

**THE SOCIAL AND AESTHETICAL IMPACT OF ABANDONED  
BUILDINGS ON THE ENVIRONMENT OF OKENE LOCAL  
GOVERNMENT, KOGI STATE**

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**ABSTRACT**

This work probed into the reasons and causes of the emergence of abandoned buildings and importantly the effects they have on the visual, living, social and economical environment of Okene. It has also ascertained the impression people have about such structures including what should be done to check the ugly trend in mind that we are required to leave the environment better than we met it. Basically, this study found that substandard, dilapidated and abandoned buildings abound in the study area. They exert far-reaching effect on the environment. Considering the prevailing biting economic situation in our society, the various authorities responsible for enforcing development and construction standards generally adopt the practice of what is referred to as “Giving a human face to planning”. In other words they tend to ignore the emergence of these defective structures in understanding of the fact that the times are hard, hence, the continued existence of such structures at various parts of Okene. However, they ensure that the structures are not made solidly so as to be easily removed whenever a major development is to be embarked upon. This study has proposed that the planning authorities should ensure strict compliance to set standards, building projects be preceded by a well-articulated planning before actual commencement of work more so, consultation and use of relevant professional should be seen to be indispensable.

**Keywords:** Abandoned Buildings, Aesthetical, Environment, Social

**1. INTRODUCTION**

Okene is known to have cherishable residential character hence large number of housing demand, resulting to competitive housing demand (commercial residential, recreational etc.). Thus, in a bid to match this level of housing demand by both government and private sector, today, we have an unprecedented level of structures that are seemingly inconsistent with what should be found in 21<sup>st</sup> century environmental standing in many parts of Okene. This is coupled with the present concentration of attention on global variety of effects on the environment.

The environment is a system of its own. As a result, its degradation usually has consequences and implications. Thus, the appearance of buildings that does not meet up with standards as well as structures that is uncompleted and abandoned for several years are likely to constitute environmental problems. Environmental management means more than the control of nuisance as it involves a philosophical orientation entailing the conception of and planning for a livable environment. Defective structures usually constitute a betide for hoodlums and criminals, thereby threatening environmental safety and security, it would be recalled that environmental influences play a significant role in character molding of individuals when the totality of

buildings that fall into these categories are considered, the extent of their inherent potential to initiate environment degradation would then be appreciated (Yue *et al.*, 2024).

The prime focus of this work is on the effect of abandoned projects in the study area. To enhance this, the following specific objectives are being pursued as follows, To:

- i. examine the desire for a building projects
- ii. investigate the resource base and promoting of the project owners
- iii. study the problems in building projects
- iv. evaluate the factors of building abandonment
- v. determine the effects of building abandonment
- vi. study the response to problems of abandoned building projects.

## **2. REVIEW OF RELATED LITERATURE**

So much has been written and advocated by experts, researchers, environmentalists and even students on the burning issue of the environmental impact of defective buildings on the environment. It is statement of fact that environmental issues have become a global phenomenon. It is also known that buildings are significant constituents of the environment and exerts too much impacts, negative and positive on it (Awasho & Alemu, 2023).

In Nigeria, which is regarded as a developing country, the pressure for the improvement of various aspect of living is tremendous and economic development is always the highest priority of any government. The large increase in industries have brought about a huge increase in the quality of discharge and a wide variety of types of pollutants reaching the air and water bodies (Okoye *et al.*, 2023).

The situation would reasonably be meaningfully reserved through the process of continuous infusion of high-level project appraisal, project planning project development with professional expertise at all levels. Project planning and development as two inter-linked management functions are highly needed in such situations like new project development, the expansion, adoption or re-adoption, the re-structuring of existing projects for enhanced performance effectiveness, river basin and resources development in the evaluation, reactivation and revitalization of abandoned projects are ailing concerns.

### **Building Regulations**

This is a statutory instrument, which sets out the minimum performance standards for the design and construction of buildings. Buildings regulations are made to ensure the health, welfare and convenience of people in or around buildings. They also further the conservation of fuel and power and prevent waste, undue consumption, misuse or contamination of water. Building regulations specify minimum design and construction requirements for all components or material used in buildings (Babalola & Harinarain, 2024).

The regulations are supported by other documents, which generally give guidance on how to achieve the required performance standards (Umeokafor *et al.*, 2023). These other documents according to them include building standards and codes of practice. These are building regulations, which relate to a local authority of local government area of a country on some specific issues, which are unique to that area. This is known as building bye-law.

### **Building Codes of Practice**

These give recommendations for good practice relative to design, manufacture, construction, installation and maintenance of building and building materials with the main objectives of safety, quality, economy and fitness for the intended purpose each code of practice number is prefixed CP. They are non-statutory unless specifically referred to in the building regulations (Okieke *et al.*, 2023).

