

**EFFECT OF LAND TENURE SYSTEM ON
ENVIRONMENTAL DEGRADATION AND REAL
ESTATE INVESTMENT**

CASE STUDY OF GWAGWALADA AREA COUNCIL)

BY

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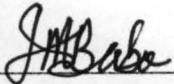
DECLARATION

I Moses Adeniyi Olalekan with Registration No: PGD/Geo/2003/2004/301 hereby declare that this dissertation was carried out by me under the supervision of Prof. J. M. Baba in the Department of Geography, Federal University of Technology, Minna, Niger State.

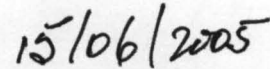
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CERTIFICATION

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DEDICATION

This project is dedicated to my family and most especially my fiancée
Adeyemi Adefila.

ACKNOWLEDGEMENT

I thank the almighty God who spared my life to complete this work and for his
and of wisdom that is on me. My sincere appreciation also goes to my parent
for everything they have done for me up till today, their financial and moral
support.

My thanks also goes to all my lecturers and especially my supervisor; Prof.
Aba under whose supervision this project becomes a reality.

In addition, I will like to express my gratitude to my dearest friend John Dayo
for his moral support throughout the programme.

Words seem inadequate to express my profound gratitude to you all. Thank you

ABSTRACT

This dissertation focuses on the system of land ownership in Gwagwalada Area Council. This system has culminated into environmental degradation as a result of uncontrolled action of the villagers on government layout. Their action has reduce dynastically the rate of development and inflow of real estate investors in the areas council.

More so, the master plan for the area council has a little or no reflection on the existing physical development. This is as a result of uncontrolled development carried out by the villagers, mud houses, that ached houses on government layout living the area with bad road network, poor drainage system, uncontrolled refuse disposal, bad sanitary system etc.

This research work will examine the extent of slum spread, level of encroached on government layout by the villagers and analysis of the effects of their action (villagers) on environmental degradation an real estate investment. This will be achieved by the use of questionnaire, oral interview, personal inspection to the affected areas and careful analysis of all data collected.

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CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND INFORMATION

The word "Land" is so frequently and freely used in our everyday life that this meaning or definition is taken for granted; yet if there is anything, which has no settled meaning or definition it is land.

The very meaning of land is seen differently by various sectors of society and their accompanying professional skills to a layman. Land simply means the earth or solid part on which we build our houses or other structures; it is not seen as to including things growing on it including anything under the earth or above it.

It is distinct from such features as rivers and oceans. In physical geography, it is defined as the "terra firma" on which settlements are created, and its physical qualities, which are of interest in its use.

From the spiritual concept; land is synonymous with Deity who acts as the guardian of the earth, man and in consequence must be worshiped and constantly appeased to avert her wrath and procure blessings and protection.

Socially and politically, land may be defined as meaning a nation, a town or a community or ethnic group hence such expressions of Nigerian soil, Ibo land, Yoruba land or in my homeland. These expressions refer to Nigeria, the geographical unit of Nigeria inhabited by Yoruba's and any towns or village respectively.

The term "land" suggests different things to different people depending on their outlook and their area of interest at the moment.

From legal point of view, land is considered as any portion of the earth's surface over which, ownership rights are exercised. The Oxford Advanced learner's dictionary defined land as "the solid dry part of the earth surface, contrasted with sea water".

Land can also be conceived as a free gift of nature, also it can be referred to as an accommodating base for all activities such as economic, socio-cultural, dams, residential, industrial, hospitals, institutional, municipal services and amenities etc. which must all co-exist in armory. Therefore the issue of land can not be over emphasized.

The land tenure system, which refers to the system of land ownership in Nigeria, the geographical division of Nigeria into Northern, Western and Eastern provinces gave rise to diverse customary land tenure systems. Viewing the country as a whole, it was observed that the traditional land tenure system in Nigeria is mainly on inheritance. The inheritance systems gives rise to scattered holdings and farm lands are in on contiguous plots.

However, individual ownership was becoming popular because of the pressures of population on the land and the advances being made in the economy, which has made land scarce therefore essentially valuable.

Due to the geometrical increase in the population, which result in scarcity of land, brings about high pressure on land resources. Increase pressure on land and environment brings about environmental degradation.

Land tenure can therefore be referred to as system of ownership of land.

Environmental degradation may be referred to as the gradual loss in the natural environmental resources. Loss in environmental resources results in environmental hazards if nothing is done.

To an estate surveyor and valuer, real estate investment is the most secured and valuable form of investment, real estate investment may be inform of property development for sale, letting and also for recreational purposes.

Moreover, investment in land may also take the form of Agriculture, the survival of which depends on the natural resources of the environment.

The success of environmental management and real estate investment largely depends on how much land is available to an individual, which is why the researcher is motivated to write on the effect of land tenure system on environmental degradation and real estate investment in Gwagwalada Area Council.

Quite often the distribution of land is characterized by inequality and this in turn establishes a strong basis for inequality of wealth in society. So land is tied to economic power, social and political power. Consequently, the inequalities have fuelled the violent revolution in history, for example, the first and Second World War started as a result of territorial conflict; and land was central.

In most community customary system of ownership (Tenure) had began as communal tenure or right whereby ownership were vested in the community e.g. Gwari land, Yoruba land etc.

Access to land under this system is basically by citizenship, in some other part of the society, the ownership of land is vested in the family head whereby only the member of the family is entitled to land. With the increase in population of each family and community at a geometric progression without any increase in land available results in land parcelisation among the members of the family. An increase in number of members of individual family with a parcel of land increase the pressure on that plot, this will result into continuous cropping, deforestation year in and out, over-grazing, slum in residential areas etc. all leads to lost of soil fertility, erosion, draught, lust in shape and beauty of environment and eventually desertification.

Family heads or community heads to a very large extent forbids/discourage external real estate investors in their land and that is why so many part of our towns and villages are still not developed up till today. Despite the promulgation of the land use Act of 1978, the communal/customary system of land ownership are still operational in most part of our cities even in F.C.T. (Federal Capital Territory) e.g. Gwagwalada Area Council. These are some of the problems this work will address.

1.3 **AIM AND OBJECTIVES**

The main aim of the study is to examine the effect of customary land tenure system on environmental degradation and real estate investment and proffering ways of ameliorating them.

To achieve this general aim, the following objectives will be pursued:-

- (a) To examine the rate of slum spread in Gwagwalada A. C.
- (b) To examine the extent of encroachment on government layout by the villagers.
- (c) To evaluate how system of land ownership affects environmental degradation and real estate investment.

1.4 **PURPOSE AND SIGNIFICANCE OF STUDY**

The alarming rate of desert encroachment, slum spread and their associated problems in this country portends a great danger for the country in the nearest

future. Therefore, evaluation of the cause and proffering a lasting solution is inevitable.

More so, land tenure system as a cause of these prevents the smooth development in both our urban and rural areas. This is as a result of discrimination between the native land owners and the real estate investors (visitor).

The incessant overtaking of Government layout by the native Chiefs.

This dissertation will look into the extents of encroachment of Government layout by the villagers, degraded areas due to activities of villages, enlighten the villagers on the effect of their activities on the environment and proffer some possible solutions.

1.5 **SCOPE OF STUDY**

This research study will centred on the system of land ownership in Gwagwalada Area Council, Abuja. It will cover the procedure taken by the villagers in encroaching into government layout and the effects of this act on their environment.

1.6 STUDY AREA

Abuja was created by the federal capital territory, Decree No 6 of February 1976 in Oct 1975.

The FCDA (federal Capital Development Authority) by the same decree charged with the development of new federal Capital for Nigeria.

The FCT consist of eleven (11) district out of which Niger State has (6), Plateau State (4) and Kogi state (1). These districts were later upgraded and merged into area councils, equivalent of local government as presently constituted in the country. FCT now has 6 Area Councils namely Municipal, Kwali, Kuje, Bwari, Abaji and Gwagwalada Area council which is the main focus of this dissertation see Appendix II to IV.

