

**EFFECT OF SLUM (URBAN) TO
THE ENVIRONMENT.
A CASE STUDY OF KARMO-FCT, ABUJA**

BY

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CERTIFICATION

This is to certify that this project is an original work undertaken by BALOGUN, TIJANI (MALL) PGD/GEO/2000/2001/145 and has been supervised, in accordance with the regulation governing the award of PGD in Environmental Management, Federal University of Technology, Minna – Niger State.

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DECLARATION

I hereby declared that this project work title “EFFECT OF SLUM TO THE ENVIRONMENT” is an authentic work/study carried out by me and has not been presented elsewhere for any form of award (academically).

DEDICATION

This dissertation is dedicated to my daughter miss Faridah Ahmadu Tijani and my wife Mrs. Bilkisu Ahmadu Tijani for their love, support and understanding throughout the course of this academic programme.

Secondly to my parents Alhaji Sanni Balogun and Hajia Habibat Sanni (Mrs.) for their love, care and encouragement. And to Mallam AbdulMumin Balogun “though now in memories”. May Allah ta- Allah guide you there and those of us remaining on earth.

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ABSTRACT

Man approach to the physical environment has become an extremely unscientific one. Housing policies that are being implemented in our urban cities forces the poor into undeserved settlement. This presentation is to examine one of the inherent and persistent environmental problem associated with city centers and the indices that characterize the environmental problem.

This study considers the city as the center for economic activities. It examines the problems associated with cities both at local and global level. The study also examine the various policies set in place for solving urban problem policies ranging from comprehensive red development, prevention of slum and other policy issues relating to the physical improvement of slum settlement.

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CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND OF THE STUDY.

Many countries in the third world have for various reasons, at one time or the other relocated their capital. In most colonial countries the colonialist usually favoured coastal location for capital cities because such location provide easy sea link with the metropolitan country in terms of export trade and security.

The location of such capitals seldom coincided with the geographical center of the country concerned and this led to an over concentration of commercial activities and population in the coastal areas at the expense of the interior. Due consideration were not usually given to adequate planning and security need of such capitals which are vulnerable to sea attacks. These factors were among the many reasons that led such countries like Tanzania, Brazil and Pakistan among others into the decision to relocate the capital cities of their countries.

In Nigeria, the peripheral location of Lagos coupled with the insufficient land for adequate growth and expansion of the city, has caused numerous problems, which eventually necessitated the relocation of the federal capital. The idea of changing the capital of Nigeria gained the support and acceptance of the majority of the country's population.

These in addition to some other issues brought about the relocation of the federal capital from Lagos to Abuja and till date, Abuja remains the federal capital which Karmo is a mere district.

The skill and high professional design, execution and attention given to the infrastructural provision in the federal capital territory bear testimony to the fact that only the best is acceptable in the federal capital territory, Abuja.

Unlike other urban cities where roads are often broken down to lay water pipes, where houses have to give way to road construction, where sewage disposal is the duties of the occupant, Abuja the federal capital territory is planned ahead of time.

Olusola (1993) in his book title Abuja, Nigeria's new capital emphasis on the road network as been planned that traffic flow is uninterrupted by pedestrians as provision were made for the pedestrians walk-way and zebra crossing where necessary. The network of road has also made Abuja the federal capital accessible from all part of the country.

The challenges of the urban environment has become a human problem because of the manner in which people have organized themselves by increasingly concentrating in urban areas of all sizes which in turn has important consequence on the environmental in-balance.

However, Karmo a satellite settlement in the federal capital, Abuja is characterized with physical environment that has become an extremely unhealthy. The housing policies in the city have forced the poor into underserved squatter settlement, which are unpleasant or even unfit for habitation by humans.

The environment is an eyesore, a reflection of poverty, crime, pollution, deterioration, over crowding, decay and above all destruction of both human and natural resources in the environment leading to human life endangered.

Apart from the poor building materials and low technology, which gave birth to such slum (Karmo) there is completely lack of development control, which contributed remarkably to their emergency.

The environment in which they live is most life threatening; water supply, sanitation, refuse collection and access to health care are grossly inadequate.

While most people still live in ghetto, the proportion of urban dwellers is rising fast. Cost of accommodation and uneasy access to land

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in the city have led increasing number of people to move to the suburb of the city. Since the village is not planned and the houses are built of local materials devoid of technology, the physical environment of this area is in contrast with that of the city surroundings.

However, subsequent expansion of the city built-up areas eventually will push the village so as to give way as most of the plots in which is built by the settlers are already allocated officially by the authority responsible for land allocation in the territory.

The growth of the slum nevertheless, owes its origin to the urban dwellers that could not find or afford allocation in the city. The high density therefore constitutes serious constraints on the maintenance of an acceptable standard of environmental sanitation, adequate road for motorist, the menaces of health problem, noise pollution, lack of portable water among others.

1.2 AIM AND OBJECTIVES OF THE STUDY.

1.2.1 AIM

The aim of this study is to establish the need for the provision of area of resettlement for the people of Karmo thereby protecting them from environmental hazards and its attendant consequences.

OBJECTIVES

- i. To establish common diseases as a result of congestion immense, sewage/refuse disposal and unhealthy environment.
- ii. To highlight the consequence(s) of overcrowding, increased poverty rate, pollution, health hazards and general standard of living and its attendant deterioration in the quality of life of the inhabitants of Karmo.
- iii. To establish the need for planning and management of human settlement to satisfy the physical, social, human and other needs of the environment.

- iv. To spell out recommendation and suggestion based on findings.

1.3 STATEMENT OF PROBLEMS.

At the inception of Abuja as the new federal capital territory, one of the policies was the provision of basic infrastructural facilities to the doorsteps of the developers. This policy witnessed the provision of infrastructure in Garki, Wuse, Maitama and Asokoro which constitutes the phase I of the federal capital while most of the phase II in which karmo belongs is yet to enjoy such facilities.

