

**ASSESSING THE EFFECT OF LAND USE CHANGE ON
RURAL COMMUNITY IN LAVUN LOCAL GOVERNMENT
AREA OF NIGER STATE
“A CASE STUDY OF DOKO”**

BY

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PGD/GEO/2000-2001/202**

**A RESEARCH PROJECT PRESENTED TO DEPARTMENT OF
GEOGRAPHY, SCHOOL OF SCIENCE AND SCIENCE EDUCATION
FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA.**

**IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR AWARD
OF THE POST GRADUATE DIPLOMA IN “ENVIRONMENTAL
MANAGEMENT TECHNOLOGY”**

MARCH, 2002

CERTIFICATION

This is to certify that I Muhammad Ndagi Doko carried out this research work, which has been read and approved as meeting the requirement of the Department of Geography, School of Science and Science Education, Federal University of Technology, Minna, for the award of Post Graduate Diploma in Environmental Management Technology.

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ACKNOWLEDGMENT

Avery special thanks to the supervisor Dr. (Miss) A. Okhimale for her kindness and patience. She took the pains to peruse through this work. Her comment, corrections and enormous encouragement saw to the success of this work.

My special thanks also goes to Justice Jibrin Ndatsu Ndajiwo, the Honourable Chief Judge Niger State and his entire family for their kind gesture, love moral and financial support given to the success of this academic pursuit.

Thanks to specials friends, relations, brothers and sisters whose extent love and care as a morale booster.

Above all, thanks be to the Almighty Allah subhanah wata-ala for making this study period a realistic venture.

ABSTRACT

Land often claimed to be the essential fulcrum of rural existence, how the land is handled often has a very significant bearing on rural development.

Almost every where, rural people share a common denominator where in we may reasonably assume lie most of their hopes and most of their problems. That common denominator is land.

However, the primary purpose of this project is to examine the relationship between land and rural development and in particular the assessment of the effect of land use changes in rural area. This is with a view to suggesting some of the ways in which the reordering of rural land use practices management and tenurial pattern can lead to salutary changes in rural circumstances.

Major findings from the study showed that the major land use system in rural areas is agricultural land use, with the exposing population exerting pressure on the limited resource the effect is seem to be high leach of the soil that make the available land prone to land degradation.

It also revealed that the village is expanding but will unauthorized planned which may make it difficult to the future planners to design a standard plan for the study area.

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CHAPTER ONE

BACKGROUND OF THE STUDY

Planning of human settlement to day has come to be accepted as a sequence of logical thought applied to existing settlement in order to bring about a constructive program of changes that may lead to the up-liftment of the standard of living of the people.

Physical development therefore is seen as a means of ensuring a coherent development that will foster promotion of efficient and orderly allocation and utilization of land. It entails the thinking about the social and economic phenomenon as they relate to space, based on physical and socio-economic survey. It analyses the potentialities for the development and evolves proposals, which are backed with implementation strategies for action.

With the sudden growth an increase of population all over the world, every developing country has become very conscious of planning their environment. It has become the order of the day to pay particular attention to population expansion and make necessary provisions for solving the environmental problems. This indeed the essence of rural, urban and regional development.

According to Denfoley "we need to plan to resolve conflicting and competing claims of land".

He further explained that the government can through land use framework decide land to be utilized in the overall public interest. However, if the above statement on the value of land were to be judged alongside with other basic environmental element necessary for development, it will noticed, therefore, that land (allocation and utilization) is the fundamental actor of development. It is important to also notice that majority of the conflict overwhelming every hook and corner of the country has land to be their mainstay.

Land at the main objectives of rural development in Nigeria which were the first articulated in the third national development plan (central planning office, 1975, 292). These objectives include:

- To increase rural productive and income
- To diversify the rural economy

- To improve the quality of life of the rural dwellers

It will therefore, be appreciate to say that the focus of attention to land utilization and allocation for the achievement of these national goals and objectives is further informed that agriculture being the mainstay of our economy solely depend on land, without which no any socio-economic activities could be put in place.

1.2 STATEMENT OF PROBLEM

Most of the rural masses in the economically less developed countries remain steeped in crushing poverty, eameshed in debilitating frustration enveloped by profound austerity and buried in ulter despair. This statement is almost tautological, but it serves to underline the fact that the majority of ruralities are citizens struggling on the margins of human existences such marginality of existence should not be allowed to continue. And this sentiment stems from at least five considerations they are:

Simple economic logic, social equity imperatives effectuation of regional and spatial balance, social stability and sociopolitical strength (Igbozurike, 1983

Almost every where, rural people shares same denominator where in we may reasonably assume, lie most of their hope and most of their problems, that common denominator is land. Main in his endeavour to ensure his continuous existence has over the year structure his activities, such that the environment in which he lives provides him with shelter, food, water and energy at levels determined by its technical know how.

The changes in land use and reforms in Doko can be attributed to natural increase in population influx of people from different places due to push-pull factors e.g. Linking of the village to national grids in 1979, creation of local government by the facilities and social services which has turned the town to a land of commercial and administrative centre. Hence, the land utilization, reformation and transfer become the bedrock of the society problem.

The problem to be investigated include the attitude of land owners towards land use before 1979.

The influence of the pull-push factors to the even growing population.

The effective at social facilities and services

The economic base of the town

What are the effect of land tourism to land use

Does the land use affect the development of the village under research.

Or what is the effect of changes in land use of the area under research

How far have the landowners and authorities encouraged effective land use in Doko

Is there cordial relationship between the landowners and effective land users.

