

IMPACT OF BUILDING DECAY ON URBAN ENVIRONMENT: A Case Study Of Housing Estates In Minna, Nigeria.

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ABSTRACT

The effect of urban degradation as it hinders the achievement of sustainable development cannot be overemphasized as building decay contributes greatly to this menace. Cities in Nigeria keep expanding as a result of new developments yet cases of dilapidated structures, abandoned projects, badly constructed buildings, collapsed structures and poorly maintained buildings are on the increase. These developments have not only retarded the physical growth of urban environment but are equally threats to socio economic well being and also constitutes health hazard to the environment. Minna the capital of Niger State, Nigeria, is not left out of this ugly trend. This paper highlights the effects of building decay on the urban environment and its implications. The author analyzed these impacts as it affects Minna town with particular interest on housing estates in Minna. It further categorized the kinds of decay seen within the study area and reasons behind these decays. The paper then advocates for enactment and enforcement of laws that will govern building maintenance and concludes by suggesting ways of improving buildings to enhance urban quality.

Keywords: *building, decay, environment, impact, urban*

1.0 INTRODUCTION

The rate at which building structures degrades the environment in Nigeria is alarming. This has become a hindrance to urban renewal and sustainable development especially within the context of the millennium development goal number seven which advocates for environmental sustainability. This is buttressed by Oderinde and Bayemu (2007), that the quality of an environment is an important indication of its socio economic development. Urban decay is physical and economic deprivation with sociological, cultural and physiological dimensions that affects human growth, health and environmental quality. This then suggests that if urgent steps are not considered, both physical and living environment will be at risk to effects of environmental degradation as some of these buildings are beyond repairs, therefore in complete state of dilapidation. It has made Nigerian cities looks like a forest with aged and dry trees. It is therefore of great importance that this phenomenal trend be checked in other to facilitate urban renewal in Nigerian urban environments. Minna which had its city planned last in 1979 has since grown and expanded more than four times its original planned area. About 70% of Minna is characterized with slum squatter settlements; the remaining 30% which constitute the 1979 planned area is in a state of gradual decay. Numerous reasons accounts for these phenomena which has greatly affected the urban quality. Failure of infrastructure, poverty, age, poor waste management system, neglect, death and continuous rise in the cost of building materials accounts for this situation.

2.0 METHODOLOGY

The study was based on the primary data from author's comprehensive field survey of housing estates in Minna. Information was also gotten from past researches to enable acquaintance with existing technicalities of the subject matter. During the survey houses were chosen along each street depending on the number of streets and housing units within each estate. These houses were then critically analyzed to identify the kinds of decay and the level of decay in these buildings.

3.0 STUDY AREA

Minna the Niger state capital is located in the north central part of Nigeria. The creation of Niger state in 1976 made Minna which used to be a nerve route of colonial trade, between the southern and northern Nigeria an administrative headquarters. Through the years Minna has increasingly grown in population as it has attracted people from various part of the state and even recently from across the country for its proximity

with the Federal Capital Territory as the nearest state capital to it. The total population of Minna by 1991 census was put at 157,159 with 82,568 males and 74,591 females. The recent 2006 census has shown an increase over these figures but still been contested. This therefore shows that there have been demands for housing through these years. Consequently, successive administrations from federal to state levels have responded to these demands. Today the state capital counts more than fifteen (15) housing estates made for different category of staff ranging from junior, intermediate and senior staff of the state. Most of these buildings are now owned by individuals living in them after being sold by the government. These housing estate include;

- 1) Type "A" quarters (commissioner quarters) G.R.A. Minna.
- 2) Type "B" quarters G.R.A. Minna.
- 3) Intermediate Housing Estate (Old Airport Quarters). Minna.
- 4) Junior staff Quarters (1,2,3. Quarters Minna).
- 5) Bosso low cost Housing, Minna.
- 6) Senior staff Quarters, Bosso Minna.
- 7) Tunga low cost Housing, Minna.
- 8) Bosso Estate, Minna.
- 9) Zarumai Quarters Minna.
- 10) Oduoye Quarters, Minna.
- 11) General Wushishi Housing Estate 500units (under construction).
- 12) Central Bank Staff Quarters.
- 13) Nitel Staff Quarters.
- 14) Railway Quarters.
- 15) Junior staff Quarters Maikunkele.

These certainly have made significant increase in housing provision; however the area of interest is the conditions of these buildings and neighborhood in relation to the urban environment in the 21st century.

4.0 SURVEY REPORT AND ANALYSIS

A survey of the estates revealed that in all cases more than 70% of the building units exhibit one form of decay or even a combination of them except for the General Wushishi Housing estate which is currently under construction. Some building in Type "A" quarters are currently under renovations after about a decade of neglect. Some others like 123 quarters and junior staff quarters Maikunkele have not had any form of maintenance even after more than two decades of construction. The various form of decays observed include

1. Poor drainage systems. Most of the drainages mostly open are either blocked up or stagnant. Absence of water makes it difficult to clean up these drainages, leaving occupants with the option of manually evacuating the interiors and dumping at the exteriors. Domestic wastes are sometimes used in blocking these drainages. These were observed to often create chaos at Old airport quarters where drains flow across four buildings in a block.
2. Additional structures that are poorly constructed.
3. Conversion of part in some cases all of the building for other uses than residential purposes.
4. Partial or total breakdown of infrastructure such as water supply and roads.
5. Decay of roof and roof members.
6. Poor waste management.
7. Poor sanitary conditions.

