

EFFECT OF URBAN SLUM ON ECONOMIC ACTIVITIES

A CASE STUDY OF SULEJA

BY

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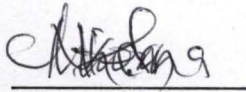
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DECLARATION

I hereby certify that this research work is originally produced by Nkem Ivy Chioma of the department of geography, faculty of social sciences, Federal University of Technology, Minna.



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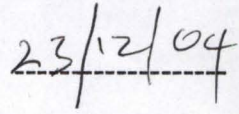
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APPROVAL

This project has been read and approved as meeting the requirements for the award of a postgraduate diploma in Environmental Management, Federal University of Technology Minna.



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ABSTRACT

High population density brings about development of cities into urban areas. The absence/lack of maintenance leave such urban centers in a dilapidated condition that constitutes a problem to the area known as urban slum.

This project therefore tends to assess the effect of slum on economic activities through the use of questionnaire and field observation. Recommendations made are all tied to government polices which will give Suleja a face-lift.

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CHAPTER ONE

1.0 INTRODUCTION:

Substandard housing is a poorly constructed, rundown, unsanitary, or over crowded dwelling therefore a neighbourhood with many substandard buildings is called a slum.

Slums emanate from older central areas of cities, which have deteriorated overtime, and most occupants of slums have low incomes where several families live in one dwelling unit. High rates of illness, disease and crime are found in most slums and there is also well inferior community services, including poor schools, inadequate police and fire protection, infrequent garbage collection, and too few parks and play grounds. Some financial institutions refuse to make mortgage or home-improvement loans in neighbourhoods they consider to be declining in housing, sanitation, services, drainage, etc and such practise is known as redlining. This is the act of outlining such areas in red on maps. Redlining may speed up the development of slums by preventing the purchase or repair of houses in such neighbourhood.

Prejudice and discrimination prevent many members of minority groups from having adequate housing and so are forced to live in slums or segregated area known as ghettos.

1.1 STATEMENT OF PROBLEMS:

Urban growth is the most widespread processes taking place in tropical Africa, and the total number of urban dwellers in the region is now roughly doubling every ten or twelve years, O'connor (1978).

This phenomenon in some ways is disturbing. Many problems arise from such a rapid urban growth as population generally increases faster than employment opportunities. The main effect of political independence has been to increase the significance of the political map for the distribution of urban development and especially to stimulate the rapid growth of the national capitals, O'connor (1978). A large proportion of the urban dwellers are in the 15-45 age range, this contributes to a high birth rate, also those coming temporarily for employment are tending to stay longer, and more than in the past bring wives and children with them. While the greatest absolute increase in population has taken place in the largest cities, the rate of growth of these has not in general been any higher than that of those smaller centres which serve as national capitals, O'connor (1978).

A major problem of the rapid growth of urban centres in the country relates to the provision of adequate social and infrastructural facilities in the cities and towns (Onokerhoraye, 1982). Provision of public services in the country has tended to pay little attention to their physical, structural and spatial aspects so decisions must be made on a viable catchment population,

on the size and layout of the building where the service is to be located, and on a convenient travelling distance for the persons likely to use the service. In recent times there has been an increasing emphasis on the housing sector by different governments of the less developed countries, yet the satisfactory provision of this basic need is unattainable by a high proportion of the population of these countries. Factors which accounts for this includes non-renewal of dilapidated structures, poor facilities in existing houses, poor environmental conditions of dwellings and insufficient supply of new housing units. As a matter of fact, this is a typical situation that gives rise to urban slum.

1.2 AIMS AND OBJECTIVES:

The aim of this study is to evaluate the impact of urban slum on the economic activities in Suleja town.

OBJECTIVES:

- a) To outline the repercussion of overcrowding on the overall living standard of Suleja residents.
- b) To discourage people from developing squatter settlement in Suleja in particular and Nigeria in general.

- c) To encourage planning and management of human settlement.
- d) To suggest tentative control measures through recommendation based on findings.

1.3 JUSTIFICATION:

The greater part of the Federal Capital territory excised from Niger State formed the land area of Abuja, now Suleja, Emirate. When due to its central location and excellent climatic and geographical features, the Federal Capital was shifted to the area, the Emirate Council, in February 1979, conceded the name Abuja to the proposed Capital city. The town was then renamed Suleja, after the late Emir, Alhaji Suleman Barau.

Coming by the above facts, the citing of the Federal Capital City 20kms from Suleja formed the major factor in the present dilapidated status of the town. This came about after the Federal Capital City was cited away from Suleja, the town was no longer maintained, which was formerly thought to benefit from the investment to be made in providing infrastructure for Abuja.

