PERIPHERAL GROWTH IN KANO METROPOLIS: PHYSICAL PLANNING PROBLEMS AND PROPOSALS

M.Sc. (URP) THESIS

BY

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Being a Thesis submitted to the Post Graduate School-, Ahmadu Bello University, Zaria, in partial fulfilment of the requirements of the degree of Master of Science, Urban and Regional Planning.

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JULY 1989

DECLARATION

I hereby declare that this thesis has been composed by myself and that it is the outcome of my research work. It has not been accepted in any previous application for a higher degree. All sources of information are specifically acknowledged by means of reference.

JULY 1989 Tahir Moh'd Lawan

CERTIFICATION

This Thesis entitled PERIPHERAL GROWTH IN KANO METROPOLIS: PHYSICAL PLANNING PROBLEMS AND PROPOSALS by TAHIR MOHAMMED LAWAN meets the regulations governing the award of the degree of M.Sc. URBAN AND REGIONAL PLANNING of Ahmadu Bello University, Zaria and is approved for its contribution to knowledge and literary presentation.

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Lastly, my sincere thanks to my family particularly Rabi, Rabiya, Ahmed, Maryam, Fatimah, Samira as well as Garban Shaaibu and Garba Mohammed Tahir respectively. Their understanding and cooperation was a source of inspiration.

DEDICATION

This work is dedicated to:

My father

Mohammed Tahir Isiyaku (SARKIN BAI)

My mother

Tatima Binta Tahir

My children

Hafsat and Mafisat

who suffered a seeming neglect for most

of when this work was being undertaken.

ABSTRACT

The rapid growth of urban centres in dovoloping countries and Nigeria in particular has resulted in spatial expansion o*f* those urban centres thereby-creating the sprawling of urban fringes. These urban fringes or urban peripheral settlements grow haphazardly due to lack of development control by the planning authorities concerned, thereby resulting into all sort of landuses with inadequate provision of urban facilities, utilities and services. Kano is one of the urban centres in Nigeria that has experienced such tremendous growth most of which, for a number of reasons is accomodated in the periphery.

The genesis of large scale urban peripheral growth in Kano metropolis can be traced from the colonial period, when the development policy emphasized the location of administrative and other developments within wide spread areas of the metropolis. Compounding the issue, is the high rate of migration from rural areas and from other parts of the country to Kano in which made it to be the largest commercial centre in Northern Nigeria.

The aim of this work is to study the processes, factors and patterns of peripheral growth in Kano Metropolis and the x>hysical planning problems arising as a result of such growth and with a view to proposing strategies for an orderly

development• The Kano Urban peripheral area was identified by using parameters of development continuity, building conditions and availability of utilities an' services. However, the peripheral area of Kano Metropolis is large an-' for this study, on the basis *of* those parameters within it, six areas have been chosen using the spatial approach technique for closer examination of the issues at stake.

Physical characteristics of the study area such as landuse, circulation, building layout, building conditions, environmental sanitation as well as the provision of utilitis and services were studied. Also socio-economic conditions like ethnic composition, house size, occupational pattern, educational status, house ownership, monthly income level as well as recreation and socialization were discussed.

A number of physical planning problems such as physical, socio-economic, administrative and actual planning relating to the uncontrolled peripheral growth *of* Kano have been identified9 Having identified these problems, proposals were made with a view to promote an orderly development *of* these areas. Among the proposals are the physical planning solutions to the existing situation. The strategy proposed in this case is intergration and regrouping, and the

other part of the proposal was interns of policy recommendations which serve as preventive measures to stop re-occurance of such situation. Finally, general implementation policies have been specified. A workable administrative framework and organisational structure for effective monitoring and development control were suggested.

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CHAPTER ONE

1.00 INTRODUCTION

1.10 STATEMENT OF PROBLEM AND RESEARCH JUSTIFICATION

A consequence of the colonial era was the boast of urbanization in most developing countries which has resulted into haphazard and uncontrolled growth in most metropolitan areas. These areas have grown in spatial extent and density, manifested by the outward expansion of the extent of the built-up area to their immediate rural surrounding. In this case, most of the peripheral settlements in close proximity to the urban centres are being faced by urban expansion since they form the bulk of the region outside urban centres, and also are exposed to a whole variety of pressures as a result of urban growth and their proximity to such growth point. Thus, the settlements in the periphery of urban centres are in constant pressure from the cities they surround resulting into a process of constant change with those closest to the urban centre having more visible changes. This pressure has been created by the need to accommodate the rapid growth in various forms of activities associated with large cities.

Kano Metropolis has enjoyed a position as the largest and most influencial commercial town in the Northern part of Nigeria for many years and as such it has been experiencing this need to accommodate rapid urban growth. The rate of its growth as to present occurs

much faster than the speed at which utilities and services could be provided. The city's population is always increasing as a result of natural increase and migration which results in a critical housing and other space shortages aggrevated by lack of new buildings to meet the demand of the new landuse requirements. At the same time, land speculation has been the main source of land demanded by both individuals and firms seeking to establish business which creates scarcity making land to be beyond the easy reach of most users. The result has been for such users to move to the periphery where land is cheaper and affordable to them (Table 3.29).

This is a major planning problem that is challenging the pace at which development control can meet up with urban expansion in the face of many problems as indicated. The degree of the problems associated with such uncontrolled developments appear overwhelming, requiring urgent action in understanding the forces at work and designing appropriate planning strategies.

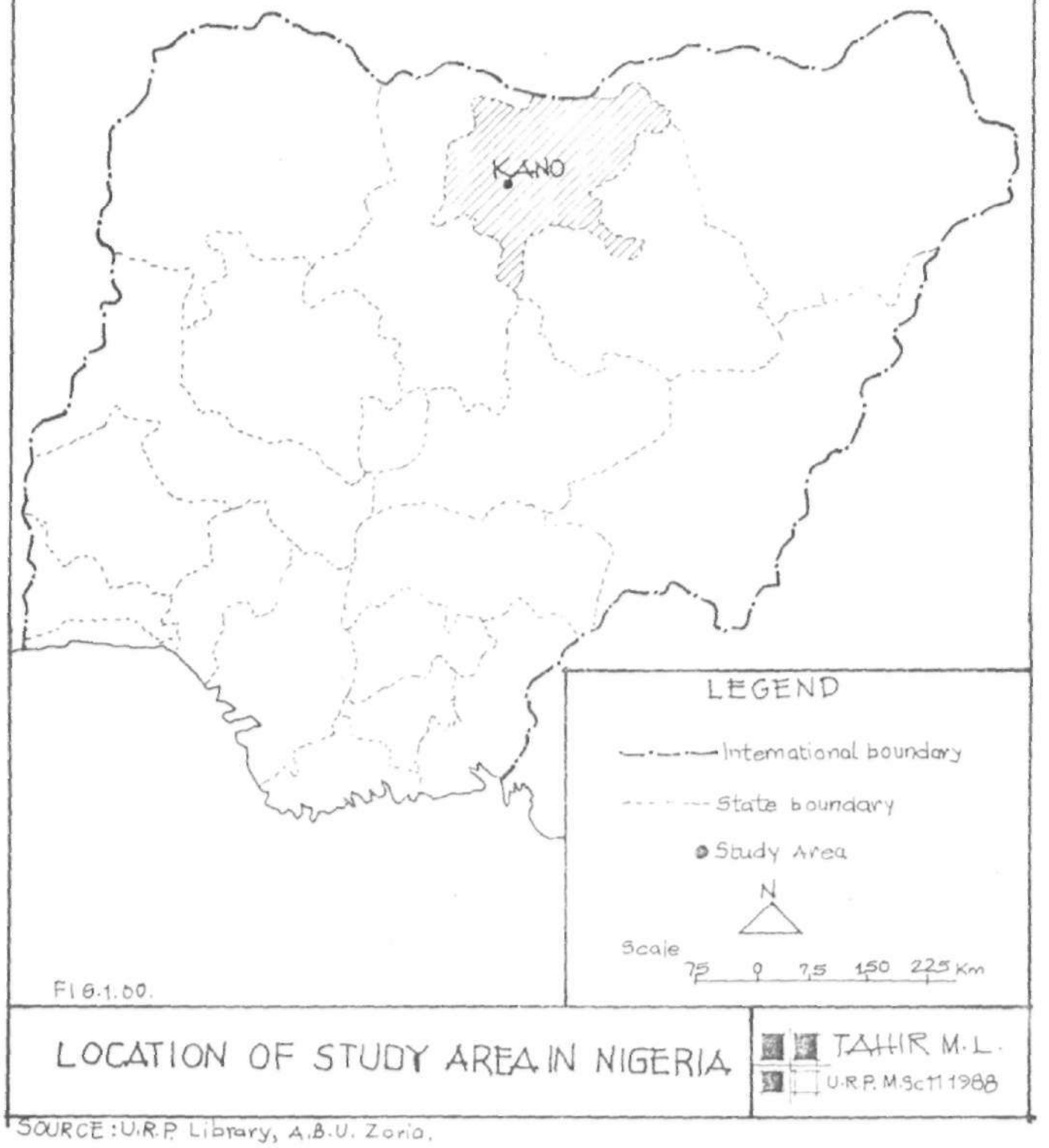
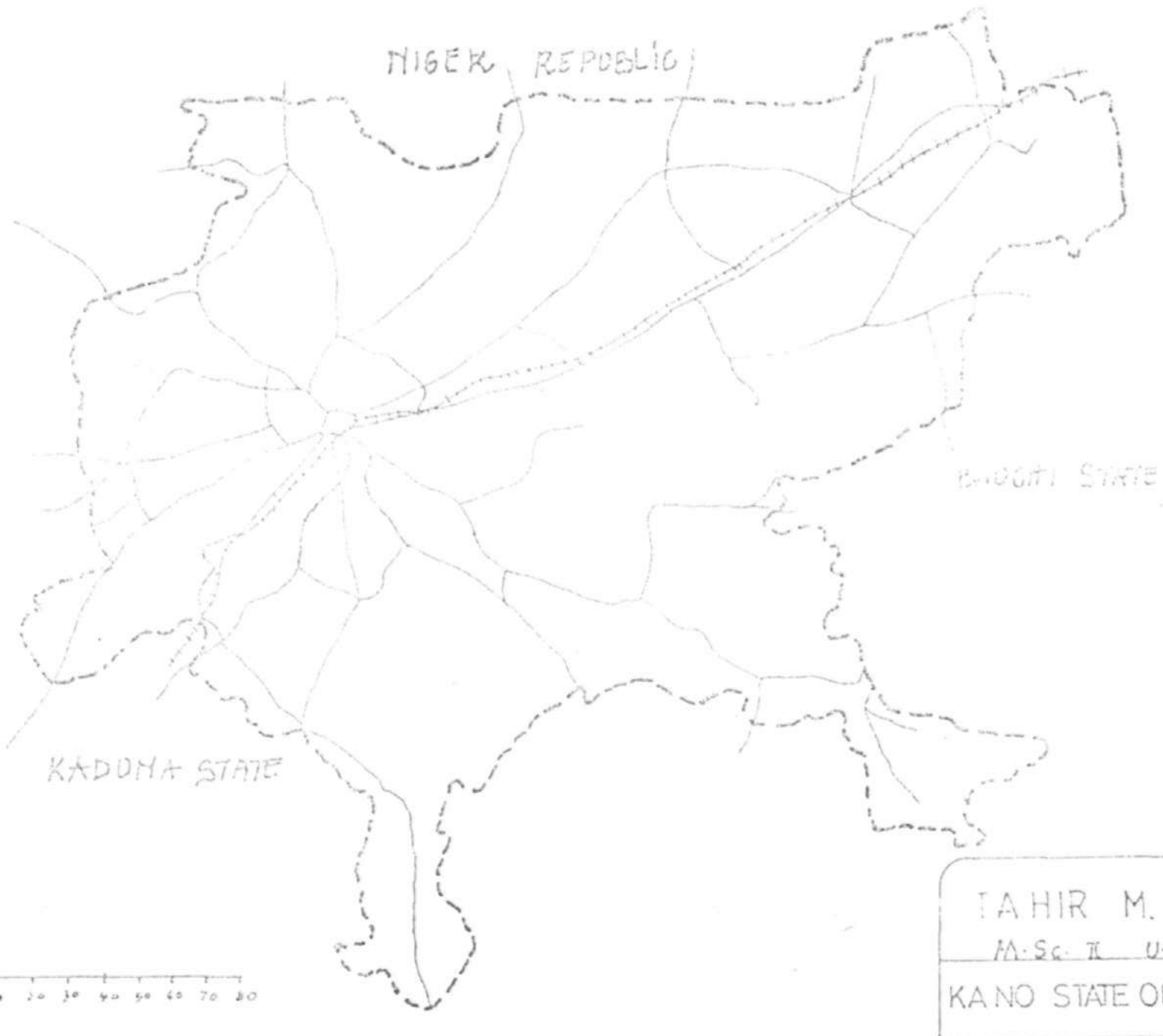


FIG.1.00.

LOCATION OF STUDY AREA IN NIGERIA

TAHIR M.L.
U.R.P. M.Sc II 1988

SOURCE: U.R.P. Library, A.B.U. Zaria.



TAHIR M. L.
M.Sc. II U.R.P 86/87
KANO STATE OF NIGERIA
Source U.D.B. Kano

FIGURE 1-10

THE PROCESS AND PROBLEMS OF URBAN PERIPHERAL GROWTH

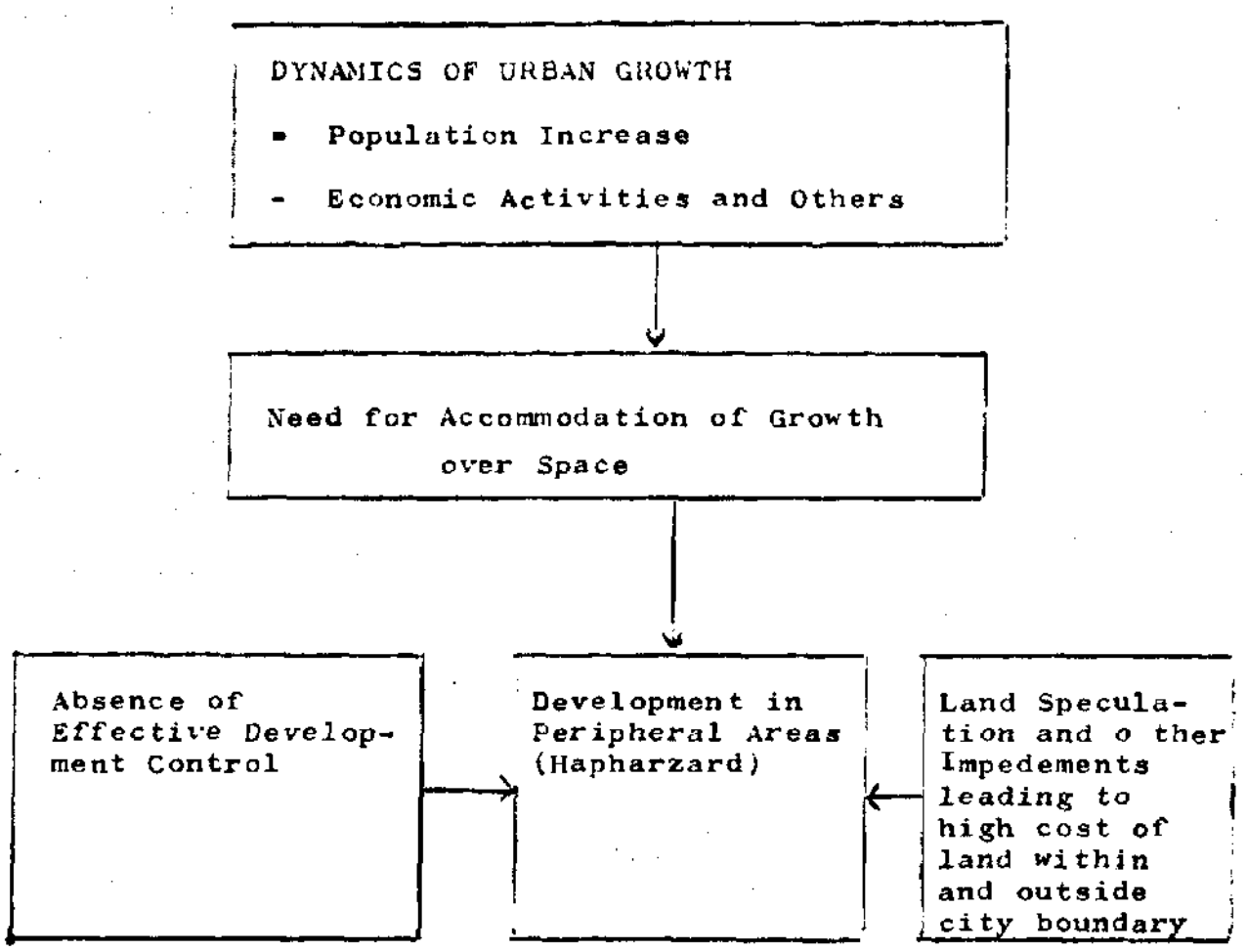


Fig. 1.20

PROCESS AND PROBLEMS OF URBAN PERIPHERAL GROWTH. (CONCEPTUAL FRAME).

