bankruptcy of contractor; variation of project scope; delaying in payment; incompetent project managers; wrong estimates; faulty designs; poor timing (poor estimation of project duration; poorly developed clients' brief and working drawings; unrealistic cost planning and control at the design stage; lack of organized work program planning and lack of stake holders' involvement among others.

Conversely, the negative impact of housing project abandonment cannot be underestimated as it affects the individuals, economy and the built environment. On the individuals, the wellbeing and health of inhabitants of abandoned housing projects are affected due to the health hazards posed by the environment as waste dump. Consequently, abandoned housing projects can cause common health challenges such as diarrhoea, typhoid fever, malaria and other dirt associated health problems to the inhabitants of the area [24]. On the environmental effect, [9] asserted that abandoned housing projects have adverse effects on the entire environment by defacing the aesthetics, making the abandoned sites vagrant's attractions and hideout for criminal activities, thereby posing a threat to the security of lives and the sustainability of the environment.

Economically, abandoned housing projects are a waste of valuable resources, causing decline in property value and loss of community aesthetics values [11], [25]. In their submissions, [19], [4] and [26] summed up the effects of abandonment of housing project generally to include reduction in employment opportunities, wastage of resources, decreases in tempo of construction activities, decrease in revenue accruable to government, disappointment of populace/users; lowering of living standard; pollution of environment; structural failure

(collapse of building), migration and difficulty in attracting foreign loans.

However, most of the researchers anchored their studies on the causes on abandoned projects only and offered possible solutions to the problems. But only few researchers have carried out study on the effects of project abandonment, hence this study reviewed in detail recent works of two authors based on their relevance to this study.

A study by [16] on the 'professional views on the causes and effects of construction projects abandonment in Ibadan, Nigeria is also worth reviewing. The study which was descriptive employed structured questionnaire administration with Linkert scale design approach and distributed to 70 consultants made up of Architects, Engineers, Quantity Surveyors and Builders. The data was analyzed using statistical formulae to calculate the relative importance index (RII). Findings of the study identified 23 important causes of abandonment of projects which include inadequate funding, payment remittance delay, death of client/owner and improper project design and planning among others. In addition, the study established the effects of abandonment to include loss of strength of structural members, visual defects to the surrounding site, hidden places for dangerous animals, pollution and marginalization of population. The authors recommended adequate funding of projects, adequate policies and its continuity by successive government and adequate planning of project with detailed design and costing.

Similarly, [26] carried out a study on 'Effects of Abandoned Urban Infrastructure on Environmental Development in Ogun State, the aim of the study was to examine the effects of abandoned infrastructure on the environment with the objective of identifying the causes and types of abandoned infrastructure in Ogun State, Nigeria. The study used research methodology of questionnaire administration and interviews to obtain data from estate surveyors, valuers, and end users (road users, students and residents of housing estates) which also form the focal group for the study. Descriptive analysis and the Relative Importance Index (RII) were employed in analyzing the data collected. Findings of the study revealed that environmental degradation, increase in health issues and decrease in business activities are among the ten effects of abandonment. The study recommends the cleaning of construction site and its environment, adopting public private partnership (PPP) in project execution and, use of turnkey project and stage-by-stage construction model.

#### *A. Effects of Abandonment of Housing Projects in Nigeria*

Based on project site visitations and discussions with stakeholders in the Building industry in addition to the view expressed specifically on the study of these authors namely; [11], [4], [15], [16], [5] and [26], this study therefore summarize the effects of housing project abandonment as follow:

- (1) Population of users getting disappointed of the proposed project
- 2) Lowering of the living standard
- 3) Wastage of valuable resources
- (4) Opportunities of employment become lower

- (5) Economic activities decrease
- (6) Decrease in the revenue accruing to government
- (7) Foreign loans are more difficult to obtain.
- (8) Wastage of equipment in site
- (9) Increase in final cost of project
- (10) Declining of the property values
- (11) Declining of the property conditions
- (12) Environmental pollution through garbage disposal
- (13) Structural failure of building
- (14) Visual defects on the environment/project site
- (15) Distortions of the landscape/urban planning of the environment
- (16) Insecurity of lives of due to its use as criminal hideout
- (17) Health problems
- (18) Defacing the aesthetics of the urban environment
- (19) Threat to the environment/homes to dangerous animals
- (20) Marginalization of the host population
- (21) Conflict between public administration and the private sector.
- (22) Lack of trust on the government by the citizenry