Suleja was also perceived to have a tremendous positive impact on the socio-economic position of the town through the development efforts of the state government earmarked for the town, but to the greatest surprise of the

town, the reverse was the case, and for this reason the town was found to fall under the slum category of urban settlement. Though residents have a major source of water supply from river Iku, they depend on well water and water vendors for a more regular water supply.

Refuse are dumped indiscriminately and the menace calls for urgent action, as proper provision is not made for its collection and evacuation. Pit and bucket latrines are common, as faeces are defecated into drainage channels and around the surrounding. For any environment where such practise thrives, pollution becomes the order of the day, which is a hazard to the health of the inhabitants. Refuse dumped in channels in extreme cases inhibits or obstructs the free flow of sewage and this could lead to severe flood. The cause-effects of environmental hazards on man is such that could reduce the health condition of human beings when he gets contaminated through air borne diseases, polluted water and the likes.

1.4 STRUCTURE OF PROJECT

Under chapter one we have introduction, statement of problems, aims and objectives, and justification of study.

For chapter two we have study area, location, climate (rainfall, temperature, wind, relative humidity), drainage and land use (arable farming, grazing, building, etc),

Then for chapter three we have literature review; globally, regionally, and locally.

Under chapter four we have methodology, data collection, (library, textbooks, journals, prints, questionnaire), and data analysis (tables, plates, percentage, etc,|)

Under chapter five we have discussion of result.

And finally for chapter six, we have findings, summary, conclusion, and recommendation.

CHAPTER TWO

2.0 STUDY AREA:

Suleja people are a population made up essentially of Gwaris, Hausa, Koro, Gade, Gwandara, Ganagana, Bassa and Fulani. There are also other groups like the Yorubas and Ibos present in tangible figures or numbers, this is due to its exposure to trade from both the northern and southern states.

2.1 LOCATION:

It is located in the centre of Nigeria, on longitude $7^{\circ} 104'6''$ East of the Greenwich line and attitude $9^{\circ}104'4''$ North of the equator. The study area is 110 km east of the State Capital, which is surrounded by the boundaries of the new Federal Capital Territory at distance of about 5 –10 km to the west, east and south.

2.2 CLIMATE:

The area is characterized by a dry season from November to March/April, and a wet season from April/May to October.

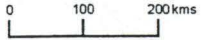
2.2.1 RAINFALL:

It has a relatively high annual rainfall of 1640 mm (64.5 inches) concentrated into three months of July/August and September, each above 300mm. The rainfalls sometimes are very torrential and the effect on the environment is very disastrous. The run-off sometimes causes stream

MAP OF NIGERIA



KEY
● Suleja



channel, which eventually lead to gully. The rain sometimes sweeps off some properties, while some are totally destroyed.

2.2.2 TEMPERATURE:

The very many instances of cloudless dry season have high temperatures with extreme maximum occurring in February and March (38°C). The temperature of the study area (Suleja) is far from being comfortable. This is because most of the houses build are not planned, open spaces are totally absent and thus heat are trapped within the environment.

2.2.3 WIND:

The dry season winds (harmattan) developed over the Sahara Desert are predominantly from the north-east to south-west while the wet season tropical maritime winds move generally in a south-west to north-east direction. Wind in the study area could not circulate due to the nature of the buildings.

2.2.4 RELATIVE HUMIDITY:

It has a relative humidity of about 20%, small diurnal variation and high relative humidity of around 50%. During the period of rainfall, relative humidity could be as high as 75% or more.

2.3 DRAINAGE:

There is no storm water drainage system or combined sewage system in Suleja as at the time the draft final report of Suleja town master plan was drawn in February 1980. Storm water is discharged directly into roadside open drains, ditches, slopes, natural drainage basins and streams. The roadside gutters as well served as sewage outlets for certain homes. As at February 1980, there was no report of major floods due to undulating nature of the township, which then induced better drainage because of this geographical feature. According to the master plan, Ministry of Works and Housing is responsible for the construction of all drainage works in the township, while the local government is responsible for the maintenance of the drains, i.e. the daily cleaning operations and repairs of damaged drains.

2.4 LAND USE:

A general overview of the Suleja Master Plan Existing land-use map shows different classification which includes open space, primary school, secondary school, public, industrial, commercial, mosque, and churches. The Public category of the land-use incorporates hospitals, market, police station, post office, and others. This can be seen in fig.2.