The regulation is characterized by park savannah as well as patches of forest. The area is typified by gently undulating terrain interlaced by riverine depression.

Gwagwalada Area Council happens to be the hottest part of the FCT. This is due to the topography of the area, it is the lowest part of the FCT interim of the terrain and the higher it goes the cooler it become and the lower it goes the hotter it become.

1.6.1 HISTORICAL BACKGROUND OF GWAGWALADA AREA COUNCIL, ABUJA

Gwagwalada Area Council was created on the 15th of October 1984 after the creation of Federal Capital Territory in 1976. Before the creation of Federal Capital Territory, Gwagwalada and its environs were under the Kwali district of the former Abuja emirate now Suleja emirate.

As one of the six Area Council that make up the Federal Capital Territory, it is strategically located along the Lokoja – Kaduna highway; this gave it a head start over the other Area Councils.

The final relocation of government in 1991 from Lagos to Abuja brought a massive influx of people into the Area Council. The population of the Area Council has grown astronomically and can be estimated at 500,000 people. This comprises the original settlers: namely Gwari, Koro, Gede, Bassa and the Hausa-Fulani, as well as other emigrant from other part of the country.

Gwagwalada Area Council is administered by an Executive Chairman elected through popular vote. The council is composed of 10 elected councilors representing the 10 wards of the area council, namely: Zuba, Ibwa, Dobi, Kutunku, Tunga-Maje, Gwako, Paiko -- Kore, Ikwa, Gwagwalada central and Gwagwalada Quarters wards.

The "Aguma" is the traditional ruler of Gwagwalada, the "Agora" is another major traditional ruler in the Area Council, he is the Chief of Zuba, the northern gateway of the Federal Capital Territory.

Gwagwalada has assumed a pride of places as the Athen of Abuja.

As a center of learning, it houses all the major higher institutions in the F.C.T.

These include, the University of Abuja, the School of Nursing and the College of Education. It has over 40 primary and 7 secondary schools. Gwagwalada also houses the Abuja Specialist Hospital, a centre of medical excellence recognized nationwide.

1.7 JUSTIFICATION

The federal Capital Territory came into being by virtue of Decree No. 6 of 1978, which vested all the land within the territory in the Federal Government.

Before the advent of the Federal Capital Territory Act and the Land Use Act, the laws of the defunct Northern Nigeria governed the area in which the area is located.

There has been deviation from the laid down provision in the two Acts and it is affecting the proper and effective administration of land in the Federal Capital Territory and particularly Gwagwalada Area Council. Due to this constraint this research will aim at proffering recommendations, suggestions of solving the problems.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 **TENURE:** The new webster's Dictionary of English defined "Tenure" as the act manner or right of holding office or property, especially real estate, the period of holding this.

2.1.1. LAND TENURE

C.G. Okwaye submit that, Land tenure may be defined, loosely as the body of rules which govern access to land and the relationship between the holder of land and the community on one hand, and or that between the holder and another party (which in the Algerian situation could be the community) having superior title. Tenure therefore, defines what interests are held, the mode of against and transfer as well as the rights and liabilities of holders of land.

2.1.2. ENVIRONMENTAL RESOURCES

Zimmerman (1933) had published in his work in which he agued that neither the environment nor any part of the environment are resources until that are considered to be capable of satisfying mankind needs. This implies that resources are an expression of appraisal in other words examination of what it is and represent on entirely subjective concept. Its meaning is capable of changing from persons, place to places or time. E.g. there was a time when crude oil ozzed out in a locality in the United State of American and (USA) at

that early stage, this substance was considered a nuisance because it was seen as a pollution, until it was utilized for man's use in the form of energy (petroleum) for cars, machineries and so on.

2.1.3 NATURAL RESOURCES

Mericle (2003) define National resources as something that exist naturally, not because it was produced by human being.

Natural resources are often or non renewable as a result. in the depletion of these resources, could cause supplies to dry up. For example some environmentalist, argue that present rates of fossil fuel use are unsustainable because fossil fuel resources will run out in coming years.

A "fund resource" is one that can be exhausted through human consumption. Fossil fuels fit this category, as do many other resources, metals for example can be depleted if they are not recycled and used again.

Many natural resources can renew themselves over time, however, there are limitation to this ability.

2.1.4 DEFORESTATION:

Caroline (2003) defined deforestation as the process of destroying or removing a forest ecosystem. In its place a different ecosystem will come about. This is different from the process clear-cutting a forest, clear cutting

only removes the current trees, but allows new ones to grow in their place because it does not fundamentally change the ecosystem.

2.1.5. EXTINCTION

Black law dictionary described extinction as extinguished, no longer in existence or use.

Oxford dictionary and the saurus define extinction as the act of making extinct; the state of being or process of becoming extinct or act of extinguishing or wiping out.

2.1.6 LAND

Smith define and to “include any building and other things attached to the earth or permanently fastened to anything so attached but does not include minerals”.

2.1.7 ECOSYSTEM

Muelly (2003) an ecosystem relates to the biotic and abiotic elements of a certain area and the relationships between them.

- i. Biome: A Biome is a type of ecosystem. It refers to many unique ecosystem that share certain common characteristics.
- ii. Biosphere: the largest possible ecosystem is biosphere. It includes every organization and species on earth, combining all of the planets individual ecosystem.

- iii. Biotic communities: the living organism in a certain area form the biotic community.
- iv. Climate; the Climate of an area is the typical weather patterns it experiences.
- v. Deserts: a desert is a type of ecosystem fitting under the category of biome. Desert are extremely dry, and their unique conditions cause highly different plant and animal life to exist.
- vi. Habitat: A habitat is a more permanent ecosystem that has stabilized and reached dynamic equilibrium.

2.1.8 NATURAL PLANT RESOURCES

Neil Franklin (1999) ,Natural plants growing in the wild areas form of wildlife resource. These resources have significant value to human beings, as well as value as a part of nature.

Many economic benefits are given to humanity by the planets plant resource. Plants provide the materials needed for food, spices, flavor and scents. They also make certain commercial products possible such as soap, paper, fuel, fibers, medicine, dyes and waxes.

Today, domesticated plants supply the world with 90% of its food. These plants supply the world with 90% of its food. These plants were originally found in the tropics, but were taken back to other locations and domesticated.

There are many reasons to keep wild plants around. Many environmental activists and others have campaigned to preserve this integral part of nature.

Plants provide beauty and happiness to the world and its human inhabitants. The aesthetic and recreational value of wild plants makes the resources very important.

The world's animal resources have changed tremendously over time. In modern times, high level of extinction increased the level of loss of the world's animals. Modern science has identified 1.7 million different species of plant and animals. Most of these insects, in total, the number of species inhabiting the plant may be in type tens of millions, but estimates are continually changing.

Many species that currently inhabit our planet may be lost without people ever knowing them. Destroying tropical rain forests and other ecosystems can cause wide spread extinction of species.

2.2 ENVIRONMENTAL DEGRADATION PROCESS

Environmental degradation process, the four major cause or processes mentioned and described below: Sec 2.1.4 for Deforestation.

2.2.1 SOIL EROSION

Soil erosion is a process whereby the surface layer of weathered rock is loosened and carried away by running water, wind, ice or natural agent and the lower horizon in the soil is exposed.

Soil erosion occurs in several parts of Nigeria under different geologic, climatic and soil condition. But the degree of occurrence varies considerably from one part of the country to the other.

TYPES AND CAUSES OF SOIL EROSION

Basically there are three types of erosion by water. They include:

- **Surface flow erosion:** Which occurs soil is removed with surface run off during heavy rain.

Splash Erosion: Occurs when rain drops strike bare soil causing it to splash as mud to flow into spaces in the soil and to turn the upper layer of soil into a structure less compacted mass that dries with a hard impermeable crust.

Channelized flow Erosion: Takes place when a mixture of water and solid cut a channel which is then deepened by further scouring. These type of erosion manifest in several different forms namely: rain drop erosion, sheet erosion, rill erosion and gully erosion.