It is indeed quite evident that areas with infrastructure are more 'alive' than non-serviced areas and also attracts more investment potential and above all health security. The concentration of these facilities have brought about concentration and settlements of individuals and activities in the city leaving the suburb less attractive and worthless for development thus harboring the less privilege with a resultant effect of environmental deterioration, unsanitary houses, social degradation and poverty. These cumulatively leading to disruption and pollution of the environment.

Pertinent to say however, that a special type of community is created based on level of income, sanity and discrimination as against the purpose for which the federal capital territory, Abuja was created.

CHAPTER TWO

2.0 LITERATURE REVIEW.

2.1 URBAN

The oxford advanced learner's dictionary A.S hornby of fifth edition defined the term 'urban' as an attribute of, relating to or living in a city or town.

The land use decree No 6 of 1978 looked at 'urban' as though have been spelt out directly in the decree but rather there is provision under section 3 empowering the military administrator to designate urban areas.

Urban however could be defined as any area which is being designated to be urban thereby enjoy facilities and better housing condition in addition to a better standard of living.

2.2 SLUM:

Poverty, crime, diseases, broken families, and the likes were linked together in certain geographical areas of the city where housing was deteriorated and rent low; these neighborhoods were given the summary name "the slum".

No universal definition exists for the term 'slum'. This term is defined by various environmental analysts from different point of views.

Thorncroft (1965) defined it as a 'squalid' dilapidated, overcrowded area inhabited by an interior social and economic class. Usually it has overcrowding in old, obsolete, dilapidated buildings, which lack light, air and sanitary facilities.

The term 'slum' defies strict definition, though it is easily recognizable. Generally, slum consists of an area of old, poor quality dwellings, which are unpleasant or even unfit to live in (Newell, 1977). Such area tends to be characterized by overcrowding and inhabited by

low- income groups unwilling, and generally unable to make improvement to the properties concerned.

Smith, (1981) viewed slum as a legal, permanent dwelling, which have become substandard through age, neglect and, or subdivision into micro-occupational unit such as rooms, cubicles or cocklofts.

Knapp (1982) defined 'slum' as a legal dwelling which is substandard owing to age, neglects, or because it has been subdivided into tiny living spaces.

The term "slum" however has no definite definition and also no formalized theory because it is generated as a result of human activities on the environment. Due to lack of a universal definition of slum, there have been so many problems about slum and these makes the theories needed to explain the existence of slum to be difficult.

Accordingly Laquain, (1976), says that the formation of rigid theories and laws to explain the existence of slum in this case becomes difficult. Based on the fact that slum can be seen from many perspectives by many scholars, there is no general definition. Hence it becomes necessary to examine their views and contribution about slum.

As we have noted, the term 'slum'; it applies to areas where certain people and structures were concentrated. These areas were defined as problems of the public because criminality and diseases were widespread among their residents. It is a place where the "social pathologies" of alcoholism, dis-ordered family life, prostitution, and the likes, are common occurrence. In addition, slums are neighborhoods with given structural characteristics. They are old, the houses are aesthetically displeasing to the slum definer, the rents are relatively low, and the houses are crowded. Since the two kinds of attributes:- The social and the physical - coexist in a given area(s), the attack of public policy on slums has been implemented in the housing Act. But in that Act the

negative, 'slums' is vague, and it is accompanied by an equally vague positive, "decent homes".

Decent homes are whatever structures are acceptable among the relevant social group. Standards vary greatly. Sergei Grimm, the planner, tells of his determination to find out what "substandard" meant to the man on the street. After a certain amount of questioning, he reported, "I found out substandard is whatever is worst in our neighborhood". Decency is an open-ended definition: As consumption norms move upward and the average aspiration for housing moves with them, a proportion of houses built to earlier design becomes "indecent". The open-ended definition of good neighborhoods allows an open-ended definition of slums.

Slum can also be defined as congested urban suburban residential district characterized by deteriorating and unsanitary housing, poverty and social disorganization. Therefore, slum is an eyesore, a reflection of poverty, crime, decay and above all, destruction of both human and natural resources in an environment.

2.2.1 FORMATION OF SLUMS.

Over the years, man's basic need has been identified to be food, clothing and shelter. The importance of shelter cannot be overemphasized. For the wealthy, there is little or no problem of finding place(s) to live; usually they are faced with the problem of choice among competing factors in an area of low density. Bid rent will ensure that they can achieve a good quality of living fairly close to the city center. Normally the middle and upper class of the society have a choice of location within the city.

However, because of poor mobility and the fact that more wealthy people are involved in the central business sector, a central location for living is often preferred among various alternatives to a peripheral location near to a good communication line. The wealthier occupy a wedge of land

stretching out from near the city center and along a good access route. This area of spacious housing and garden contrasts with other parts of the city where people are very tightly packed together. For the majority, however, somewhere to live consists of either a slum or a shanty area of settlement.

In all cases of settlement, the most important vocational requirement is to be near to source of employment. In some cases, this may be on the city periphery because the city rubbish tips may be the resources that enable people to earn a living, but most often, it is near the city center or near the elite regions. Some people hope to work in domestic capacities others perform public services such as sewage collection and others work in the informal industries that supply part-made products to the formal factories. The draw of work however, is stronger than the draw of somewhere to live and so people are prepared to live on the pavement if this means they can earn a living.

Newell (1977) in his book: An introduction to the economies of land use identified some factors among which lead to formation of slum. These factors are as follows: -

i. Diseconomies external to the house, but internal to the area:

The process of slum formation he said, may begin with the deterioration of one or just small numbers of houses. These generate spill over cost on the neighborhood properties whose value consequently drops and for which the rate of return on any investments become less. The lower return on investment leads to lower level of investment (Repairs and Improvement) and consequently deterioration set into these properties.

ii. Diseconomies by uses external to the areas: -

He observed that the value of houses in an area, and hence investment in repairs and improvements to these houses, may fall due to

diseconomies generated by the establishment of non-complimentary uses, such as polluting industries next to the residential area.

iii. Encroachment of non- housing uses: -

Under this, He was of the opinion that non-complimentary uses may begin to encroach on a housing area by converting some of the properties to non-residential uses. This, he said, is fairly typical in twilight housing areas whose accessibility and relatively low rent levels attract such uses as office, ware housing and light industries that generally have an adverse effect on property values due to such problems as increase in traffic congestion.

iv. Intensity of use: -

The reduce quantity of old housing in the city center together with the continued high level of demand has led to much greater intensity of use of the available stock and in consequence, he said a much more rapid rate of deterioration will set into the areas.

v. Low income: -

Both tenants and to a larger extend landlords of slum property are relatively poor, thus not having the ability to undertake improvement. Further, he said, the problem is not a simple one of servicing a loan but also: -

(a) The ability to secure loan at reasonable interest rate in an imperfect money market, will tends to discriminate strongly against income groups.