KEY

	OPEN SPACE		INDUSTRIAL
	PRIMARY SCHOOL		COMMERCIAL
	SECONDARY SCHOOL		MOSQUE
	PUBLIC		CHURCH

SULEJA MASTER PLAN EXISTING LAND USE



SCALE
1:10,000

DATE: MAY 1976
FIG: 4.1

2.4.1 ARABLE FARMING:

Intensive farming is found where a number of good streams and rivers provide fertile valleys. The most common crops are yams, cassava, and guinea corn. Rice and oil palm is also cultivated on shifting agriculture. Commercial crops apart from the ones mentioned above includes maize, groundnuts, sweet potatoes, grass, and vegetables, which is not done on a large scale. Farming generally is done on a large scale and subsistence level.

2.4.2 GRAZING:

The area is not characterized by livestock farming; this is evident due to the historic infestation of tse-tse fly as the area is surrounded with rivers and streams.

2.4.3 BUILDING:

Although majority of the existing population in Suleja live in mud compounds in the central area within the old city walls, new residential development has taken two basic forms:

- a) Good construction of concrete buildings
- b) Mud buildings in modern style with cement plastering and zinc roofing.

The first category of housing is found in the Government Reserved Area (GRA), the Federal Capital Development Authority (FCDA) estate, the state government's

low-cost housing scheme and in deserted place throughout the town. The second category of housing is found scattered around the edge of the established residential centre; which portrays the re-settlement village in neighbouring Wuse.

CHAPTER THREE

LITERATURE REVIEW

Margin (1967) is of the opinion that slum settlements which is used to describe substandard housing posed three major types of problems: firstly, environmental health hazards by providing breeding grounds for a variety of infectious diseases such as cholera and tuberculosis. Secondly, generation of deviant behaviour leading to criminality, prostitution and juvenile delinquency. Thirdly breeding ground of political radicalism and violence.

Peter Hagget (1979) is of the view that uncontrolled or squatter settlement often lie around the periphery of the built up area and are made up of temporary buildings (built by the squatter themselves) with few social infrastructure, he went beyond this to say that their names vary from country. In Jamaica they may be called Ghetto, in Latin America ranchos or tavelas, in Asia bustees or kampongs, while in Africa bidonvilles or shantytowns.

Drakakis – smith (1981), is of the view that believe there is no single and accepted definition of what a slum is. This he went further to say that there are various definitions, which reflect the different orientations of various disciplines such as sociology, demography, economic, medicine and physical planning. At the same time, different societies define slum in different ways, even among people in the same discipline. Thus, the physical planner's definition of a slum in the United

States of America or Great Britain is bound to be different from that of a developing country such as Nigeria, this is a reflection of the varying levels of socio-economic development, which characterizes different countries in the world.

The disparity notwithstanding, Drakakis provide an overview of what constitutes a slum area in the context of third world countries in general and Nigeria in particular. Third world cities are known to have two types of environmentally degraded areas. The first is the squatter settlement, which comprises un-controlled or temporary dwelling largely inhabited by immigrants from outside the city concerned. Often, such areas are occupied illegally since building plans are not approved before dwellings are built. The second type is the slum proper which can be defined as legal, permanent dwellings, which have become substandard through age, neglect and or subdivision into micro-occupation units as rooms, cubicles or cock lofts (Onokerhoraye, 1988).

In the opinion of a British writer schnore (1966), suggested that certain variables should be measured to find out whether a settlement is a slum /squatter or not. He says to define squatter settlement one needs to incline to the choice of those variables, which will be statically measured, these variables include population type and level of economic activity predominant in the area, migration pattern heterogeneity and social differentiation and stratification.

Abrams (1966), is of the view that over crowding is generally regarded as a hazard to health and in particular encourages the spread of infectious diseases such

as typhoid and tuberculosis. This is most pronounced in a residential situation in which sleeping accommodation is congested and ventilation facilities poor. Thus, the theory that a filthy and decaying environment is indeed a health hazard of slum in India and Lagos.

Mabogunje (1968), is of the opinion that increasing urbanization of our cities and the inability of these cities to cope with the demands of urbanization in terms of physical facilities and orderly growth usually lead to growth of slum neighborhood and physical decay or deterioration of the urban environment. These conditions also lead to the low level of livability of many cities in the developing world and the quality of their management.

Besides overcrowding in slum and squatter settlements, Mabogunje view the grossly inadequate essential services of electricity, waste removal and disposal.