Soil erosion are caused by both physical and human factors or a combination of both. Physical factors that leads to erosion include the following:

- Nature and composition of the soil;
- Topography;
- Climate
- Absence of vegetation cover
- Human factors are:
 - Over cropping excessive farming
 - Mining activities
 - Construction works
 - Clearance of vegetable /deforestation
 - Bush burning

2.2.2 DROUGHT

Drought is a periodic reduction in moisture availability below average conditions or simply defined as the non-availability of adequate amount of water for man, animals and plants. Draught severity depends on the degree of moisture deficiency, the duration and the size of the affected areas.

TYPES OF DROUGHT

The major types of draught are recognized namely: Meteorological, Agricultural and hydrological usually associated with environmental degradation. This classification is based on the different used made of precipitating water by man.

METEOROLOGY RAUGHT: This is regarded as dryness due to lack of precipitation. This refers to the temporal cycles of negative fluctuations from the mean annual precipitation over an area.

AGRICULTURAL DRAUGHT: This refers to that shortage of water in the soil for plant growth, development and maturity. This normally results from either late onset of rain or earlier than normal cessation dates of rain (for seasonal climate as in west Africa). This results in short than usual length of rainy season. Agricultural draught is most marked in areas experiencing high seasonality of rainfall. These are within continental interiors Northern Nigeria and other sahelian regions of West Africa.

HYDROLOGICAL DRAUGHT: This is a period during which stream flow are inadequate to supply established uses under a given system of water management. This suggests a definition in the amount of underground water, which takes time to replenish. Hydrological draught relates to declining amount of surface round water and hence lowering of the water table as a result of prolong tapping of underground water by man together with the additional effects of both meteorological and agricultural draught. Reduced infiltration due to compaction of soil as a result of deforestation and additional cases of meteorological draughts have resulted in the decreased volume of underground water.

2.3 LAND TENURE LAW OF 1962

BACKGROUND STUDY

The system of land ownership in northern Nigeria was nationalized since 1910. As in the case of southern protectorate of southern Nigeria, British administration was preceded by the administration of the Royal Niger Company, but in Northern Nigeria, British administration was extended to most of the area by conquest, subsequent to declaration of the protectorate. The land already acquired by the royal Niger company with the exception the company's trading post became vested in the government thus, becoming crown land. The government also claimed as successor to the conquered or disposed ruler, the land right which they have claimed for themselves after the Jihad. This class of land was described as public land unlike crown land, which was held by the government in trust for her majesty, public land was vested in the government in trust for the people. These differences lasted until 1910 when as a result of a recommendation of a committee set up by government in 1908 in respect of certain pressure in England, the government decided to take over the ownership of land. The policy or decision was given effect by the land and native right proclamation of 1910, which was repealed and re-enacted by the land and native right ordinance of 1916. The 1916 enactment was replaced by land

tenure law of 1962 and from then the land tenure law of 1962 has been in existence till the prorogation of land use decree of 1978.

2.4 LAND TENURE LAW

Section 4, sub-section 1 of the law declares all land in Northern Nigeria with the exception of certain parcels of land which were formerly vested in the Royal Niger Company had been acquired by the government under statutory power and declared as native land. All native land is under the control and subject to the disposition of the minister responsible for land matters who is required to hold and administer, the land for the use and common benefit of the natives (All Northern Nigeria).

2.4.1. POWER OF THE MINISTER IN THE MANAGEMENT OF THE NATIVE LAND.

As earlier mentioned section 4 sub-section of the law vested all land in the minister responsible for land matters. "All native land is under the minister who is required to hold and administer the land for the use and common benefit of the natives". No title to the use and occupation of land by Non-native can be validly acquired without the consent of the minister. The law declares that there is no freehold interest and everybody was a tenant to the government and no individual can hold or acquire absolute ownership of land. The only title

which can be held in land is **RIGHT OF OCCUPANCY** which is defined by the law as a title to the use and occupation of land.

2.5 SOCIAL AND LEGAL THEORIES OF PROPETY

Land tenure in Nigeria has double ancestry

- i. The traditional concept of ownership
- ii. Islamic concepts which is applicable in most Northern States of the Country.

The traditional basis of land tenure is communal. Land was held collectively in family kingship or villages units and allocated without right of disposition to households. Local customs generally recognized the rights of the community or the village to control the use of land resources within the boundary and to select and use a portion of the land for family or personal use. Once the land is allocated to individuals who are born into a land owning community, the land can be held in perpetuity as long as the guarantee continues to make a beneficial use of it, the land can be inherited by children or close relatives of guarantee becoming family property to be shared according t the law of descent or Muslims Malik law, depending on which part of the country.

If the land is abandoned it reverts to the initial guarantor to be held in trust until it is required by other members of the family.

It is however maintained that the land holding recognized by African customary law is not communal but it can be best described as corporate system of land holding, since the relationship between the group and the land is invariably complex in that, the rights of the individual members often co-exist with those of the group in the same parcel of land. But the individual members hold definitely ascertainable and well recognized rights within the comprehensive holding of the group. A member's right to his holding is in the nature of a possessors title which he enjoys in perpetuity and which confers upon him powers of use and of disposition scarcely distinguishable from those of an absolute free holder under the English law.

He is a part-owner of land belonging to his family, but or taken away from him in satisfaction of debt, though he may pledge the use of his portion for a debt in many Nigerian societies survival depends upon land use, the procedure for allocating land use become in effect the structure of the society. Therefore, once a person or family with an allocation of land has cleared the land and put it into use, these occupants can continue to exert possessory right on the land.

The basis of tenure system in traditional agricultural organization in Nigeria rest upon two different principles.

- i. the sovereign control over land by conquest. A tribe or a community makes a territory its own by conquest and the continued occupation against all challenges, this amounts to group ownership of land use.
- ii. The occupation of individual tracts of land by granting it to individuals, the rights of continual use and occupancy.

Non – members of the land owning community (tenants) also have access to use of land but their access is circumscribed by the imposition of conditions which may at times be complex. Tenants are given land to terms of years built the requirement to pay tribute in kind or cash or provide labor to the land lord for a number of days in the week. Tenants may not grow free crops without the express permission of the landlord. Tenants who are permitted to grow tree crops are made to pay tribute, the amount of which depends on discretion of the owner.

The distinct ways by which land can be acquired or transferred in rural community are through:

INHERITANCE:- This is the most common way of acquiring interest in land in Nigeria. It accounts for 70-80% of the total number of plots and hectares held by farmers. The title acquired by inheritance is

permanent and heritable. The holder of such title exercise full management rights over his holdings including power of disposition.

GIFT: Gift of land usually or occurred as a form of allocation of a portion of family land to younger members of a family. This may be with the aim of starting them out on independent family or his anticipation of inheritance. The title acquired by gift has the same attributes as that acquired by inheritance, which is permanent and inheritable land acquisition through gift accounts for about 15% of the total land held by farmers nationwide.

PURCHASE:- This is another important means of acquiring land for farming and also the most important method of acquiring land for urban uses such as commercial, industrial, residential and service, activities purchase or sale of land was initially considered foreign as by land holders see themselves as trusted and custodian of land for the urban generation pressure and exposure to monetised economy and commercial activities have paved the way for greater commercialization of interest in land presently there is nothing which prevents a family from disposing of their land by sale assignment, mortgage etc.

LOAN OR RENT: This refers to land held in temporary use involving no payment or only a token payment loan between relatives may be free

but loan between unrelated people involves payment of tribute. The amount involved is unfixed and unrelated to the quality and size of land. Payment of tribute is to conform to the interior status of the borrower. When land is acquired by loan or rent the farmer's control is limited and includes only the right to make physical use of the land. The holder does not have permanent title to the land or power to alienate it in any way.

PLEDGE:- This implies that the landlord has acquired the right of use by giving a money loan. Pledge is a type of transaction in which one who pledges the land (pledgor) gives over the full use of the land to the one advancing the funds (Pledgee) during the life of the pledge, that is until the funds are repaid. Pledged land can be redeemed at any time. The principle is that once a pledge is made it is always a pledge. However, pledging can be used to circumvent the ban on sale of land by making the consideration (loan) involved large enough so that the pledge is not worth redeeming.