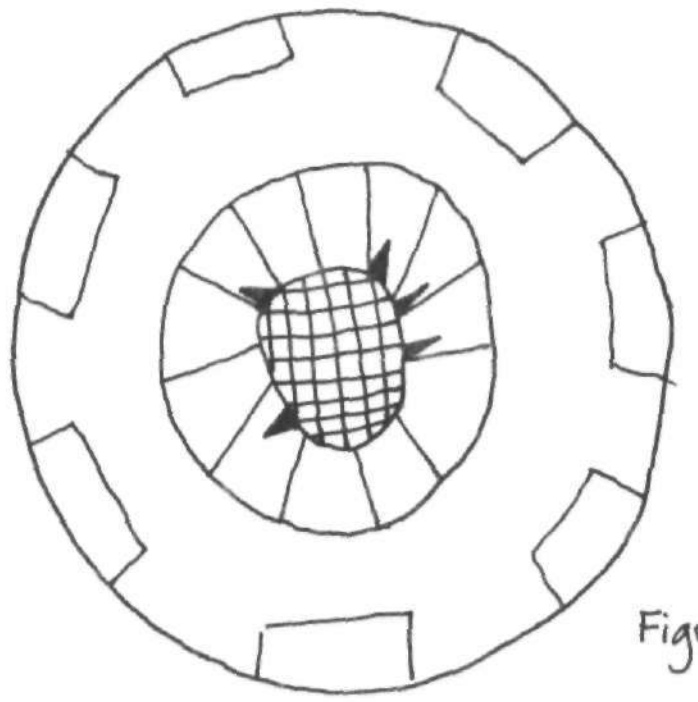


Figure 1·40

KEY

city core

immediate city bounds

periphery

TAHIR, M·L
M·Sc URP, 1988

The view is hereby advanced that, this uncontrolled peripheral growth of Kano Metropolis is not healthy for the overall urban development and if allowed to persist may have serious repercusion on the metropolitan development which may destroy functional relationship of the city components and jeopardize any meaningful urban expansion. In this regard, there is the justification for an indepth study with a view to understand the fundamental issues in the growth of these areas and assess fully the planning problems of these areas and then try to propose the necessary cause of action to tackle these problems which the study intends to carry out.

1.20 AIM AND OBJECTIVES

The aim of this work is to study the process and pattern of peripheral growth in Kano Metropolis and identify physical planning problems with a view to proposing strategies for an orderly development.

1.30 OBJECTIVES

The study attempts to accomplish the above stated aim through the following objectives.

1. To identify the factors responsible for and the process of urban peripheral growth in Nigeria in general and metropolitan Kano in particular.

2. To study the spatial pattern and process of urban peripheral growth in Kano Metropolis, using some selected parts of the periphery and, study the physical and socio-economic characteristics as well as interactions of these selected peripheral areas with Metropolitan Kano.

3. To identify planning problems of these areas and how they arose.

4. To review the existing planning strategies for the development of urban peripheral areas. for application in the study area.

5. To suggest planning proposals and implementation policies for the development of peripheral areas in Metropolitan Kano.

1.40 SCOPE AND LIMITATION

The research is to be limited to the examination of the factors, process, pattterns, physical and socio-economic characteristics as well as physical planning problems of peripheral areas in Kano Metropolis, in which the boundary of this area was amended in 1982 under the Kano State Urban Development Board Edict (Appendix II). No. 5 of 1976, under section 29 ,the entire Kano city, Waje, Nassarawa,Ungogo, Kumbotso districts as well as some, p parts of Gazawa, Dawakin-Tofa..

PARTS OF NEIGHBOURING LOCAL GOVT AREAS IN METROPOLITAN KANO



RANO LOCAL GOVT.

DAWAKIN-KUDU L. GOVT.

KANO MUNICIPAL

GOVT.

Tafa, Dawakin Kudu, Mingibir and Rano Local Government Areas respectively (Figure 1.20). The area so defined are the focus of the study. Because of the limited resources, distance and the scattered nature of some of the areas, six sample areas were selected to give a representation of the entire peripheral areas in metropolitan Kano

1.50 RESEARCH METHODOLOGY

One of the most serious handicaps of research work in the developing countries especially Nigeria is paucity of data. Therefore, based on the aim and objectives of the study, data used was collected from the following sources:

1. Primary Sources
   (a) Questionnaires
   (b) Survey of physical character based on observations.
   (c) Formal and informal interviews with officials of the planning authority, Kano Municipal Council as well as village heads.

2. Secondary Sources
   (a) Literature on subject
   (b) Official documents
   (c) Maps and diagrams

1.5.1 Data Collection and Analysis

Data obtained in this research was from two main sources as mentioned above. First a general reconaisance survey of the Metropolitan Kano was conducted to identify the locations of the peripheral areas. Secondly, in obtaining information

on general characteristics and socio-economic conditions of these settlements, questionnaires were administered (Appendix I). These was based on the existing situation, i.e., facilities, utilities and services as well as refuse disposal system, toilet types, ethnic composition, occupation, monthly in-come and house ownership among others.

Analysis of the data was largely based on simple statistical computations which were then presented graphically. This consisted of careful tabulation, manual coding and coverted into percentages, pie charts and tables to get a clear picture of the general situation of the peripheral areas in Metropolitant Kano.

1.52 Survey of the Households and Sampling Size

In this respect, random sampling technique was used. The strategy was that, individual compounds and residential clusters were picked from which a random number was selected for questionnaire interview. Therefore, the questionnaires were administered on a stratified randomly selected sample of households.

The sampling size in each area depended on the observed size of the residences. It ranged from one respondent in a single household to about five in clusters of dwelling units. Also an equal number of questionnaires were administered in each area for comparative analysis.

1.53 Selection of Study Areas

In selecting the study areas, a spatial approach was adopted. The procedure was that:- a reconnaissance survey of metropolitan Kano was first conducted to identify the locations and the number of peripheral settlements within the metropolis. In doing this, the whole peripheral area of the metropolis was divided into three segments in which settlements were individually numbered. From each segment, settlements numbers (5 and 10) were picked making total of two settlements from each segment representing the entire settlements in each respective segment. In this process, a total number of six settlements were picked. These are Dawanau, Tamburawa, Moriri, Dorayi, Lambu and Yadakunya respectively (Fig. 1.40). These six settlements give a representation of the entire peripheral areas in Kano Metropolis for the study (Fig. 1.50).

1.54 Thesis Structure

The study is divided into six chapter.s Chapter one is an introductory chapter in which the statement of problem and research justification, aim, objectives, scope and limitations as well as the methodology of the research are spelt out respectively.

METROPOLITAN KANO SHOWING TECHNIQUE OF SELECTING SAMPLE SETTLEMENTS




METROPOLITAN KANO SHOWING U.D.B BOUNDARY AND SAMPLE AREAS.
KANO
KUMBOTSO
GWALE
TARAUNI
DALA
FAGGE
GEZAWA
GORTA
KUMBOTSO
TUDUN WADA
DORAYI
KANO
KIMIN GATA
MARIKI
TAMBUWAL
KWANAR DAURA
BUSAYE
KODE
GWARZO
KABO
KARAYE
RANO
BAGWAI
SHANONO
GABASAWA
DANBATTA
MINJIBIR
KUNCHI
TSANYAWA
DAWAKIN KUDU
WUDIL
BICHI
TUDUN WADA
DANBATTA
GARKO
KARAYE
RANO
BAGWAI
SHANONO
GABASAWA
MINJIBIR
KUNCHI
TSANYAWA
DAWAKIN KUDU
WUDIL
BICHI
TO KATSINA
TO HADEJIA
TO MAIDUGURI
KEY
old metropolitan boundary.
new metropolitan boundary.
boundary of the built-up area.
N

Fig: 1-60.

Chapter two is essentially a review of existing literature. It deals with the factors, process as well as pattern of peripheral growth in most of the urban centre of the developed and developing countries.

Physical and socio-economic characterics as well as factors, process and pattern responsible for the peripheral growth in the study area were fully discussed in chapter three.

Chapter four deals with the identification of planning problems as well as the prospects of the study area.

Chapter five comprises various planning strategies for the control of urban peripheral growth as well as the application of the suitable strategies to the study area.

Lastly, chapter six deals with the planning proposals and implementation policies (Fig. 6.00).

THESIS STRUCTURE

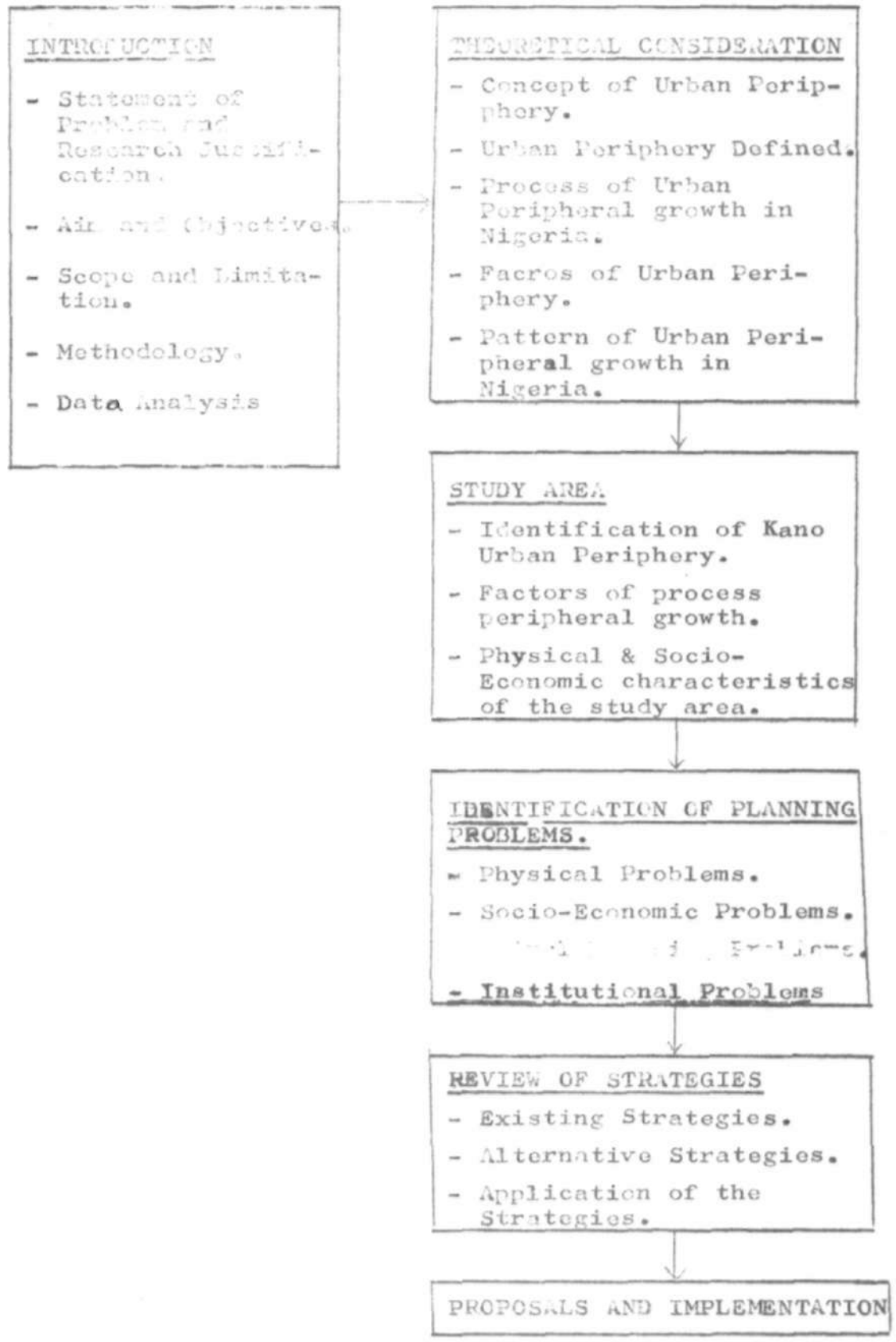


Figure 1.50

CHAPTER TWO

2.00 PROCESS, PATTERN AND FACTORS INFLUENCING URBAN PERIPHERAL GROWTH

2.10 CONCEPT OF URBAN PERIPHERY

The urban centres of the worldare in constant growth and change and this has led to Metropolitan Explosion (Hall, 1982). The process of this growth has created several problems for the peripheral areas within the influence of these rapidly developing cities. This is because, they are situated at the door steps of these urban centres than those settlements which are far away from the urban centres. As such, little attention has been paid to the growth of these peripheral areas. In developed countries problems of such are taken care of by the enforcement of development control, while in developing countries the absence of effective control result into urban peripheral areas growing into chaotic condition. The problem is further compounded by the excessive pull of metropolitan centre by bringing migrants into them. This immigrants population finds a suitable abode mainly in peripheral areas of urban centres perhaps mainly due to economic reasons. In his studies of urban rural fringe land, Hushak (1975) [1] introduced a concept which appears relevant in the

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1. Hushak, L.J. (1975), "Urban Demand for Urban - Rural Fringe Land". Land Economics, Vol. 11 No. 2, May 1975.

study of urban periphery. This is so because as he pointed out that, "Urban Peripheral area is an area where land is in transition from agriculture to urban use",

2.11 Urban Periphery Defined

The periphery in a geographical sense refers to a region or territory which surrounds another. It thus forms a sort of demarcation between the area surrounded and all other places outside it beyond the area surrounding region. With reference to urban areas, a city's periphery refers to areas of residual influence of the city. Such influence can be political, economic or social hence there can be several overlapping zones of such influence from a given city. It can also be identified in terms of geographical distance. It can include districts which are served by the city's broadcasting or television stations, areas covered by newspapers circulation by city vendors or areas connected with the city by other forms of daily spatial interactions among their inhabitants. Thus, the city and its periphery are geographically contiguous but exhibit certain distinct socio-economic characteristics. However, other terms often used which have connection with this same area are:-

Rural-Urban fringe, urban shadow, sub-urban, Ex-urban and commuting zone. These terms are at times confusing in their usage and delimitation. In this case, Russwurin[1] observed that "four zones contribute to the outward expansion of cities; the sub-urban zone which is actually part of the built-up city proper, the commuting zone which is the very extensive (up to 58 km) work shed and which includes the urban fringe and urban shadow zones. According to him, the latter occupies largely rural space beyond the fringe. He therefore defines urban fringe as the key inner area of urban invasion of residential, commercial and associated lanouses".