Odongo(1979) noted that most contemporary attitudes and interpretation of the nature and origin of slums are derived from the Victorian era. During the Victorian period, slum dwellers were viewed as a socio-spatially isolated group whose separation was attributed variously to preferred deviance, the rejection of the word ethnic, and other anti-social value.

The survey conducted by the Nigerian Institute of Social and Economic research (NISER) in 1982, shows that vigorous definitions and identification of slum/squatter areas was attempted. The selected slum/squatter areas in each urban area were made after a thorough reconnaissance survey of all the worst residential

areas with respect to their physical characteristics. In addition, the questionnaire administered focused on the social and economic of the households and dwelling in which the inhabitants live. However, the analyses have focused on the physical characteristics of the dwellings and the overall environments in which they are located.

According to (Chike Mba, 1995), the Nigerian squatter settlement has always been dominant scenery in the country mainly because the Nigerian settlement space has been most extensive; virtually the settlement spaces of the country in pre-colonial era were few and far apart. From available records these settlement were of relative small population and had not the features associated with modern urban centers.

In Nigeria (Lagos State) Public Health Bye-law of April 1972 recommends a room occupancy of two person, only the high income areas conform with this standard, while residents of low income area live in overcrowded rooms with occupancy ratios ranging from 8 persons per room in a defined area of squatter settlement (Mabogunje, 1968).

CHAPTER FOUR

RESEARCH METHODOLOGY

4.1 SOURCES OF DATA COLLECTION

For this research work, data will be collected from various sources, which includes both primary and secondary sources.

4.1.1 PRIMARY SOURCES

In order to have first hand information, a reconnaissance survey of the study area was conducted based on general condition of the unplanned nature of the study area.

Questionnaires were drafted which takes into cognizance the random sampling technique. (See Appendix 1)

Oral interview will as well be adopted with target to cover both residents of Suleja and staff of lands and survey.

4.1.2 SECONDARY SOURCES

Secondary data will be sourced from various print materials both published and un-published. This will include books, journals, etc.

4.2 DATA ANALYSIS TECHNIQUES

After gathering the raw data from various sources, relevant information will be selected and then further summarized for the purpose of this study. Presentation of the summaries will be in the form of tables and plates. Statistical method such as percentages will be applied in analyzing collected data. The aim is to project type of accommodation; construction materials used, land use structure, health facilities, population pressure, and other services. This indicates that poor planning certainly has an effect on the general well being of Suleja.

4.3 PROBLEMS AND LIMITATIONS

Problems are inevitable when carrying out a project like this. Such problems are those erupting from respondents' indifferent attitudes when gathering data. Finance again was to an extent a limiting factor, added to time limit brought about by end of the semester examination and the submission date assigned for the project.

CHAPTER FIVE

PRESENTATION AND DISCUSSION OF RESULTS

5.1 RECONNAISSANCE SURVEY (QUESTIONNAIRE) OF HOUSING CHARACTERISTICS AND ECONOMIC ACTIVITIES.

Certain variables should be measured to find out whether a settlement is a slum/squatter or not, schmore (1966). He says to define squatter settlement one needs to incline to the choice of those variables, which include population type, and level of economic activity predominant in the area.

Table 5.1 however shows that majority of respondents in Suleja are traders and service providers, as can be seen in table 5.1. Service providers are painters, shoe menders, welders, bricklayers, etc.

Table 5.1 – Occupation of Respondent

Trader	50	50%
Service Provider	30	30%
Workers	20	20%
Total	100	100

Source: Compiled by the author.

This implies that most of the occupant in the study area engage in trading activities, while service providers such as bricklayers, welders, painters, etc ranked in the second position.

Table 5.2 attempts to find out whether there is any sort of environmental problems of the people interviewed, 86% (60) of respondents agree to have witnessed various problems such as refuse dumps, pollution of various types etc.

Table 5.2- Response on the existence of environmental problem

Yes	60	86%
No	10	14%
Total	70	100

Source: Compiled by the author.

Table 5.3 indicates that Erosion is the major environmental problem, followed by flood and then improper refuse disposal and water shortage. The implication of this is that Erosion of various types constitute the major problem in the study area.

Table 5.3 – Type of problem in the study area

Flood	20	29%
Erosion	40	57%
Improper refuse disposal and water shortage	10	14%
Total	70	100

Source: Compiled by the author

This implies that the drainage system in the study area is far from being adequate. Moreover, the people dump refuse indiscriminately and these refuse block the easy passage of water in most areas of the study area. Evidence of this can be seen in plate 1,2,3, taken during the field study. It is important to note the various types of material that constitute the refuse.