ALLOCATION:- This refers to land allocated by the village head to newcomers to the village and others on basis of need, this occurs when unoccupied land is available.

2.6 IMPLICATIONS OF CUSTOMARY TENURE SYSTEM

Commercial ownership of land has a number of implications which is as follows:

- Multiplicity of interest on a piece of land:- Several distinct interest can exist on a piece of land subject to communal ownership. An individual may have the right to activate the piece of land and grow crops while others members may have the right to gather fruits and firewood on the same plot of land.
- Fragmentation of Holding:- customary land tenure system is designed to assure group survival. In times of stress the principle of exclusive use, even by family members gives way to widen needs for survival by the whole community.

The general rule is that, every male member (Daughters and wives under malik law) of land owing group has giving birthright privileges of being allocated land for a home site and cultivation of substance crops.

As male child approach adulthood especially at marriage, they are entitled to a share of the village land. When the farmer (head of family) dies, his farmland is inherited by his heirs. Inheritance results into fragmentation of land into small uneconomic units unsuitable for modern

method of cultivation unless regrouped by some system such as co-operatives, collective farming etc.

- Inalienability of land: this is a general rule in African tenure that forbids land alienation by sale, assignment or lease by any member of the family without the consent or concurrence of all person with rightful claim to it. This is a very difficult requirement to meet in areas that have been occupied by two or three generations. The result is that makes people with claims to the land unable to dispose of it to the willing buyers.
- Thus causes an excessive transaction cost in identifying rightful owners and inhibit exchange, consequently resulting in lower values for investment plead on the land. The person who bought land subject to family ownership bought land sit (cases) because the title of many a land is not registered and several competing claimants often emerge when there is any transaction on the land.

CHAPTER THREE

RESEARCH METHODOLOGY

In the course of this study, information was sought and gathered from many sources indicated as follows:

3.1 METHOD OF DATA COLLECTION

In a bid to gather the data used in this research work, various means were used depending on the types of information sought. They include:

- i. Primary source
- ii. Secondary source

3.1.1. PRIMARY SOURCE

This source of data collection provided a means of collecting first hand information for this research. In this case, the following methods were used:

3.1.2. **Recognizance Survey:** this enables the researcher to have first hand information on the issue in the study area, zonal land office, Gwagwalada Area Council serves as a basis for other sources of data collection.

3.1.3. Personal/Oral Interview

The nature and level of this project is such that commands oral interview from the land office which is a subsidiary of Federal Capital Development Authority (FCDA): discussions were held with some

private estate surveyor and valuer, Agent, on such problems whether directly or indirectly on behalf of their clients to give their own opinion and suggestion on how to solve the problem of encroachment by the villagers on government allocated land.

3.1.4 QUESTIONNAIRE

Data were also sourced by the use of standard questionnaire. In designing the questionnaire for this project work, questions were designed in such a manner as to attract vital answers, which are accepted to help me in analyzing the situation at hand. Four questionnaires were designed for the purpose of this dissertation, they include; one to the zonal land office Gwagwalada.

The second questionnaire was designed for the local chiefs in charge of local land in the study area.

The third questionnaire was designed for the local farmers who uses their little portion of land year in and out for agriculture, to know the level of farm productivity and to know how much part of their portion of land they loose to desertification every year.

Moreover, the fourth questionnaire was designed for practicing private estate surveyors and valuer within Abuja bearing in mind the objectives of the project.

3.15 SECONDARY SOURCES

Essentially, data were gathered from secondary sources, which provided the researcher with literature of many authors on related topic. However, all contribution of authors of various write-up used have been genuinely acknowledge in the literature review.

3.2 QUESTIONNAIRE ADMINISTRATION/SAMPLING SIZES FRAME

Four different sets of questionnaires were designed and administered which includes one to the zonal Land Office in Gwagwalada Area Council, second to the Native Chiefs, third to the local farmers and fourth to the practicing estate surveyor and valuers in the metropolis of the studied area all shown in a appendix i. ii, iii and iv respectively all of which contain both structured and unstructured questions.

The data below show the number of questionnaire administered and those received from the targets.

Table 3.1 Showing the number of questionnaire distributed.

Respondent	Number of Questionnaire administered	Number of Response	% of Response
Zonal land office Gwagwalada	1	1	1.8%
Native Chiefs	4	3	12/5%
Local farmers	10	8	71.4%
Estate Surveyors	5	5	14.3%
Total	20	19	100%

Source: Field Survey 2004

3.3 SAMPLING TECHNIQUE

Basically, the researcher adopted the simple random sampling technique i.e. only a handful of the native chief, farmers and estate surveyor in the study area were given questionnaires, which was eventually spread without any sentiment. On the whole 20 questionnaires were distributed as shown in the table above.

3.4 METHOD OF DATA ANALYSIS

All data collected were organized in tabular forms, histogram, bar charts, pie charts and percentages mother to draw conclusions and achieve desired result of the project.

3.5 LIMITATIONS TO THE STUDY

In the course of this research, the researcher encountered some problems on the field and these are analyzed below.

- i. Language problem: most of the chiefs and most especially the farmers cannot communicate in English nor read and the researcher does not understand their local language.
- ii. Some of the places where the farmers reside are not easily accessible.
- iii. Some records needed for this project from the zonal land office were regarded as classified and were not released.
- iv. The difficult in shifting between Abuja and Minna.
- v. The nonchalant attitude of most respondent in dishing out relevant information affected the timely completion of my field work.
- vi. Difficulty in getting literatures or text for my literature review was also a constraint.
- vii. The time given for the completion of the project is too small.
- viii. Apart from the aforementioned bottlenecks, finance, was also a major problem; much money was needed to expand on transportation, procurement of data, photocopy, typing and binding of the project.

It is however, worth mentioning that amidst the identified odds, data, available is potent enough to do justice to the topic under consideration and to

give efficacy to the researchers aim and objectives, this is revealed in the next chapter.

There has been deviation from the laid down provision in the two Acts and it is affecting the proper and effective administration of land in the Federal Capital Territory and particularly Gwagwalada Area Council. Due to this constraint this research will aim at proffering recommendations suggestions of solving the problems.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 LAND TENURE SYSTEM IN GWAGWALADA AREA COUNCIL

The system of land ownership in Gwagwalada area council still encompasses both the native system of ownership and the Government allocated land. The Government allocations are governed by the provision of land use Decree No. 6 of 1978 together with the Federal Capital Territory Act No. 6 of 1978.

These Acts vested all land within the urban area to be administered by the governor and the rural areas to be administered by the Local Government Chairman (i.e. section 2 (1) land use Decree No. 6 of 1978). The minister of the Federal Capital Territory has been delegated with the power of the management and control of land in the Federal Capital Territory in order to ensure orderly and optimum utilization of the land resources, social justice, safety, good health and revenue generation for the government. In order to achieve this in the whole F.C.T., the minister is represented by zonal managers at the Area Councils in the Territory. Among other duties of a zonal manager are:-

- ❖ Allocation of land: He allocates land to both private and corporate bodies who applied for land.

- ❖ Issuance of change of ownership in case of land transfer from the original allottee to another person
- ❖ Monitoring and supervision of layout design, subject to the approval from the Federal Capital Development Authority (FCDA)
- ❖ Handles the issue of compensation for the displaced local people.
- ❖ Supervises and gives order on issue of encroachment by the villagers on government layout.
- ❖ Also oversees the proceeds involved in processing certificate of occupancy.

All these and other duties of the zonal managers are supervised by the Federal Capital Development Authority (FCDA).

Owners of plots of land in Gwagwalada Area Council have their data and records with the zonal land office and what to do on the said plot is subject to the approval of the zonal land office.

The villagers or the local people on the other hand do not prepare any standard layout, survey before they allocate and the supervision or approval of what should be done with the plot is not in view. This results in encroachment on government allocated land and purposely because there is no any standard plan for their layout, so many areas are left without accessible road, drainage system,

houses in the midst of modern houses, hips of refuse dumps within the residential areas and high population densities.