STATISTICS OF SURVEYED ESTATES.

ESTATE	NO. OF STREETS	NO. OF HOUSES	NO. SURVEYED	% SURVEYED
TYPE 'A' QUARTERS	10	32		
TYPE 'B' QUARTERS	6	49		
OLD AIRPORT QUARTERS				
123 QUARTERS				
BOSSO LOW COST	6	176		
SENIOR STAFF QUARTERS	5	35		
TUNGA LOW COST	7	260		
BOSSO ESTATE				
ZARUMAI QUARTERS	5	60		
ODUOYE QUARTERS	5	50		
GEN. WUSHISHI ESTATE		100		
CBN QUARTERS		18		
NITEL STAFF QUARTERS	4	13		
RAILWAY QUARTERS		23		
JUNIOR STAFF QUARTERS MAIKUNKELE	11	500		

Table 1 source: Author's Field Survey

5.0 FINDINGS

Table 1 above shows that most of the buildings within these estates are sub standard for human living which is the case in most residential neighbourhoods in Nigerian cities. This is observed by Simeon (2004) that in most Nigerian cities, not less than 50 percent of the population occupies sub standard houses and neighbourhood.

Reasons for these decays in the course of interview with the residents include:

- i. Poor economic statuses as most of the occupants are retired civil servants, and in some cases the houses are still been paid for. Poverty was discovered to be the greatest factor that led to the degradation of the residential estates just as it is across the urban environment. Poverty is a factor that quickens environmental degradation as poor people are often more exposed to environmental damage because they cannot afford to live in comfortable environments that are less polluted. (World Bank 1996). Consequently it was realized that even at retirement most of the occupants have nothing to fall back on to cater for their needs and that of their families not to even talk of maintaining their environments. This has forced some occupants to convert part of the buildings to shops, workshops, rentable apartments, poultry and fish outlets. This has not only defaced the buildings but has constituted a nuisance due to wastes generated from this other uses.
- ii. Overstretch of building facilities as a result of increase in family size. This is one of the challenges noticed in most of the houses visited. It was discovered that all of the estates were designed for numbers far below the numbers occupying them. The effects translate not only on the specific buildings but equally on the entire neighbourhood. This typical of most residential environments in Africa because of the extended family system that is practiced. This static form of buildings and the corresponding processes that takes place within it requires harmonization by professionals since, houses are designed based on assumed average load and technological processes, while the family (occupants) continuously undergoes dynamic socio cultural changes and developments in family size Diogu and Onyegiri (2004).

- iii. Inherited buildings. Families head passes on are left to share the properties and wealth.

Series reasons were given for poor state of such buildings. These includes:

- a) Family members are poor as such cannot carry out the maintenance of the house.
- b) Family members are dependent on rents from these houses for part of their upkeep.
- c) Such houses have been shared amongst the heirs.

- iv. Negligence on the part of government: Most of the infrastructures like roads, water and electricity are in terrible conditions. Most streets within the junior and intermediate estate have been washed away by erosion thereby making it for movement. Most houses relied on boreholes and wells for water which is not affordable for a larger percentage of the inhabitants of these environments.

It was evident from the above analysis that most of these houses are in bad shape and requires urgent attention. It is equally observed that most of the buildings house retired civil servants whose economic statuses are too low therefore making it difficult to maintain the houses. Infrastructures such as roads, water supply and electricity is poor in all the neighborhoods researched. Increase in family size has largely contributed in overstretching of the building facilities. Buildings and properties have been deprived of effective and routine maintenance. Ironically one of the reasons why these houses were sold to the occupants was as a result of governments' long time neglect in maintaining the buildings.

6.0 RECOMMENDATIONS

The devastating state of residential buildings in urban centers of Nigeria is an emerging challenge of the 21st century. Urban renewal which involves both rehabilitation and conservation of the urban environment becomes a necessary remedy for urban environmental recovery. This is timely as the present administration in the state has as one of its goals to focus the development of the state capital by removing illegal structures and improving the aesthetic outlook of the state capital. In order to improve the outlook of these estates the following are required;

- 1) Laws on building maintenance should be enacted and enforced through relevant authorities to ensure the conservation of the built environment.
- 2) Government should rehabilitate basic infrastructures of water, electricity and roads. Alternative sources of water and energy should be harnessed to reduce the dependence on the present sources which has long been overstretched and consequently inefficient. To this end the author advocates for the harnessing solar energy for these estates. Equally bore holes with large capacity tanks should be provided in numbers to boost water supply.
- 3) Professionals in the building industry are challenged to adopt the concept of Green Architecture so as to design environmentally friendly buildings with maximum efficiency and very low maintenance cost. This sustainable architecture will optimize building performance and help conserve energy consumption, water demand, waste generation and enhance environmental conservation in line with the millennium development goals.
- 4) Landscaping should be encouraged, as it relates the buildings with the environment.
- 5) Construction activities must be highly subsidized, to encourage private developers. This could be in terms of the building materials, construction, infrastructure or even maintenance.

7.0 CONCLUSION

It is evident from the research that occupants of these estates will prefer a more comfortable environment if given all is equal, however the greatest factor hindering environmental management and maintenance is urban poverty. Urban renewal has been an embraced solution to urban decay especially in developing countries, and since urban management and maintenance is capital even more expensive than putting the structures and infrastructures in place government agencies will have to play their statutory roles in ensuring the achievement of urban renewal.

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