(b) The understanding reluctant of the low income groups to incur the substantial depts, which will be required.

vi. The problem of deteriorating public services in the city centers: -

The city centers experience a lot of cases where high income group expected to fulfill their civic obligation by paying taxes of various

forms evade payment of these taxes and levies such as tenement rate, properties rate, capital gain tax, value added tax etc resulting to city centers suffering for fall in revenue out of which infrastructural services/ facilities are provided. The resultant effect of this fall in revenue is the restraint in ability to provide or make better the deteriorating services with the city centers. The economic liberation and financial growth have not spaced the city ability to house and provide services for her citizens.

2.2.2 SYMPTOMS OF SLUM

Slums are caused not only by deterioration of buildings but also by inadequacy of space standard, resulting, in congestion of various uses and inadequacy of circulation spaces.

Types of building (in an environment), which may be of poor architectural design, poor construction materials and non-conformity with town planning rules and regulations. Breakdown of infrastructure facilities such as pipe borne water supply system, resulting in a filthy environment; lack of maintenance of drains and roads, which result in stagnant pools breeding mosquitoes.

Land tenure system, which encourages the sub-division of land to each member of the family. This results in small plots that cannot accommodate a good standard of living cum ventilation.

Over population is another symptom of slum. One of the causes is the rural-urban drift to the high-density residential areas. The drift has been identified as one of the major contributor to population increase, which has a resultant effect in slum development at the area of destination, because the available facilities are out stretched.

The change of use of building has also been identified as a symptom of slums. For instance, the change of a single household unit into two or more. This can encourage slum development.

2.2.3 CHARACTERISTICS OF SLUM AREAS.

A slum area as described by Odong (1979). As the "zone of deterioration" and generators of social deviation. Slum dwellers were viewed as a socio-spatially isolated group whose separation was attributed variously to preferred deviance, the rejection of the work ethic, and other anti-social values. In other words, slum areas have traditionally been viewed as areas inhabited by the poor in the urban system. The economic perception of slum areas is thus largely that of people who are unskilled and therefore cannot be employed. Thus, Portes, (1971) has described urban slum in Chile as "housing the poorest of the poor, the unemployed, the unskilled and illiterate and often the alcoholic, the vagabond, and the delinquent.

Portes, viewed slum dwellers as people that have reached their dead-end situations-a refuge of ultimate destitution.

There is also the political perspective, which view slum areas as the breeding ground of political radicalism and violence. There is perspective stems from the basic assumption that slum dwellers experiences of poor living conditions and a variety of socio-economic hardships would, in time, generate feelings of frustration and discontent. Such feelings would eventually leads to an eruption of political radicalism and violence (Portes 1971).

The environmental implication of social, economic and political perspectives of slum areas is the emergency of decayed physical environments. Overcrowding is a demographic phenomenon, which occurs indiscriminately in slums. Overcrowding is generally regarded as a hazard to health and, in particular, encourages the spread of infective diseases, such as typhoid and tuberculosis. This is most pronounced in a residential situation in which sleeping accommodation is congested and ventilation facilities poor.

From the research conducted by Kigotho (1994) on the Mathare slum of Nairobi, Kenya, it was discovered that the estate is riddled with malnutrition, malaria, diarrhea, skin diseases, sexual transmitted diseases and AIDS. The area was said also to be a death trap for many residents because of poor environmental condition. Divorce is on the increase, as is juvenile crime, drug abuse and incidence of orphaned, abandoned and street children.

Marries (1961) in Lagos, have independently observed that the often supposed poor health of slum dwellers is not exclusively a consequence of poor housing condition as such, poor health could also be attributed to unbalanced diet, inadequate medical facilities and willful disregard of personal hygiene which is common to every slum all over the world. Urban slum is therefore, a global problem.

2.3 URBAN SLUM A GLOBAL PROBLEM.

Most slums are dilapidated confectional dwellings in the older sections of the city often close to the Central Business District (CBD).

The study carried out on Bombay slums (Dharavi, Mahim and Parel) reports citing shacks cobbled together from cardboard, tin and cloth huddled in the streets. People, lined-up in rows, sleep out on the pavement, on the tops of the bridge rails, sometimes on mattresses pulled out to the side of the street, other time on the bare ground. It was said that when the American writer Mark Twain visited Bombay in 1890; his first impression was "the people sleeping out on the pavement in the middle of the night" (Tindall 1995).

What is happening in Bombay is not unique particularly in developing world but also being experienced at one time or the other in developed countries too. From the survey carried out on the British "inner areas" in the 1970s by professional consultants, a ministerial summary states that, the chief centers of this urban deprivation include the inner

areas of the major conurbations, London, Glasgow, Tyre-west, West Yorkshire, Greater Manchester, Merseyside and west midlands. In 1971 they contained nearly four millions people, one fourteenth of the country's population but an eight of its unskilled workers, a fifth of its families living in some form of housing stress and a third of its new common wealth immigrants...The picture is one of exceptional concentrations of poverty and deprivation. (HMSO, 1977).

Biswan, 1994 mentioned that the level of environmental degradation experienced in Calcutta in the 1970s and 1980s are sever and have led to significant economic and losses in health, productivity and amenity costs. These increasingly level of environmental degradation represents a significant threat to the poor of the city, many of whom have not had access to formal education, or are not reached by Informal training and awareness campaigns that explain the causes of environmental problem.

