

Contribution of Urban Land Use to Environmental Degradation amidst the Covid-19 Pandemic in Shuware Ward, Mubi Metropolis

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Abstract

The world is increasingly becoming urbanized and the rate at which city populations grow and countries urbanize is indicative of the pace of social and economic change. The urban infrastructural decay such as road network, lack of portable water supply, bad drainages and canals, poor housing and poor waste management systems have increased the environment threat within the urban population.. The inability of the Nigerian government to enforce those laws that would protect the environment and promote the success of its citizens only deepens the state of underdevelopment and consequence of poverty experienced by the people. The urban environment in the world have gone through various stages of deterioration which most of them can be attributed to poor planning practice, this is a very common phenomenon in Nigeria, and even so in shuware ward of Mubi town. The problem among other include shortage of land, and population increase leading to refuse being thrown indiscriminately, congestion in houses and room spaces, flooding and erosion is also in increase around the Yazaram river bank, poor condition of housing due to poverty unemployment and joblessness. Also lack of officially constructed drainage leading to poor drainage patterns as 70% of the drainage are surface open drainage insufficient water supply also is another problem since about 50% of the respondent source of water is through water vendor.50% of the buildings are bad as revealed by the research These issues may likely lead to the development of Slum if it continued unchecked. Therefore, there is need for rehabilitation strategy to be carried out in this ward, Shuware.. Urban renewal is a planning strategy that has been introduced to

improve urban conditions, which may have been observed to deteriorate in quality and efficiency. It is also described as the aggregate of techniques which have been used for the treatment of urban problems in a physical basis. Therefore, City leaders will have to move quickly to renew urban areas, providing basic services, infrastructure, and affordable housing for their expanding populations.

Introduction

The statement that says health is wealth and the wealth of the nation is the health of its citizens has well describe the value of healthy living. Towns and urban centres evolved from villages where farming or agriculture is mostly the dominant activity. The movement of people in search of better living conditions led to growth in population, hence internal congestion increase, the land use and activities in the town become influenced from its agricultural nature to the various land uses we have in the urban centres today which Mubi, Shuware ward is not an exception. Therefore, there is need for rehabilitation strategy to be carried out in this ward, Shuware. Nigeria is one of the so-called economic giants in Africa, having a population of over 150 million people. The rate of urbanization growth in the country has put pressure on the existing infrastructure with increasing number of slums in the country. The urban infrastructural decay such as road network, lack of portable water supply, bad drainages and canals, poor housing and poor waste management systems have increased the environment threat within the urban populace (Gbadegesin and Aluko, 2010). The urban environment in the world has gone through various stages of deterioration which most of them can be attributed to poor planning practices. This is a very common phenomenon in Nigeria. The inability of the Nigerian government to enforce those laws that would protect the environment and promote the success of its citizens only deepens the state of underdevelopment and consequence of poverty experienced by the people, (Obi, 2011; Omojimate, 2012).

The environmental degradation of the Nile Delta is typical of many of the world's deltas, such as the Mississippi and the Yangtze (Changjiang). The geographic setting of each delta and its watershed results in different spatiotemporal patterns of distribution of hydrological, ecological, and biological indicators for each delta; however, the key biophysical processes of degradation are similar in all deltas and it also affect their ecology and food chain dynamics, and this in turn impacts mankind. *Chen, (2019)*. *Chu and Karr, (2013)* stated that the effects of environmental degradation on human quality of life are another symptom of biotic impoverishment. Food availability, which depends on environmental conditions, is a basic determinant of quality of life.

Aggrieved about the degraded environment and resulting quality of life in his homeland, Ogoni activist Ken Saro-Wiwa issued a statement shortly before he was executed by the Nigerian government in 1995 saying, "The environment is man's first right. Without a safe environment, man cannot exist to claim other rights, be they political, social, or economic." Kenyan, (Maathai, 2009, p. 249), also, 2004 winner of the Nobel Peace Prizes has also written, "If we destroy our environment, we will undermine our own ways of life and ultimately kill

ourselves. This is why the environment needs to be at the center of domestic and international policy and practice. If not, we don't stand a chance of alleviating poverty in any significant way.” Chu and Karr, (2013).