What are the lessons learned from the observed land use change in the area under study.

1.3 BASIC ASSUMPTIONS

- Rapid population growth is the bedrock of changes in land use
- The community is attributed to inadequate facilities and social services
- Majorities of the inhabitant are agricultural oriented land users.
- Majority of the landowners shows negative attitude towards developing of their lands.

1.4 AIM OF THE STUDY

The aim of the study is to examine the nature of activities and pattern of land uses in Doko with a view to preparing a development proposal that would create a harmonious and conducive environment for living.

1.5 OBJECTIVES OF THE STUDY

The primary purpose for their research work is to examine the relationship between land and rural development.

To examine the physical and environmental characteristics of the study area.

To examine the nature of existing land uses with particular references to the problem like road alignment drainage channel, and environmental quality.

To suggest possible solutions to the identified land use problems.

To recommend possible ways in helping effective land use in Doko and environs.

1.5 OBJECTIVES

The primary purpose of this research work is to examine the relationship between land and rural development.

To access the effect of land use changes in Doko district

To suggest possible solution to land use problems,

To recommend possible ways in helping effective land use in Doko and environs

1.6 SIGNIFICANCE OF STUDY

This study is hoped to contribute to land users, private, planners authorities, understand the changing trend in land use in Doko and environs.

This is with a view to suggesting some of the ways in which the re-ordering of rural land use practices, management, and tenurial pattern can lead to salutary changes in rural circumstances.

1.7 JUSTIFICATION OF THE RESEARCH

The environment of towns and cities is affected in various ways by the deliberate and non-deliberate action it year residents. It would therefore appear that the first hurdle is to become aware of the existence and magnitude of the problem before making any attempt in their alleviation. The societal aspect and quality of urban life is impaired by human being in their system of organization and distribution of land uses.

Doko town is no exception of the problems. The research will completed help the district Local Government and the state government in different ways most especially with the presence of DFFR in the State.

1.8 SCOPE AND LIMITATION

The research work is intended to access the effect of land use change in Doko District in Lavun Local Government area of Niger State. The report will cover Doko and environs, but more emphasis will be laid on Doko as it is the district headquarters and received more land use changes than the environs. As it is not possible to carry out the study in all the villages in the Local Government area due to largeness in the terrain, cost of transportation and others, could pose a hindrance.

The aspect to be touched include land use pattern, socio-economic conditions and physical environment of the study area.

CHAPTER TWO

LITERATURE REVIEW

2.0 INTRODUCTION

Among all the physical resources land is central. The concept of land embraces not only share space but also the characteristics that govern the use to which land is put to man. For example its embraces topography, also quantity of soil, availability of water both on surface (hydrography) or underground (hydrology). The nature of local climate, vegetation, fauna etc. This is to say that the focus at the concept of land resources is the characteristic of the earth land and supply as well as other component essential for the support of man namely land ownership, land use, and land transfer.

Most of the rural masses in the economically less developed countries remain steeped in crushing poverty, enmeshed and buried in utter despair. This statement is almost tautological, but it serve to underline the fact that the majority of ruralities are citizens struggling on the margins of human existence. As the 1980's draw to a close human marginality of existence should not be allowed to continue. And this sentiment stems from at least five considerations. They are simple economic logic, social equity imperatives, and effectuation of regional and spatial balance, social stability and geopolitical strength (Igbozurike 1983 and Dorner 1969).

Almost everywhere, rural people share a common denominator wherein, we may reasonably assume, lie most of their hopes and most of their problems. That common denominator is land- in the broad sense of that word. Hence the primary purpose if this project is to examine the relationship between land and rural development and the assessment of effect for land distribution changes in rural areas. This is particularly with view to suggesting some of the ways in which the reordering of rural land use practices management and tenurial pattern can lead to salutary changes in rural circumstances.

2.1 COMCEPTUALIZATION OF LAND

Several concept of land has been identified the principal ones being the physical concept legal concept, abstract concepts socio-political concept, spiritual concept and economic concept. Given such wide-ranging connotations it is not astonishing that land ownership for the vast bulk of ruralities is the primary determinant of degree of walth, level of social welfare, access to power, and in many instences even elemental survival. (Igbozurike, 1986, Alonso 1964 Ractiffe, 1976 and value generally and attitudes towards land).

Land being the essential falcum of rural existence, how the land is handled often has a very significant bearing on rural development.

2.2 RURAL LAND CONVERSION

One pervasive trend in twentieth century urbanization throughout the world is the massive encroachment on rural land by cities and urban-type land uses. We cite Higbees, master piece on the subject in the united states (1960). The process of human glaciations by which productive crop land is buries beneath an avalanvche of shingles and concrete is beginning to arouse some concern... Most farmers on the urban fringle, even if they had not wanted to sell their land to an advancing suburbia are eventually persuaded by a series of events to change their minds. Slowly they are overwhelmed by an endless rise of taxes to help defray the mounting cost of new schools and roads as well as the wages of the inevitable bureaucracy that comes with urbanisation (cf. G. Ig 1985)

We quote also from our work here in Nigeria, in the Obukpa group of villages to the North of Nsukka town in Anambra state.

As a rural region lying adjacent to, and interacting with, a young and relatively fast growing urban town, its features appears already to have been chartered for it, as aspect for this future including.