In 1982, the Nigerian Institute of Social and Economic Research (NISER) conducted survey of slum areas in Benin, Ibadan, Lagos and Enugu in order to analyse all the slum areas in these four towns. Ajegunle was selected in Lagos, Elekuro in Ibadan, and Ibiwe in Benin and Ogbete residential areas in Enugu. From the survey, it was observed that the areas have peculiar problems of poor pattern of Land use structure, inadequate housing for masses, uses of inferior construction materials, inadequate housing facilities, poor maintenance profile, high rate of crime and such other problems peculiar to every urban slum.

The Mathare slum in Nairobi, Kenya is said to be referred to as the largest slum in east Africa and is said to be a heaven for gangs that terrorized Nairobi. Having no streetlights, it was easy for thugs to run and hide there at night. Over 15years, fire out breaks has been said to be on constant reoccurrence in Mathare because of the congested high density of wooden and plastic structures. This sprawling estate of about 300,000 people has been said to have neither sanitation facilities nor garbage

collection center, neither road nor footpaths, and the supply of piped water is irregular.

The problems of 'inner city' is therefore peculiar to every city of the world be it developing or developed. Even as efforts are being made to clear one area of this problem, the problem is leaving or migrating to another area of the same city. Slum as a city problem is therefore an unruly evils.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 METHOD OF DATA COLLECTION

In conducting the research work in this dissertation, a reconnaissance survey of the study areas was conducted with a view of examining the general situation/condition of slum in Karmo FCT, Abuja. With this at hand, questionnaires were drafted and pre-tested on a randomly selected number of people within the study area.

3.2 SOURCES OF DATA

Self-administered questionnaires were used to solicit the response of the respondents covering wide range of questions on the effect of slum on the environment and its consequence(s).

Also another set of questionnaires were administered to Environmental Protection Board and the Ministry of Federal Capital Territory (Land Administration and resettlement department).

Oral interview method was also used. The following were contacted among which include Estate officers in private practice and other professionals in the built-up environment. Data was also collected from secondary sources and they include textbooks, journals, past literature works, conference papers and libraries as the case may be.

3.3 TARGET POPULATION AREA AND SAMPLE SIZES

The development of Abuja the federal capital territory was categorically divided into four phases. The plan development of the phases is as follows: -

PHASE	PROJECTED TARGET POPULATION
I.	230,000 Official figure
II.	585,000 official figure
III.	640,000 official figure
IV.	1.7 million official figures

Source: Nigeria New Federal Capital, Abuja.

PHASE II.

The detailed land use planning and site development plan of phase II is made up of various uses among which are as follows:

Industrial Land use, Residential Land use, Religious Land use, Commercial and Institutional Land use planning.

Karmo was proposed to house the industrial staff quarters and private residents. These constitute the target area of this research work exercise.

In the sample work exercise, the target population of the whole phase is 585,000. Karmo is therefore estimated at 10%, which is far beyond what is obtainable for now.

Questionnaire administered focused on the following social, Economic and physical characteristics of the households and environment in which the habitants lives. Among these includes:-

- i. Land use structure
- ii. House types
- iii. Condition of building
- iv. Habitable\ventilation rooms
- v. House rent.
- vi. Housing facilities such as water, bathroom, and toilet.
- vii. Refuse disposal point or system.
- viii. Occupation/income level.
- ix. Road condition.
- x. Drainage patterns etc.

Three percent of the target population was selected as respondents. In every household, it was the head that was interviewed; in all a thousand questionnaires were administered to one thousand respondents.

DATA ANALYSES TECHNIQUES

The data collected was analyzed in form of charts, tables and report writing which are simple techniques of data analysis.

PROBLEMS AND LIMITATION.

The problem encountered so far is the un-compromising attitudes of the respondents during the course of data collection/appraisal.

TIME LIMIT: The time is so short that a good time was not set aside for this dissertation due to stress among which includes lectures, assignment and other class work exercise.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATIONS.

The data analysis here is derived from the questionnaire (see appendix) administered in the choice settlement of Karmo, Abuja. The reconnaissance survey and questionnaires was administered in December 2001 -January 2002. Effort therefore was made to analyse the effect of slum area to the environment.

The questionnaire administered focused more on the following social, economic, health and physical characteristic of Karmo in which the inhabitants live.

Among other thing, the following are considered Via: -

1. Land use structure
2. Construction materials/Number of dwellers per room.
3. Sanitation aspect of the area.
4. Health facilities.
5. Population pressure.
6. Water supply.
7. Refuse collection point.

LAND USE STRUCTURE.

The land use structure/development is not subject to any form of control by planning Authorities. Survey in the areas indicates that residential dwellings constitute over 80% of the total developed land. This reflects the known characteristic of traditional slum areas in which every available space is devoted to residential land use.

Pertinent however to say that very small amount of land is devoted to transport (road) this indicates that mobility within the area (Karmo) is highly restricted.

Reconnaissance survey indicates that community services wherever they exist in Karmo do not have adequate space. Infact suffice to say that recreational space is non-existence in Karmo.

TABLE 4.1 SHOWING THE LAND USE PATTERN.

	LAND USE	%
1.	Residential Use(s)	83%
2.	Commercial	7.0%
3.	Industrial	2.0%
4.	Recreational	0%
5.	Transport	4.0%
6.	Education	2.5%
7.	Others	1.5%

BAR CHART SHOWING LAND USE PATTERN (KARMO)

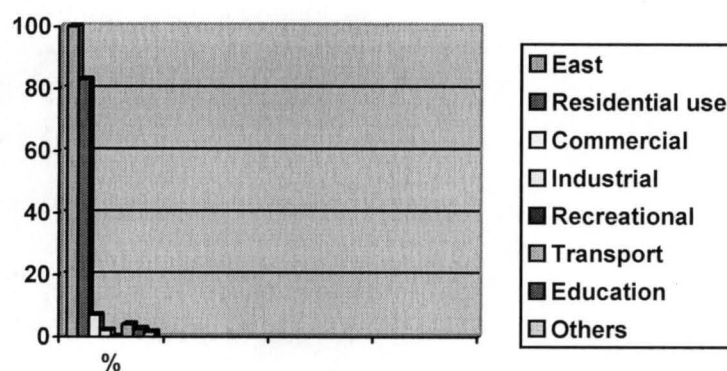


FIG. 4.1 LAND USE STRUCTURE.