### III. METHODOLOGY

The study employed a combination of literature review, project site visitations and quantitative research approach using Linkert Scale structured questionnaires and discussions with focal group (occupants and host of abandoned housing projects). The literature review produced the basis for the meaning, causes and the effects of abandoned housing project in Nigeria. The first phase of the questionnaire preparation was the discussions with the focal group directly affected by the problem of abandonment which produced some other effects not listed in the literature. The additional information collected helped in the formulation of the questionnaire for administration as the second phase. Thus, 170 structured questionnaires centred on the effects of housing project abandonment were distributed to respondents mainly building clients, building contractors, architects, builders, surveyors and planners in both Akwa Ibom and Cross River States using purposive sampling method. The purpose of this phase of questionnaire administration was for the respondents to rate the effects of abandoned housing projects according to its significance.

A total of 125 of the questionnaires were returned representing 73.53%. A 4-point Linkert scale instrument as follows: Strongly Agreed (SA) = 4; Agreed (A) = 3; Disagreed (D) = 2; and Strongly Disagreed (SD) = 1. The data collected was analyzed using Relative Importance Index (RII) applying the adopted formulae:

$$R.I.I. = (4n_4 + 3n_3 + 2n_2 + n_1)/4N$$

Where:  $n_4$  = Strongly Agree (SA);  $n_3$  = Agree (A);  $n_2$  = Disagree (D);  $n_1$  = Strongly Disagree (SD);  $N$  = number of respondents.

### IV. DISCUSSIONS AND FINDINGS

Discussions with the focal group centred on the additional effects of housing project abandonment which were not

listed in the literature as well as the significance and rating of the effects on the individuals, the economy and the environment respectively. The discussions proved that the effects of abandoned housing projects in Nigeria in general and Akwa Ibom and Cross River States in particular were not exhaustive. Thus, in addition to the effects outlined by various scholars cited above, the study showed the effects to include distortions of the landscape/urban planning; lack of trust on the government by the citizenry; betrayal of citizenry by the govt or client; increased debt profile of contractor; frustration and death and re-awarding/variation of contract with increased project cost.

TABLE 1: Effects of Housing Project Abandonment

S/N	Effects of Abandonment	1	2	3	4	RII	Rank
1.	Disappointments of the end-users	0	10	20	95	0.920	7
2.	Lowering of the living std.	0	15	30	80	0.880	17
3.	Wastage of valuable resources	0	17	20	93	0.932	6
4.	Lowering of employment opportunities	0	10	30	85	0.900	14
5.	Decreased economic activities	0	5	45	75	0.890	16
6.	Decrease in government revenue	0	20	40	65	0.840	20
7.	Difficulty in obtaining foreign loans	10	30	35	50	0.750	22
8.	Wastage of equipment on site	0	12	33	75	0.846	19
9.	Increase in final cost of project	0	5	35	85	0.910	10
10.	Declining of the property values	0	10	26	89	0.908	11
11.	Declining of the property conditions	0	12	25	88	0.902	13
12.	Environmental pollution through waste disposal	0	5	23	97	0.934	5
13.	Structural failure of bdg.	0	5	25	100	0.950	3
14.	Visual defects on the environment/project site	0	5	20	100	0.940	4
15.	Distortions of the landscape/urban planning	0	0	20	105	0.960	2
16.	Criminal hideout posing insecurity to lives	0	10	33	82	0.894	15
17.	Health problems	0	5	33	87	0.914	9
18.	Defacing the aesthetics of the urban environment	0	0	15	110	0.970	1
19.	Hidden places for dangerous animals posing threat	0	0	40	85	0.920	7
20.	Marginalization of the host population	0	15	35	75	0.870	18
21.	Conflict between public admin and the private sector	0	25	35	65	0.830	21
22.	Lack of trust on the government by the citizenry	0	15	18	92	0.904	12

Source: Authors' Fieldwork, 2020.