- (a) Truncation of part of its territory to serve the transportational and other communication:s need of Nsukka town;

- (b) Attrition of its domain by administrative fiat in order to create more elbow room for the town as well as by order unsolicited phenomena represented by urban sprawl and suburbanization ;
- (c) Conversion of a lot of its space in the work of a relentless pressure from land speculators and genuine property buyers; and of course,
- (d) Drastic alteration in its occupational structure (part of last – named) becomes simply a matter of spatial buck-passing.

Obukpa's major role as food producer for Nsukka shifts to region lying further to the west, north and East of Obukpa (Igbozurike:1978).

The conversion of rural land to the largely non-rural uses is, common place in Nigeria. In some instances vast hectares are entitled even in small regions, although in many cases the rural region concern seem not feel the "loss" of space . Urban growth is only one of the numerous form of conversion. For example, the permanent campus of the university of Ilorin is reportedly more than 15Km across. Like the permanent campus of Imo state university of Okigwe which measures approximately 100sq.km, it is situated entirely in a rural and very sparsely populated area. The Port Harcourt Enugu express way involve roughly from hectares of rural land per kilometer of its length.

Rural tolerance of land conversion is predicted on a host factors ,the most notable of which is the ruralities perceptions of short term and/or long-run net socioeconomic benefits occurring to themselves. This ethic conceptualization may radically diverge from the ethic perspectives but should necessarily be taken into full account in assessment of the impact of the land conversion in rural development.

The assessment, often and in practice done in monetary terms should include the determination of the current market value of the bare land, the value of the economic plants thereon projected to at least ten years; and the present worth of the building and other improvement of the land. It should also include a compensation margin as surrogate for in quantifiable and sometimes in tangible values, revered ancestor's grace, a spring that provides portable water, a short cut road to the nearest market and the inconveniences of resettlement ;and the value to the rural land owners and the other rural residents, of the benefits derivable from rural land conversion .

Obviously where the last valuation is worth less than the others put together, land conversion does not contribute sufficiently to the socio-economic development of the rural area in question, the advantages occurring to the larger regional corpus embodying the particular rural area may vary considerable.

Rural land conversion of course, entails the alienation or transfer of ownership or unfractured rights in land i.e. tenurial shifts. More often than not, such shifts are permanent irreversible, and controversial, which is why we have devoted so much space to land conversion in this brief literature.

2.3 LAND TENURE AND LAND REFORM

Land tenure consist of three major component, landownership, land use and land transfer. Thus, it refers simply to manner in which the land is held. It is the customary or statutory, contractual or non- contractual system prevalent in a given region by which people own, use and dispose of land.

According to the Dorner, land tenure "constitutes the rules and procedures governing the right duties and exposures of individuals and groups in the use and control over the basic resources of land water "(1972) in this conception, we agree with R. Crocombes classification of land right in the six categories viz (cited in Tffany : 1976) rights or claims to direct use, rights if indirects gain, right of control, right of transfer, residual rights and symbolic rights.

By extention, therefore land reforms means redistributing or otherwise rearranging the rights in land so as to bring the tenurial pattern in conformity with the goals and expectations of socio economic development.

Torme's argument is quiet forceful : "the land tenure or land reform problem is not confined to the agrarishsector ." it affects industrialization, urban growth; political stability, education and almost all the elements that are involve in the development processes. The reform is thus as much an instrument of social charge as it is of economic progress" (1968 Dorner: 1972, and

world bank: 1972). Inevitably, land reform involves a change in the right utilized by a person or a group of people against other persons or groups. This redefinition of rights is of fundamental concern to the average ruralist who has never entertained

any doubt about his God-given rights in land. In a major way the Nigerian land use decree, now Act of 1978 attempts some of that redefinition, mainly by vesting all the land in each state in the state Government; placing all the rural land under the control and management of the local Government; and stipulating provisions for the revocation of rights over land in rural areas (FGN: 1978, Igbozurike: 1980).

Any villager or group of villagers can be asked and, if necessary, forced in the greater public interest, to vacate the ancestral land where they have always lived. Naturally, they "shall be entitled to compensation for the values at date of revocation of their unexhausted improvement" (section 6, subsection 5). Under this umbrella, rural land has been and is being acquired for public purposes in many parts of Nigeria. This is regardless of whether the ownership of such land is individual, family or communal and notwithstanding the original mode or mechanism of acquisition: inheritance, purchase, pledge, gift, loan, rent, exchange, accession, conquest or colonization.

2.4 RURAL LAND USE PLANNING

Agricultural and other uses of land in rural regions of contemporary Nigeria are generally distributed haphazardly. To be sure, individuals, families and whole communities have almost always made and implemented physical plans of sort at their own level and within their narrow rural spatial countries. However, primarily, because of the simplistic, highly fragmented and uncoordinated nature of these plans, land use in rural areas has remain essentially chaotic.

This state affairs is radically different from that in most urban regions where at least in recent decades, formally structured and technically sequenced physical plans have precipitated interventions rationalizing land uses. Contending that planning is a dynamic tool for corporate survival, a means to revolution or evolution, Ewing (1969) states that "in the beginning, planning was a simple small groups. When societies become highly organised, however, planning came to be a device of leadership and management... (taking on) complexities and subtleties it had never had before." Planning is the prime instrument for the orderly development of space, whether cultural or natural, urban or rural space. In terms of the theoretical construct, guiding principles and practical mechanics of planning, rural regions in Nigeria can be planned

just as their urban counterparts have being and are been planned. Our main argument here is that their liveability, service- ability, and attractiveness will be greatly enhanced.