Contemporary society still has the chance to relearn how important the environment is for quality of life. It is encouraging that the United [Steelworkers](#) of America in 1990 released a report recognizing that protecting steelworker jobs could not be done by ignoring environmental problems and that the destruction of the environment may pose the greatest threat to their children's future. It is also encouraging that the 2007 Nobel Peace Prize was awarded to a political figure and a group of scientists for their work on climate change. Chu and Karr, (2013) quoted by Shrinkhal, 2019.

The issues of environmental degradation include; poor water services, and service delivery challenges which caused governments to closely examine the way water resources and other necessary issues of life were being managed in their jurisdictions. (Doolan and Hart, 2017). Another form of localized environmental degradation with a perverse synergy with stronger [typhoons](#) is deforestation as stated by Holden and Marshall, (2018).

Discussion

One of the critical development issue of concern worldwide according to Tekwa (2017) is the need to stem the growth in the cities so as to ensure sustainability of the urban environment. Nigeria currently have a figure of over 140 million people, the highest in sub-shaharan Africa. (Ajanlekoko, 2001, N P C, 2006). A statistical record on Nigeria population since the dawn of the millennium as reported by U N D P (1997) shows that Nigeria’s population was put at 105 million in 1996, up from 56 million in 1963, and has an annual growth rate of 2. 8%.

The world is increasingly becoming urbanized and the rate at which city populations grow and countries urbanize is indicative of the pace of social and economic change (Donk 2006 quoted by Olujimi 2009).The urban environment in the world have gone through various stages of deterioration which most of them can be attributed to poor planning practice, this is a very common phenomenon in Nigeria, Which Shuwari ward is not an exception. The problem among other include shortage of land, and population increase leading to refuse being thrown indiscriminately, congestion in houses and room spaces, flooding and erosion is also in increase around the Yazaram river bank, poor condition of housing due to poverty, unemployment and joblessness. Also lack of officially constructed drainage leading to poor drainage patterns as 70% of the drainage are surface open drainage insufficient water supply also is another problem since about 50% of the respondent source of water is through water vendor. These issues may likely lead to the development of Slum if it continue unchecked. Therefore, there is need for rehabilitation strategy to be carried out in this ward, Shuware. Corrupt practice have also interfered with planning activities all over the country. These conditions have posed great sustainable development challenges for urban centres in shuware. Nigeria is one of the so-called economic giants in Africa, having a population of over 150 million people; the rate of urbanization growth in the country has put pressure on the existing infrastructure with increasing number of slums in the country. The urban infrastructural decay such as road network, lack of portable water supply, bad drainages system.

Urban renewal is a planning strategy that has been introduced to improve urban conditions, which may have been observed to deteriorate in quality and efficiency. Environmental degradation has become a “common concern” for humankind over the past few decades. The distinctive nature of the present environmental problems is that they are caused more by anthropogenic than natural phenomena. In spite of this, the pace and desire for economic development have never ceased. It is economics that has dictated environmental policy. (*Shrinkhal, 20190*).

METHOD OF DATA COLLECTION

The method of data collection adopted for the study include Socio-economic characteristic of the population in the Study area. Data on refuse disposal system, drainage system, on source of water supply and building condition in the study area were gathered. The sources of data are derived from primary and secondary sources where information were generated through questionnaire administration. Also field investigation by reconnaissance survey of the study area was carried out for physical assessment purpose. Secondary source of data was also used to gathered data from Journals, library Search, magazines, newspapers, books, seminar, paper, Internet and some lecture notes. Information was collected from (100) respondent in the study area as sample population so as to obtain relevant primary data needed for the study. The sampling method adopted simple random sampling as it constitute selecting sample at random from identified sampling frame. The techniques gives every item, subject or respondents an equal chance of being selected. Selection of a sampling is basically by chance or probability. Descriptive techniques of data analysis were employed, tabulation of percentages were used to analyze, describe and present the pattern of land use and environmental degradation in the study area in responses to the information obtained on the field which help in giving proposal and recommendations.