The periphery of Kano in this study connotes those areas and settlements immediately adjoining the built-up part of Kano and which are sharing the problems and prospects of the growing metropolis, based on the criteria adapted in identifyingKano Urban Periphery i.e building conditions, development, continuity and availability of utilities and services (Figures

---

1. Busswurin, L.H. (1964) "The Urban Fringe in Canada: Problems, Research Needs, Policy Implementation" in M.J. Troghtor et al (eds). The Country-side in Outairo.

These criteria were critically examined and identified during the physical survey conducted during the study which gives the basis in identifying the peripheral areas within Kano Metropolis. This leads to what is being obtained in (Fig. 46). Based on the above ascertion, the extent of the core and the periphery were physically identified. Apart from the above scientific methods, other scientific approaches were also applied in selecting the sample areas within the periphery. The spatial approach used here gives the basis on how and where to locate the areas within the periphery (Fig. 1.70).

2.12 Urban Peripheral Growth

Urban growth and expansion has physical, social and economic consequences. It refers to those human activities at the urban periphery expressed in various landuses. This growth is usually uncontrolled due to lack of development control in the area.

The problems created by huge concentration of people in big cities are familiar to people the world over. Hall thus argues that the extra thousands that arrive every year must be housed, they must find jobs whether in industries or offices, if extra housing is not provided, overcrowding in the city results. In some cities, slums and squatter settlements result as a consequence of ill-planned housing within the urban centre. If city expansion is not planned or planned without care, the result is an endless sprawl which eats far into the surrounding countryside settlements and agricultural lands. The extra thousands that arrive in the cities must be provided in terms of water, electricity, roads, sewage, schools and other infrastructural services. All these take up space and the space to be acquired is always at the expense of the countryside.

At the city margins therefore, a wide mix of landuses is characteristic ranging from the old,

untouched rural villages to modern residential estates; from a variety of commercial developments including out of town shopping centres to the city services and industries which are conveniently located at this margins. Sometimes, these peripheral settlements are called "institutional desert" because of uncontrolled location of unpleasant and naxious establishments such as junkyards, graveyards, etc.

However, in a comtemporary context the various land uses, older villages, newer residential extensions, commerce, industry, city services and the underlying farming, are not neatly sorted out into homogenous areas but are intermingled in random fashion and it is this which gives its distinctive quality to landuse pattern of urban periphery.

2.20 FACTORS RESPONSIBLE FOR URBAN PERIPHERAL GROWTH .

When a town grows physically, the surrounding countryside is always the target for land acquisition. As more and more people migrate into the towns, so do we need land on which to house them. Urban based functions like commerce, industries, civil and cultural activities all require spaces. Because of their special requirements, expanding cities take up land which may have been devoted to agriculture and settlements. Between 1927 and 1968 for instance,

Greater[1] London Area had taken up about 185,000 areas of valuable agricultural land. As a result of this serve factors are identified which contribute to the formation and growth of urban periphery. These factors can be economic, social and cultural operating through many decades since the earliest formation of the urban centres. These factors are:-

2.21 Shortage of Affordable Housing

Shortage of affordable house is one of the major urban problems in many countries. For example, in Nigeria, a 1975 estimte put the housing stock at 2.9 million as against a need of 3.6 million at 3-6 persons per room. This results in high level of overcrowding which in turn leads to the movement of people to the periphery where house is affordable to them. Most migrants owing to their economic disposition, and largely because of the inability of the municipal local governments to meet their housing need, they have no alternative other than to look for shelter in whatever form mostly in urban peripheral areas. Such settlements should, however, be seen as attempts by the urban poor towards solving their housing problem in their own way which results in the spreading of settlements in the urban periphery.

---

1. Hall, P. 1976;70

2.22 Land Speculation

This is one of the major factors that results in the formation of peripheral settlements. Speculation in land tends to force the price of land beyond the reach of the vast majority of the population in some cities of the world. As a result, many low income people move to the periphery where land is cheaper and affordable to them. This produces intricate pattern of plot ownership on which the new structures are put irrespective of any planning considerations.

2.23 Technological Improvement

Is another important factor that leads to the growth of urban peripheral areas in most cities of the world. Because of the availability of automobile, septic tank, electricity generation and many others has greatly been responsible for the creation of peripheral growth. The modern transportation mode made possible the wide dispersion of home from work places while electricity transmission and the septic tank seems to free the home from centralized utility systems. The result of this is the formation of haphazardly development patterns in the urban periphery.

2.24 Rapid Urban Growth Rate

The process of urban growth in many countries of the world is being tied to the rapid rate of urbanization that is taking place. Accelerated population growth in cities is partly a result of high rates of natural increase and partly a result of massive migration to the large cities from the countryside and other smaller urban centres. Such population transfers into the urban centres are largely the result of lack of expansion of agricultural employment which has fallen behind rural population growth (table 2.10). This massive transfer of the rural populace to the urban centres creates many problems ranging from shortage of affordable house to increase in land value which is always beyond the reach of the common man which makes him move to the periphery where land is affordable to him.

Table 2.10: GROWTH OF SOME NIGERIAN URBAN CENTRES 1952-1963 CENSUS PERIODS

URBAN CENTRE	POPULATION 1952	POPULATION 1963
Ibadan	459,156	627,379
Lagos	267,407	665,246
Kano	127,204	295,432
Port-Harcourt	71,634	179,563
Enugu	62,764	138,459
Maiduguri	56,740	139,965
Benin	53,753	100,694
Sokoto	51,986	89,811
Calabar	46,905	76,418
Kaduna	44,540	149,910

Source: Federal Office of Statistics, Annual Abstract of Statistics, 1968, pp. 14-16.

2.25 Lack of Effective Development Control

Development control is a collection of interrelated para-legal and administrative techniques and instruments designed to safeguard, regulate, conserve and disburse land or part therefore in the interest of the overall community. In most cities of the world more especially in Nigeria, this is lacking. There is the issue of ineffective development control measures. Most planning agencies lack the necessary machinery to effectively monitor developments. There is then the problem of jurisdictional conflict between governments on one hand and the planning agencies on the other. This leads to lack of serious attention by the planning authorities which result in the development of haphazard settlements in most of the urban periphery of world cities (Fig. 2.10).

2.26 Land Acquisition Procedures and High Planning Standards for Land Development

In many countries of the world and Nigeria in particular, the building standard set by the Planning Authorities or Ministries only reflect middle class values and do not reflect the socio-cultural values of the people for whom the standards are set. These standards tend to eliminate the chance of the ordinary people building a house within a planned area.

Moreover, the common man does hardly get land through the allocation process. Frequently, these group of people buy land at the urban periphery. In this location there is no incentive to make large investment is ir most cases the title to land or dwelling is confused or non-existent. As these areas are not recognized by Planning Authorities, Utilities, Facilities and Services are lacking.

2.27 Other Factors

Other factors can be lack of up-to-date and accurate population and socio-economic data which makes government unaware of rapid growth of peripheral settlements as well as the demand for socio-economic and infrastructural facilities. Also high cost of building materials as well as lack of initiative to improve the local ones led to the use of shorty materials to construct houses by the poor at the peripheral areas of the city

2.30 PROCESSES OF URBAN PERIPHERAL GROWTH

The space into which the town extends as the process of dispersion operates has created the concept of urban periphery, an area with distinctive characteristics which is only partly assimilated into the growing urban complex, which is still partly rural and where many of the

residents live in the country but are not socially and economically of it. From the above, we can see that the process of urban peripheral growth can be intergrated in terms of evolutionary stages and their associated processes. From historical background and available past maps of some Nigerian cities such as Ibadan, Kano and Kaduna, it is possible to recognise two main stages of peripheral growth which includes formation and modification stages.

2.31 Formation Stage

Peripheral areas of urban centres are generally good agricultural lands and are rapidly converted into urban uses. All the activities being carried out without much considerations being given their possible short-term and long-term effects on agricultural production and on the urban environment. Therefore, in this stage, the process begins at the inception of the town itself. The first phase is that when land at the fringe of the built up area is taken up for the first time by urban landuses. These uses might be due to institutional or incidental factors. This phase continues until the growth of the built-up area is such that land under these uses no longer abuts on to rural land.

However, it is being observed that, certain periods have been conducive of fringe belt formation, and so have areal conditions, the two are clearly

interrelated. Another factor influencing this phase is the mutual attractions and repulsion of various landuses.

Under areal conditions conducive of fringe-belt formation include any obstacle to the normal outward growth of residential area. This may be a visible limitation, like the traditional city walls or natural features like valley, streams or hills. For example in a study carried out in Newcastle by Cozen. Such fixation is the Medieval town wall. Traditional city walls of Kano, Zaria, Ibadan could be such examples of fixation.

It was observed that such limits were often preserved over many centuries and they have striking influence on the location of fringe-belts.

Periods of time conducive of fringe-belt formation seem to be of national rather than local occurance. This is more recognisable in the western world generally. In Tyneside the century proceeding the first world war was notable for the scattering of variety of landuses at distances up to 3.2 kilometres or more from the built-up area. These are attributed to certain factors such as introduction of sanitary legislation leading to the dispersion well beyond the town limits of cemetaries and certain type of institutions. In Nigeria for example this advent of colonialism brought about location of certain public landuses such as cemetaries and institutions outside the built-up areas.

2.32 Modification Stage

This stage involves consolidation and adaption of landuses at the fringe. Once a fringe belt is within a built-up area rather than on the edge it is subject to many forces of change in any urban area. For example in Kano due to outward spread of built up area, most initial landuses at the periphery have been consolidated into the centre. Notable of this, is the agricultural landuses which have now been taken over by residential landuses. Modifications of plots may occur before the fringe belt is sealed off, but most modifications are attendant upon the changes of location that results from the enveloping of the fringe-belt by the outward growth of the built-up area.

However, existing fringe belt plots, like other parts of an urban area, are subject to a cycle of adaptation and redevelopment which usually involves changes of landuse. This is so when plots change position in relation to the built-up area as a whole. The older the fringe belt, the greater the relative change.

2.40 PATTERNS OF URBAN PERIPHERAL GROWTH

The physical expansion of an urban area may involve expansion due to population growth as well as the redistribution of activities within the urban area. The amount of land needed per unit of time to

accommodate the outward expansion of an urban area will depend on the size of the centre, its rate of growth, the proportion of demand channelled into suburban preferences, and the density of new development. At any one time there are many times more sites with development potential for urban use than are needed.

According to Whitehand (1966)[1],

> "the primary criteria for the recognition of morphalogical regions within towns are plan, building types and landuse. Morphalogical regions based on one or all of these morphological elements, are defined in terms of their possession of certain common forms which they derive a unity distinguishing them from adjoining areas".

The recognition of such homogenous regions has been central in attempts to produce generalization about internal structure of urban areas stemming from such an approach have such simple but valuable generalizations as concentric zone and sector models (Harris and Ullman 1959).

However, hetrogenous regions, such as urban periphery are less easily recognized and have received comparatively little attention. In the case of urban fringe belts this is particularly unfortunate since their recognition provides a genetic rathern than a purely descriptive basis for the analysis of towns. They are examples of regions that derive

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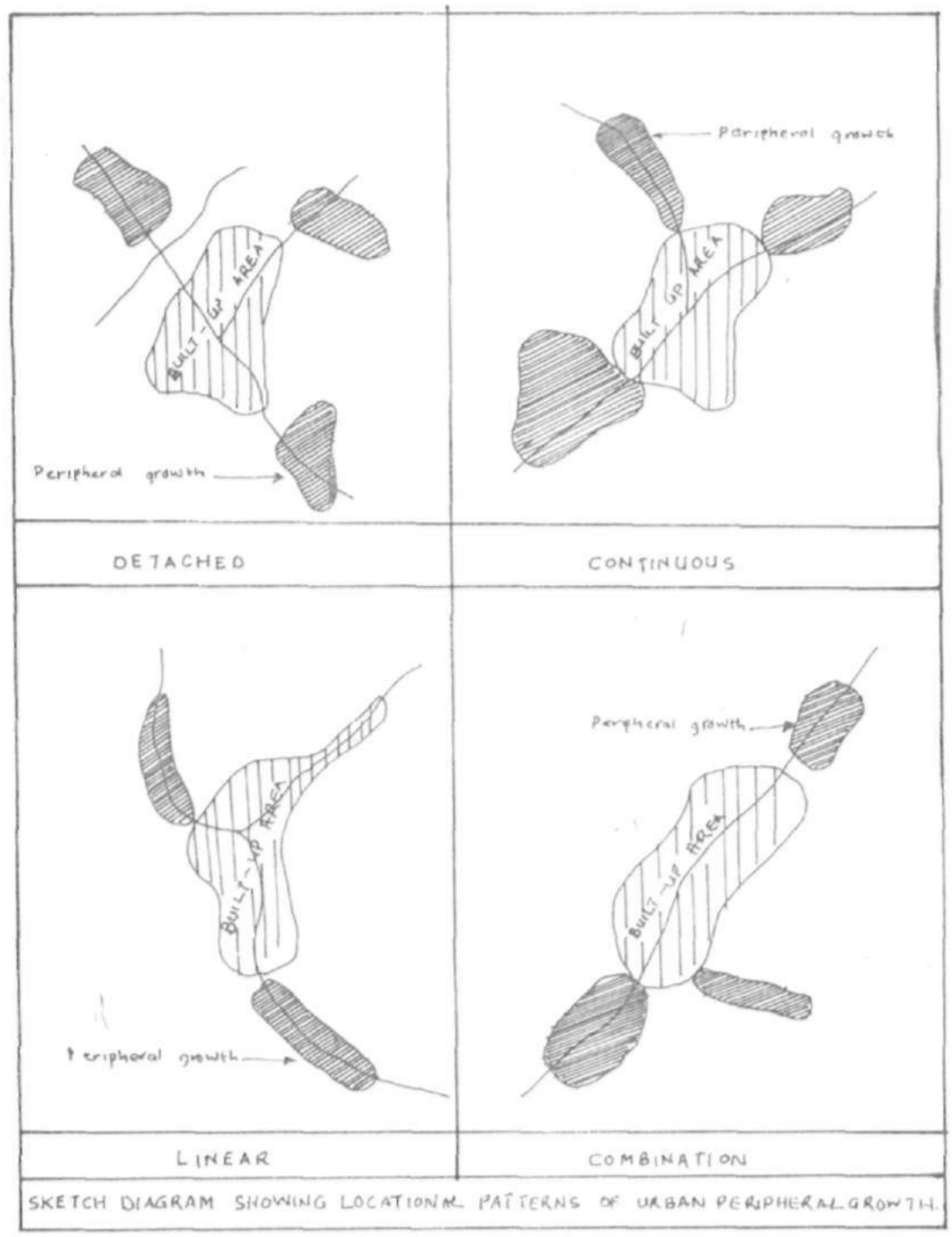
1. Whitehand, G.A. (1966) Fringe Belts; A Neglected Aspect of Urban Geog. in Trans Inst. Br. George No. 56.

their unity, not from homogeneity of farm .but from the fact that their component parts are derived from maphologival elements which had their original location near fringe of the built up area. During the period of relativo stagnation which puntuate the growth of any urban area certain elements tend to gather on the fringe of the built-up area. Examples of land uses which have generally found ther requirements best served by such a peripheral location are playing fields, various types of community buildings, market gardens, nurseries, allotments, cemetries, country houses (traditional settlement) and certain type of industry.

Furthermore, it has already been observed that this area of urban field (fringe belts) had received little attentions especially in developing countries. Therefore, from the few studies carried out by many scholars in different parts of the world, the following growth patterns have been identified.