### **Building Standard**

These are publications issued by a country's standard institution which gives recommended minimum standards for materials, components, and design and construction practices. These recommendations are not legally enforceable but some of the building regulations may refer directly to specific building standards but accept them as deemed-to-satisfy provision (Olugboyega *et al.*, 2023).

### **Town and Country Planning Laws**

These are statutory instruments which regulate land by zoning land areas for specific types of development. They control types of occupancy of buildings, building height and density, building setbacks, floor area to plot ration and road networks. They are made to ensure healthy safety and welfare of the public and to create orderly development in both towns and rural areas. On enforcement of building regulations and byelaws, they were of the opinion that "The federal, all states ministries of works and Housing and Government should have a department specifically to enforce building regulations. All the relevant building professional should be in this department such as Architects, Engineers, Builder, and Quantity Surveyors" e.t.c. During construction, the officer in charge to ensure compliance with construction requirement should inspect the building regularly (Ogunseye, 2023).

## **3. METHODOLOGY**

Information used in this study area were gathered mainly from three sources which includes relevant documents (Published and unpublished); interviews/Discussion and survey questionnaire, personal observations were also made and photographs taken for usual illustration since it is often said that 'one picture is worth over a thousand words.

### **Data Required for the Study**

1. Demand for a building project
2. Remark base and permit of the project
3. Problems in building project
4. Forms of building abandonment
5. Offer of building abandonment
6. Solution to (3)

### **Method of Data Collection**

Were sufficiently close-ended to ensure unambiguous answers and consistency in responses. This is necessary so as to allow for the cross-checking response and comparison of findings.

### **Secondary Sources**

The principal sources of secondary data consist of published and unpublished related literature written by different authors. Hence, data from textbooks, newspapers, journal, magazines, encyclopedia and seminar papers e.t.c. on topics bordering on issues related to the present study were utilized here.

### **Research Approach**

The research methods were adopted in this work. These are: the observational research method. The first method was used due to the nature of the problem being investigated. It would be recalled that though a case study investigates a particular phenomenon, the researcher is expected to make a detailed (observational) examination and analysis of the single subject with a view to a general application of the finding(s) as appropriate. A case study research this is better approached through observations and interviews.

The survey approach became relevant as a result of the dearth of data on the subject matter here, which are the environmental impacts of defective structures. Moreover, findings and recommendations are to be narrated down to the particular phenomenon, as there is no room for much generalization.

### **Research Instrument and Techniques of Data Collection**

This study utilized the desktop review of related literature in view of the absence of specialized data. Interview and discussions were used to further illuminate the subject under investigation since they were carefully directed to the most relevant persons. Another major instrument used in sourcing primary data was the questionnaire. It was widely distributed so as to allow for an in-depth and reliable impression. Analytical tools such as chi-square ( $X^2$ ) distribution, percentage, etc. were also applied. As regards data collection. Three major techniques were used.

These are:

- Personal oral interviews/discussions
- Research questionnaire
- Personal observation by visiting affected structured and unpublished previous works.
- Locations and review of literature on related published and unpublished previous works.

### **Interview Questions/Discussions**

The interview questions were designed in such a manner as to correctly appraise the impacts of the defective structures on the environment of the study area. As pointed out earlier, most of the questions were close-ended as a means of eliminating vague and unclear responses. A good chunk of the information gathered came through formal oral interviews, which usually were arranged. And schedule in advance. Some others came through general oral discussions, which were informal and not pre-arranged. Both the interview and discussion responses form part of the data stock, which is subjected to appropriate analysis to aid a reliable conclusion.

**The Questionnaire**

This is the system of data collection where structured questions are administered personally by the researcher to respondents as appropriate. For the purpose of this research, a total of one hundred and fifty (150) questionnaires were administered on various respondents.

**Data Analysis Technics**

The selection of a primary method of investigation for a given problem is a key consideration to the investigator. The tools employed in analyzing data in this research are: statistical percentages, charts, frequencies and the chi-square ( $X^2$ ) test respectively. The percentage responses that attain an acceptance level of 50% and above are accepted as having attained the confidence limit while those below that percentage are deemed rejected.

The test of hypothesis tools are based on calculated and tabulated values. The chi-square distribution Analysis ( $X^2$ ). The chi-square test is an important tool in hypothesis testing. It is used when there is need to compare an actual or observed distribution with a hypothesized or expected distribution. This is often referred to as ‘goodness to fit’. Computation here is based on the differences between the actual and expected values. The formulae for the calculation of the chi-square ( $X^2$ ) which is used in testing the hypothesis in this study is given by

Where  $O_{ij}$  represents the observed frequency

$$X^2 = \sum \frac{(O_{ij} - E_{ij})^2}{E_{ij}}$$

“Expected “ and  
“ values of the random variable of sampling

approximated closely by the chi-square distribution.