Table 4.1 PLOTS ALLOCATION IN GWAGWALADA AREA COUNCIL FROM 1997 – 2001

(RESIDENTIAL USE)

YEAR	NO OF APPLICANT	NO OF ALLOCATION	PERCENTAGE
1997	3825	1253	32.75%
1998	4587	1704	37.15%
1999	4972	2020	40.63%
2000	6003	2400	40%
2001	7,612	1500	19.70%
Total	26,999	8877	

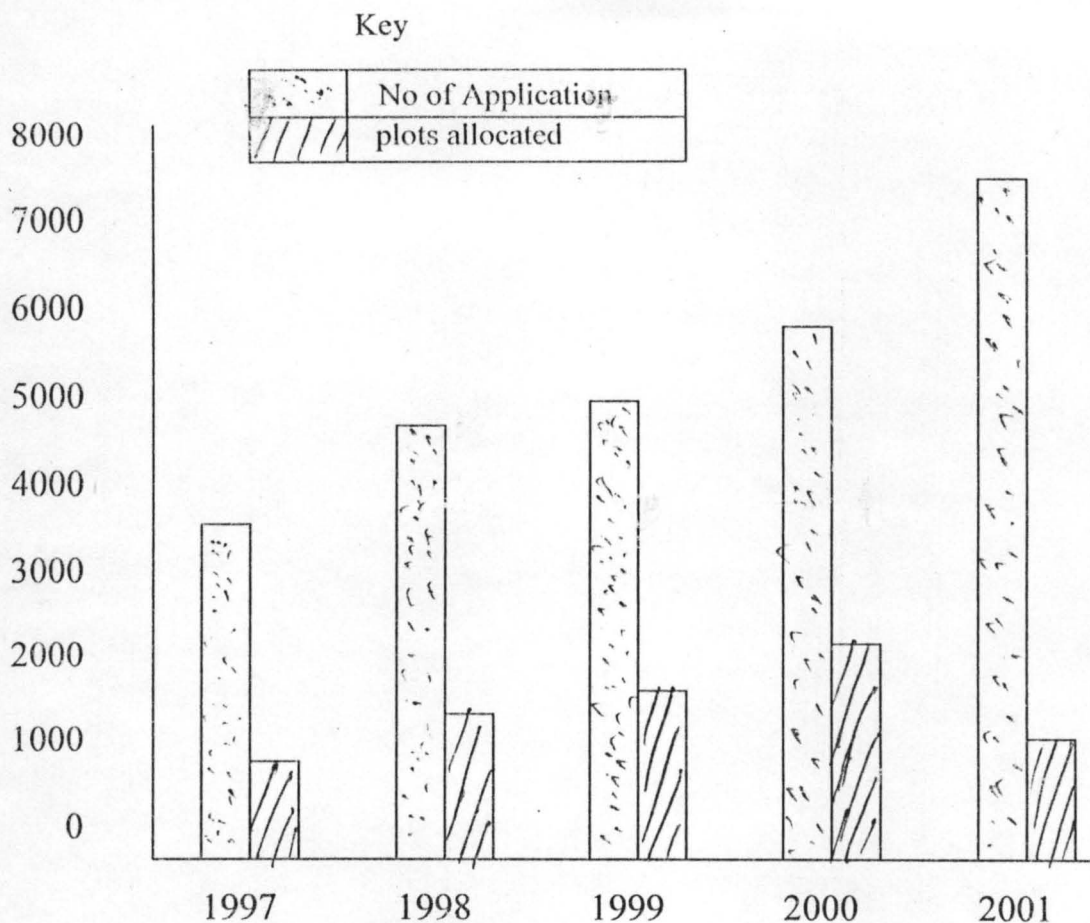
Source: Zonal land office, Gwagwalada Area Council.

ANALYSIS OF PLOT ALLOCATION BETWEEN 1997-2001

The highest number of land allocation was made in 1999 where 2,620 out of 4,972 applications were allocated land (representing 40.63%). The reason for this is because of the change in government in 1999. The beneficiaries were mostly politicians and civil servants.

Year 2001 recorded the lowest number of land allocation; only 1500 out of 7,612 applicants were allocated land (representing 19.70%). The reason for this shortfall is that, there was embargo on land allocation by the ministry of Federal Capital Territory that year.

Fig. 4.1 LAND APPLICATION RECEIVED AND PLOTS ALLOCATED



Most of these allocated plots are no more available to the original allottees because of encroachment by the villagers.

4.3 ENCROACHMENT PATTERN BY THE VILLAGERS

One of the major reasons why the villagers do encroach government layout is inadequate compensation. Whenever any Government layout is designed the villagers are compensated first before the land is allocated to the general public.

The compensation may take the form of:

- i. Relocation/Resettlement or
- ii. Allocation of a portion of the layout to the villagers via the Chiefs.

The chiefs become the lord over that area and shared among his people. In most cases they normally extend beyond the boundary giving to them and encroach on government allocated land. Most of the owners of government layout are with the certificate of occupancy but no access to their land

4.3.1 MACHINARIES USED IN THE PROCESS OF ENCROACHMENT.

- ❖ The local chiefs make use of the tout to disallow the government surveyors from working on the site by beating and threatening to kill them, as a result the original owners of certificate of occupancy are not able to access their plots.
- ❖ The allottee of plots by the local chiefs are instructed to start building immediately with two weeks ultimatum if they should considered the certificate revoked.
- ❖ The use of local security guards to guard the allottees of local land during construction.

4.4 ENCROACHED GOVERNMENT LAYOUTS BY THE LOCAL PEOPLE

Out of the whole layouts designed by the zonal land office, about 30% has been encroached by the local people which now makes the purpose of its design aborted.

The following are the layout, which has been partly or totally taken over by the villagers.

- ✓ Kuje II Layout
- ✓ Dagiri III layout
- ✓ Dagiri III extension
- ✓ Kutunku I layout
- ✓ Kutunku II layout
- ✓ Kutunku iv Extension layout
- ✓ Old Kutunku layout.