2.30 Detached-Leap-Frog

It is the type of pattern that is isolated or nucleated having no direct physical connection with the built-up areas as seen in Fig 5. This isolated pattern originate from preferencial location of many urban activities at the fringe belt. Examples of these include playing field, various types



SKETCH DIAGRAM SHOWING LOCATIONAL PATTERNS OF URBAN PERIPHERAL GROWTH.

Source:- Hypothetical Diagram

Fig: 2.00.

- 33 -

of community buildings, market gardens, cemetries, certain industries and many others. On the other hand, the nucleated pattern originate from the traditional settlements which is common in most of the major urban centres of the third world countries.

2.42 Continous/Filtering

Under this pattern, it has been observed that, the settlement in the periphery of urban centre have physical connections actually begins from the outward growth of built up area encompassing the peripheral landuses.

2.43 Linear

Linear pattern of peripheral growth takes place along routes. It is more prominent along the regional routes. In this type of situation, the settlements may or may not have physical connection with the built-up area. This is the most common pattern in developing countries, especially in Africa.

2.44 Combination

It is the type of growth pattern that have the combination of the already discussed patterns above.

However, all the above discussion is illustrated in Fig. 2.00.

CHAPTER THREE

3.00 FACTORS AND PROCESSES OF URBAN PERIPHERAL GROWTH IN METROPOLITAN KANO - STUDY AREA

3.10 PERIPHERAL AREAS IN RAPIDLY EXPANIDNG CITIES OF NIGERIA.

Nigeria has been no exception to the concentration of population in large urban centres with consequent loss of surrounding countryside, when compared to what is presently happening in other parts of the developing countries of the world. This peripheral growth as being mentioned above exists in many parts of the nation, where many of the colonial towns and even pre-colonial ones developed outwardly by expanding into their immediate rural surrounding. The rapid growth of recent years, the continuing congestion in the towns, and lack of suitable spaces for new urban landuse requirements, have led to this growth as well as the building of sub-standard residential quarters by land speculators and landlords in the nearby settlements. The result has a new set of sub-urban characteristics, the intermingling of old rural settlement housing and landuse with low to medium quality urban type housing and urban landuse.

Therefore, cities like Lagos, Ibadan, Kaduna and Kano have been growing in size at the expense of their respective country-side settlements.

One expression of the expansion of Lagos for instance is that while in 1885, Lagos settlement was mostly confined to Lagos Island, in 1972 Lagos Metropolitan Area included the city of Lagos (Island) and the neighbouring districts located within a distance of seventeen miles from the city.[1] She concludes that today, Greater Lagos comprises of Lagos Island, Ikoyi, Victoria Island, Yaba, Apapa, Ajegunle, Mushim, Oshodi, Ikeja and Agege. In other words, there was a systematic loss of agricultural land on the periphery as well as the settlements. This sprawl of Lagos has caused such physical problems as traffic congestion, slums and squatter settlements, inadequate supply of services, utilities and facilities and other infrastructural amenities. Another evident can be seen in Aba town which grew into the nearby villages of Ummgasi, Ogbo hill and Abayi Uwuochemi. Also Part-Harcourt also grew into Umubiakani, Diobu and other nearby settlements.

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1. Abiodun, J.O. (1974) Urban Growth and Problems in Metropolitan Lagos in Urban Studies Vol. 11 No. 3, pp. 341-347.

3.20 METROPOLITAN KANO

3.21 Physical Growth Trends and Population

Kano has a long traditional history of playing an important role as trading centre for Northern Africa. Its origin started with a small settlement around Dala-Hill - a source of iron - in the 10th century and gained importance after the construction of the city walls in the 12th century and especially after the establishment of the city market on its present site in the 15th Century. Kano's spatial development was confined to the walled in area until the arrival of the British, except for a small settlement of Fagge in the 18th century.

The establishment of the British administration in 1903 and the construction of the railway from Lagos in 1912 introduced a new focus outside and to the east of the walled city. Commercial development, concentrated in township, and the new residential area, Sabon Gari for southern Nigerian with the Sabon Gari Market, slowly shifting economic activities from the old city to the areas east of the city walls during the following years. Residential development followed and continued to the east with spatially seperated residential areas for different ethnic groups. The main direction has been the east, only in recent years occured a trend for futher development in all the directions of the city that has not been planned. This can be best explained in the following diagram of Kano growth trends (Fig. 3.03).

Furthermore, the congestion of the city adjoining areas located along the major roads which in turn experience problems such as poor building structures and drainages, absence of organised open spaces, lack of proper refuse disposal, inadequate provision of facilities, services and amenities and also creating social problems such as criminal hide-outs.

3.22 Population Trends

From the population trends of metropolitan Kano, it can be clearly observed that the city has been experiencing rapid rate of population growth. This is so because of its position as the largest and most influencial commercial centre since the period of the Tran-Saharan Trade to the present in Northern Nigeria. According to the available data on the population growth of Kano it has been seen that, the city had a population of 127,000 people in 1952 while the peripheral settlements in the periphery had 96,000 people. However, in 1962 the metropolis had a population of approximately 250,000 people, while the periphery had 128,000 people respectively. In 1972, the population was 560,000 people and that of fringe areas was 160,000 people. Also about 1,200,000 was estimated as the population of Urban Kano in 1982, while that of the peripheral areas was 192,000 people. Presently as per 1988, the Urban Kano has an estimated

population of over 2 million people while the periphery having about 25[illegible] (Table 3.40).

However, it can be noted that Kano has experienced very high population growth rates which have been hightened since 1952, (Table 3.1[illegible]). Between 1952 and 1962 there has been an increase of almost 100 percent. Within the urban area itself, there has been a consideration variation in population growth rates during the period of 1958 to 1962 (Table 3.10). These variations may not in all cases represent real trends, it is possible that methods of land administration and availability of land have sometimes accelerated or retard growth in certain areas. For instance, lack of land for development in Sabon Gari area inhabited predominantly by the Igbo ethnic group may well have caused a lower rate of growth than would otherwise have been the case.

Furthermore, the peripheral areas within Metropolitan Kano show a very high density of 200 persons/km^2 with 90%[1] of the population living in scattered hamlets of less than 500 residents. As no counting of the population has been done in the peripheral areas of Metropolitan Kano during recent years, the peripheral population today is estimated at over 250,000 people, using 2.5% annual

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1. B.A.W. Trevallion (1963) Metropolitan Kano. Twenty Year Development Plan 1963-1983.

METROPOLITAN KANO GROWTH TRENDS.

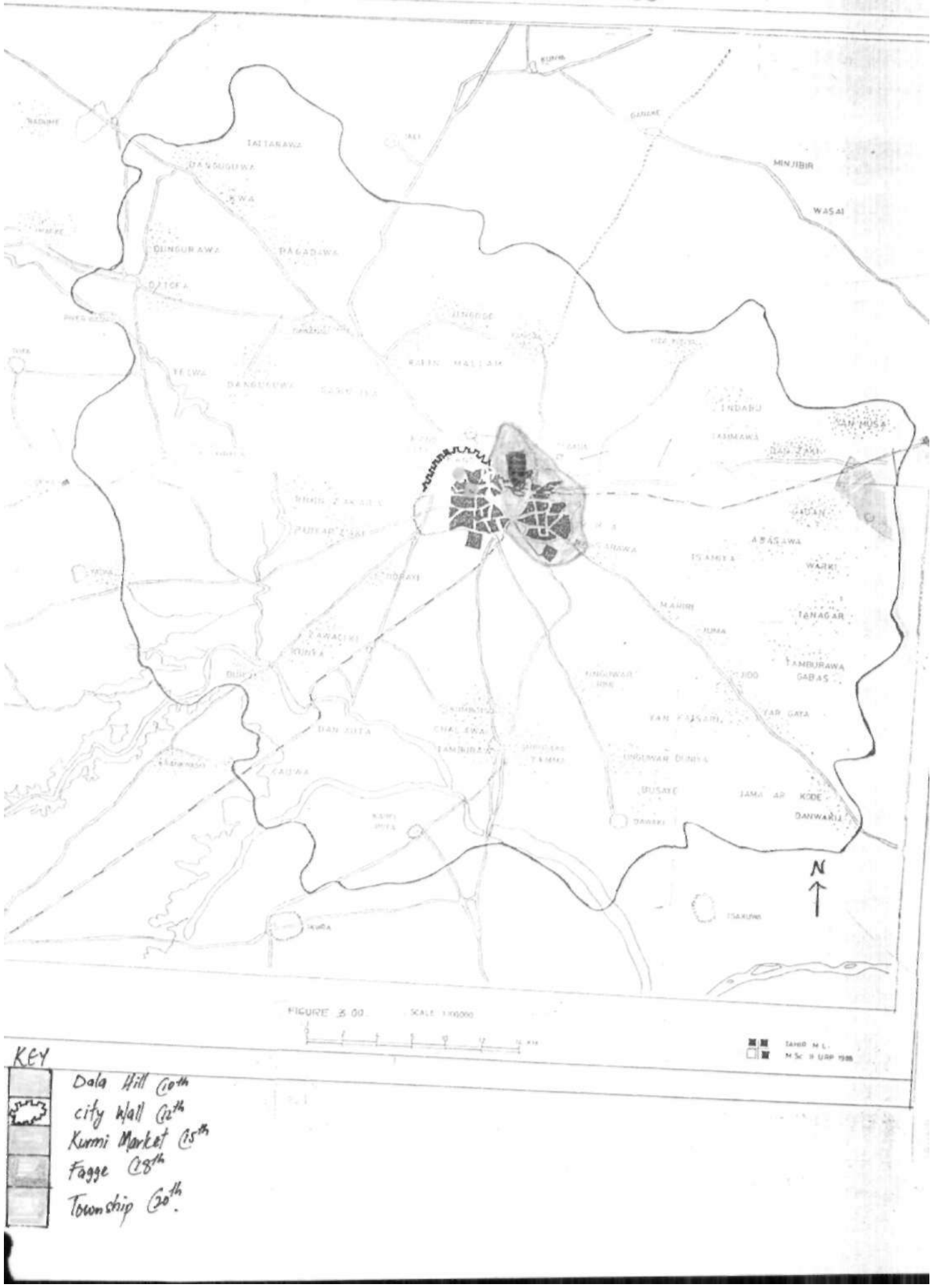


FIGURE 3.00 SCALE 1:60000

increase since 1963. Using the same rate of increase up to the year 2000 a peripheral population of 311,292 can be expected. This can be seen in the Table 3.10 below.

Table 3.10: POPULATION TRENDS OF METROPOLITAN KANO AND PERIPHERAL AREAS

YEAR	METROPOLITAN AREA	PERIPHERAL AREAS
1952	127,000	96,000
1962	250,000	128,000
1972	560,000	160,000
1982	1,200,000	192,000
1988	Over 2 million	250,000

Source: Metropolitan Kano 2000 Master Plan - Kano State Statistical Yearbook 1988.

Table 3.20: POPULATION OF SAMPLE AREAS

SETTLEMENT	POPULATION
Dawanau	32,000
Yada Kinya	13,000
Mariri	12,000
Tambirawa	17,000
Darayi	8,000
Lanbu	14,000

Source: Kano Population Bereau.

Table 3.39: MEAN ANNUAL GROWTH RATE OF DIFFERENT PARTS OF URBAN KANO IN PERCENTAGE

AREA	GROWTH RATE %
City	11.5
Fagge	14.5
Gwagwarwa	33.0
Sabon Gari	5.1
Tudun Wada	28.9
Township	11.5

Source: Metropolitan Kano Master Plan 2000.

Table 3.40: PERIPHERAL ANNUAL POPULATION GROWTH RATE AND PROJECTION

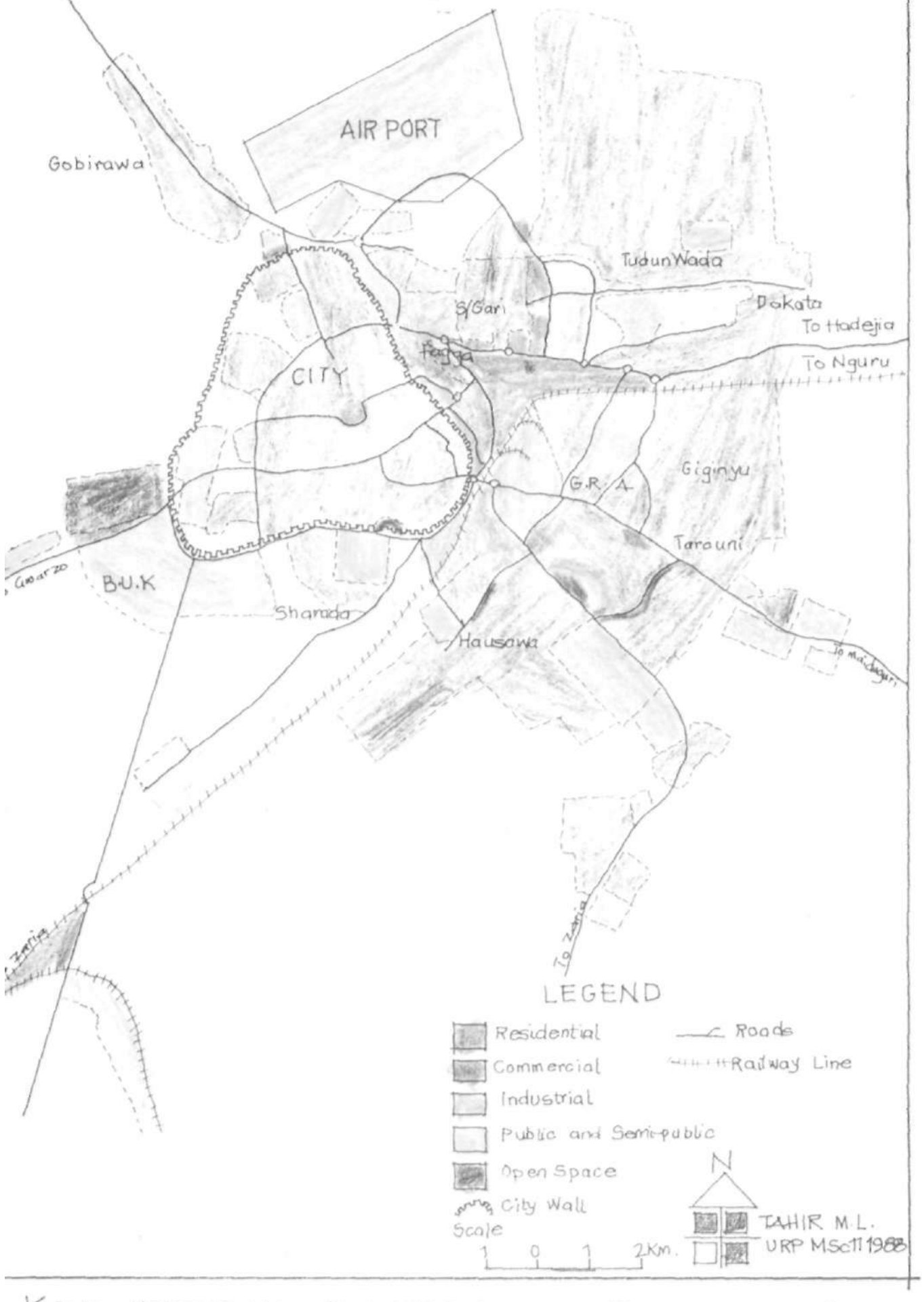
PERIOD	POPULATION	2.5% INCREASE	PERIPHERAL POPULATION INCREASE
1977-78	280,000	7,000	287,000
1979-85	287,000	45,000	332,829
1986-90	300,212	31,164	331,376
1991-95	290,902	39,276	338,178
1996-2000	305,037	40,081	345,118
2001-2005	311,297	40,904	352,201

Source: Metropolitan Kano 2000 Master Plan.