Environmental degradation

According to Tekwa. (2017), increasing rate of human population especially in the urban cities is occasion by inadequate supply of housing infrastructure for the teeming population. Nigeria is predominantly an urban country where about 50% of the population already live in urban areas. The prevalent environmental problems identified are associated with human activities and constitutes threats to sustainable development in the Nigeria built environments Oyelele (2013). In Tekwa, (2017) it is reported that some urban dwellers still struggle to live in deplorable slums. Some are even homeless and sleeps around in abandoned vehicles, buildings, under bridges, in stores and streets. This might be due to high housing rent charges and cost of land in urban centers which are unaffordable to rural migrants.

Primarily, environment degradation is caused by several factors including rapid urbanization due to overpopulation, accelerated industrialization, unplanned and uncoordinated physical development resulting from poor urban management and ineffective policies. Also insufficient urban infrastructure such as housing as well as lack of efficient transportation system to cater for the population up surge (Jiboye, 2003, Ajala, 2005, Olayode, 2005).

URBAN LAND USE PLANNING

According to Lewis (1968), land use planning is the art and science of ordering the use of land and siting of building or communications routes so as to secure maximum practicable degree of economic social convenience, and aesthetic. It is about the development and use of land, the location, density and degree of usage, the crises of urban spatial growth, land use planning according to the economic, social and physical needs of resident, promoting harmonies and functions design of an environment.

Importance of Urban renewal

Urban renewal is important because it makes our cities livable. Urban renewal recreates neighborhoods and communities left behind due to demographic and economic change, by bringing back character and a sense of place. Dilapidated areas can be reinvigorated through land, building and infrastructure development which allows cities to further their growth. Investment into transport links can improve residents' mobility and in turn reduce car-dependency, improving air quality and reducing the rate of sedentary lifestyle diseases. Property development in otherwise underused areas can also help to solve the challenge of high housing costs, which prevent individuals and families from living in inner-city areas.^[4] Urban renewal planning can also be aimed at fostering the creative industries to attract businesses and skilled workers from other knowledge-intensive industries. It can also incorporate historical, geographical and ecological factors such as "green infrastructure," the green spaces and water systems that are part of the urban environment. All of these factors can help to improve the livability of a city, the vibrancy of communities and economic growth. Urban Renewal 04 Dec, 2020.

A CASE OF URBAN RENEWAL IN NIGERIA

The urban renewal efforts by the former minister of the Federal capital Mallam Nasiru El-Rufai was in response to the rate of urban deterioration and growth against the master plan of the capital city. The ministry embarked on demolition of substandard building and those built against the building standards of the master plan, because the government swore not to allow disgruntled element to deface the federal capital territory, KYOMBEN, (2018). Urban regeneration can result in "social cleansing," or the displacement of specific populations (Lees et al., 2015). Rising land prices and rents in gentrifying neighborhoods and surrounding areas force out existing residents. This consequence has been cited as the biggest problem with urban regeneration.

RESULTS AND DISCUSSION

PHYSICAL STRUCTURE AND CONDITION SURVEY

Table 1: Method of refuse disposal

S/N	Status	Respondents	Percentage
A	Indiscriminately	70	70%
B	Burning/Manure	30	30%
C	Official dumping space	-	-
	Total	100	100%

Source: Field survey, 2021.

The table shows that 70% of the respondents dispose refuse indiscriminately while 30% said dispose it by burning or using it as Manure on the farm.