Usually, the procedure is that in testing any hypothesis with the chi-square statistics, the null hypothesis ( $H_0$ ) is accepted if the Chi-square value as computed through the above formula is greater than obtained from the chi-square table, and vice versa. Also, the acceptance of the null hypothesis implies the rejection of the Alternative hypothesis ( $H_1$ ).

**4. PRESENTATION AND ANALYSIS OF DATA**

Having collected necessary data for the purpose of this research the various data are presented in this segment and subjected to proper and systematic analysis. The questions contained in the questionnaire distributed were separately examined to determine the frequency of the responses and what they reveal concerning the matter being investigated.

**4.1 Locational Pattern of Defective Buildings in Okene L.G.A.**

Stocktaking of the structures that fall into the categories of buildings being investigated has been carefully taken in the three zones of Okene L.G.A. as tabulated here under.

Category of structure	Okene North	Okene South	Okene East
Substandard	26	51	97
Dilapidated	44	68	113
Abandoned	79	92	201
	<b>149</b>	<b>211</b>	<b>411</b>

Total of Substandard = 174

Total of Dilapidated = 225  
Total of Abandoned = 372

The above table thus indicates that a total of seven hundred and seventy-one (771) defective structures were identified in Okene LGA. This figure is made up of 26 substandard buildings in Okene Northern part, 44 dilapidated ones and 79 abandoned building projects. In Okene southern, it is 51, 68 and 92 representing substandard, dilapidated and abandoned building projects respectively while there are 97, 113 and 201 respectively for Okene Eastern part. Fig. 4.1 below shows the frequency chart of the trend of defective structures in Okene LGA.

#### 4.1.2. Test of Hypotheses

The purpose of testing an hypothesis is to aid the researcher in researching a decision about a population by examining the data contained in a sample from the population. A total of one hundred and fifty (150) questionnaire were distributed fifty (50) in each of three parts of the Local Government. Out of this numbers, one hundred and ten (110) were properly completed and returned, two (2) were improperly completed though returned, while thirty eight (38) were not returned. The respondents comprises 12 Environmentalist, 18 Planners, 10 Engineers, 9 Estate Surveyor, 11 Architects, 4 Lawyers, 6 Quantity surveyors, 5 Property owners, 6 land surveyors, 2 Sociologists, 3 Psychologist, 5 Policemen, 5 Students, 9 Civil servants, 4 Traders/businessmen and 3 others. The table below shows the summary of the response patterns as regards the research questionnaires.

**TABLE 1.1: Summary of Response**

Attribute	Okene North	Okene South	Okene East	Total	Percentage
Properly completed (positive view)	36	37	33	106	70.7
Properly completed (negative view)	1	2	1	4	2.7
Improperly completed	-	1	1	2	1.3
Not returned	13	10	15	38	25.3
<b>Total</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>150</b>	<b>100</b>

**Source:** Field Survey, 2023

It is pertinent to point out that the improperly completed and returned questionnaires are disregarded in the analysis. The answers to questions have been analyzed using simple percentage. The calculation of the percentage has also been done based on the responses from the property completed and returned questionnaire. Those having the same opinion to a particular question are divided by the number of respondents and multiplied by one hundred. Thus, percentage response is given by:

$$\frac{\text{Frequency of each opinion type} \times 100}{\text{Total number of respondents}}$$

Conclusions were then drawn from the opinion representing the majority. The chi-square ( $X^2$ ) statistical test has been used in separate testing of the relevant hypotheses in this study to ascertain their significance and validity.

#### 4.2.1 TEST OF HYPOTHESIS 1

The Null hypothesis ( $H_0$ ) here states that substandard buildings have no effects on the environment of Okene L.G.A.

Then the Alternative hypothesis (H1) states that ‘substandard buildings have effects on the environment of Okene L.G.A.

In conducting the test here, questions 11 and 14 in the questionnaire are resorted to since the questions appropriately suit the specific fact for which explanation is sought. The said question 11 goes thus: “What do you think is/are the environmental effect(s) of substandard buildings in Okene as regards the following:

The visual environment  the social environment  the living environment  Environmental safety  the economic environment

Question 14 on the other hand goes thus: “What is the general social impression about defective structures in the environment? Refer to the options in 11”.

A summary of the view expressed in the 110 questionnaire responses successfully obtained shows that a total of 106 respondents distributed within the three parts of the local government in the study area holds the views that are summarized as follows: substandard structures exerts negative effects on every aspect of the environment of Okene. The views generally agreed that:

- (a) The visual environment is soared and obliterated as the substandard structures constitutes destruction to environmental aesthetics particularly, and nature generally.
- (b) The social environment is checked and disharmonized as a result of dysfunction and hindering of the unique activities in the society.
- (c) The living environment is disrupted and threatened as vacuum which nature abhors is introduced.
- (d) Environmental safety and protection is threatened as these substandard structures are cherished bases and hide outs for hoodlums, hooligans, delinquents, rascals, the insane, destitute and such other dishonourable persons usually constitute themselves into notorious gangs and perpetrate malicious acts against the innocent and unsuspecting public. Only in May – August this year (2001), the mufti men killed over five notorious armed robbers traced to their hideouts at various states in Nigeria.
- (e) The economic environment is hampered as scare financial and other resources are unnecessarily tied down if not wasted in such unworthy ventures.