3.23 Existing Town Structure

The original settlement of Kano started around the Dala Rock with the formation of the market as the focus around which other landuses developed. The pattern of development naturally generated the use of concentric pathways which later developed into roads within the city. This furthermore influenced the growth of Kano outside the city with the results that roads featured as the pattern of development.

However, this trend of concentric development is characterized by uncontrolled growth in all directions around the ring roads and the concentration of public services such as markets in the centre of settlement. It therefore generates the problem of congestion of traffic and pedestrians which proper town planning seeks to avoid. The development of the town in all other directions has not been conducted by any general idea - just concentrated along the main outlet town roads. The most significant examples are the built up areas at Unguwa Uku along Zaria road, Hotoro along Maiduguri road, Yankaba along Hadejia road, Gobirawa along Katsina road and Kyiyar Zaki along Gwarzo road respectively. This is illustrated in the existing Kano landuse map figure 3.10.



KANO METROPOLIS – EXISTING LAND USE: Source: UDB. KANO
Fig: 3.10.

3.24 Extent of Existing Kano Built-up Area

The development in Metropolitan Kano is supposed to have been guided for the past 17 years by the Travellian Master Plan which was completed in 1963. By that year, the total developed land area for the Metropolitan Kano was put at 4431 he. latith. a breakdown showng 2072 ha. for residential, 1517 ha. institutional, 462 ha. commercial, 380 ha industrial [1]. Today, Kano's land coverage has almost amount to a total of 14,000 hectares with a breakdown showing 6000 ha for residential, 4598 ha institutional, 1514 ha commercial and 2096 ha industrial respectively[2]. This can be seen in the map of Metropolitan Kano showing the existing built up area (Fig. 3.20) and also on Table 3.50 showing land development 1963 and 1988 below.

Table 3.50: METROPOLITAN KANO LAND DEVELOPMENT

YEAR	RESIDEN-TIAL	COMMER-CIAL	INDUSTR-IAL	INSTI-TUTIONAL	TOTAL
1963	2072 ha	462 ha	380 ha	1517 ha	4431 ha
1988	6000 ha	1514 ha	2096 ha	4598 ha	14000 ha

1. Travelion B.A.W. Kano Master Plan 1963-83.
2. U.D.B. Kano Reviewed Master Plan 1985.

3.30 PERIPHERY OF KANO IDENTIFIED

Generally, a city's periphery can be identified most clearly in terms of geographical distance. It can include districts which are served by the city's broadcasting or television stations, areas covered by newspapers circulation by city vendors or areas connected with the city by other forms of daily spatial interactions among their inhabitants. Thus, the city and its periphery are geographically contiguous but exhibit certain distinct socio-economic characteristics.

The peripheral area in Kano Metropolis in this study connotes those areas and settlements immediately adjourning the existing built-up area within the delineated metropolitan boundary as being defined by Kano State Urban Development Board (KSUDB) (Figures 3.20 and 3.30).

3.31 Criteria Adopted in Identifying Kano Urban Periphery

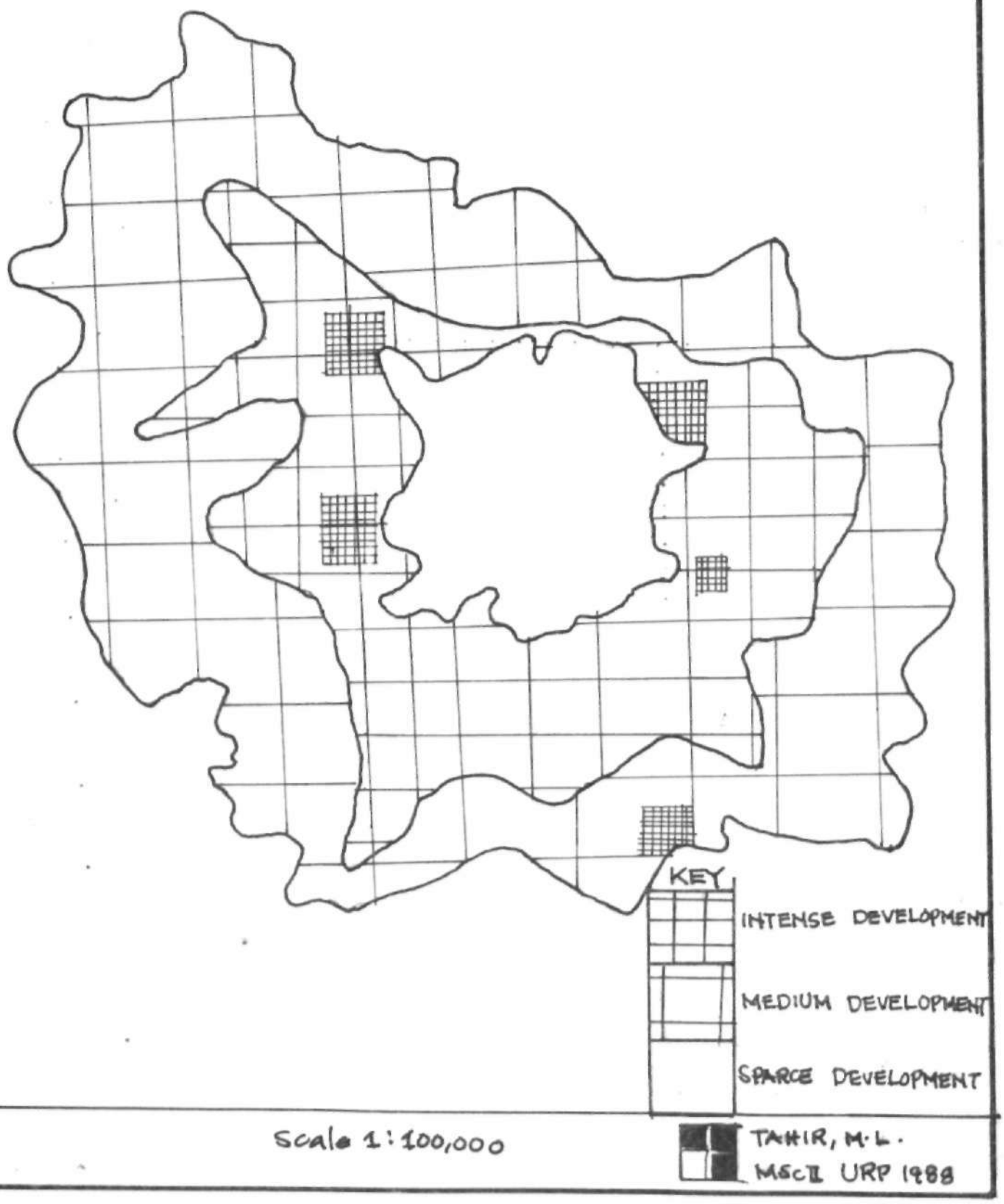
The following are the criteria adapted in identifying the urban periphery of Kano.

(a) Development Continuity

According to the definition of urban fringe or urban periphery by Raymond as "that irregular fringe of half-developed suburb and half-sprowled country which forms such a hideous and depressing girdle around modern growing towns"[1].

1. Raymond, U.(1909): Town Planning in Practice, An Introduction to the Art of designing cities and suburbs.

DEVELOPMENT CONTINUITY IN SAMPLE AREAS.



Scale 1:100,000

TAHIR, M.L.
MSc II URP 1988

This definition shows that most of the ancient towns provide walls or ramparts not only for beauty or security against enemies, but to define our town areas, and in the case of large towns, to define seperate new areas and suburbs. It also means that town at certain period out grew and reached the outside settlements. Therefore, development continiuty in this case is taken to be an uninterrupted sequence of built-up area. On the other hand it is the break-point between built-up area and entirely open space. In this case, the periphery of Kano is identified on this basis to include all settlements outside the existing built-up area which are until the Metropolitan boundary.

(b) Building Conditions

According to Chirra, he stated that "the rapid growth of cities of developing countries particularly Nigeria in recent years, the continuing congestion in the towns, and the lack of suitable spaces for the new landuse requirements, have led to the growth of urban fringe as well as the building of low-grade residential quarters by building speculators and land-lords in the nearby settlements"[1]. The result has a new set of peri-urban characteristics, the intermingling of old rural settlement housing and landuse with low-to-medium quality urban type housing and urban landuse. Based on the above statement, it can be seen that, the criteria used here are building structure and materials used. These were later grouped into standard and sub-standard buildings. The

category comprises of concrete walls with corrugated iron roofings with no delibedation while the second category comprises of dilapidated with mud walls, thatched roofing or corrugated iron roofing as can be seen in Table 3.60 and 3.70.

Table 3.6[illegible]: BUILDING STRUCTURE

SETTLEMENT	PERMANENT %	TEMPORARY %	TOTAL
Dawanau	92	8	100
Yada Kinya	77	23	100
Tambirawa	84	16	100
Dorayi	71	29	100
Lanbu	78	22	100
Mariri	68	32	100

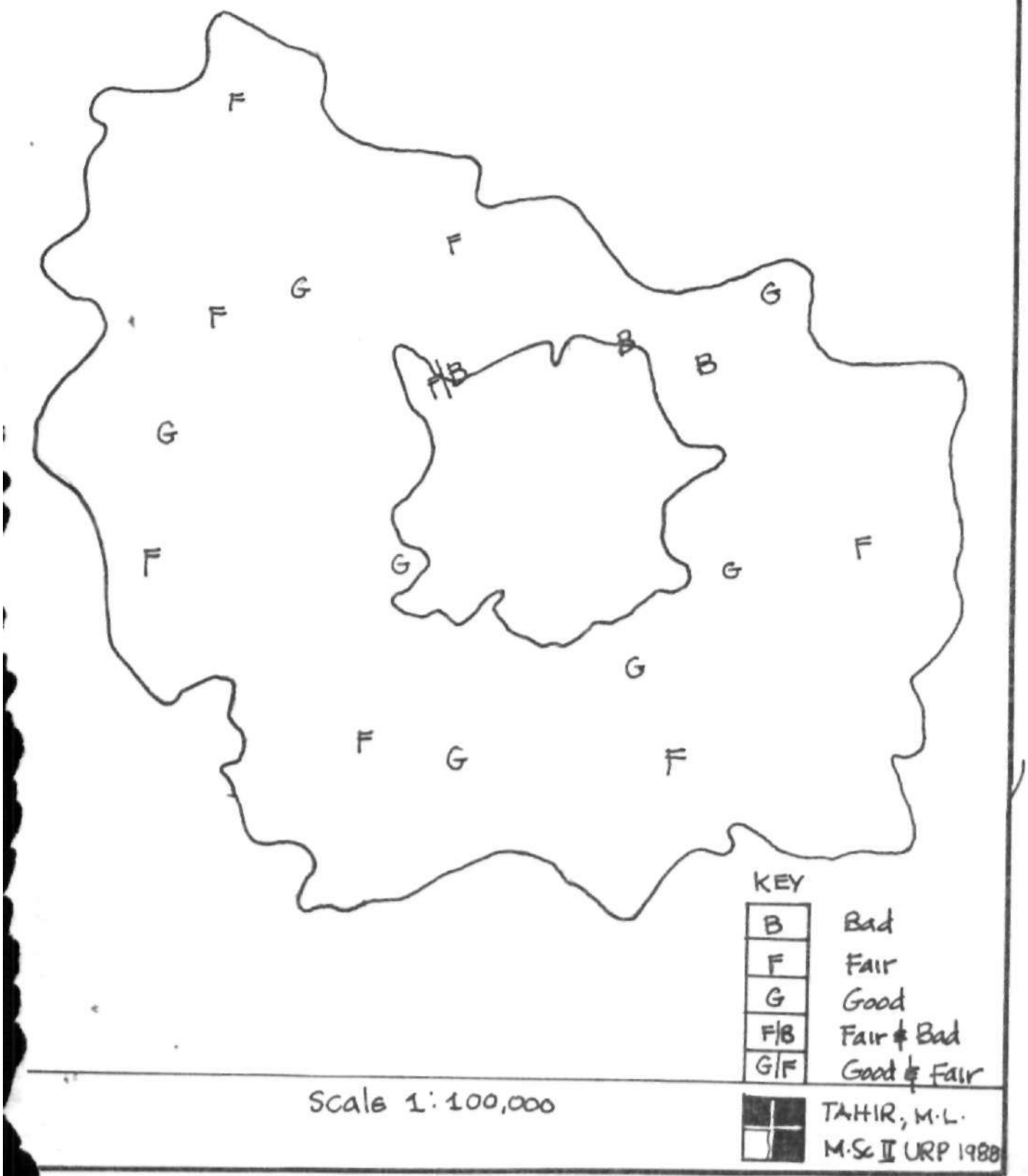
Source: Field Work 1968.

Table 3.70: MATERIALS USED FOR BUILDING

SETTLEMENT	MUD/ THATCHED %	CONCRETE/ ZINC ROOFING %	MUD/ ZINC ROOFING %	TOTAL %
Dawanau	4	18	78	100
Yada Kinya	12	24	64	100
Tanbirawa	2	37	61	100
Dorayi	15	25	29	100
Lanbu	12	25	63	100
Mariri	23	17	60	100
AVERAGE	11.2	25	63.8	100

Source: Fieldwork 1968.

BUILDING CONDITIONS IN SAMPLE AREAS



(c) Availability of Utilities and Services

This is another criteria in which Kano Urban Periphery is identified. These were based on the availability of some utilities and services, such as electricity, pipe borne water and public health centres. The oreal belts identified. These were based on the availability of some utilities and services, such as electricity, peopeborne water and public health centres. The oreal belts identified by each of the above parameters is seen in table 3.80 form the peripheral area for the study. This is based on the availaibility of the aboveparameters in the sample settlements.