Table 5.4 tends to measure the extent to which these environmental problems occur. The table (Table 5.4) couple with field observation show that the environmental problems caused were enormous and very serious. For instance, about 86% of the people interviewed saw the problem as very serious ones (Severe) while 14% said the problems are mild.



PLATE 1



PLATE 2

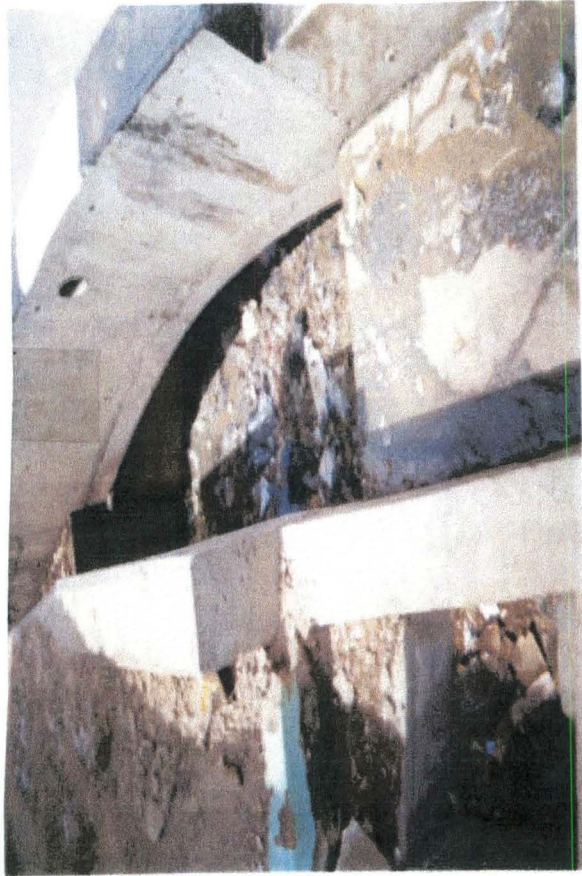


PLATE 3

Table 5.4 – Degree of occurrence.

Severe	60	86%
Mild	10	14%
Total	70	100

Source: Compiled by the author

The implication of this is that most of the structures in the study area and especially those in the “Slum” collapse as can be seen in plate 4 and 5. The collapse of these structures (building) was as a result of trapped water. Furthermore, the level of “trapped” water often rises to the level of windows. The result of this is that water often enters people’s room, which causes damage of properties. This can be seen in plate 6 and 7. Note the “arrow” which marked the level of water during one of the rain in the study area.

Table 5.5 shows the disruption of economic activities as can be seen in the area of movement obstruction, lateness to work, and collapse of houses with the associating loss of properties, as earlier discussed, movements were often disturbed whenever there is problems in the “slum”.