The initial focus of such planning at the rural community level may well be on relationship. The alignment and distribution of motorable roads and the allocation of space to the major rural uses, particularly agriculture, residences public squares markets and vegetation reserves. At the broader or local government area level the four principal criteria often employed in rural planning in the economically advanced countries may be applied. They are

- checking urban sprawl i.e. preventing urban land use encroachment on good agricultural and comparable land.
- Preserving major recreational and (other) open space, and
- Preventing damage to environmentally sensitive areas e.g. tracts of land having highly erodible soils (see Gilg, and Lefaver, 1978).

2.5 SPATIO-INSTITUTION FRAME WORK

The local government area is the smallest governmental administrative unit of space in Nigeria. Following the 1976 local government reforms, the local governments area were formally constituted into a third status of government in the country. As Nwosu has put it :the main rationale of the reforms was to stimulate democratic self-government and to encourage initiatives and leadership at grass root level. The local government councils have unique opportunities and challenges for achieving self-perpetuating growth and development" (1983).

Although the local government area are a veritable spatial institutional framework for grassroot development, especially in the territorially dominant rural sector of the country, their number (774) is too small for effective administrative coverage. Or, perhaps, we should say that their number is insufficient to permit greater developmental impact and ease of governance. The point about number has been made by several earlier commentators. This include professor Akin Mabogunje, who (in a public lecture at the University

of Lagos on 1st April, 1985) called attention to the fact that France has as many as 38,000 communes, sharp contrast to Nigeria 304 local government area as at then.

The commune being the smallest governmental administrative unit in France, as the local government in Nigeria and France having a very well developed and prosperous rural sector, we shall pursue the contrast little further, as indicated in the table below.

TABLE I. NIGERIA AND FRANCE: SOME GEOGRAPHICAL DATA

Area km ²	Nigeria	France
Pop. In 1987 (millions)	913,070	549,080
Rural pop. In 1987 (%)	105	55
	65	22
LGA /Commune: -	304	38,000
Average area (km ²)	3,003.5	14.5
Average Pop. In 1987	345,395	1,447

It is entirely possible, we must add, that the success of France formula for rural development, does not lie mainly in carrying up French territory into tiny administrative plots. There are several other equally weight considerations. The essential issue we are canvassing here is that in view of Nigeria's vast dimension, in both land and population. The present number of local government areas is much too low for the decentralization of rural development. We suggest, at minimum doubling of the current tally without necessarily replicating all the official apparatus and bureaucratic paraphernalia associated with the local government areas

CHAPTER THREE

3.1 RESEARCH METHODOLOGY

This research work examine the effect of land use changes in relations to development. Mulcherjee 1978, Ebel 1979, and other relevant literature have shown that it is more appropriate to use self-raport questionnaire and or observation in gathering data on the issue of attribute that are non-measurable e.g. attitude.

For the purpose of this research work we shall use both observation and questionnaire method to acquire necessary data, from the research area, which seems to be the most reliable method of collecting data without bias i.e. through self-observation method was choosen in this study because it is faster and easier to compurise. This method encourages confidentiality and also serves as future reference.

3.2 POPULATION SAMPLING AND PROCEDURE

The population sampling covers the inhabitant of Doko and environs. This include Doko Vunchi, Bussu, Kuchi and Boku villages. This villages were chosen to represent the broad categories of settlement in the entire local government areas.

Furthermore the reseach was limited to 21 number inhabitant of Vunchi, Bussu, Boku and Kuchi, each and 50 people from Doko.

This uneven distribution could be attributed to spatial differentiation ib geographical factor exsting in different settlement.

3.3 RESEARCH INSTRUMENT

For the purpose ofthis research work as requirement by the study, questionnaire and observation were employed.

3.4 DATA ANALYSIS

To analyse the data retrieve, the percentage method was used which as kerlinger (1973) observed, reduces the different set of numbers to a common base. This is because any set of frequencys can be tranformed to percentage in

order to facilitate statistical manipulation and interpretation. Since percentages are used to compare and contrast groups of objectives on equal bases it is therefore employed in this research work.

3.5 DESCRIPTION OF THE STUDY AREA

3.5.1 LOCATION

The study area (Doko) is located on longitude 5.562° East and latitude 8.570° – 8.571° West

It is the administrative headquarter of the former Jima/Doko district now Doko district, in Lavun local government area of Niger state.

The physical environment is marked by ranges of hills, rising approximately between 244 meters and 305 meters above sea level. The ranges of hills are found to the west, North-west and South-west of the village. A group of isolated hills are found to the North Eastern part and the remaining area to the east and the south area open plain.

3.5.2 CLIMATE

There are two clearly defined seasons dry season from November to March and rainy/wet season from April to October. The total annual rainfall varies between 1010mm and 1020mm, having the highest fall in the months of August and September.

Fluctuation of rainfall occurs from year to year and may greatly disturb the cycle of food production. In the rainy season the prevailing winds are the South-western easterlies blowing from the Gulf of Guinea, while between November and January each year, a dry dusty wind, the Harmattan sets in from the North East.

The area lies on a low lying region and as a result, the weather is hot for the greater part of the year. Average temperature is the same with that of the belt in which it is located, varying between 23°C and 35°C. Humidity is very high for the most part of the year, in spite of the existing hot weather. This is probably due to the fact that the area is close to the rainforest belt of Nigeria. The

coldest months are December and January, while the hottest months extend from February to May.