SOURCE: Compiled by the author.

Accordingly, considering the table and the chart above, it is discovered that the major land use of the area is residential,

housing both the ministry /parastata staff and the construction worker.

Pertinent to say that some of the inhabitants are learned but pushed to the areas as a result of the ability to get a better accommodation in a decent area (Economic forces).

Rental evidence here is relatively cheap compare to other neighborhood of the city. Its proximity to the city center forces great number of people to choose Karmo as resident devoid of the associated problem.

Industrial land use follows the Residential Pattern. This constitutes 2.0% of the entire land use pattern of the areas therefore noise and smokes , constituting health hazards.

Grinding machines is virtually seen one per each household while bakery in the midst of the inhabitants. This constitutes noise leading to shouting in term of communication as the environment has gradually changed their behavioral and sense of hearing.

Commercial activities constitute 7.0% of the land use pattern as most households have kiosk or canter where provisions and other foodstuff are displayed. This however competes seriously with the land area devoted for transportation and the likes.

Recreation centers is given no consideration at all as all available place is being put to use for commercial benefit and where such is lacking, such an open space is converted to a refuse dump. Consequently heaps of refuse all over resulting into an eye sore with the associated disease in addition, odour nuisance.

Transportation suffers a remarkable defeat in the Land use structure in the slum area (Karmo). Mobility within the settlement area is highly restricted as every available space is converted to dwelling, thereby resulting into human and traffic congestion in the area.

Educational facilities are low here. They constitute 2.5% of the entire land use of the area. In the whole of Karmo, which constitutes approximately 10% of the city population, only two numbers of primary education and a secondary school exist. These in addition suffers heavy deterioration and worn-out as proper attention is not focused on the educational facilities in this area of settlement.

The remaining 1.5% of the land use structure constitutes among others refuse disposal point; area earmarked for mud excavation and drainage channels.

4.2. CONSTRUCTION MATERIALS/NUMBERS OF DWELLERS PER ROOM..

4.2.1 CONSTRUCTION MATERIALS:

Majority of the dwellings are built of mud block walls and corrugated iron sheets as roof; some provided for ceiling while others are not. This necessitate the increase in heat and its related diseases such as heat rashes, meningitis etc.

It is pertinent to mention that, the vast majority of the dwelling are built of mud walls with cis roof few of the dwellings in the surveyed areas have cement rendered mud walls while less than 5% are built of sand Crete cement block wall construction with very small provision for ventilation and gaseous exchange where available.

Most of the inhabitants built their houses before the inception of the dream new federal capital with the local materials they could lay hands upon.

An analysis of the age structure of the dwelling units surveyed indicated a high degree of poverty as most of the dwelling lack maintenance on the one hand and the nature of usage on the other hand. Research shows that 30% of the dwellings are over twenty years of age. The relatively old age of some of the dwellings indicates that some of the

dwellingings are already in existence before the urban settlement (city life) intruded.

Table 4.2 CONSTRUCTION MATERIALS USED

	OLD KARMO	KARMO	FOREST
MUDBLOCKS	57%	33%	40%
MUD BLOCK WITH CEMENT			
SCREED	20%	20%	37%
CEMENT BLOCK			
WALLS	18%	40%	15%
OTHERS	5%	7%	8%

Source: Compiled by the Author.

4.2.2 NUMBERS OF DWELLERS PER ROOM

This is to measure the degree of overcrowding. The Nigerian planning standard for urban areas indicated that the average number of room per household should be three (Niser, 1982).

However, to say that the number of rooms per household as an indicator of the pressure on accommodation is not adequate because it does not take into consideration, the size of households concerned. Consequently, the usual indicator of overcrowding is the number of person per habitable room. The table present the pattern of person per habitable room, which indicates that over 80% of the dwelling units

surveyed, have four to five numbers of person per room. This is against the average standard of two person per room in the urban life (area).

Table 4.3 NUMBERS OF PERSON (S) PER ROOM (%)

	OLD KARMO	KARMO EXT.	FOREST (CAMP)
4-5 PERSON/ROOM	35%	27%	18%
3-4 PERSON/ROOM	29%	48%	30%
2-3 PERSON/ROOM	24%	10%	28%
1-2 PERSON/ROOM	12%	5 %	24%

Source: Compiled by the Author

4.3 SANITATION ASPECT OF THE AREA.

Environmental protection measures are only meaningful if the environment to be protected is adequately understood. Neither over-protection nor under-protection of the environment is desirable. Ideally, standards are set based on nationally generated environmental baseline data, the nature of the habitants and the level of their awareness, which is scanty considering the level of degradation.

Karmo the subject area of concern is environmentally unpleasant, life threatening above all, an eye sore leading to human life endangered.

4.4.1 HEALTH FACILITIES.

Planning for health services in the New Federal Capital city was to take into account the need for flexibility and phasing, as population grows from approximately 20,000 construction workers in 1978-81 to a population of a half of a million in 1990 and to a projected 1.6 million sometime in the

foreseeable future. Planning was made to take into consideration the provision of health care facilities elsewhere in the Federal Capital City (The master plan for Abuja the new federal capital of Nigeria page 130).

The health system in Karmo {elsewhere in FCT} is deteriorated to the extent that clinics are described as "mere consulting clinics". The situation was compounded by the environmental deterioration and the mass exodus of experienced Nigerian health experts to other countries in search of better conditions of service. The health centers are scanty and poorly equipped where possible. Infrastructure remained poor, inadequate and fast deteriorating. Many of the primary health care workers lacked the appropriate skills for their jobs.