A test of significance as regards the effects of the expressed views in testing the first hypothesis is done below.

**TEST OF SIGNIFICANCE (1)**

**TABLE 1.2**

S/NO	Respondents	Observe Frequency (Oij)	Expected Frequency (Eij)	(Oij-Eij)	(Oij-Eij) <sup>2</sup> / Eij
1	Okene North	36	50	196	3.92
2	Okene South	37	50	169	3.38
3	Okene East	33	50	289	5.78
		<b>106</b>	<b>150</b>	<b>--</b>	<b>13.08</b>

**Source:** Field Survey, 2023

The degree of freedom (df) is obtained as follows:

$$(R-1) \quad (C-1)$$

Where R represents the number of rows and C - - - - Columns.

It follow therefore that the number of degrees of freedom in this case is given by  $(3-1) (4-1) = 6$ .

It would be recalled as earlier stated that the level of significance adopted for this study is 0.05. Now, looking through the chi-square table, the value of  $\chi^2$  at 6 degree of freedom and significance level of 0.05 is 12.592.

Thus,  $13.08 > 12.592$ .

### **DECISION**

Since 13.08 as computed above is greater than 12.59 as obtained from the critical value table (chi-square), it implies that the Null hypothesis is rejected and conclusion reached therefore that substandard buildings have negative effects on the environment of Okene L.G.A. Personal interviews held with relevant persons equally buttressed the facts that substandard buildings exerts varied negative effects on the environment.

Pat Onukwuli, a renowned valuer, declared as follows in an interviews: “Substandard structure threatens economic productivity, ecosystem, even human health and environmental concord”. He maintained that there is a direct relationship between the state of the environment and socio-economic development and assented to the fact that “ ..... It is no longer desirable that our cities be effectively managed but imperative”. Mall. Muhammed Ismail of the town planning authority Okene, disclosed in an interview that most residents in the government-reserved areas are in the habit of converting their garages and gatehouses into shops as against planning permission. According to him, what the ministry does in most of the occasions, especially where such act wouldn't have serious obstructive effect is to upgrade the planning approval of such premises to include the introduced shops.

In an answer to a question he explained that the ministry does this basically because of the fact that it appreciates the fact that the people are battling with a harsh economic crunch and as such does every possible thing to keep body and soul together. He noted that the ministry recognizes the fact that substandard buildings are environmentally unfriendly but stressed however that the ministry's hands get toed since it has no other option than to resort to the fact that planning must have a human face, especially as the environment is planned for man and not man for the environment. The ministry, disclosed, attaches so much importance to environmental aesthetic in planning.

The chairman, road transporter association told the researcher in an interview that logistic problems is the cause of the repeated failure of the planed re-location of all motor parks in Okene Urban to designated sits at Agassa and Obehira junction which are more of suburbs. He said that arrangements are presently at concluding stage to effect final movement of these motor-parks, pointing out the reason behind this effort is that this motor-park, which are usually



batchers, presently located haphazardly at every nook and cranny impairs the visual living and social environment of Okene. (See Plate 1.0).

**Plate 1.0:** Motor Park requires relocation.

The null hypothesis (H<sub>0</sub>) here states that dilapidated buildings have no effects on the environment of Okene L.G.A. the alternative hypothesis (H<sub>i</sub>) on the other hand states that ‘dilapidated buildings have effect on the environment of Okene L.G.A..

In verifying these hypotheses, the questionnaire responses to question 12 is used because it has a direct relevance to the issue being verified. The question states as follows: “Asses the environmental consequences of dilapidated buildings in Okene in line with the options in 11 above”. As a reminder, the options include: The visual environment t, the social environment, the living environment, environmental safety and the economic environment. Below is a tabulated summary of the questionnaire responses as regard question 12.

Attribute	Okene North	Okene South	Okene East	Total	Percentage
Positive	38	34	31	103	68.%
Negative	--	--	1	1	0.67%
Indifferent	1	--	1	2	1.33%

**Source:** Field Survey, 2023

As can be observed from the response pattern, the expressed views showed an overwhelming belief and sup of the fact that dilapidated buildings have negative effects on every aspect of the environment. The views saw dilapidated structures in the environment as death traps, which ought to be removed or rehabilitated before untold havoc is visited on unfortunate persons.