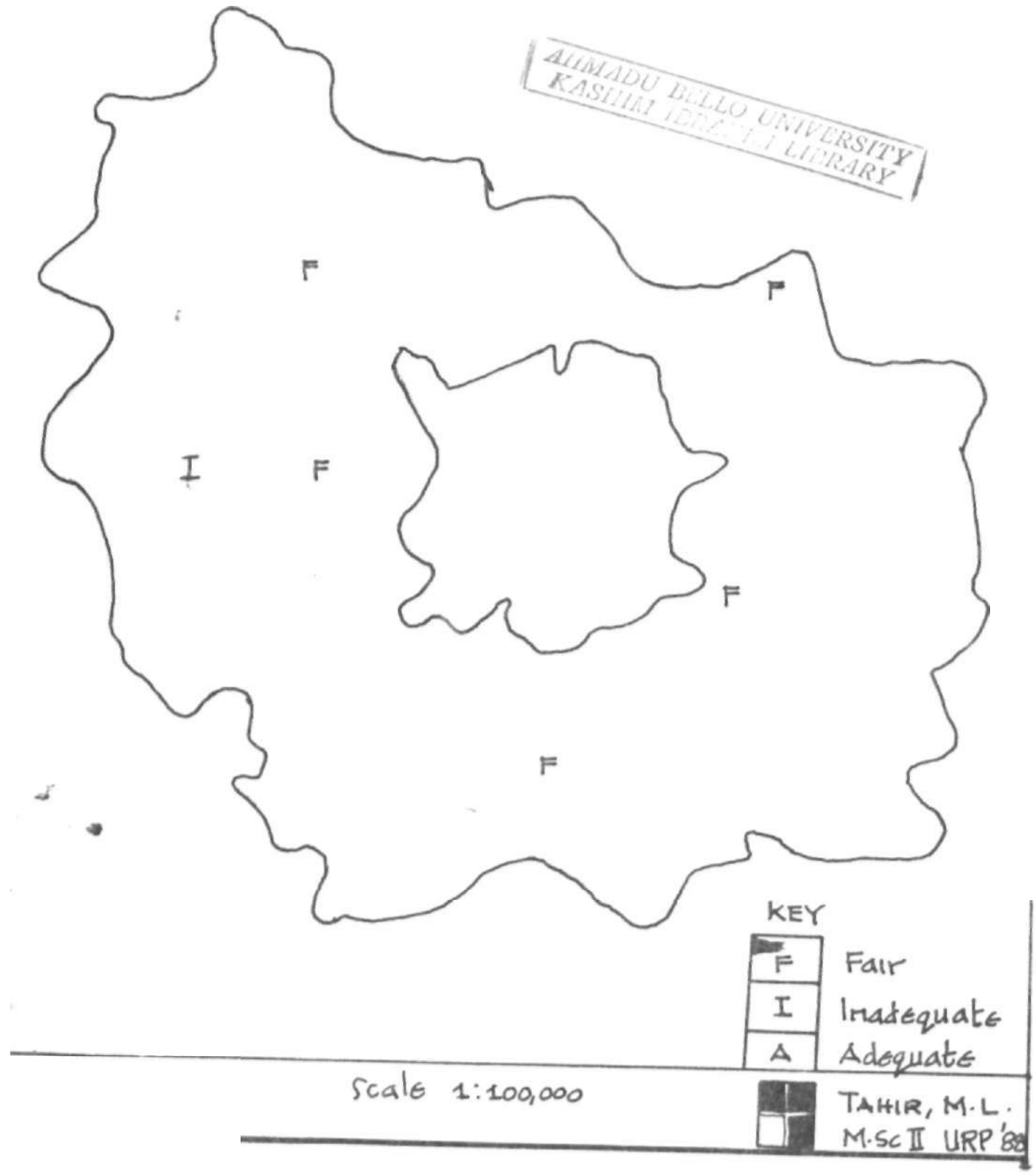
Table 3.30: EXISTING FACILITIES, SERVICES AND UTILITIES IN SAMPLE SETTLEMENTS

FACILITIES, SERVICES AND UTILITIES	WAWANAU	YADA KINYA	TAMBURAWA	DARAYI	LAMDU	MARIRI
Primary School	1	1	1	1	1	1
Sec/T.T.C.	-	-	-	-	-	-
Maternity Home	-	-	-	-	-	-
Health Centre	-	-	-	-	-	1
Recreation Ground	-	-	1	-	-	-
Mosques	34	18	29	28	16	30
Churches	1	-	-	-	-	1
Local Market	1	1	1	1	1	1
Police Station	-	-	-	-	-	-
Fire Service	-	-	-	-	-	-
Postal Agency	-	-	-	-	-	-
Motor Park	1	-	-	-	-	1
Bus Service	avail-able	avail-able	avail-able	avail-able	available	available
Pipeborne water	"	"	"	"	"	"
Electricity	-	"	"	"	"	"
Petrol Station	1	1	1	1	1	1

Source: Fieldwork 1988.

AVAILABILITY OF UTILITY & AMENITIES IN SAMPLE AREAS

AHMADU BELLO UNIVERSITY
KASHIM IBRAHIM LIBRARY



METROPOLITAN KANO SHOWING KANO URBAN PERIPHERY



Fig: 3·40.

KEY

RESIDENTIAL

FARM LAND

Therefore, from the stated parameters in identifying the periphery of Kano Metropolis, and also by using these parameters, I was able to arrive at what is being obtained in figure . This clearly shows the extent of the periphery within Kano Metropolis.

3.40 FACTORS RESPONSIBLE FOR URBAN PERIPHERAL GROWTH IN KANO

Many observations and studies have carried out in the past partaining to factors creating urban peripheral growth by renowned scholars. However, the following are the factors identified in Kano Metropolitan as responsible for urban peripheral growth.

3.41 Population Increase and Migration

The population of the world is increasing and this is likely to go on increasing. A large fraction of this increase occurs in urban centres due to both high birth rates and low infant mortality rates. Another related factor is the continuing urban growth is migration in which Kano Metropolis is not an exception. The city has been receiving migrants at a high rate since during the Trans-Saharan Trade, colonial period when one look at the population trends of Kano since 1952 to date (Table 3.10). As a result of this high population concentration within the built up area pushes the migrants to the periphery.

In developing countries, migration has been identified as a major factor in the increase of pupulation of the urban centres. A number of factors induce migration from rural to the urban centres. First, it is argued that the traditional subsistance economy can no longer meet the growing demand of the rural youth more especially in Kano State where the city serves as primate function. Because it is the only major city in the whole of the State thereby attracts migrants from different parts of the State. These changes in the population of Kano have generally found expression in physical development.

3.42 Land Speculation

This is another factor which leads to the formation of the peripheral settlements in Kano Metropolis due to the activities of land speculators. As construction of roads and extension of services to different parts of Kano city increase, land within the metropolis increases in value. This speculation in land tends to force the price of land beyond the reach of the vast majority of the population in some cities. This leads to land speculation and outward push of developers to the peripheral areas of Kano. The survey conducted on the six sample settlements reveal the truth of the whole situation (Table 3.20).

3.43 Access to Land and Lack of Effective Development Control

Access to land in Metropolitan Kano greatly affects common man, because he hardly get land through the allocation process. Frequently, this group of people buy land or squart at the urban periphery. In this location there is no incentive to make large investment as in most cases the title to land or dwelling is confused or non-existence. As these areas are not recognised by planning authorities, utilities, facilities and services are lacking. Despite the landuse decree of 1978, which gives equal opportunity of land acquisition by the

Table 3.90: REASONS FOR BUILDING HOUSES IN PERIPHERY OF KANO METROPOLIS

SETTLEMENT	LAND OF PLOT ACQUISITION	AVAILABILITY OF CHEAP LAND	OTHERS	TOTAL
Dawanau	42	50	8	100
Yada Kinya	37	60	3	100
Mariri	33	56	11	100
Tanbirawa	28	69	3	100
Dorayi	34	62	4	100
Lambu	33	61.3	5.7	100

Source: Fieldwork 1988.

Table 3.95 SOURCE OF LAND ACQUISITION IN THE PERIPHERY OF KANO.

SETTLEMENT	TRADITIONAL HEAD	LOCAL GOVT.	PERONAL PERUCHASE	TOTAL
Dawanau	75	5	20	100
Yada Kinya	80	8	12	100
Mariri	70	6	24	100
Tambirawa	57	10	33	100
Dorayi	68	4	28	200
Lambu	70	6.6	24	100
AVERAGE	70	6.6	23.4	100

Source: Fieldwork 1988.

members of the public in our urban centres, the acquisition of land in Metropolitan Kano still eludes those who have no God fathers. This can be seen in table 3.39 where most people acquire land through the traditional means.

Apart from the above, there is also the issue of ineffective development control measures. Kano State Urban Development Board in Kano lacks the necessary machinery to effectively monitor developments. There is then the problem of jurisdictional conflict between government departments and the Local Governments on the one hand and the Planning Agencies on the other. This coupled with frequent bureaucratic interference make illegal development easier. This is more evident when one goes to these peripheral settlements in Kano Metropolis, where most of the developments occur haphazardly without the knowledge of the Planning Authority.

3.44 Technological Changes

Kano among other urban centres have been existing long before the coming of the Europeans. There was no formal planning then, the city grew in organic fushion with the circulation channels made up of foot paths, narrow streets and alleys just wide enough to accommodate the existing traffic and reflecting the then level of technology.

Moreover, the introduction of modern transportation technology such as automobile, electricity generation and transmission has greatly been responsible for the creation of urban peripheral growth. The modern transportation mode made possible the wide dispersion of home from workplaces (Table 3.93).

3.45 Shortage of Affordable Housing

Shortage of affordable house is one of the major urban problem in many countries of the world. Investigation conducted in Kano revealed that the demand for accommodation within the metropolis outstrips the supply. This forces people, especially the low income earners to look for affordable accommodation at the periphery of Kano (Tables 3.90 and 3.92).

Moreover, migration of people from rural to urban areas in search of job opportunities puts more pressure on the limited housing stock and further overstretch the housing facilities. Also, most of the migrants owning to their economic disposition, and largely because of the inability of municipal council to meet their housing need, they have no alternative other than to look for shelter in whatever form mostly in urban peripheral areas. This is true to all the peripheral settlements in Metropolitan Kano.

3.46 Location of some Public and Semi-Public Landuse.

The presence of public and semi-public landuse found at the periphery were as a result of preferial locations by the government. Most of the time the nature of the uses dictate their location. For example the location of Chalawa water treatment plant was due to the presence of river Challawa in the area. Also the location of Malam Aminu International Airport in the northern part of the city was as a result of enough land because it requires a large runaway and for safety operations of aircrafts. Other public landuses that find their location outside the built up area are army barrack at Jan Cuza along Gwarzo road, schols e.g Bayero University on the same Gwarzo road, and electricity power stations e.g the one located at Challawa. These public landuses are usually connected to the urban centre with good and motorable roads. They are also provided with urban services such as electricity and pipe borne water.

3.50 PROCESSES OF PERIPHERAL GROWTH IN METROPOLITAN KANO

"The city does not grow outwards in well defined advancing rings of rapidly completed development. It extends haphazardlly, making advances at one point and hardly moving at all at another. It is the process which occasions the

incoherent landuse pattern which is taken as representative of the fringe", (Winssink, 1962)[1]. From the above assertion one can see that the process of peripheral growth in Kano Metropolis can be interpreted interms of evaluationary stages and their associated processes. From historical background and available past maps of Kano, it is possible to recognise three main stages of peripheral growth. These are pre-colonial, colonial and post colonial phases in which the three above can be categorised into two stages, such as formation where we have pre-colonial and colonial phases and modification where we have post-colonial stage.

3.51 Fringe-Belt Formation

This process begun at the inception of town growth. The first phase is that when land at the fringe of the built up area is taken up for the first time by urban landuses. These uses might be due to institutional or incidental uses. Therefore, under this stage, in Kano we have the following:-

---

1. Winssink, G.A. (1962) American Cities in Perspective with special reference to the Development of their Fringe Areas. In Harold Center p. 16, ibid.

(a) Pre-Colonial Stage

Kano has enjoyed a position as the largest and most influencial commercial town in the Sudan zone for many centuries. Based on the above position, the great market (Kurmi) formed the main focus of the city which enjoyed trade relations extending to the Mediterranean coast. This led to the establishment of the first peripheral settlement of Fagge in 15th century outside the city wall to the east which served as camel station and Fanisau settlement in the far North of the city which also served as slave station respectively.

(b) Colonial Stage

The establishment of the British administration in 1903, when the commercial supremacy of Kano within the Sudan was in decline, introduced a new foces outside and to the east of the walled city. In 1904, trading posts were established outside the city by the London and Kano Trading Company, Royal Niger Company, and John Holt and Company. These trading posts sited due east of the centre of the city is what is now the main township commercial area. In 1906, a dry season trunk road connected Kano with the coast and, by 1911, the railway reached Kano which gave considerable impetus to the establishment of commercial activities outside the city. The new focii, the European trading companies

the indigenous strangers community in Sabon Gari with its prosperous market, and the government centre of administration had, by 1930, firmly established thmeselves. Since their established of commercial centres, both Waje and the Township have continued to expand; initially to the north, south, and east, development to the west being restricted by the city walls. Since then there is intensive development of scattered homesteads to the north and east of the township.

3.52 Frince-Belt Modification

The above stage involves consolidation and adaptation of landuses at the urban periphery. Once a fringe-belt is within built-up area rather than on the edge it is subject to many forces of change in any urban area. One of the first changes is peripheral area consolidation. Therefore, in Kano, the above stage can be best explained during the post-colonial period.

(a) Post-Colonial Stage

Consolidation and adptation of landuses in Kano is more intense during this period because of its commercial and administrative position. Kano ranks second aprt from Lagos in the whole country which boast its commercial activities which in turn led to the consolidating pre-colonial and colonial peripheral settlements into the urban

centre. As at present, most of the settlements outside the city wall have been adapted as part of the built up urban centre. Most of the agricultural landuses are currently being overtaken by other uses, such as residential, commercial and industrial. Notable of this, is the agricultural landuses which have now been taken over by Sharada Industrial Estate, and many others like Airport and Schools.

However, because of current developmental trends, commercial activities and high level of technological know-how, urban peripheral lands, like other parts of an urban area, are subject to a cycle of adaptation and redevelopment which usually involves changes of land use. This is more common in Kano, where some peripheral areas are covered by the Kano Master Plan proposals. In this case some areas are redeveloped e.g Naibawa and others adapted, e.g Unguwa Uku, Hausawa and Hotoro settlements respectively. But, the most common acquisition of sites for redevelopment in Kano is that of the motor park and commercial activities e.g Unguwa Uku motor park and the redevelopment of Sabon Gari Market.

3.60 IDENTIFICATION OF SPATIAL PATTERNS OF PERIPHERAL GROWTH IN METROPOLITAN KANO

According to Whitehand (1966)[1] "the primary criteria for the recognition of morphological regions

1. Whitehand, J.W.R. (1966) Fringe Belt: A Neglected Aspects of Urban Geog. in Trans Inst. Br. Geogr. No. 56.

within towns are plan, building types and landuse. Morphological regions based on one or all of these morphological elements, are defined in terms of the possession of certain common forms from which they derive a unity distinguishing them from adjoining areas". The recognition of such homogenous regions has been central in attempts to produce generalization about internal structure of urban areas stemming from such an approach have come such simple but valuable generalizations as concentric zone and sector models (Harris and Ulmman 1959)[1].

However, hetrogenous regions, such as urban fringe belts, are less easily recognised and have received comperatively little attention. Their recognition provides a genetic rather than a purely descriptive basis for the analysis of towns. They are examples of regions that derive their unity, not from homogeneity of form but from the fact that their component parts are derived from morphological elements which had their original location near fringe of the built-up area. During the periods of relative stagnation which punctuate the growth of any urban area certain elements tend to gather on the fringe of the built-up area. Examples of land uses which have generally found their requirements best served by such a peripheral location are playing fields, various types of

community buildings, market gardens, nurseries, allotments, cemetries, traditional settlements and certain type of industry.

Therefore, considering the above preliminary discussions, it is not easy to measure the Kano Urban Peripheral growth and come out with its spatial pattern. This is so because several elements with different scale and intensity make up the periphery. However, through observation and growth directions, the spatial pattern of Kano Urban Periphery can be identified.

3.61 Detached-Lead-Frog

The detached locational patterns can be isolated or nucleated having no direct physical connection with the built up area, but may be linnked with built up area by routes e.g Yada Kinya and Lambu settlements.

3.62 Continous/Filtering

These are patterns which have physical connections with the built up area. These emanate from the outward growth of built up area encompassing the peripheral landuses e.g Dorayi, Dawanau, Mariri and Tamburawa.

3.63 Linear

Under this pattern we can see that, it is a peripheral growth along routes thereby forming a linear pattern. They may or may not have physical

connection with the built up area e.g. Dawanau which grows along Katsina road.

3.64 Combination

These are growth that have combination of the already discussed patterns above, e.g Dawanau which have both linear and continous/filtering patterns.

However most of the examples given on spatial pattern of peripheral growth in Kano Metropolis from the selected areas apply to all the other peripheral areas within the metropolis. Selected areas were mentioned only to give representation of the entire periphera areas.