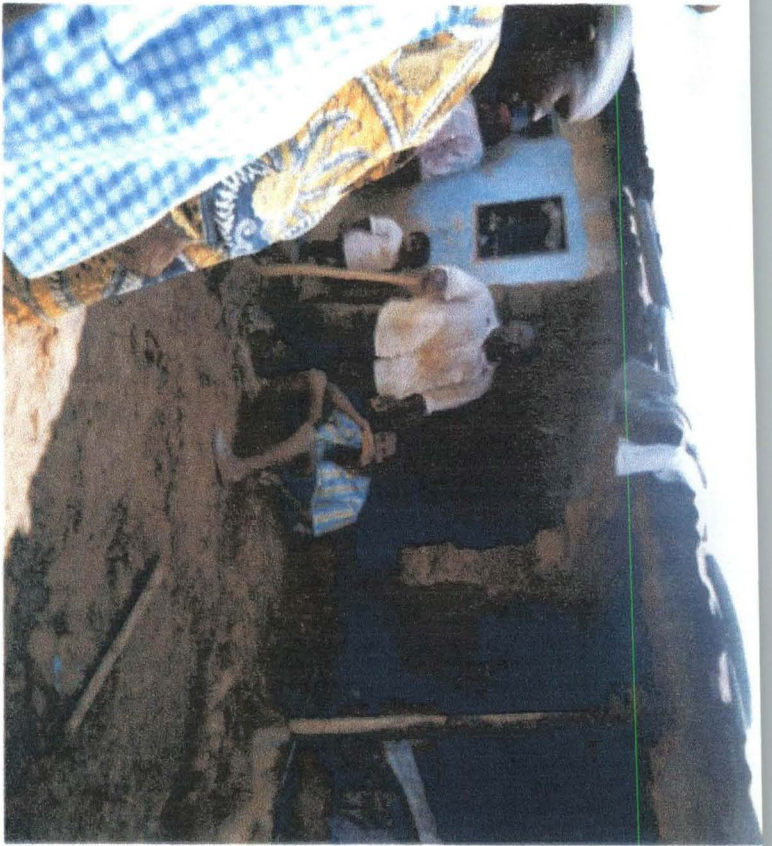


PLATE 4

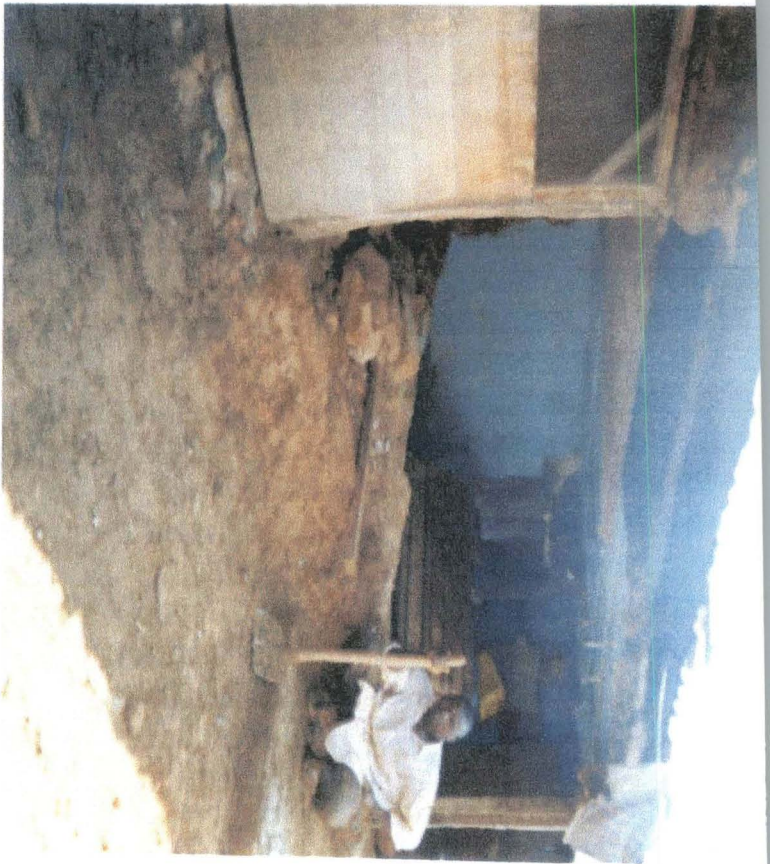


PLATE 5



PLATE 7

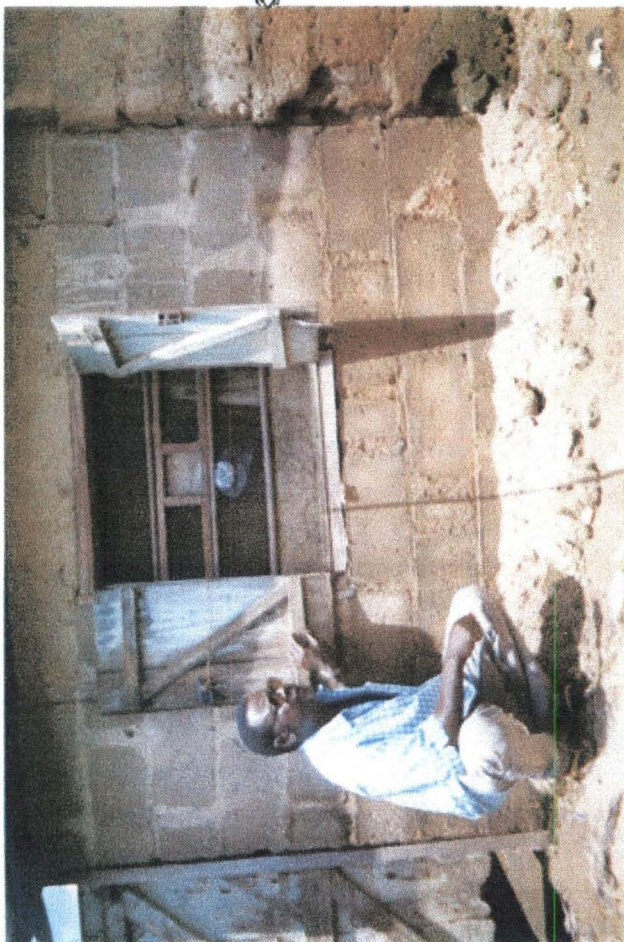


PLATE 6

Table 5.5 – Effects on daily activities.