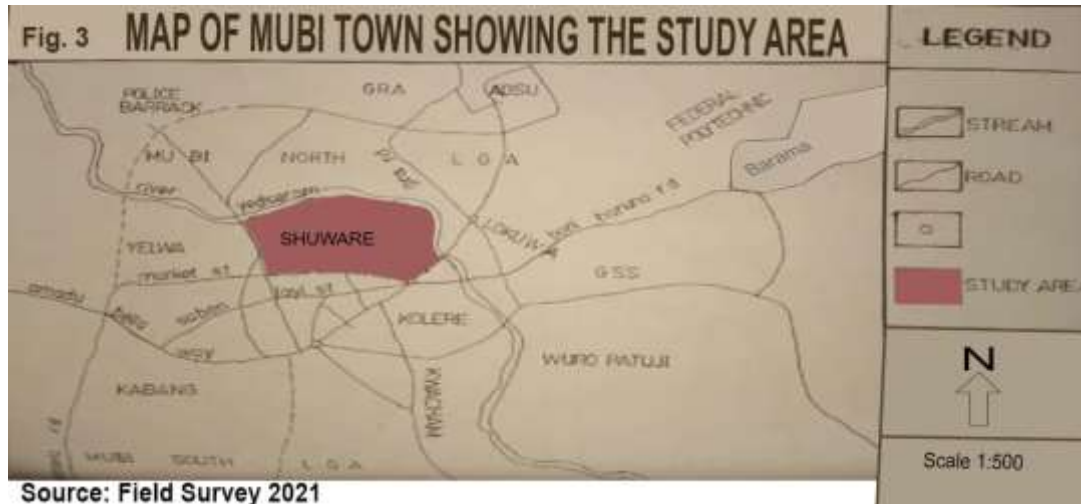


Table 2: Showing drainage system in the area.

S/N	Status	Respondents	Percentage
A	Surface/Open	70	70%
B	Close type	25	25%
C	Others (specify)	5	5%
	Total	100	100%

Source: Field survey, 2021.

The table above shows that 70% of the respondents uses surface/open drainage, 25% use close type with only 5% have no drainage at all. This shows some of the reason for the poor drainage in the study area.

Table 3: Source of water

S/N	Status	Respondents	Percentage
A	Water vendor	50	50%
B	Private tap	-	-
C	Public tap	30	30%
D	Cement well	20	20%
E	Nearby stream	-	-
	Total	100	100%

Source: Field survey, 2021.

50% of the respondent's on the table 3 above shows that they get water from water vendor, 30% uses public tap, and 20% uses cement well there is no private tap. This may be due to lack of absence of distribution line or the dwellers could not afford it.

Table 4: Adequacy of water supply

S/N	Status	Respondents	Percentage
A	Adequate	40	40%
B	Inadequate	60	60%
	Total	100	100%

Source: Field survey, 2021.

The table above shows that 60% of the respondent complain of inadequate supply of water while 40% responded to adequate supply which is also a serious problem for the dwellers.

Table 5: Showing source of light

S/N	Status	Respondents	Percentage
A	Electricity (PHCN)	60	60%
B	Lantern	30	30%
C	Private generator	10	10%
	Total	100	100%

Source: Field survey, 2021.

The table above shows that 60% of the respondent depends on electricity (PHCN), 30% uses lantern and 10% uses private generator.

SECTION C: BUILDING AND ENVIRONMENTAL CONDITION

Table 6: Showing building condition

S/N	Status	Respondents	Percentage
A	Good	20	20%
B	Fair	30	30%
C	Bad	50	50%
	Total	100	100%

Source: Field survey, 2021.