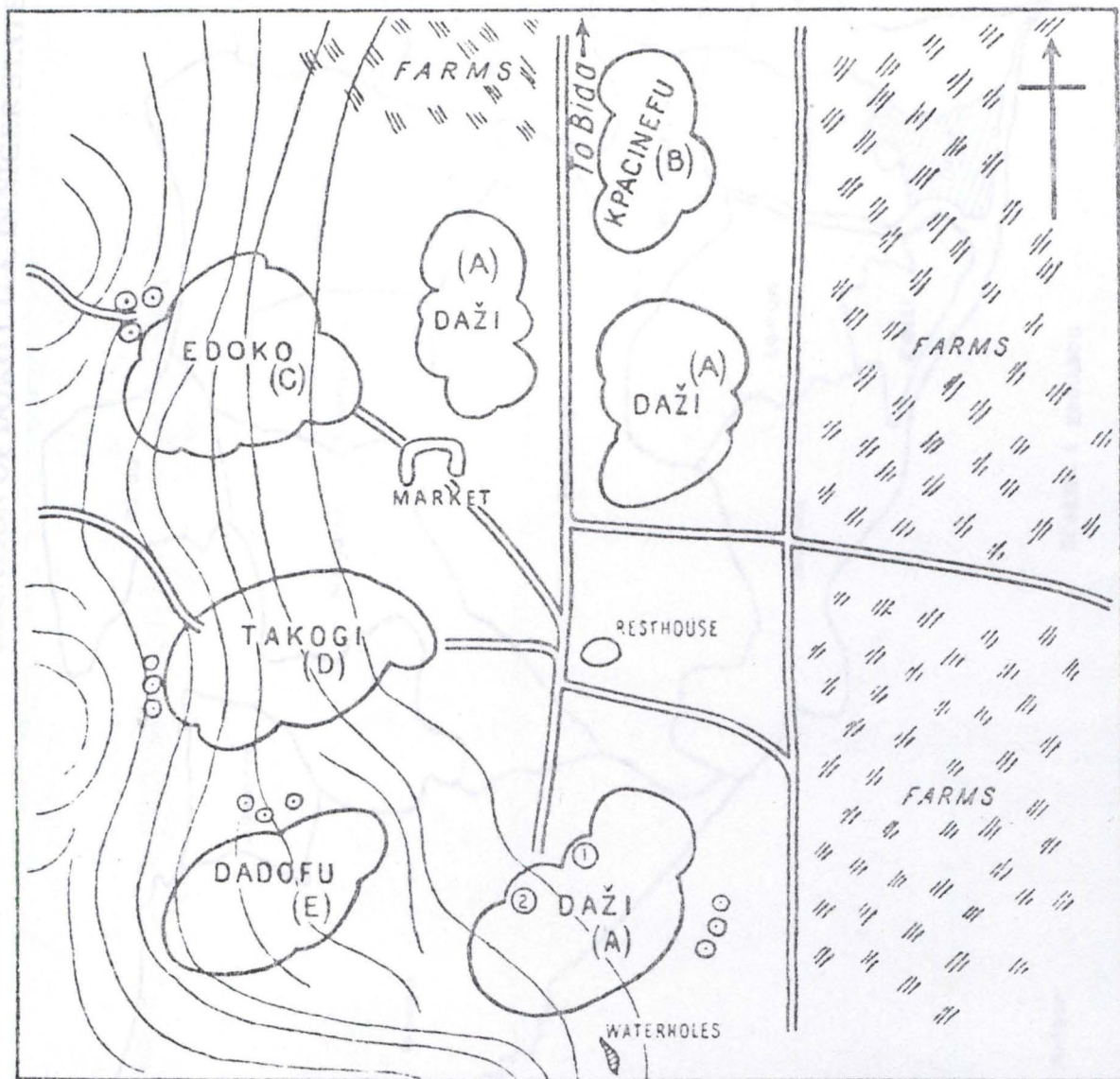
3.5.3 VEGETATION AND SOIL

Like many other areas of nupe land, Doko and its environs lie in a typical area of transition between the southern forest belt and semi-arid savannah belt of the North. This area of transition commonly called Guinea Savannah belt.

Patches of thin forest with tall grasses and shrubs are found around the villages. The dominant trees are locust bean, silk-cotton tree, sheanut tree, Baobab and mango tree. Some oil palm and date palm trees are also found, majority of which are economic trees.

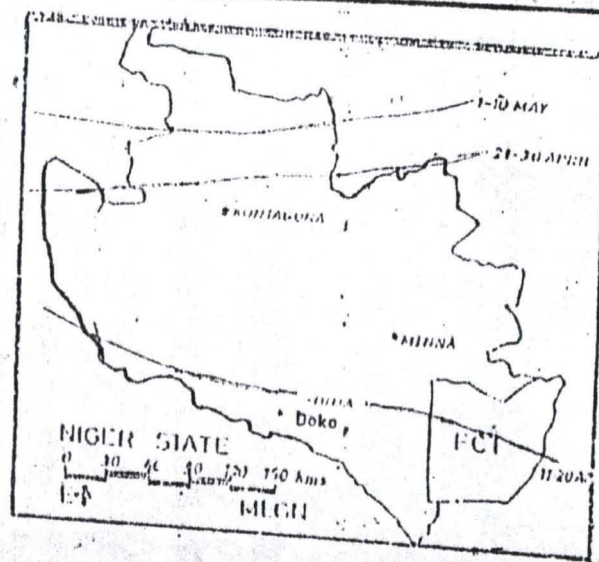
To the south and behind the range of hills skirting the village is an extensive swamp that is used for rice cultivation which is the main economic resource base for majority of the inhabitants. There are scanty trees and the soil is of Alluvial origin possessing a high clay content. The upland soil is a soft sandy-loam alternating with red laterites. Although low in nutrient status, the soil is easily cleared and worked.