Arising from the above, there was high infant, and maternal mortality, and the prevalence of many diseases, several of which were of epidemic proportions. In addition, malnutrition, stunting, Iodine deficiency and under-weighting were rampant.

4.5 POPULATION PRESSURE

The master plan for the development of Abuja has been described as the best in Africa, with all the design elements of a modern capital city and befitting the seat of our national government. However, important aspects of the development plan for the city have been jettisoned. Some commentators have therefore pointed out that Abuja would be like Lagos in the next few years if not months. The bases for their conclusion are jagged scenery of haphazard environment created as a result of human pressure and traffics.

According to Malthus 1978 in his book titled Essay on the principle of population, it had much effect on planning for the improvement of society ever since. The population of Karmo had grown very fast.

The rate of population growth in Karmo is more rapid. Accordingly Malthus compared population increases with available resources and felt that population was increasing at a fast rate than the means to support it.

While the population of Karimo was growing at a geometric progression, the resource was increasing at arithmetic progression. A translation of the two growth rates would mean that population would soon outstrip the available resources which will signifies disaster, chaos, increase in crime etc as the case is in Karmo at present.

WATER SUPPLY;

In the analysis, water supply indicates that pipe borne water connected to individuals is not common. The main source of water for most of the dwelling is through wells and rivers, which are seasonal.

The graph below shows the water supply to Karmo

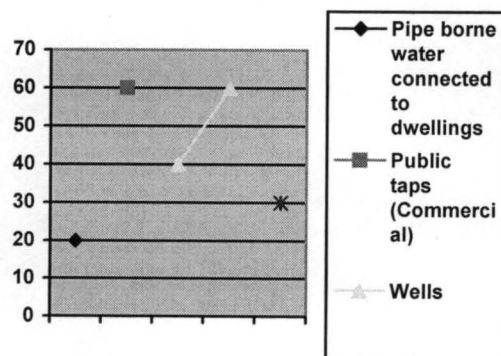


FIG. 4.2 WATER SUPPLY

SOURCE: Compiled by the author

A= Pipe borne water connected to dwellings

B= Public taps {commercial}

C= Wells

D= Rivers

E= Others

REFUSE COLLECTION CENTRES

Research indicates that most of the dwellings in the various settlements do not have easy access to refuse collection point and where available, the resultant effect is smoke, odor sanitation and above all an eye sore.

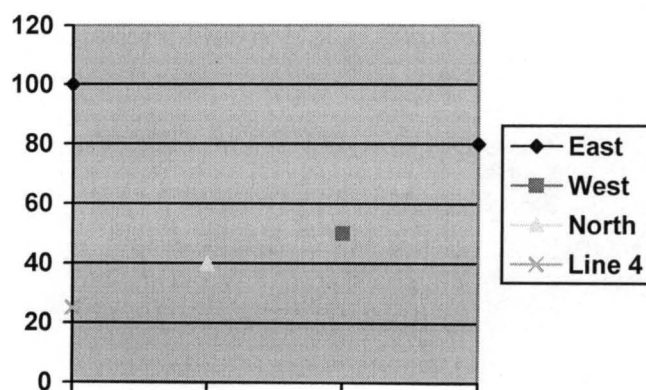
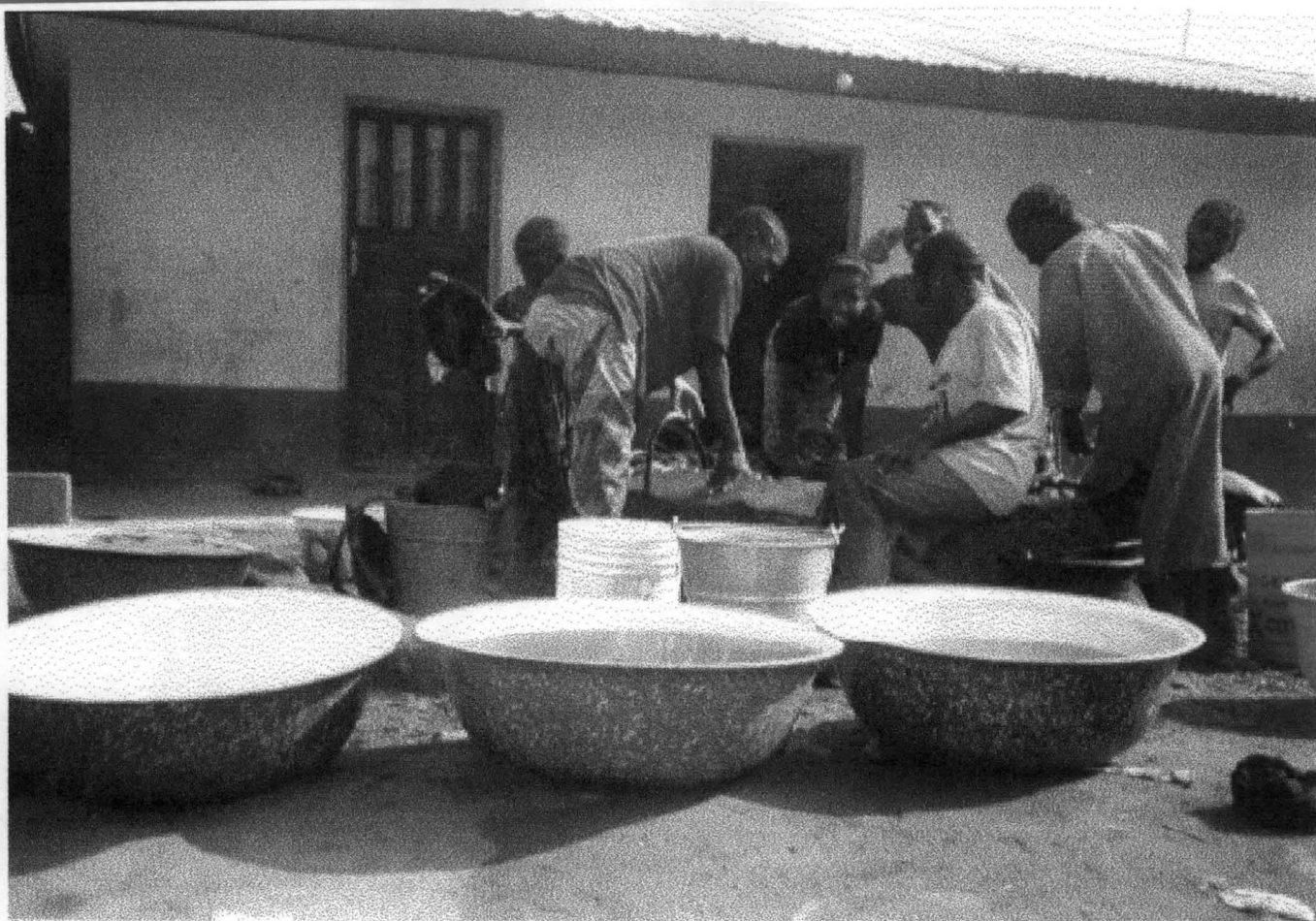