Movement Obstruction	20	33%
Lateness to work	10	17%
Collapse of houses & loss of property	30	50%
Total	60	100

Source: Compiled by the Author

These lead to either lateness to work or other various economic activities in the study area or in most cases divert the normal economic activities of the people to mending or repair of fallen structures. This can be seen in plate 4, 5, and 8.

The table below (table 5.6) shows the type of land-use predominant in the area of survey. 70% is residential while 30% is both residential and commercial.

Table 5.6 – Form of land use in study Area.

Residential	70	70%
Commercial	30	30%
Industrial	-	-
Recreation	-	-
Total	100	100

Source: Compiled by the Author.

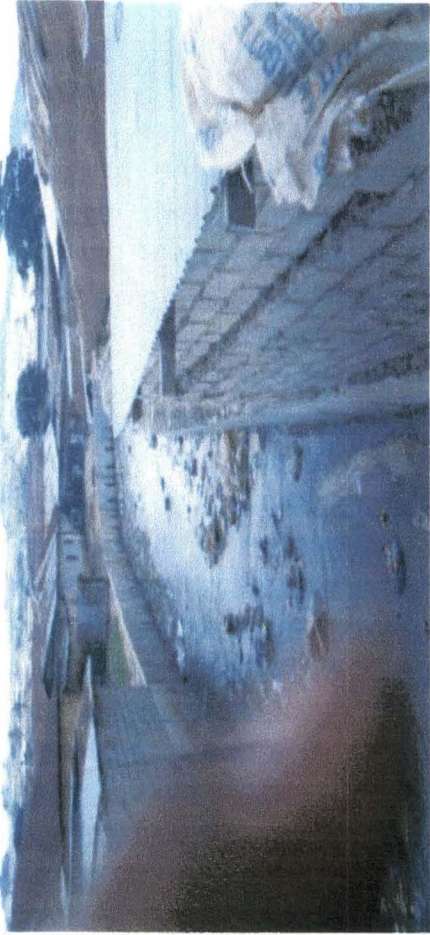


PLATE 8

The table reveals that both industrial and recreational buildings are totally absent. Most of the study area are either used for residential only or used for both residential and commercial activities, such as the sale of petty stuff such as rice, garri, sugar, etc.

Table 5.7 – generally indicates what is expected of the government to do or put in place in order to solve the problem of slum settlement.

Table 5.7 – Form of Modification you suggest

Modern Houses	30	33.3%
Provision of social amenities	40	44.4%
Urban Planning	20	22.2%
Total	90	99.9

Source: Compiled by the Author

The table above reveals that provision of social amenities should be improved upon (44%), while about 33% suggests that modern houses should be provided by the government. 22% emphasised that urban planning should be embarked upon, as can be seen in table 5.7

5.2 SUMMARY OF RESULTS

From the discussion of results, Suleja town suffer severe environmental problem. This reason on the other hand affects the economic activities in the area and the only way out of the menace is for the government to provide adequate facilities.

CHAPTER SIX

6.0 FINDINGS, SUMMARY, CONCLUSION, AND RECOMMENDATION

6.1 Findings: Numerous inferences can be drawn easily from the findings of the study. These range from factors of human environment to provision of services, and the part played by the government.

The State of slum settlements stem from bad habits exhibited by the residents of the slum. Such habits includes indiscriminate dumping of refuse in channels, and the construction of houses close to a natural drainage which violets the 30 meters or 100ft distance away from the drainage as stipulated by the government.

On the part of the government, the non provision of affordable/ cheap residential layout with all the amenities will only accelerate the construction of sub-standard houses which to a great extent affects the economic activities of slum dwellers. Also commercial layout marked out by the government was not developed because compensation was not paid to the land owners since the first republic. Again industrial layout suffered the

same problem like the commercial layout and as a result, the land has been taken over by the owners.

As a distortion to the master plan of the study area (Suleja) recreation center was changed to a shopping center because the local government wanted a boost in revenue generation.

6.2 SUMMARY: - Constraints to development in the study area (Suleja) are due to steep slopes, rivers, forest reserves, and so on.

As houses are constructed close to the river channels and drainages, flood and erosion affect such areas which have been tagged traditional set up areas because they lack planning rules and regulation. The traditional set up area is the center of slum dwellers; as a result, economic activities will be highly hampered.