SKETCH MAP OF DOKO

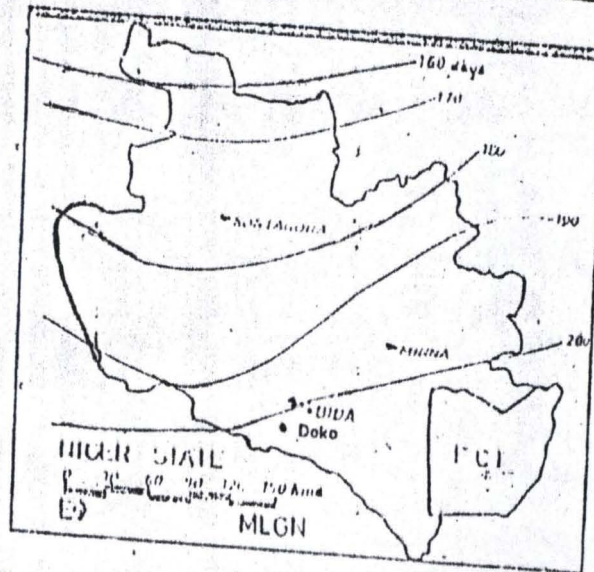


A-E are the five *efu* or wards, of the village. ○....roast ovens.
 ①....house of chief (*Etsu Daži*). ②....house of village priest (*Zigi*).

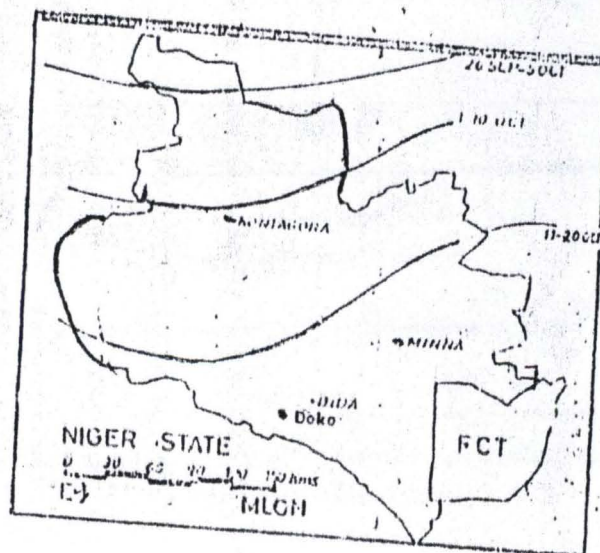
CLIMATIC MAPS OF NIGER STATE



Niger State
(Starts of Rai)



Niger State
(Duration of
season)



Niger State
(End of rains)

Source: Max lock Group
Nigeria

50-64	160	1.1	780	0	40	1.1
55-69	-	-	40	0.3	440	0.5
70 +	160	1.1	280	1.9	-	3.0
Total	7053	47.4	7827	52.4	14880	100

Source: Field survey 1991

It is clear from table above that within the labour force, the higher percentage recorded for female is no way a blessing to the town because most of them are full time house wife, thereby restricting their active participation in economic activities of the area.

It is also revealed that the higher population of the labour force simply means over use of the available land and diminishing of the farm product due decrease in soil fertility.

It is noted that retinal increase and in flues of people from other places due to pull and push factors caused rapid population increase.

It further revealed that the past population figure of 1963 is 9,314 using 2.5% progation while has 14,800 inhabitants.

The grow the population of the study area however is planning problem. It creates a complexity of needs which planning must address.

4.2 LAND USE (AGRICULTURAL LAND USE)

4.2.1 INTRODUCTION

Land use denotes the way land is being put into use either for agricultural or non-agricultural purposes. For other words land use can be classified into agricultural and non-agricultural for agricultural purposes are land earmarked for production of food and cash crops livestock, forest etc.

Agriculture is a major farm of human activities in any economy; it is a major employer of labour, a major source of food supply for human being and animals and a major source of raw materials for secondary industries.

The out come of field surveying attribute the economic base of Doko and environs as other rural areas on the primary sector (agriculture) these includes

farming, fishing, hunting, livestock and other related job, such as mat-weaving, poultry and the bowing of local beer (Ege-zhuru, Kpaku, munge etc).

As stated above, agriculture being the mainstay and only source of income for Doko and environs inhabitants. It accounts for about 95% of the economic activities in the area. It revealed on the household interview, the area under study has 62 household heads and all being a farmer by profession. The agricultural activities as practiced in Doko district embraces food production for subsistence purposes and very small quantity of cash crops.

The study also reveals that the ever-growing population of the inhabitants is over whelmy the resource available, such that land resource becomes the bed rock of the problems encountering in the society; because of its inadequacy and over cultivation year in and year out. This therefore open the land to a very high level leaching, and developed erosional ways every hook and corner of the village.

The contribution of this sector in the over all development of Doko is hampered by movement, within the district and the use of crude and primitive farming implements, since not very many people can afford the use of machine, by and large there is inadequate of these modern machine to help the farmers alleviation in their productions.

Others include the high level of illiteracy among the farmers as well as rotation of crops rather than of field in the situation where adequate fertility and fertilizing procedure is still lacking. For instance the use of crude and primitive implements e.g hoes, cutlasses, suggest that deep tilling of the soil is not possible.