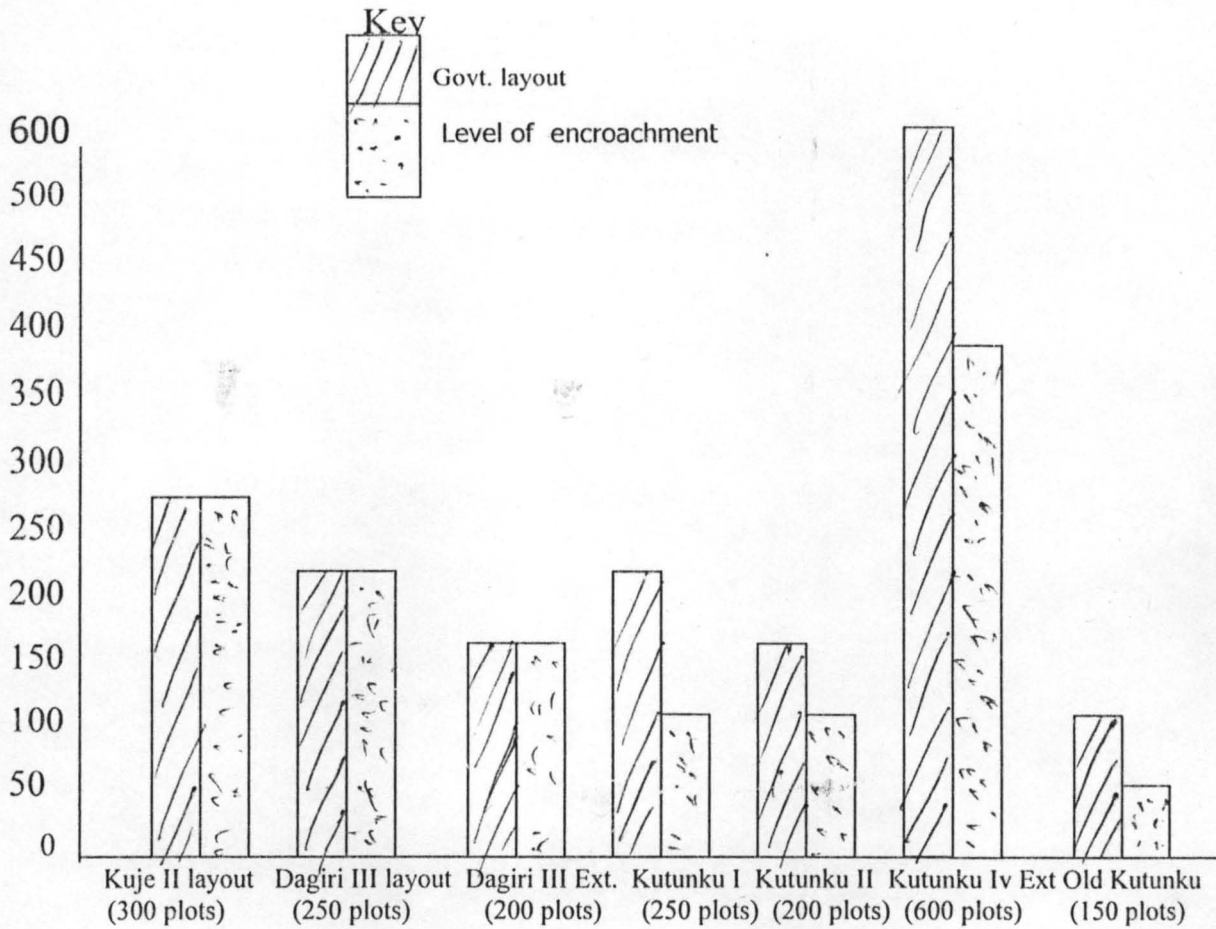
From the above, Kuje II layout, Dagiri II and Dagiri Extension layout have been totally taken over by the local people while others have been bastardized with local structures in the midst of modern buildings. This can be analyzed in Table

Table 4:2. Analysis of the Affected layouts

Name of layout	No. Of plots	Level of encroachment
Kuje II layout	300 plots	Total
Dagiri III layout	250 plots	Total
Dagiri III Ext.	200 plots	total
Kutunku I layout	250 plots	about 150 plots
Kutunku II layout	200 plots	“ 150 plots
Kutunku IV layout Ext.	900 plots	“ 400 plots
Old Kutunku layout	150 plots	100 plots.
Total	1750 plot	1550 plots

Zonal land office, Gwagwalada, Area Council. From the table above it can be seen that three layouts had been taken over completely by the villagers while over 75% of the others also been taken over.

Fig. 4.2 level of encroachment on Government layout



Source: Zonal land office, Gwagwalada Area Council.

The above data analysis shows that out of 1,950 plots which have been logically designed to meet both low, medium and highly density areas, 1550 plot which represents about 75% of the total plots in question had been taken over by the local people. Therefore these areas are now dominated with thatched roofed houses/mud house with local toilets, unplanned road network, over population

and hips of refuse dumps all over the areas. These shall show subsequently with photographs representation.

4.5 CAUSES OF ENCROACHMENT

In the course of data collection for this dissertation, it was revealed by the chiefs and some of the villagers the reasons for upsurge of encroachment on government layout by the local people. These are analyzed as follows:-

- i. Claim of ownership:- The local chiefs and the community heads claim to be the rightful owner of the land transferred to them by their fore fathers and now sees the action of government as a cheat on their inheritance.
- ii. Inadequate compensation:- Whenever the government design and layout, the affected villagers are not adequately settled. Most of them claim that a large parcel of land collected or revoked compulsorily are compensated for with just an allocation paper that covers only about 1000m² or less, this leaves them with problem of how to share this within the family.
- iii. Corruption:- Most of the compensation allocation paper prepared or issued to compensate the villagers mostly, half of the allocation paper are withheld within the government office by the officer in charge of compensation and resettlement and when the remaining half is given to

the chief to distribute among his people, he only gives few people and with-hold the remaining.

- iv. Lack of infrastructural facilities:- The government is expected to open up layouts after design to give access road to investors who are interested in development but the reverse is the case. This rendered the government layouts less attractive to real estate investors and give ample opportunity for encroachment by the villagers.
- v. Speculators:- The action of speculators also contribute to this problem. Most land after allocations are left for years to appreciate in value before the owner disposes it out.

4.6 EFFECT OF ENCROACHMENT

These forms of land acquisition have so many negative effects on the environment, which can be analyzed as follows:

(i) Poor layout plan:- Most of the layout encroached are not designed by the villagers, they only share without any regard for what happens latter, this culminate in the following:-

- (a) Poor Drainage System:- Because there is no any standard to what should be built or how it must be built, no approval from any appropriate quarter the whole area under two years turned

into slum because of poor drainage pattern and building arrangement.

- (b) Poor Road Network: - As a result of (i) above, most house does not have any access road to their residence, most occupants cannot park their cars at home because there is no access road.
 - (c) Poor Waste Disposal System: - This is one of the major causes of environmental degradation. As a result of the unplanned nature of the environment, waste are being disposed anyhow and in most cases you have heaps of waste in the midst of residential building and litters everywhere.
 - (d) Sanitary Disposal System:- Most of sanitary disposal system in this area is latrine. Most of this pit latrine sinks and effluence are being discharged to the surface, this rendered most places degraded and inhabitable. This situation is shown photographically in the subsequent figures.
- (ii) It discourages investors:- Most investors feel threatened with this situation and conclude that the risk involved is too much to invest in this areas. Other investors whom their land has been taken over by the local people loses everything to the villagers and those whom their land are still vacant never wants to invest in a slum prone areas.

- (iii) Low rate of development, lack of infrastructural facilities, poor road, network, poor sanitary system etc. destroys the beauty/scenery of the environment.
- (iv) Reduction in land value and rental value; this is a as a result of all the aforementioned problems analyzed above.
- (v) Over population:- This is as a result of the kind of structure in the environment, mostly these buildings are face me I face you i.e. Brazilian type.

4.7 EFFORT OF AREA COUNCIL TO CUB THIS MENANCE

Several efforts has been made to stop the action of the villagers on government layout, among others are:-

- i. Invitation to the chiefs for meeting:- This has been done in so many occasions but the chiefs normally turn down the invitation because they believe nothing can be done to them and because of the influence of political power they felt untouchable.
- ii. Serving of stop work notice on illegal sites:- Mostly this notice are been ignored by the developers because of the back up they enjoy from the local chiefs.

- iii. Marking of illegal structure, though this is not effective because of the resistance from the villagers and the level of support from the Federal Capital Development Authority (FCDA), which is the mother body of every zonal land office in every area councils.
- iv. The use of police to arrest workers on illegal plots of which in some rooms you finds up to 5 or 6 people living together without adequate infrastructural facilities in the environment.

4.8 SUMMARY OF FINDINGS

Based on the information collected, analyzed and presented in this dissertation, the following findings were drawn up:-

- i. Despite the fantastic master plan of the study area, the strength of communal land tenure system has rendered about 45% of the developed area unplanned and degraded.
- ii. Irrespective of the land use Act of 1978 which is still in operation, communal land tenure system is still in operation even in the Federal Capital Territory (FCT)
- iii. Non-specification of amount of compensation payable to a displaced land owner in the land use Act of 1978 also contributed to the action of the villagers in the area council.
- iv. Most real estate investor's land with certificate of occupancy title has been taken over by the villagers; this action scares away the real estate investors.
- v. Uncontrolled development or erection of structure always culminates in over population, which result into serious environmental degradation as a result of population pressure over the available resources.

- vi. Government refusal to provide basic infrastructural facilities on the designed layout to attract the allottee or investors for quick development also contributes to incessant encroachment in the studied area.
- vii. Despite all measures taken by the zonal land office, a subsidiary of Federal Capital Development Authority, the villagers remain adamant and uncontrolled in their action.
- viii. Corruption is seen here as the root of indecision on what to do to stop the villagers.