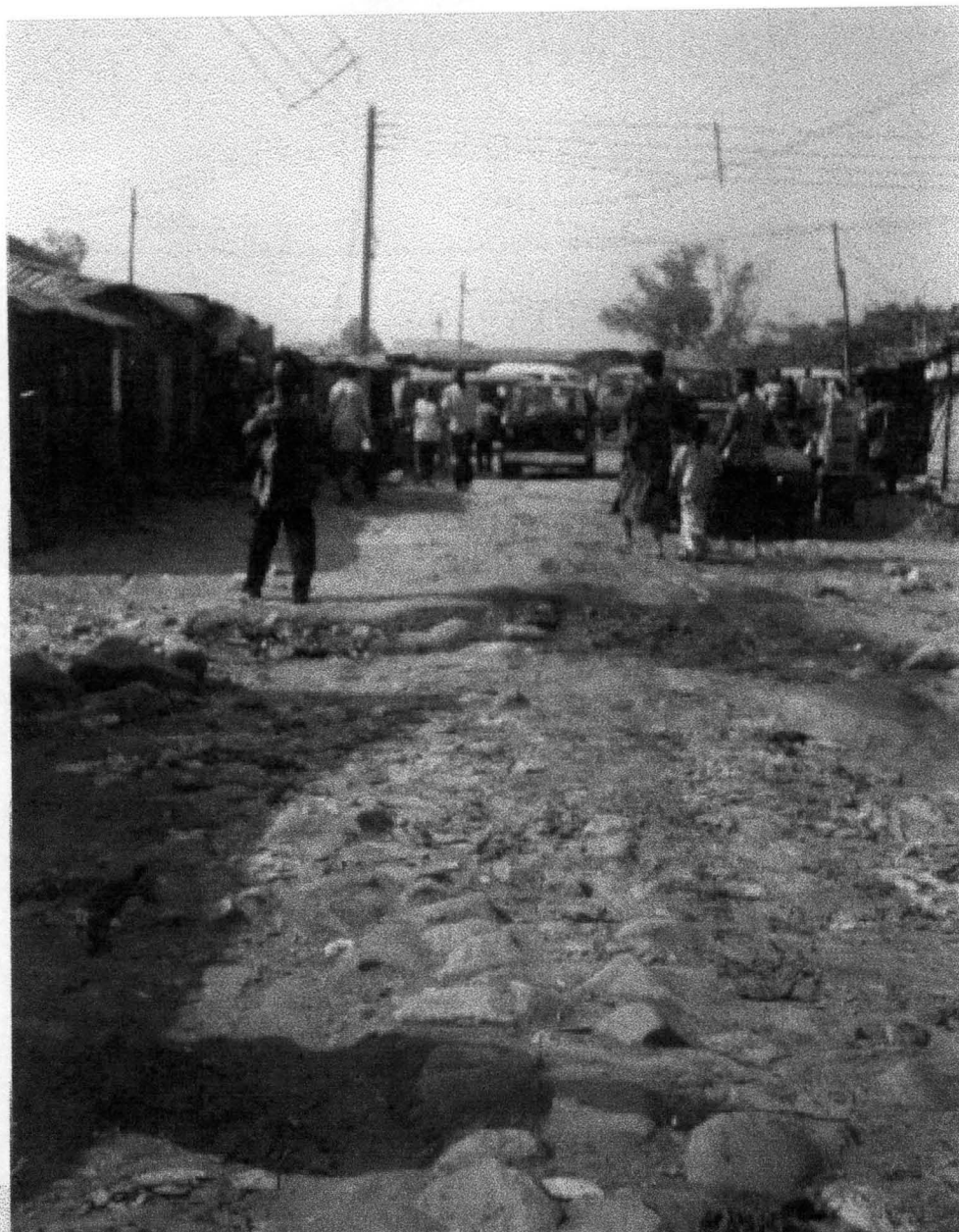
FIG. 4.3 Distance to refuse disposal point

SOURCE: Compiled by the author.















CHAPTER FIVE

5.1

SUMMARY

The problem of the inner city is not only physical, rather more of social. The problem is not only dilapidated and deteriorating buildings, but also the people dwelling in the area. Slum itself is a way of life. This is the argument propounded by the dysfunctional and functionalists perceptions on slum areas.

The common solutions prescribed by the dysfunctionalist to slum dwellers is clearance and redevelopment. In contrast, the functionalist argument have, in main, revolved round the notion that, as a pragmatic solution to the mounting problem of housing shortage, slum ought to be preserved and improved rather than eradicating (casaco, 1969). They have sought to highlight the value of slum from both sociological and economic perspectives. Their argument from a sociological perspectives rest on the premises that slums are an asset in the sense that they perform acculturating and transit-oriented functions for urban immigrants. Thus, the argument is advanced that slums usually offers a wide range of employment as well as investment opportunity for low-income groups. In other words, slums are viewed as contributing to capital formation, as demanding imports from the urban centers and as supplying important quantities of unskilled and semi-skilled labour to the urban centers (Onokerhoraye, 1988).