The high rate of illiteracy in Doko is another hindrance against the adoption of new innovations by the farmers of the use of insecticide and fertilizer application marketing of crops is another problem.

1.2.2 LABOUR FORCE

For the purpose of this research work the inhabitants of the study area has been grouped according to the economically active population (labour force),

employed and unemployed. The term “economically active population “is taken to mean those people who are fifteen year (15 yrs) and above. However it is noticed that those who are below 15 years do give helping hand on the farms and domestic works.

In trying to define labour also are guided by the labour code regulation in the country. It should be a person privately actively and gainfully employ himself till became retired. The retirement age is pegged at 60 years.

15 yrs and above

TABLE III: LABOUR FORCE

Sex	Absolute	%
Male	4600	45.5
Female	5500	54.5
Total	10,100	1000

Source: Field survey 1991

According to the table above, the economically active population 54.5% and 45.5% of both male and female respectively. This also revealed that at the time of the research work that produces this table the dependency ratio was very small it is however, expected that the adult dependency ratio will be at increase since that period because of the improvement in health facilities which will increase the life expectancy and consequently increase the adult dependency.

By and large, this research work has proved that despite the inadequacy and destruction of the available health and other social services facilities available the dependency ratio is growing higher than expected is from about 8% in 1991 to about 12% in the year 2000.

4.2.3 CROPS GROWN

The data collected about the type of crops grown is very important in relation to its quantity and quality of hive hood. It should be also be noted that from the preceding data, majority of the farmers if not all are engaged in subsistence farming and that majority of their product are food crops with little cash crops e.g rice, guines corn, maize, millet, yam and others.

4.3 OTHER EXISTING LAND USE (NON-AGRICULTURAL LAND USE)

Planning generally is basically concerned with the use and orderly development of land. It therefore follows that a through and detailed study and analysis of the existing land use is vital and basic.

This gives a clear understanding of all other existing land use serve as useful guide in the designation of land development of any settlement.

The pattern of land use in Doko has been characterized by compact cluster settlement of residential zone and related uses including open spaces, public uses, commercial and access roads. In other words the existing non-agricultural land use in Doko comprises of residential, religious, commercial, administrative and or public uses.

4.3.1 RESIDENTIAL USE

The residential land use in Doko covers a total of about 68.5 hectares, which represent 36.6% of the total land use as at early 80s. in the current survey of late 90s. it is revealed that their has been little increment in residential use.

The revealed that despite the availability of land as at the time of research the affordability of the inhabitants to building materials as made it very difficult to broaden the physical development of the area.

The research work also revealed that hardly you can find any open land within and immediate outside i.e (about 2km away) that has not been acquired by the inhabitant, waiting for further development incase of improved resource base.

Insufficient accommodation in the village due to ever-growing population make the inhabitant allegy to different communicable diseases. Those pose health problem among them.

4.3.2 PUBLIC USE

The land occupied for public uses is about 9.4 hectares, which represent about 1.5% of the total land use. This uses include built up dispensary, courts, water board, offices, post office, schools and educational departments, police station, grain and fertilizers stores etc.

As per the take-off of the new we ought to expect more land been converted for public uses. Taking away lands for public uses will tend to reduce the agricultural land use hence, problem of deficiency in food production and emergence of malnutrition together with land despite problem.

4.3.3 RELIGIOUS DEMOMINATION

Land use allocation for religious purposes rest on the knowledge of the existing faith. Adequate provision of areas for worship each residential commonly in the area under study will not only I reduce friction, but will also lessen hardships invested through relative in accessibility to such religious house.

The data available in respect of religious affiliations of Dokos population is shown in the table below.

Religious	Population	%
Islam	10,800	73
Christianity	3,440	23
Traditional	640	4.3

According to the table above, two-third of the inhabitants are Muslim by faiths while Christian parts account for about 23% and 4% represent the traditional parts. As at the time of the data above there were only one central mosque with other 15 daily prayer mosques all over the village, but the current data reveals that the village still maintain one central mosque with about 25 daily prayer mosques. The increment in the mosque could attributed to dimishing of traditional faiths meanwhile, Christian worship centers was only one and later became two with the opening of the Yoruba apostolic church. However in the reentrance the churches has increased to about 10 different locations. This increment could be attributed to increase immigrant of the tradition faiths mainly Yoruba and Igbos who comes in for their commercial activities.

The traditional faith which amount to about 4% of the total population has reduced basically to about 2% of the total population. Majority of year worshipping centies ere in their houses and some thatched forest around the village and also on the hill.

From the general observation of the study area it reveals that Doko has some major physical barriers which could hamper or hinder development.

This include the ruggedness of the terrains, the stream-though now dried, the hill at the western part of the town and some borrowed pit.

The recent development shows that majority of the borrow pit are been abandoned and some been filled for building purposes.

The overall research work, however, revealed that land use distribution of Doko is typical of rural area; where a large proportion of land is devoted to agricultural use and a comparative smaller proportion for residential uses.

TABLE V: LAND USE DISTRIBUTION IN DOKO

AREA	HECTARE	%
Residential	68.5	30.6
Commercial	0.6	0.3
Educational	6.3	2.8
Other public uses	9.4	1.5
Stream	1.5	0.7
Road	5.8	2.6
Borrow pit	1.2	0.5
Farm land	130.7	61.0
Total	224	100.00

Source: Field Survey 1991

The study however revealed that there is little or negligible stream and no more borrowed pit.