Summary put, dilapidated buildings and devalues the economic environment. A test of significance will now be conducted to ascertain the effect of the expressed views and the validity of the hypothesis.

## TEST OF SIGNIFICANCE

**TABLE 1.4**

S/NO	Respondents	Observe Frequency (O <sub>ij</sub> )	Expected Frequency (E <sub>ij</sub> )	(O <sub>ij</sub> -E <sub>ij</sub> ) <sup>2</sup>	(O <sub>ij</sub> -E <sub>ij</sub> ) <sup>2</sup>
1	Okene North	38	50	144	2.88
2	Okene South	34	50	256	5.12
3	Okene East	31	50	361	7.22
		<b>103</b>	<b>150</b>	--	<b>15.22</b>

**Source:** Field Survey, 2023

$$(R - 1) (C - 1)$$

$$\text{i.e. } (3 - 1) (4 - 1) = 6$$

The value of  $X^2$  at 6 degrees of freedom and significance level of 0.05 = 12.592. thus  $15.22 > 13.592$ .

**DECISION**

Since 15.22 (computed value) is greater than the 12.592 as obtained from the critical value table (chi-square), this implies that the null hypothesis is rejected and conclusion subsequently reached that dilapidated buildings has negative effects on the environment of Okene L.G.A.

Clinelo Mbachu, an environmentalist with Ekiti State Housing Development Corporation told the researcher in an interview that physically dilapidated structures are ‘anti-environment’ and could result from storms or extreme temperatures, plaster falling from the ceiling, peeled and cracked paint, evidence of termites e.t.c. She stated that dilapidated buildings get functionally obsolete and that more buildings are torn down than fall down.

**TEST OF HYPOTHESIS 3**

Here, the null hypothesis ( $H_0$ ) states that “Abandoned buildings have no effect on the environment of Okene L.G.A. Equally, the alternative hypothesis ( $H_1$ ) states that “Abandoned buildings effects on the environment of Okene L.G.A.

The validity of this hypothesis will be verified through and analysis of the questionnaire responses to question 13 which effects as regards the options in 11 above”.

The summary of the responses to the said question 13 is shown below:

**TABLE 1.5**

Attribute	Okene North	Okene South	Okene East	Total	Percentage
supportive	32	30	40	102	68%
Non supportive	1	--	1	2	1.33%
No comment	--	2	--	2	1.33%

**Source:** Field Survey, 2023

The trend of the responses as seen through the above table is basically a total agreement with the view that abandoned building projects have adverse effect on the environment of the study area. A good number of responses described the issue of building project abandonment as an unfortunate order of the times and attributed the anomaly to unfavourable economic conditions. Project abandonment brings negative effects to bear on every face of the environment remain as the unique visual environment is destroyed, the living and social environment are defaced. Environmental safety is left ungaranted while the economic and political environment remains suspect with comatose and inertia respectively.

Then as regards the cultural environment, some held the view that since cultural resources embraces all surrounding land, the implication is that whenever a building project is abandoned, there is every possibility of people using the site for agricultural and others uses thereby increasing potential vandalism of cultural resources. Cultural resources have been found to be non-renewable and very important with the realization that our environment and

civilization are the product of history. Possible effect on cultural resources includes inundation or disruption. The relevant test of significance is carried out as shown below:

**TEST OF SIGNIFICANCE (3)**

**TABLE 1.6**

S/NO	Observe Frequency (Oij)	Expected Frequency (Eij)	(Oij-Eij) <sup>2</sup>	(Oij-Eij) <sup>2</sup>
1	32	50	324	6.48
2	30	50	400	8.00
3	40	50	100	2.00
			--	<b>16.48</b>

**Source:** Field Survey, 2023

The value of  $\chi^2$  at 6 degrees of freedom and significance level of 0.05 = 12.592. Therefore, 16.48 > 12.592

**DECISION**

Since  $\chi^2$  value as computed (16.48) is greater than that obtained from the chi-square table (12.59), we reject the null hypothesis which states that ‘Abandoned buildings have no effects on the environment of Okene L.G.A.’ the alternative hypothesis is therefore accepted.

Interviewees equally expressed strong view that abandoned buildings in the environment is visually, socially, culturally and economically undesirable. In the words of Samuel Akuh of the Town-Planning Department, Bureau of Lands Okene. “My departments regrets the preponderance of abandoned building projects at various parts of Okene because it negates the kind of environment we have in mind”.

One wonders what purpose the Okene L.G.S. Building Byelaw serves. Section 51 of the said Byelaw provide that buildings approved construction within Okene must be completed within 24 months of the commencement of construction. This is meant to forestall project abandonment. Why then do abandoned buildings exist at every part of Okene? He attributed this to a tacit approval of officials of the various town planning authorities since developers are usually required to have different stages of building work inspected and approved by the authority before construction advance to further stage.