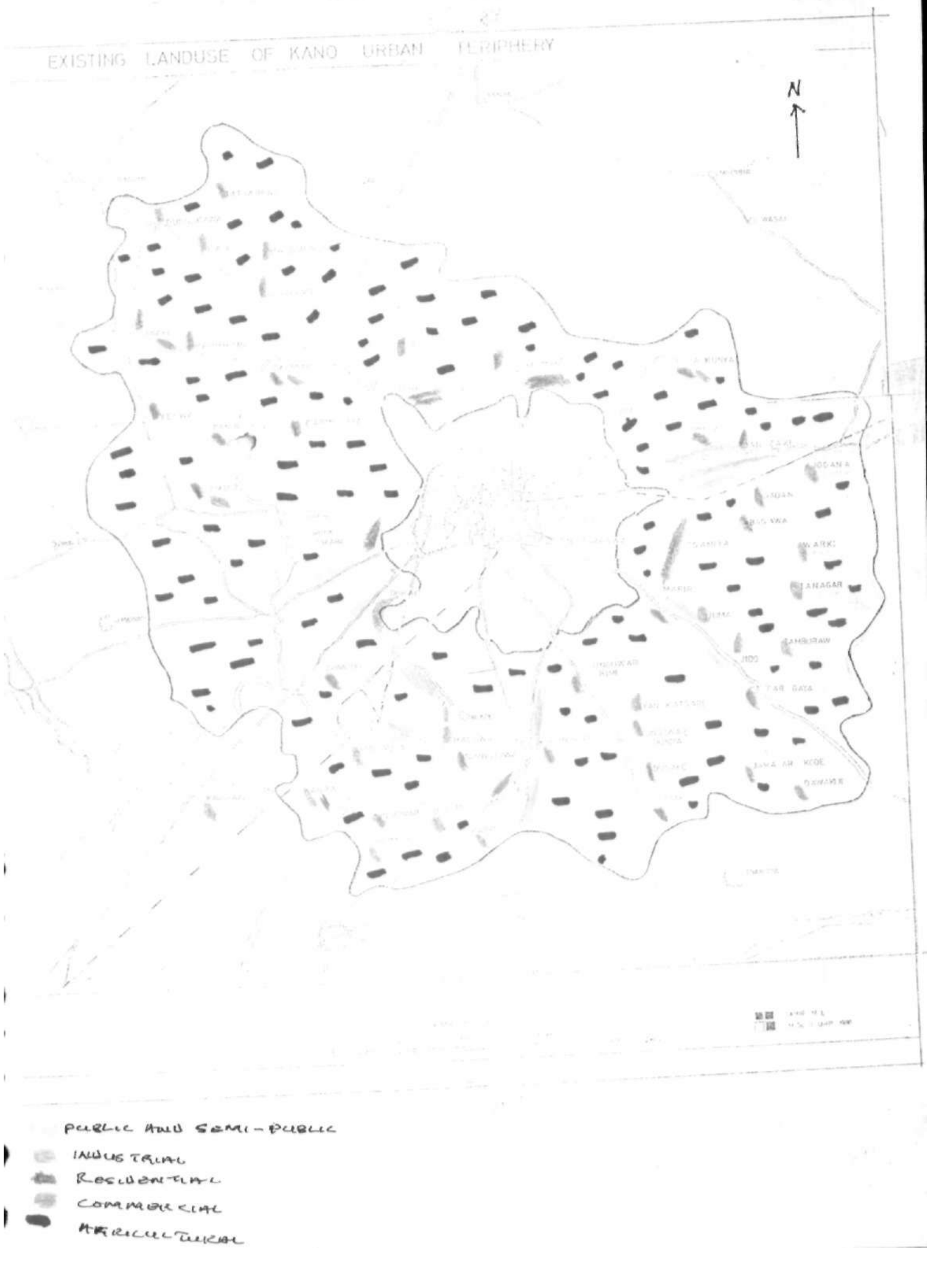
3.71: Land Use

However, in understanding the physical characteristics of peripheral areas in Kano Metropolis, the following are the basic characteric, social, political and cultural factors. Urban landuse reflects the spatial distribution of city function. This to a large extent, the urban centre is determined by the existing range of landuses in a given area or spatial unit as can be seen in the existing Kano landuse map (Fig. 3.4).

The landuse pattern of Kano is with similar urban centres is dominated by residential and public/semi public landuses. All together, the whole range of landuses associated with the urban centre are reflected i.e Residential, Commercial, Public/ Simi Public, Industrial, Transportation, Recreational and Open spaces, (Fig. 3.10 showing general landuses of Kano Metropolis.

The peripheral settlements in metropolitan Kano on the other hand display different landuse pattern from the urban centre. Firstly the range of landuses is limited to residential, open spaces, industrial and agricultural land. In some cases commercial uses and public uses are combined in open spaces. Therefore, Kano urban periphery has mixed uses of land as mentioned above and can be seen in the existing peripheral landuse map of Kano (Fig. 3.5C). In this figure about 21% of the land

EXISTING LANDUSE OF KANO URBAN PERIPHERY



is used for residential, 5.9% is used for public and semi public uses, 3% for industrial uses, 4.1% for commercial uses and the remaining 66% is devoted to agriculture or vacant land.

3.72 Circulation

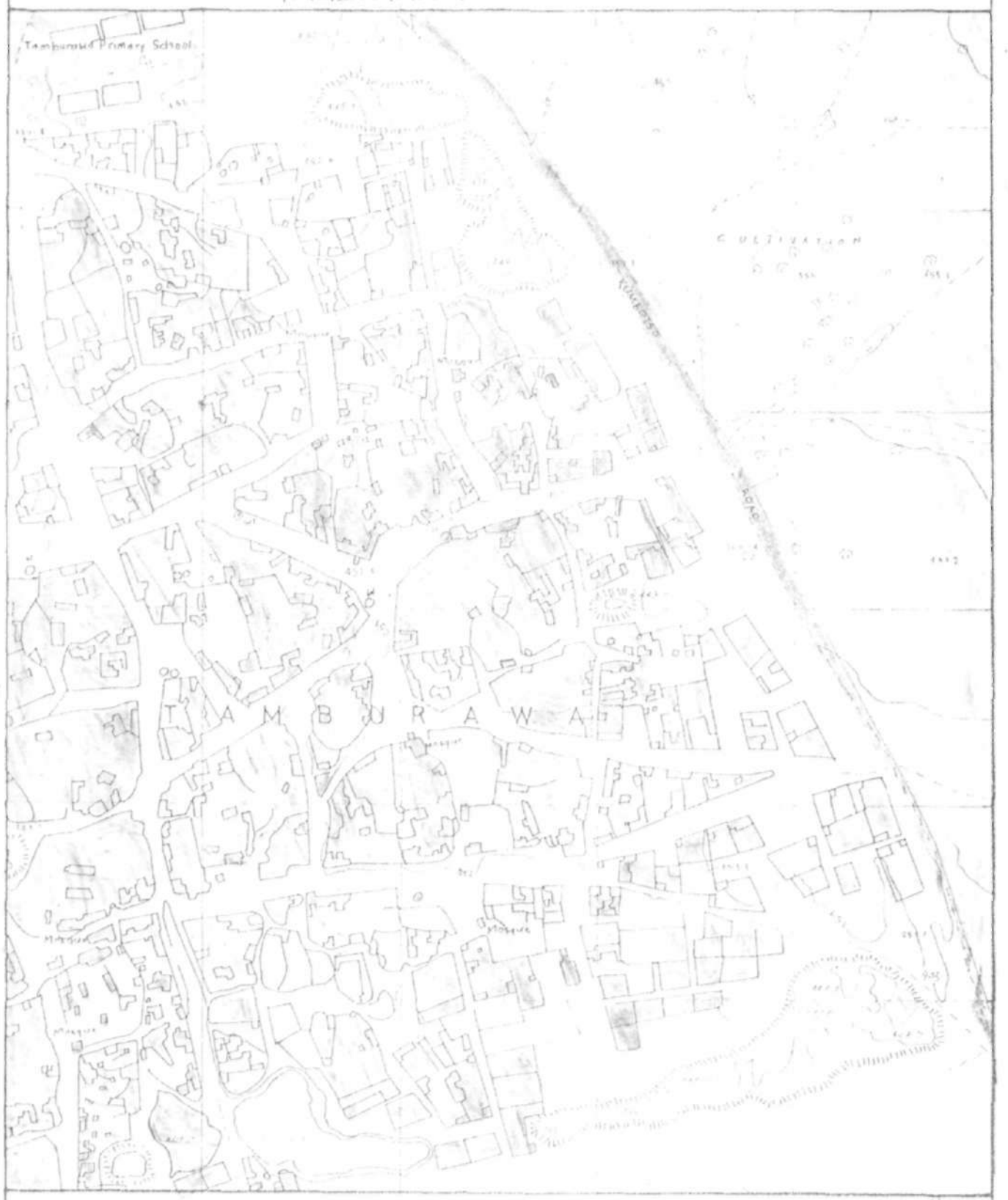
According to the survey conducted on the six sample settlements, namely Dawanau, Yada Kinya, Tamburawa, Dorayi, Lambu and Mariri were found not to be properly laid out and this applies to the rest of the settlements in the metropolitan Kano. Many of such settlements have very few wide roads that can be regarded as standard. This is only possible in Dawanau as can be seen in its existing physical layout. Other access roads are so narrow that they can be regarded as footpaths. These accesses range from 1.5m in width. This is true when one looks at the existing physical layouts of the sample settlements (Fig. 3.50 - 3.55).

3.73 Building Layouts

Based on the existing physical set-up of these settlements, figures 3.50 - 3.55 shows that there is lack of street plans and building layouts are not properly done. There is hardly any gap between the buildings as most of them are traditionally built without any approval from the recognise planning authority. Based on the measurement undertaken it showed that over 90% of the buildings have less 3.5m building set-backs.


DAKAHALIA RESIDENTIAL SECTOR-EXISTING SITUATION
TAHIR M.L.
M.S.C. II Theatre U.R.P. 1988
Source: U.D.D.
Residential
Agricultural
Road

TAMBURAWA



Source: D.T.P. Scale: 1:5000

0 50 100 150 200 250 300 350 400 450 500 ft

TAHIR M.L.

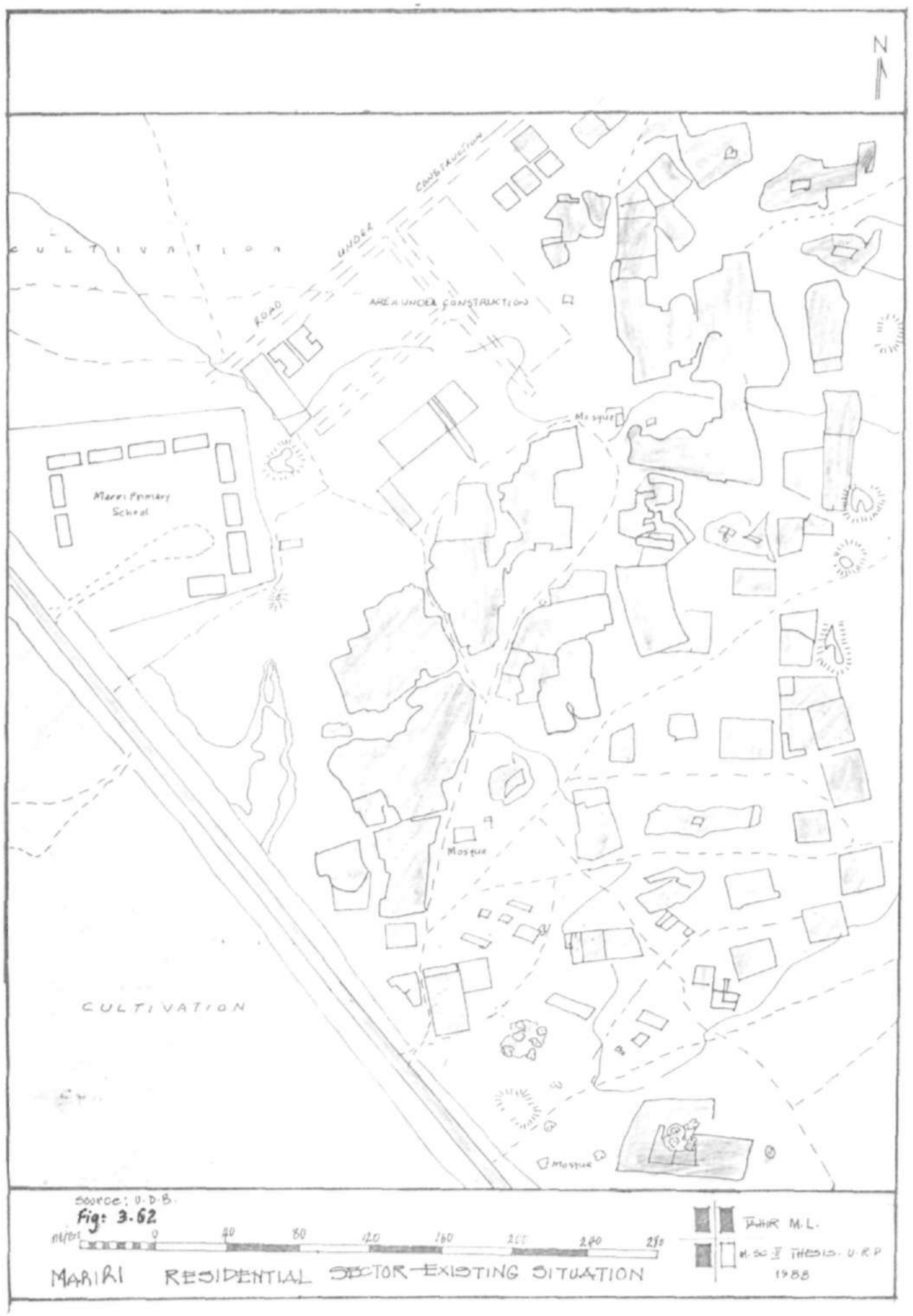
TAMBURAWA RESIDENTIAL SECTOR: EXISTING SITUATION

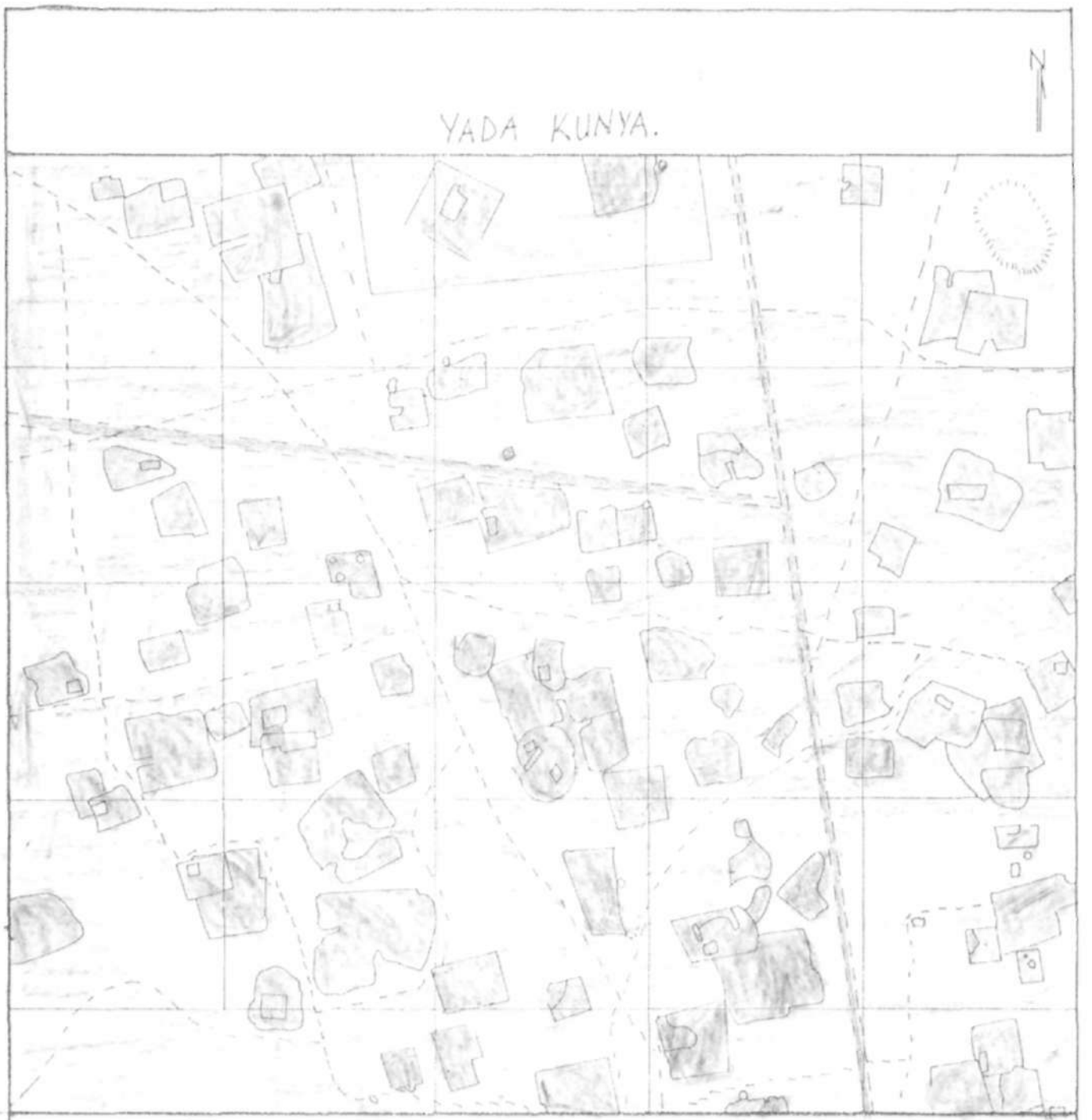
Fig: 3.61

public and semi-public

Agricultural

Residenti


N
CULTIVATION
UNDER CONSTRUCTION
ROAD
AREA UNDER CONSTRUCTION
Mosque
Mosque
Mosque



Source : U.D.P.