6.2 CONCLUSION: - As the case may be, the main source of environmental change in slum settlement is natural population increase and migration. Fast population increase in slum regions has two environmental impacts.

Increase in population aided in the building and expansion of small-scale business within and around the area. Secondly, resource requirements of the growing population of city dwellers also pose a set of impacts. Most times environmental services and infrastructure cannot be provided adequately by

the public sectors and the ones put in place of this by the private sector may not be ecologically sound.

The combination of poor management and a low level of services could lead to negative health effects. An example could be drawn among neighborhoods in stream/river areas with high level of indiscriminate human waste disposal, have higher outbreak of water disease.

Crowding can degenerate existing environmental problems in slum settlement. Suleja's high occupancy rate of about 5 persons per room mounts pressure on some facilities such as toilet, bathing areas and kitchen.

6.4 RECOMMENDATION: -Based on the result of the questionnaire survey, personal interviews and studies of the environment, these point to policy issue relating to the physical improvement of urban slum areas in Suleja.

Government should provide residential layout with all the amenities in place, which should be at an affordable rate. Channel improvement should be made in order to meet up with the modern form such that flood occurrence will be reduced. More importantly Niger State Urban Board should embark on public enlightenment, educating people on the danger of building houses close to the channels.

From the basis of the analysis done on Suleja master plan, it can be

concluded that there are broadly three physical possibilities for town expansion.

- A. Based on intensifying development of the existing town.
- B. Expansion to the north-east
- C. Expansion to the south-east.

However long-term policy issue has to do with creation of job opportunities which will improve the general quality of life and the urban environment in Suleja.

REFERENCES

Abiodun J.O (1985) Urban and Regional Planning Problems in Nigeria.

Abrams C. (1966) Squatter Settlement: the problem and opportunities, Washington D.C. Division of International Affairs, Department of Housing and Urban Development.

Balogun T. (2002) Effect of Urban slum to the Environment (case study of Karmo Abuja).

Federal Government of Nigeria, Upper Niger River Basin Development, Minna (Study and Design of Gully Erosion and flood Control measures at Suleja Town, Niger State) Volume I Technical Report.

Mabogunje A.C (1974) Toward Urban Policy in Nigeria, Nigerian Journal of Social and Economic studies, Vol. 16.pp. 85-98

Margin W. (1965) Latin American Squatter Settlement: A problem and a solution. Latin American Research Review, vol. 2

Mohammed A.W. (2001) Urban Slum and The Environment (case study of pakungu, Minna)

NISER (1982) Nigerian Institute of Social and Economic research.

Odongo J. (1979) Housing Deficit in Cities of the third world: fact of fiction in H.S. Niwison and J.P.Lea (eds) Housing in Third World Countries. PP. 31-42

O'connor A.M. (1978) The Geography of Tropical African Development 2nd Edition, A study of Spatial Patterns of Economic Changes Since Independence.

Onokerhoraye A.G. (1982) Public Services in Nigerian Urban Areas.

Portes A. (1971) The Urban Slum in Chile: Types and Correlates Land Economics Vol. 47 pp. 697-720

Smith D.W. (1977) Urban Planning Problems in South – East Asia G. Seddon (ed), Urbanization: Twelve papers delivered at the NZA Congress University of Melbourne.

The World Book Encyclopedia, H volume, a copy right 2001.

[Www_urbanthemes_environment_urban_management_content.htm](http://www.urbanthemes_environment_urban_management_content.htm), 08 -02-2004

APPENDIX 1

QUESTIONNAIRE ON URBAN SLUM AND THE ENVIRONMENT;

CASE STUDY OF SULEJA

1. Location of respondent:
2. Occupation of respondent:.....
3. Are you resident in Suleja? Yes No.....
4. How long have you been residing in this area?
5. Have you witnessed any environmental problem? Yes..... No.....
6. If yes, what type of problem?.....
7. When did it happen?.....
8. What is the degree of its occurrence? Serious.....
Less serious Not serious
9. How has this affected your daily activities?
10. What is the source of your water supply?
11. What is implication on health?
12. How far away from your house is any health care center?
13. How do you dispose off your refuse? Dumping.....Bag.....
Dustbin.....
14. What is the distance of refuse collection point to your house?
15. How many people are you in a room?.....
16. How many rooms are there in a ~~comp~~.....
17. How many toilet/s are there per ~~comp~~.....
18. What form of land use structure are in place? Residential
Commercial Industrial Recreation
19. Should the government remodify the settlement? YesNo.....
20. If yes, what form of modification do you suggest?