It is necessary to point out that all through these analyses, the dissenting (negative) view has been ignored since they are so insignificant and has no meaningful effect on the domineering (positive) views.

**4.1.3 FURTHER CAUSES AND EFFECTS OF DEFECTIVE STRUCTURES IN THE ENVIRONMENT**

In the words of Gray (1987):

“Whenever there are radical or fundamental changes or defects in the Architectural design of a building, then the building is either dilapidated or substandard”.

Several factors have been identified as responsible for having defective buildings in the environment. This study reveals the under listed causes of having defective structures in the study environment.

**LACK OF ADEQUATE PLANNING**

Planning is all embracing as it entails taking care of everything that has to do with the project in any way. Any project based on well conceived and adequately articulated planning is bound to succeed. Unfortunately, our people are yet to imbibe the culture and attitude of planning, hence they stumble into building projects recklessly and the next thing one finds is the project being abandoned mid-way and as such prone to dilapidation and fast obsolescence.

Planners contend that poverty underlies urban decay of cities. They explain that as city grows and develops, the tendency is for the central area uses to move into the surroundings districts with the resultant deterioration of the environment. The higher income group moves away from the affected area and the vacated property becomes occupied by those in the lower income braked who find it difficult to adopt property to the property as regards maintenance and management leading to the dilapidation of such property.

In the research questionnaire, a total of twenty-four (24) out of one hundred and six (106) respondents spotted poor project planning as the causer of having defective structures in the environment as indicated by their responses to question 10 which sought to know the reason(s) behind having defective building in the environment.

The table below gives a clearer illustration of this question 10 “what is your opinion is/are the reason(s) behind having such buildings in our environment?”

Poor project planning  Lack of funds   
incompetence of Contractor  corrupt and fraudulent  
practice  frequent policy and  others, specify -----“

**TABLE 1.7**

Attribute	Okene North	Okene South	Okene East	Percentage
Positive	11	5	8	22.6%

**Source:** Field Survey, 2023

**DEARTH OF FUNDS**

There is disproportionate relationship between the income level of the people and the financial requirement of building. The few that built, utilizes the poorest of materials, the cheapest of labour and the commonest design so as to beat the fund availability problem. Moreover, our economy is prone to galloping inflation that cost of building increases by the day, giving no encouragement what so ever to landed property investors. How could one explain the fact that today in Nigeria a bag of cement sells at over a thousand naira?

Below is the response pattern to question 10 (quoted earlier) regards those that blamed defective structure in the environment on lack of funds.

**TABLE 1.8**

Attribute	Okene North	Okene South	Okene East	Percentage
Positive	19	12	6	34.91%

**Source:** Field Survey, 2023

The fact remains that without fund, no building project can go on at all, not to talk of bringing such project to the required standard or maintaining it adequately after completion.

**RAMPANT POLICY AND LEADERSHIP CHANGES**

Policies are long term top management decisions tailored suit operational goals. Addressing the course IV grandaunts at the National War College sometimes ago, the then head of state and commander-in-chief of the armed forces, General Abdulsalami Abubakar, declared as follows:

“Government is simply about the management of people and their welfare, government policies must therefore have a human face. They should never be alien to people no matter how genuine and sincere the policies might be”.

Unfortunately, in Nigeria, policies are often draconian and lack in human face such as the land use act of 1978, which stipulates National land use policy; some are ambiguous and having conflicting interpretation while some others are inconsistent with the present realities. Worse still is the political instability, which has been plaguing the nation for decades. This has brought about a serious lack of continuity in governance as one regime, mainly military, replaces another and each new regime comes with entirely different programme of activities. This does not in any way favour sustainable development as new administrative provisions leading to project strangulated alter conceived plans.

A total of twenty-two (22) respondents as the cause of having defective structures in the environment as indicated by their reactions to the said questions to the said question 10.

**TABLE 1.9**

Attribute	Okene North	Okene South	Okene East	Percentage
Positive	6	7	9	20.76%

**Source:** Field Survey, 2023

**USE OF THE WRONG PROJECT TEAM**

The right building project team comprises professionals in building industry who have one input or the other to make in the realization of the building dream.

However, here, it is common to find people who have no training in building heading a building project team under the guise of being contactors. The result is obvious erection of substandard building or abandonment before completion as such a person is most likely to be unable to manage the resources (men and materials) available for the project. No wonder we have frequent reports of collapsed building here and there.

As regards the study environment, a three-stored building under construction along the G.R.A. collapsed in the year 2000. This was blamed on the wrong building team and hence poor building materials and techniques.

Twenty (20) person pointed accusing fingers at incompetent building contractors as responsible for having defective structures in the environment as indicated by their responses to question 10.