Plate 1

bad drainage system

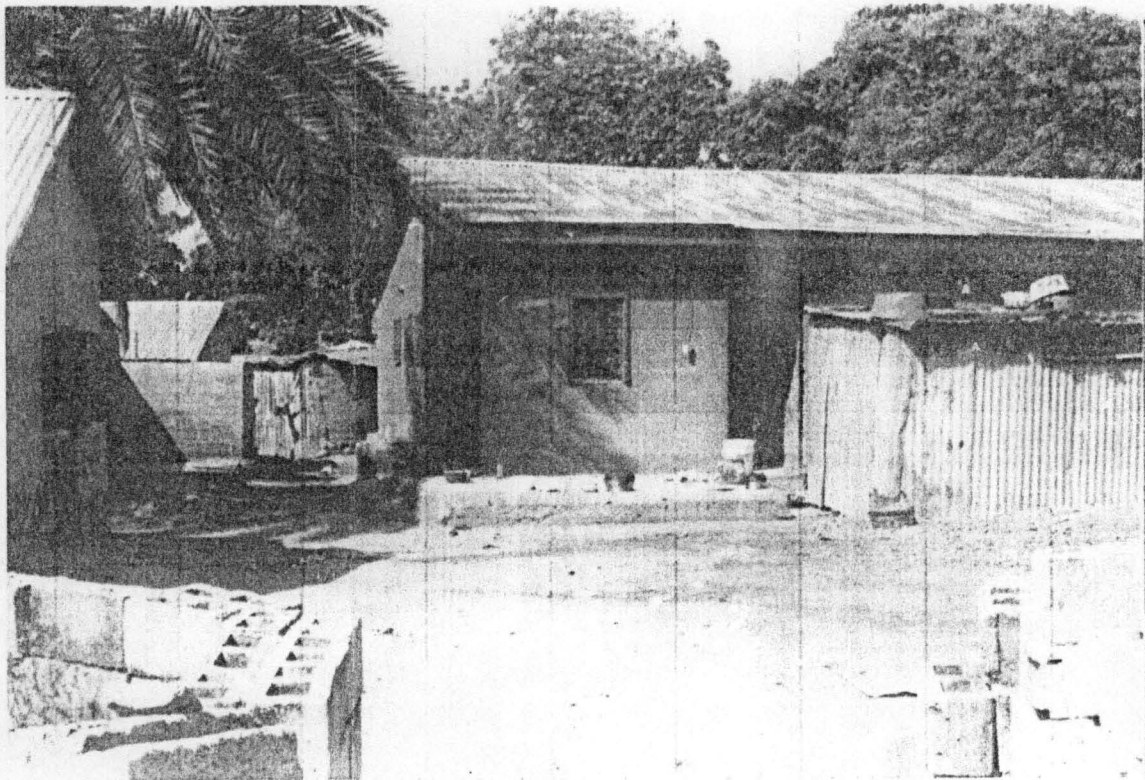


Plate 2

Unplanned road network



Plate 3: Thatch House on Government layout

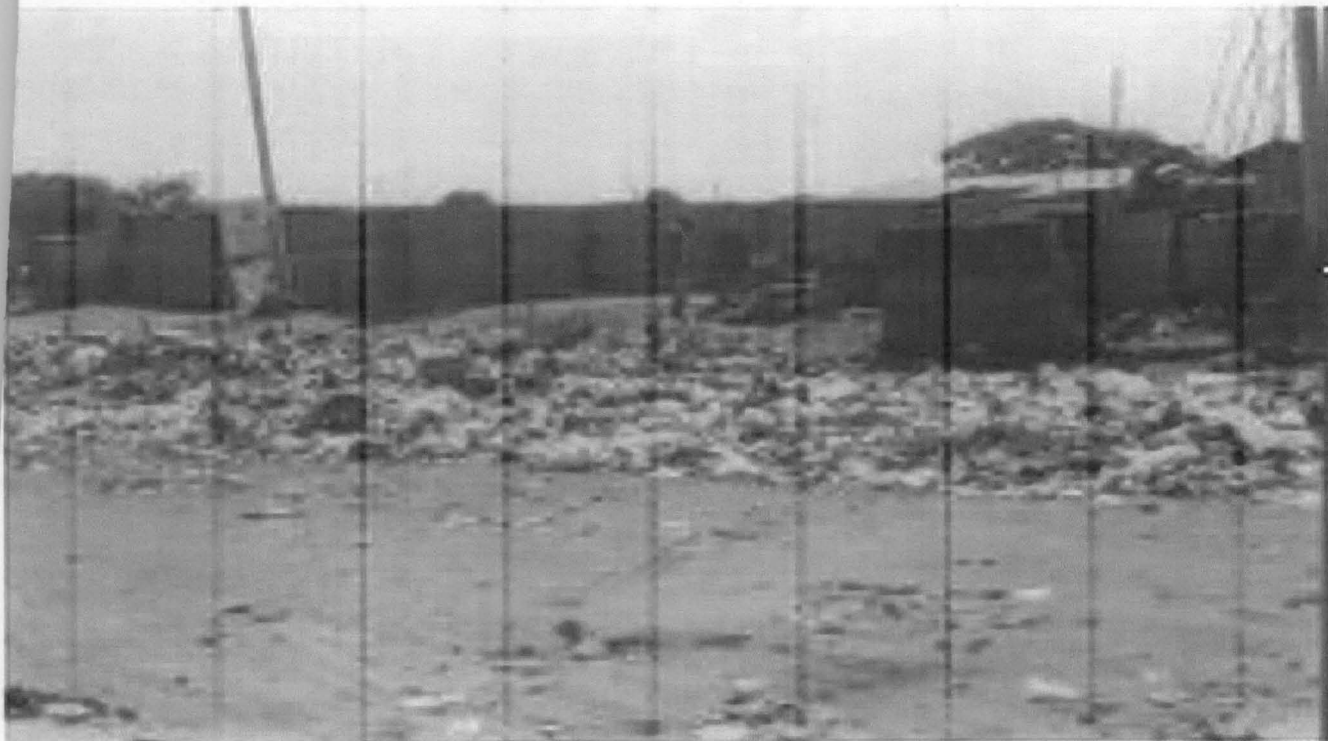


Plate 4: Wrong method of Refuse Disposal

CHAPTER FIVE

SUMMARY, RECOMMENDATION AND COCLUSION

5.1 SUMMARY

Most of the environmentally degraded areas are usually as a result of over exploitation of non-renewable environmental resources available. It could also be as a result of natural occurrences like earthquake, landslide, hurricane etc. these are also traceable to human activities directly or indirectly.

Uncontrolled system of land ownership is one of the major cause of environmental degradation in the studies area, it was gathered that incessant encroachment on government layout by the villagers has resulted in a community without form: bad road network, poor drainage system, uncontrolled refuse disposal, thatched houses on government layout, over population or poor sanitary system etc.

The speedy spread of this problem has rendered the area council risky zone for investment because so many has lost their plots to the villagers despite their certificate of occupancy.

5.2 RECOMMENDATION

From the above summary of findings, the following recommendations are made so as to reduce the problem of encroachment in Gwagwalada Area Council.

- Before any layout is designed, which will eventually lead to the replacement of some villagers, the office i.e. the zonal land office should try as much as possible to dialogue with the villagers, know what they want and they should be involved right from the planning stage.
- Adequate compensation should be worked out to cushion the burden of displacement of the affected villagers.
- Government should try as much as possible to open up any designed layout and supply the basic amenities (e.g. electricity); this will encourage quick development of the area.
- The corrupt link between the office and the villagers as regards settlement and compensation should be fished out and the culprits must be dealt with.
- The Area Council should carry out an enlightenment programme to educate the villagers on the effect of their action on the future of their environment.