Most of which has been converted to either farmland or residential areas.

This study is important because it is a guiding principle interms of planning proposals for development and improvement of infrastructures of the area under study.

The main objective of this chapter is to examine the nature of the existing land use with a particular reference to the physical and socio-economic development of the area under study.

4. **STEEP SLOPE:-** Land in this category may not be generally feasible for any kind of development because of too steep a gradient and cost of erosion mitigation.

Broadly speaking the physical characteristic of any land which consist of the topography, drainage and the geology of the area plays a very decisive role in the development of an area.

Development constraint and potentials of the area consist of decision that is made before preparation of any development plan. Some characteristics are constraints. The constraints that can be found in Doko include streams, drainage and borrowed pits.

The potentials include the existing land use. I.e. Residential commercial and public uses. The existing road network is also potentials, because it serves as the growth pole of development.

The affected ward. Photographs of all the affected compound

**PLATE I, II AND III SHOWING EXTENT OF DAMAGE TO BUILDING
IN TAKO GBODO WARD**



PLATE I SHOWING FALLEN FENCE EMIN-NDAGBODO



PLATE II DAMAGE BUILDING & FENCE - EMIN-NDASHABA



PLATE III SHOW WASHED LAND - DAZHI

**PLATE IV AND V EFFECT OF BUILDING AND DIRECTION OF
FLOW ON THE RESIDENCE IN TAKO NDACHE AND
NDADZOKO WARD IN TAKOGI, DOKO**



PLATE IV TAKOGI NDACHE



PLATE V

PLATE VI AND VII HOW MAN AID FLOOD THROUGH
COLLECTION OF WASTE DISPOSAL AND
DAMAGE BUILDING IN EGUNKO AND
BABAMAN MADIU



PLATE VI EGUNKO



PLATE VII BABA MANDIWU

**PLATE XI AND XII REFUSE DUMPING AND AFFECTED BUILDING
AT GBAJITE AND EMIN YATSUKO AND
EMINDUMA WARD**



PLATE XI



PLATE XII

PLATE XIII AND XIV ALHAJI LIMAN EMIZURU AND EMIN NDAWODI
REFUSE DUMP A SERIOUS EROSION PROBLEM



PLATE XIII



PLATE XIV

**PLATE XV AND XVI KPATAKO WARD AND TSWATA EMILAGHA
THREATEN BY FLOOD**



PLATE XV



PLATE XVI

**PLATE XVII SHOWING GOVERNMENT EFFORT TO CONTROL
FLOOD AND EROSION AT EDONI EWONGI
AND DIFON WARD**



PLATE XVII

CHAPTER FIVE

SUMMARY, RECOMMENDATION AND CONCLUSION

SUMMARY OF MAJOR FINDINGS

In the preceding chapters, all the topics discussed centered around the assessment of the effect of land use change in Doko district of Lavun Local Government Area of Niger State.

This chapter therefore give the summary, of the purpose and major findings of the research work. It also put forward the conclusion made and recommendations based on the findings it is hoped that the research and recommendation put forward will be of use to the management of land resource properly and adequately check effect of land use change.

Agricultural and other land users in the rural regions of contemporary society are generally distributed haphazardly. To be give, individuals; families and whole communities have almost always made and implemented physical plans of sort at their own levels and within their narrow rural spatial continue.

However, primarily because of the simphtics highly plans, land use in rural areas has remain essentially chaotic. It is against this background that the search work was undertaken with a view of finding and analyzing those inherent factors that influence and affect land use change. Useful suggestion and recommendation are affected at the end of the rescarch. It is hoped that these suggestion shall help in improving the use of land resource and rural development in general.

To facilitate the assessment, Doko as the district headquarter with other surrounding villages (Vunchi, Bussu, Boku and Kuchi) were chosen, although more emphasis was led on Doko because the research work is of more relevant Doko.

The research work was to examine, lasses the effect of land use change of the study area.

Thus, far from the analysis and interpretation of the relevant data it is discovered that majority of the ruralities has effective focus on the land use but

Conclusively, we may use the opportunity to say that land is central to all aspect of social relation in rural society. Its ownership defines a network of rights and obligation and confers degrees of power and influence. Any change, therefore which affect the distribution of, or access to this vital factor of production is clearly altering both social structure and the pattern of power distribution in the community.

Consequently, a serious rural development effort must ensure that appropriate measures are set in motion to facilitate equitangn access to land and its effective usage by producer.

To facilitate the growth and proper operation of users co-operatives the land ownership question must be clearly resolved in favour of actual rural producers and not absentee landlords.

5.3 RECOMMENDATION

In this research work we have broached the eseedingly large subject land use changes in relation to development. We have touched upon the rural conceptualization of land, conversion of rural space to prevalently non-rural uses land tenure and reform, agricultural land uses, to non-agricultural uses, physical planning of the country side etc the recommendation which emerge now follows

- 1- carefully assessment, at all times of the impact of land conversion on rural development, the minimization of such conversion and the provision of fair compensation to the rural inhabitants where conversation is inavailable.
- 2- conscientious, broad based and nationwide land return programme with the Principal objectives of providing for ruralities greater access to, and more opportunity on the land, discouraging land broading and pressing all designated land in to service on the continuous basis.
- 3- studied vatinalization of the design and use of rural space through physical planning in order to enhance the appeal and productivity of rural areas.
- 4- A substantial increase in the number of Local Government in the country to facilitate both top-down and bottom-up measures for rural development and to create a more solid base for spatial ferity and broader social justice.