**TABLE 1.9**

Attribute	Okene North	Okene South	Okene East	Percentage
Positive	8	8	4	18.87%

**Source:** Field Survey, 2023

### **LACK OF MAINTENANCE CULTURE**

Maintenance culture is conspicuously lacking in our people as very well constructed building are left without any form of maintenance. They thus get deteriorated and substandard. Some people within the study environment told the researcher that those properties decline in value because their owners want it so. They argued that most property owners have enough money to maintain these properties but deliberately leave them unmaintained out of selfish reasons especially where such buildings are rented.

Most of the buildings in the study environments (residential and commercial) are rented. This is inductive in the response pattern to question 5 of the questionnaire, which saw eighty-one (81 respondent's indication that the ownership structure of their residence and /or office is 'Rented'.

This represents 76.4% of the responses. As regards questions. 7 which seeks to know how often maintenance is carried out in the respondent residence and/or office, a total of sixty-nine (69) respondents indicated that maintenance work are 'Never' carried out in their resident and/or offices. This represents 65.1% the responses. This situation definitely calls for concern. Any property that is not adequately maintained is detrimental to health, loss of property and neighbourhood quality and extinction of useful economic life in the long run as such, building gradually gets to the stage of financial obsolescence.

### **POOR TECHNOLOGY**

Shoddy performance in building projects is often attributable to lack of necessary construction equipment. This result in the handling of vital aspects of such projects in 'our own way' which most times is unacceptable in modern construction ethics and standards. In certain cases when the required technology is unavailable and 'our own way' not suitable enough, the project is simply abandoned. The effect of this is that the built environment suffers further poor outlook.

### **CORRUPTION AND FRAUDULENT PRACTICES**

This is becoming a way of life in our system, as virtually every person is guilty of it. Project costs are often deceitfully inflated to give room for embezzlement. This tendency to defraud not only results in shortage of fund along the line but also lead to the use of cheap materials and labour and as such the building that finally emerges is sufficiently substandard.

### **BUREAUCRACY**

This factor leads to unnecessary delays in the process of building construction and development. It is a common thing to find building developers spend over a year seeking planning approval for a contemplated building project. The tendency in the light of these delays usually is the subverting of the requirement for a formal planning approval before actual commencement or work on site which leads to the avoiding or encumbering of the property in question by the same planning authority.

Summarily, notable features of defective structures in the environment includes in sanitary environment; human degradation, reduced economic value of urban resources, reduction in capacity of urban land resources health and safety hazards, moral decadence, aesthetics, environmental decay etc.

The question now is "who is to blame for these environmental anomalies?". The questionnaire responses to question 17 which states as follows: who do you blame most for the presences of

defective structures in Okene L.G.A. environment?’ Show that people mostly blame the planning authorities for persistence of defective buildings in the study environment as shown in the table below.

**TABLE 2.1**

<b>Attribute</b>	<b>Response</b>	<b>Percentage</b>
Investors in landed property	7	6.66%
Okene L.G.A.	15	14.15%
Planning authorities	41	38.68%
OKEPA	29	27.36%
Professionals/Contractors	14	13.21%

**Source:** Field Survey, 2023

The above table as can be seen discloses that the people are asking the planning authority in the various local government areas within the study environment to wake from its slumber and save this environment, OKEPA too received sufficient blame as shown.

\*OKEPA stand for Okene Environmental Protection Agency.

#### **4.0.3 FRAMEWORK FOR ERADICATING DEFECTIVE STRUCTURES IN THE STUDY ENVIRONMENT**

The eradication for defective structures ranks first among the goals of environmental protection. Essentially, shelter should not deteriorate into health hazards, fire traps or dangerous for pests, rodents and insect infestation or in summary turn out to be the killer of the same man it was meant to protect.

Certain frame works could be used to avert situations like this as discussed here under.

##### **(a) LEGAL FRAME WORK**

It is intended under this to give a legal backing to building construction and development as a means of according it the desired validity. This could be done in the nature of government being conscious of its civic obligations and responsibilities to its citizen as regard housing provision.

Under this framework, standards should be established through such instrument like statutes, legislations, decrees, laws, acts, edicts, bylaws, policies, declarations, resolutions, regulations etc. made at the central (Federal), state and local government levels in connection with development having the environment in minds. This will ensure the suitability and adequacy of the shelter provided for the citizenry so as to foster the health safety and welfare of the people.

##### **(b) SOCIAL FRAME WORK**

This is important because it will amount to effort in futility if the intended beneficiaries of the scheme are later discovered to prefer other alternatives.

It is therefore of immense importance to feel public pulse on the intention of the environmental programme. For a good full citizen participation to be allowed, what the people prefer must be in conformity with modern sustainable development.

##### **FINANCIAL FRAME WORK**

It is expected under this frame work that builders/investors should have unimpeded access to bank credit and facilities support through foreign grants, adequate budgetary allocation to the

housing sector and timely release of such fund, tax relief/holiday in the construction industry, provision of site and services schemes, contractor-finance arrangement, finance/mortgage effects. These will definitely lure and encourage more persons not just to build to stipulated standards.