Table 1 above shows the Relative Importance Index (RII) of the effects of housing project abandonment in Nigeria in general and particularly in the study areas of Akwa Ibom State and Cross River State respectively. These effects are both environmental and socio-economic in nature. The study confirmed that twenty-two (22) effects were of significance. These effects are negative and are rated based on their level of significance beginning from the most significance to the least significance as expressed by

the views of the respondents in the study areas. Defacing the aesthetics of the urban environment (R.I.I. 0.970) is ranked 1<sup>st</sup>; Distortions of the landscape/urban planning (R.I.I. 0.960 is ranked 2<sup>nd</sup>); Structural failure of building (R.I.I. 0.950 is 3<sup>rd</sup>); Visual defects on the environment/project site (R.I.I. 0.940 is 4<sup>th</sup>); Environmental pollution (R.I.I. 0.934 is 5<sup>th</sup>); Wastage of valuable resources (R.I.I. 0.932 is 6<sup>th</sup>); Hidden places for dangerous animals posing threat (R.I.I. 0.920 is ranked 7<sup>th</sup>); Disappointments of the end-users (R.I.I. 0.920 is ranked 7<sup>th</sup>); Health problems (R.I.I. 0.914 is ranked 9<sup>th</sup>); Increase in final cost of project (R.I.I. 0.910 is ranked 10<sup>th</sup>); Declining of the property values (R.I.I. 0.908 is ranked 11<sup>th</sup>); Lack of trust on the government by the citizenry (R.I.I. 0.904 is ranked 12<sup>th</sup>); Declining of the property conditions (R.I.I. 0.902 is ranked 13<sup>th</sup>); Lowering of employment opportunities (R.I.I. 0.900 is ranked 14<sup>th</sup>); Criminal hideout posing insecurity to lives (R.I.I. 0.894 is ranked 15<sup>th</sup>); Decreased economic activities (R.I.I. 0.890 is ranked 16<sup>th</sup>); Lowering of the living standard (R.I.I. 0.880 is ranked 17<sup>th</sup>); Marginalization of the host population (R.I.I. 0.870 is ranked 18<sup>th</sup>); Wastage of equipment on site (R.I.I. 0.846 is ranked 19<sup>th</sup>); Decrease in government revenue (R.I.I. 0.840 is ranked 20<sup>th</sup>); Conflict between public admin and the private sector, (R.I.I. 0.830 is ranked 21<sup>st</sup>) while Difficulty in obtaining foreign loans (R.I.I. 0.750 is ranked 22<sup>nd</sup>).

Findings revealed that the most significant impact or negative effects of housing project abandonment is on the environment. This is followed by health challenges/insecurity and threat to lives then followed by social-economic challenges. Some of the findings are in agreement with earlier findings by [4]; [16] and [26].

## V. CONCLUSION

The study identified that housing projects are abandoned everywhere in Nigeria in general and Akwa Ibom and Cross River States in particular. The study established that housing projects abandonment has negative impact on the people, the economy and the environment by making the environment unhealthy and unsafe thereby threatening the sustainability of the built environment. In general, the study has established that projects abandonment is a major contributing factor to both urban and socio-economic decay in the study areas.

However, the effects of housing project abandonment is basically classified as environmental, structural and socio-economic which means it affects the environment by defacing the aesthetics of the urban environment, distortions of the landscape/urban planning and environmental pollution through waste disposal. Structural effects are failure or decay of building component which leads to reduction in life span of the building making the building prone to collapse as well as decline in the property value. The socio-economic effects include disappointments of the end-users, lowering of employment opportunities, decreased economic activities, lowering of the living standard lack of trust on the government by the citizenry, declining of the property conditions and decrease in government revenue among others.

The study concludes that since it is evident that the major causes of project abandonment are connected with



finance, lack of trust/accountability, professional incompetence, political factors and lack of stakeholders' involvement in project selection, the study recommends as follows:

- i. availability of needed funds before initiation of particular housing project
- ii. Proper costing and appropriate schedule of project duration with due considerations of human controllable factors and uncontrollable/ unforeseen factors
- iii. Transparency in selection of competent and trusted contractors
- iv. Involvement of stakeholders in project selection and approval
- v. Policy of continuity of project by successive administration.

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