The functionalist perspectives on slums have shown why many slum dwellers find it difficult to live during redevelopment or demolition exercise. One sociologist who had lived in the slum wrote about a district of Boston, which was later brutally destroyed. He has this to say about it;

"The west end was not a charming neighborhood of "noble peasant"-living in an exotic fashion, resisting the mass- produced homogeneity of American culture and overflowing with a cohesive sense of community. It was a run-down area of people struggling with the people of low income, poor

is coherent, sophisticated argument, which, even if it is in the end rejected as inadequate, makes a number of telling points. According to this view, the problem of inner areas is that, their inhabitants are poor and poor quality of housing is a consequence of this poverty. The problem is therefore that of poverty and not that of any physical decay.

b. "Improve and dilute the slums":- This is the idea that the most effective attack on slums will involve both improving and diluting them, that is, providing better living condition and more jobs in the slums and at the same time removing all barriers to out –immigration. A given amount of poverty and ignorance, according to this idea; is socially less serious and more quickly curable if it is scattered than if it is made up of solid mass. This is in realization that the problems of old resident areas could not be tackled merely by improving housing but rather there is the need to swing towards "cellular" redevelopment.

c. "The problem is capitalism and the solution is socialism "This approach is based on the fact that the root cause of the problem lies in the continued private ownership of land and housing. The solution lies, on the other hand, in such a degree of state ownership or control that any required employment could be directed to the inner areas. On the other hand, privately owned housing and land would be brought under municipal ownership.

d. "Self Help":- The fourth policy suggested that national fund are likely to be limited, and that the inner areas must help themselves.

These four approaches can be seen to be the balm that would adequately suite the pain of the inner city.

5.3

CONCLUSION

In Kigotho (1994), the archbishop of Nairobi, cardinal Maurice Otunga did comment that, "how can people oppose slums upgrading and even go to court when all we are trying to do is to minimize suffering and the harsh

conditions of our people ". He was lamenting over some group of persons unpatriotic and in-human behaviors that resulted in their instituting a court injunction against an attempt to upgrade slum and eventually provide decent housing in the improvement of the entire area involving slum clearing and the rebuilding of houses together with various services such as shopping, planning communication and security facilities. By undertaking projects on a large scale most of the externalities can be internalized and much of the true values of non-profit uses can be reaped in the returns to the profit uses.

There are two major objectives of urban renewal schemes.

(a) To improve on the efficiency with which resources are allocated. Slums by their very nature fail to renew themselves even though the social benefit of improvement may outweigh the social cost.

(b) To improve the distribution of income from the payers through the federal, state and local governments to the relatively poor cities with large slums areas.

For the above to be attained, (Martin, 1977) believes that this requires some government intervention. For instance, the private market is characterized by fragmented ownership, widespread externalities, legal disincentives such as rent control and security of tenure. And low income will not operate efficiently from an economic perspective for profit maximization objectives offer result far different from social welfare maximization. Another reason for government intervention is that private action fail to achieve the distributional objectives, for in private urban renewal schemes, which are very rare in our common society, there will inevitably be displacement of existing families unable to afford the new levels resulting in their position becoming worse and not better off.

Maintenance culture, it has become a part of our society to show a nonchalant attitude towards keeping in good state of repairs of already provided infrastructural services viewing that such responsibility to lie on the government only irrespective of the fact that the utility and maximum benefit are accrued to the citizenry.

Slums can only be curbed, managed and improved sustainably only if the citizenry is/are enlightened more on the need to imbibe the attitude of maintenance culture not only on the social services provided but also in ensuring good state of our houses and continuous sanitary environment.

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APPENDIX

QUESTIONNAIRE ON EFFECT OF SLUM TO THE ENVIRONMENT.

CASE STUDY KARMO FCT, ABUJA.

1. NAME:-----.
2. LOCATION:-----.
3. OCCUPATION:----- NATIONALITY-----.
4. STATE OF ORIGIN----- RELIGION-----.
5. PLACE OF WORK.-----.
6. FOR HOW LONG HAVE YOU BEEN IN KARMO?
7. LIST THREE PERCULIAR PROBLEMS ASSOCIATED WITH THIS AREA.
 - i.-----.
 - ii.-----.
 - iii.-----.
8. PLEASE EMPHASE ON THE DEGREE OF SEVERITY (SERIOUSNESS) OF THE ABOVE MENTIONED PROBLEMS.-----.
(A)MILD (B) SERIOUSE (C) VERY SERIOUSE.
9. WHAT ARE THE SOURCE (S) OF EATER SUPPLY.-----
10. HOW PURE IS THE SOURCE (S) OF SUPPLY (WATER)? -----
11. ANY APPROVED HEALTH CENTRE WITHIN YOUR AREA? YES OR NO? IF YES PLEASE HOW MANY? -----.
IF NO WHY? -----.
12. STAE THE TYPE OF YOUR ACCOMODATION.
13. HOW MANY IN THE ROOM.-----.

14. WHAT ARE THE MEANS OF REFUSE DISPOSAL.-----
15. IS YOUR HOUSE PROVIDED WITH A TOILET FACILITY (IES)?YES OR NO. -----.
16. HOW MANY WINDOWS PER ROOM? -----.
17. IS YOUR HOUSE MOTORABLE? YES OR NO.
18. WHAT SOURCE (S) AVAILABLE FOR YOU IN GETTING TO YOUR HOUSE.-----.
19. IS THERE ANY EDUCATIONAL FACILITY CLOSE TO YOUR HOUSE?----
-----.
20. PLEASE ESTIMATE THE DISTANCE AND IF POSSIBLE, HOW MANY ACQUINTED TO BY YOU.-----
21. DID YOU CONSIDER YOUR AREA TO HAVE BEING A PLANNED ENVIRONMENT?
YES OR NO.-----WHY AND HOW?
22. IN YOUR OWN OPINION DO YOU SUGGEST RESSETLEMENT
PATTERN FOR YOUR ARAE? YES OR NO. PLEASE WHY?