#### **ADMINISTRATIVE FRAME WORK**

This framework is of vital importance because many laudable government programmes have failed because of poor management. The National low-cost housing project of the then civilian administration of Shehu Shagari is a case in point. A sound administration input thus becomes an indispensable feasibility and viability index for every contemplated project. According to the United Nation(UN), "...in many cases, it is not the lack of policy, programme or the absence of legislation that causes failure or low down projects. More common causes are lack of determination to apply policy and enforce the law or failure to co-ordinate the different programmes involved".

A good administrative network ensures that different agencies and bodies connected with landed property development programme through. This is usually done through proper planning, co-ordination, monitoring and performance assessment/evaluation.

#### **5 CONCLUSION**

The environment was once described as 'very fragile' implying that it is something that should be handled with care. It is bad enough that considerable damage has been done already to the inheritance of nature on which we all depend for survival. It is as well dangerous for us to wait for major ecological disasters before launching a co-ordinate fight for preventive and remedial measures since prevention is said to be better and cheaper than cure. It is pertinent to recall that we did not inherit this environment from our forefathers; rather, we borrowed it from our children and therefore will return same to them while leaving this planet. This emphasizes that this environment does not belong only to we of the present generation but also to an endless chain of other generation yet unborn.

We must therefore shun the unfortunate 'not-in-my-backyard' attitude to its degradation in whatever form. What every physical activities we do on this earth today determine the shape of the environment better than we met it. The solution to this lies with us. The people should be made to see the link between the environment, good health and posterity as cleanliness is said to be next to Godliness and a healthy nation is a wealthy nation. We have no other environment than this and we are bound to face the justice of nemesis should we directly or indirectly destroy it in any way.

More so, posterity will not forgive us if we fail to properly manage what nature has freely bequeathed us. The tedious task of jealously guarding our environment is a stiff challenge staring us at the face. It is advocated that we use the wisdom of a serpent and the strength of a lion to rise boldly up to it. The earlier we do this, the better for all of us. If the emergence of physical development is left unchecked and controlled, we shall only end up exposing everybody to any array of environmental risks, hazards and impediments that negates the requirement of this environmental awareness era.



Having gone this far in this research, the researcher has been carefully articulated and hereby proffers the following recommendations: The people should be made to appreciate the need to carry out adequate project planning before actual commencement of construction work. Professionals in the building industry should be accorded their statutory right of place in building construction works. This will go a long way in ensuring standardization.

#### **AREA FOR FURTHER RESEARCH**

It is suggested that this study be continued from the aspect of identifying whether there are positive impacts defective structures have on the environment. This study found that some persons inhabit some of these defective structures at various parts of the study area. Whereas some use them as residence, others use such places to conduct petty businesses like selling of convenience items. The question is whether the accommodation problem of such persons is now solved. Also, are they now better endowed economically with higher purchasing power?

#### **REFERENCES**

- Awasho, T. T., & Alemu, S. K. (2023). Assessment of public building defects and maintenance practices: Cases in Mettu town, Ethiopia. *Heliyon*, 9(4).
- Babalola, A., & Harinarain, N. (2024). Policy barriers to sustainable construction practice in the Nigerian construction industry: an exploratory factor analysis. *Journal of Engineering, Design and Technology*, 22(1), 214-234.
- Ogunseye, N. O. (2023). Planning Approval Process: An Analysis of Property Developers' Experiences in Southwestern Nigeria. *International Journal of Built Environment and Sustainability*, 10(1), 17-29.
- Okieke, U. J., Ebisine, E. E., Odoh, F. E., & Akpokodje, O. I. (2023). Evaluation of building construction and electrical wiring integrity in Delta State, Nigeria. *Evaluation*, 9(1).
- Okoye, J. U., Apeh, S. T., Olaye, E., & Osuji, S. O. (2023). Towards automation of building integrity tracking: Review of critical causes and its impact on building structures in Nigeria. *Journal of Science and Technology Research*, 5(2).
- Olugboyega, O., Oseghale, G. E., & Aigbavboa, C. (2023). Multiple holistic case study of project-level building information modelling (BIM) adoption in Nigeria. *Construction Innovation*, 23(3), 567-586.
- Umeokafor, N., Okoro, C., Diugwu, I., & Umar, T. (2023). Design for safety in construction in Nigeria: a qualitative inquiry of the critical opportunities. *International Journal of Building Pathology and Adaptation*, 41(2), 476-494.
- Yue, H., Liu, L., Xu, C., Song, G., Chen, J., He, L., & Duan, L. (2024). Investigating the diurnal effects of on-street population and streetscape physical environment on street theft crime: A machine learning and negative binomial regression approach using street view images. *Applied Geography*, 163, 103194.