- The office (i.e. zonal land office) should be equipped with adequate power to carry out demolition exercise or otherwise on any illegal structure on government layout.
- Real estate investors must be given ultimatum for the development of their plots; this will in long way eradicate the action of speculators.
- Land administration policies must be enforced and for this to be effectively implemented, there is the need for the ministry of Federal Capital Territory through its land administration department in the Area Councils (i.e. Gwagwalada, Kwali, Kuje, Abaji, Bwari and Abuja Municipal) to carry out a comprehensive survey and mapping of Abuja land in order to put a stop to the conflict between the local settlers and the government. The survey will also show how much of land that have been allocated and the land remaining for the future uses/development.

5.3 CONCLUSION

Land is the basis for all development and a major source of wealth for all level of government and people. Land as resources is limited; an increase in demand for land brings about pressure and reduces the quality of satisfaction derived from the land resources. The illegal taken over of land resources. The illegal taken over of land by people rendering it inaccessible for investor constitute a

great obstacle for proper planning and development in both the public and the private sector of the economy.

The systems of ownership of land have a lot to do with the rate of environmental degradation to a large extent; the system of ownership of land must be well defined and managed to have a derived land use pattern. Also, the professionals involved in the allocation of land and its documentation must acquire adequate knowledge in land information system (L.I.S) and Geographical information system or view of their usefulness to land management.

REFERENCES

- Caroline, C. (1999) Internet article publication on environment change.
- David, M. (1999) Internet article publication on environmental change.
- Smith, I. O. (1995) The law of real property in Nigeria.
- Omotola, J.A. (1982) The land use Act: Report of a National workshop
- Omotola, J. A. (1984) Essays on the Land use Act, 1978.
- Idrisu J. Understanding Nigerian land law.
- Alabi, J. K. (1996) Land law for Estate management and town planning students.
- Muelly M. (1999) Think quest internet contest (environmental change)
- Neil, F. (1999) Think quest Internet contest (environmental change)
- James R. W. (1995): The Nigerian land use Act: Policy and Principles

APPENDIX 1

FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA
SCHOOL OF SCIENCE AND SCIENCE EDUCATION
DEPARTMENT OF GEOGRAPHY.

PROJECT TOPIC: EFFECT OF LAND TENURE SYSTEM ON ENVIRONMENTAL DEGRADATION AND REAL ESTATE INVESTMENT (A CASE STUDY OF GWAGWALADA AREA COUNCIL).

QUESTIONNAIRE FOR STAFF OF ZONAL LAND OFFICE

This questionnaire is meant to guide me in my dissertation. The information requested herein would solely be used for this thesis in partial fulfillment for the award of Post Graduate Diploma in Environmental Management.

In this regard, I am looking forward for your co-operation in completing and returning this questionnaire and you may exercise no fear in providing your honest answers as all information herein obtain shall be kept in confidence and solely be use for this thesis.

Yours faithfully

Adeniyi Moses Olalekan.

1. Name of Officer-----

2. Rank/post of officer-----

3. Department-----

4. What are the functions your office performed?

i. -----

ii. -----

iii. -----

iv. -----

5. How many layouts do we have within the area council?

6. How many are already opened?-----

7. Level of development, below 40% 40%-60% 66% above

8. What is the reason for (7) above?

i. -----

ii. -----

iii. -----

iv. -----

9. Are there issues of encroachment? Yes No

10. If yes by who? -----

11. Why? -----

12. How many layouts has been encroached and level of encroachment?

QUESTION 13 (PARTS IV & V)

i. _____

ii. _____

iii. _____

iv. _____

v. _____

13. What are the measures taken by the office to curb this?

i. _____

ii. _____

iii. _____

14. How do they carry out these activities?

i. _____

ii. _____

iii. _____

15. Please give your suggestion on how to improve this situation.

i. _____

ii. _____

iii. _____

iv. _____

v. _____

- Name of firm/company:-----
- Name of officer:-----
- Office area of specialization:-----
- How many of your clients have property in Gwagwalada?-----
- What is the general business atmosphere for real property investment in Gwagwalada?-----

▪ Is there any issue of encroachment on your client's plots?
Yes No

▪ If yes, how many?-----

▪ What are the effects of this on real estate investment in Gwagwalada Area Council?-----

GWAGWALADA MASTER PLAN

RESIDENTIAL LANDUSE CONCEPT

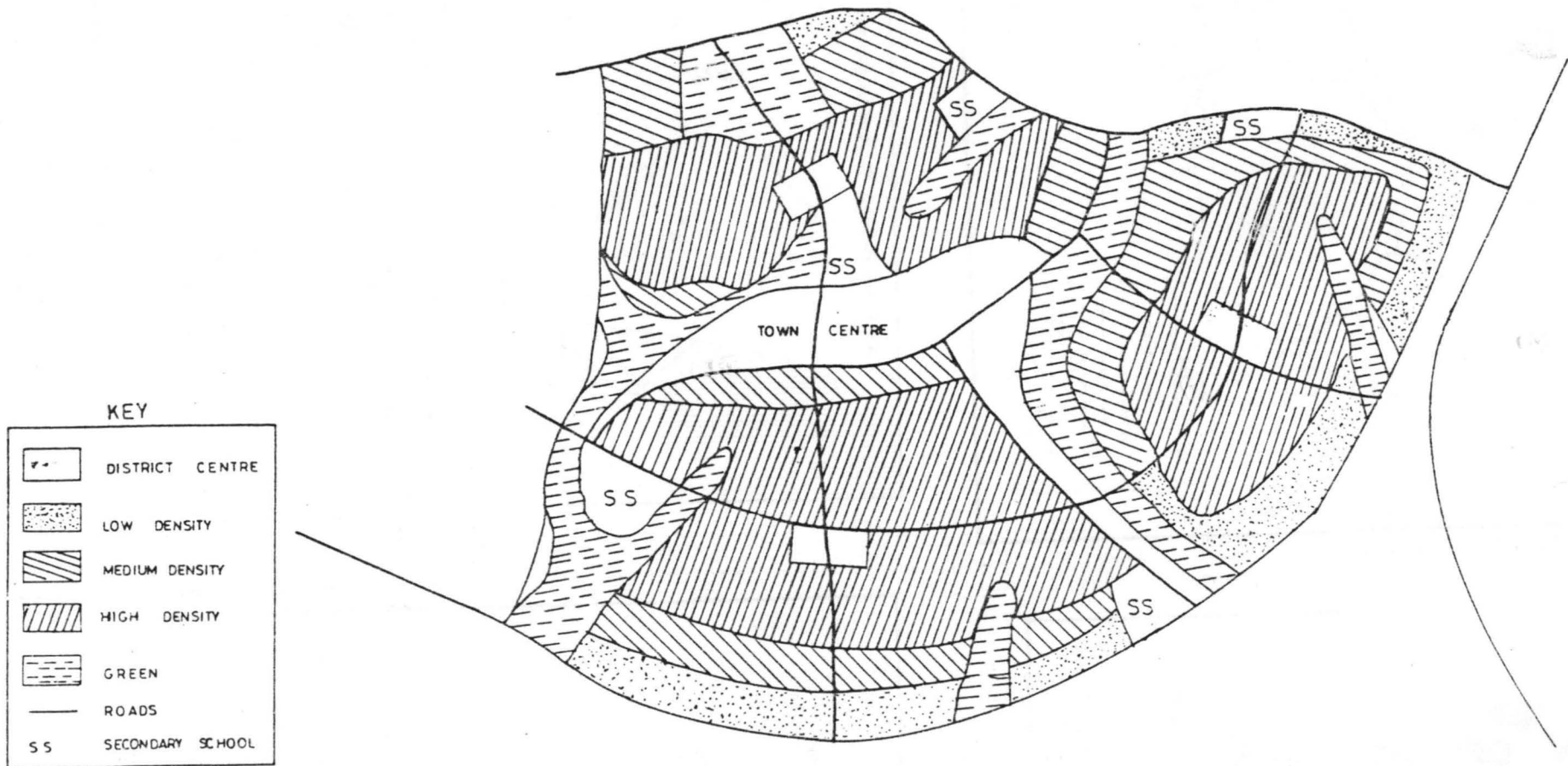


FIG 7

APPENDIX ✓