DISCUSSION OF FINDINGS

The study revealed that 45% of the respondent approximate income per month is N10,000 - N20,000, 25% earn N21,000-N30,000 and 15% earn from 41,000-N50,000 per month. 60% of the residents are between 1-2 household per compound and 20% are from 3-4 in number. 70% of the respondents dispose their refuse indiscriminately, and 30% burning or use as Manure. Also, 70% of the respondents said they use surface/open drainage, 25% use close drainage and 5% said none. 50% of the respondent's uses water vendor, 30% uses public tap, and 20% uses cement well. 60% responded that there is inadequate supply of water and 40% is adequate. 40% responded that there is inadequate boreholes, 25% and 7% said there is poor distribution line and power failure respectively.

60% of the respondent depends on electricity (PHCN), 30% and 10% uses lantern and private generator respectively. The research still shows that 60% of the residents have inadequate electricity supply while 40% said is adequate. 45% of the building are ranging from 11-20

years and 35% ranges from 1-10 years. 50% of the respondents building is residential, 25% falls under commercial and only 1% and 9% are for civic and culture mix uses respectively. 70% of the respondents toilet is pit latrine, 25% uses open bush and 5% uses water system. Indicating health and sanitation challenges. 50% of the respondents building conditions are bad, 30% is fair and 20% is good. 70% EPITA falls under landslide, 25% under erosion and 5% under flooding.

The socio-economic characteristics of the respondents is used to determine socio-economic status of the people in Shuware ward of Mubi metropolis and how it related to urban land use and environmental degradation.

As regards to the occupation of the respondents, farmers are the majority which account to 50%, and farm lands are now scarce compared to the population that use it for farming purpose. 75% of the respondent's approximate income per month is N10, 000 -N40, 000. This is to meager to sustain a household.

The urban land use and environmental degradation in Shuware ward, Mubi metropolis, shows the various use of building as follows, residential, commercial, agricultural, residential/commercial, and civic/cultural. Nevertheless, investigation reveals that Shuware ward lack improper planning as seen on the map. Most people buys water from water vendor due to inadequate supply. Also there is erosion around the river bank which leads to environmental degradation or hazard, the ward lack official refuse collection point. This is desasterous because it can easily cause disease outbreak (that is health implication on the inhabitants) since refuse are thrown away indiscriminately. The major source of light in the area is electricity but lack constant supply from the result obtained during Field survey only 10% of the respondents said supply was adequate. The remaining were adjudged as not adequate. This also affects healthcare service of any place particularly the study area. The situation seems to be worse during the conid-19 pandemic which is a deadly disease. Urgent attention is need to avoid any such serious effect on the dwellers.

SUMMARY

The growth in population and migration of people to the urban centers has resulted into pressure on the general environment there by resulting into more issues and challenges like; housing problems, poverty, socio-cultural and crime issue, food insecurity, unemployment, and climate change, agriculture and forest resource management issues, health care systems, public infrastructures and technological issues. The issues seems to be increasing daily, hence if not checked, there will be explosion like boom and may affect the wellbeing of humanity especially with the convid-19 pandemic that high level of hygiene is required.

Recommendations/Proposals

Considering the issues discussed in this pepper and the covid-19 pandemic health issue, it is worthwhile to recommend as follows for better living standard of Shuware ward:

1. There should be official's refuse dumps within the neighborhood to cater for the indiscriminate disposal of refuse making untidy and offensive looking site in the ward. Hence seven (7) refuse points are propose as indicated on the ward's map.

2. Jeboye and Ogunshakin (2011) stated that Nigeria is our nation and is ours to sustain. Thus, it is our most responsibility to ensure that Nigerian environment is kept healthy, productive and robust before, during and after benefiting from any available natural endowed resources at a given time and space. Therefore, the saying that says “a stitch in time saves nine” should be put to effect by following the road alignment proposal made on the map before it is too late.
3. The proximity of shuware to the commercial site (market) is an added advantage because cost of land and housing is fairly high, so revenue could be generated if Shuware’s physical environment will be improved upon or rehabilitated.
4. Enforcement of law to safeguard the environment is to be ensured through environmental impact assessment (E I A), so as to improve quality of life and to achieve the aim of land use planning that is comfort, ability, economic, convenience and beauty.

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