Fig: 3·63

YADA KUNYA RESIDENTIAL SECTOR—EXISTING SITUATION

TAHIR M.L.

M.Sc II THESIS U.K.P.

SCALE

0 40 80 120

KEY

Residential

Road

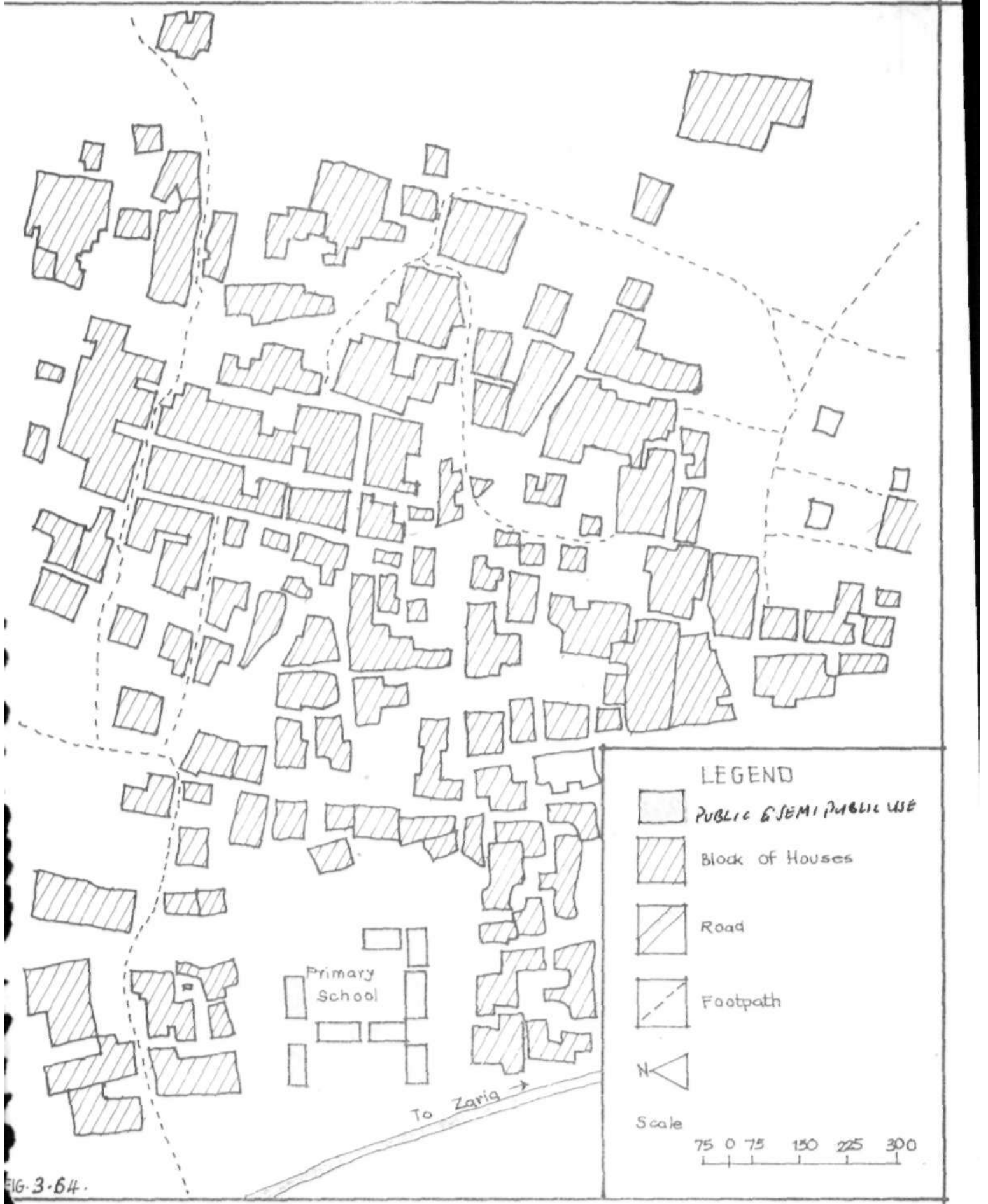
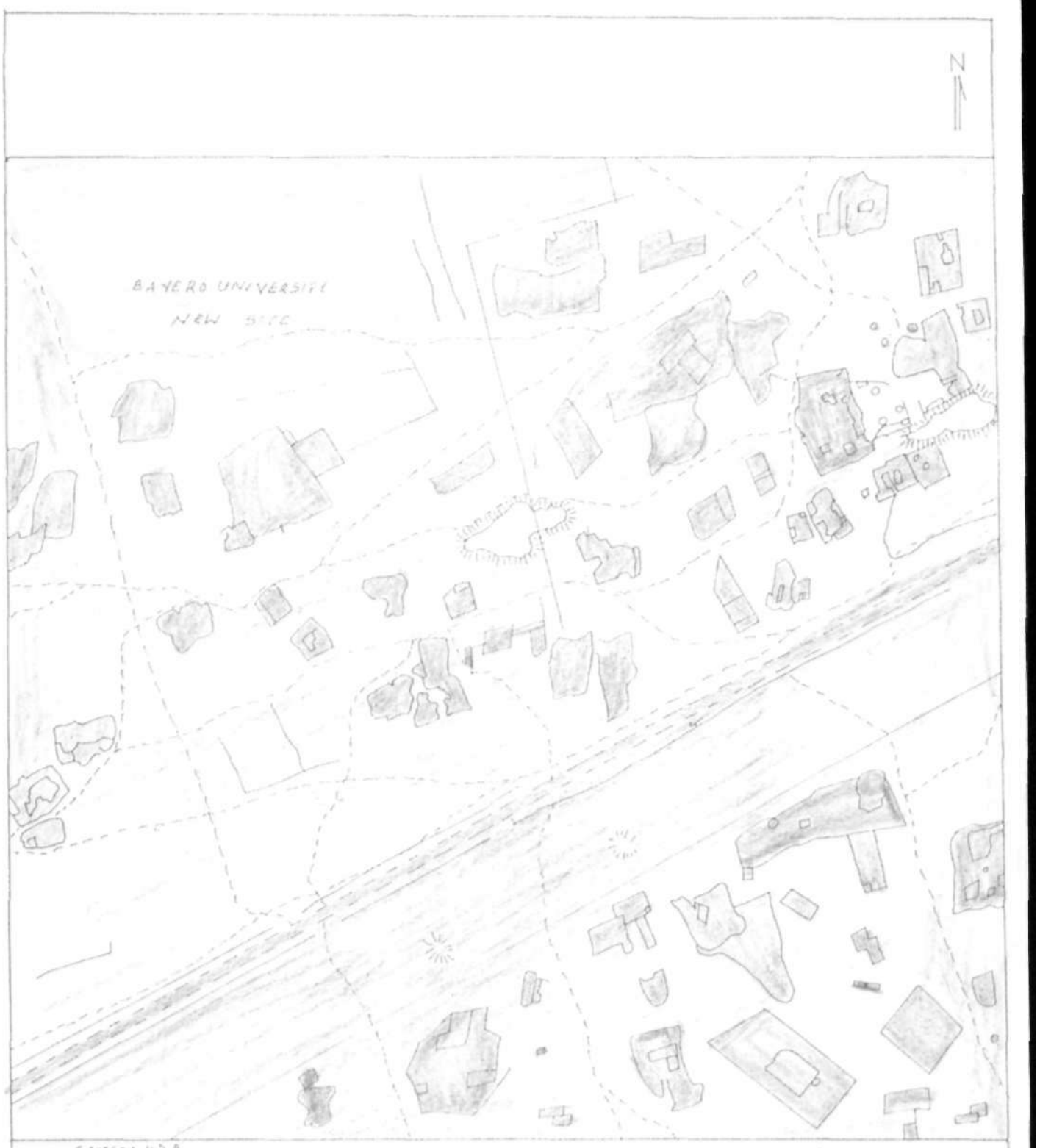


FIG. 3.64.

LAMBU RESIDENTIAL SECTOR - EXISTING SITUATION.

TAHIR M.L
M.SC. URP. 1988

SOURCE: K.S.U.D.B. Kano.

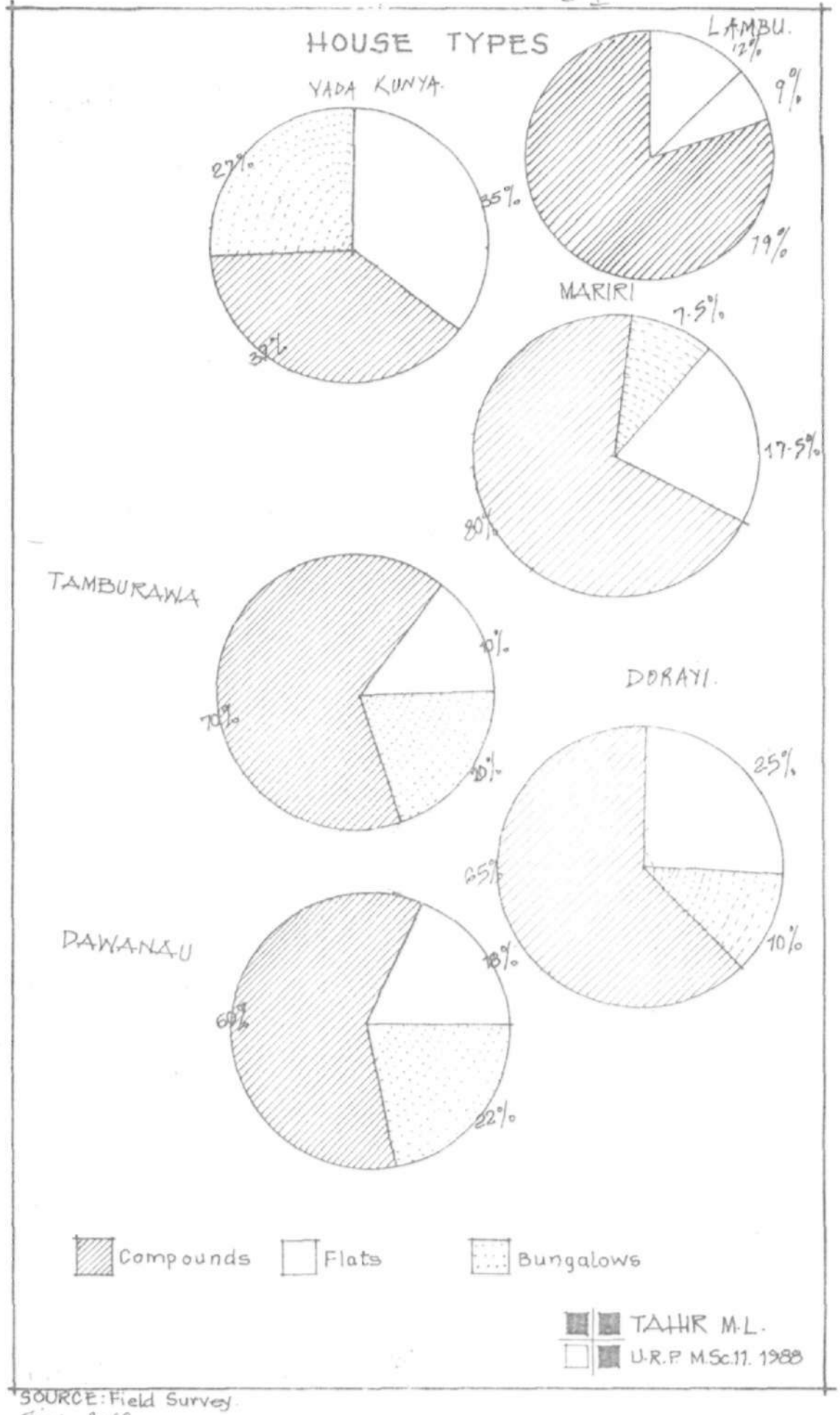

N
BAYERO UNIVERSITY
NEW SITE
D
Source: U.D.B.
Fig: 3.65
DORAYI RESIDENTIAL SECTOR-EXISTING SITUATION
Residential
Agricultural
Semi-public.
Road.

3.74 Building Conditions

The compound is the basic unit of the settlement in these areas, as can be seen in the pie chart (Fig. 3.70). The compound forms are usually arranged in groups which is a compound block which together form the settlement. Three types of house type are identified within these settlements, such as compounds, flats and bungalows. However, most of the buildings found here are substandard, built with thatched or mud wall. Some with corrugated iron roofing and others with thatched roofing, as can be seen in table 3.70. Negligible number of these buildings have concrete walls and corrugated iron roofing.

3.75 Environmental Sanitation Tempo

The basic structures and physical character of peripheral settlement generally constitute the setting for a given environmental quality level. They may also possess the seeds of improved or deteriorated environmental quality situation overtime as the processes of settlement dynamics operate. In Nigeria today and Kano in particular for instance, they do infact often proved inefficient or inadequate to accommodate the nature and tempt of the settlement dynamics being experienced. This may be partly because of their natural physical character and/or partly because of their man-made design forms.



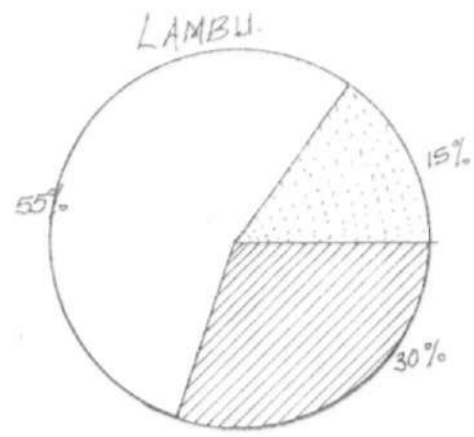
SOURCE: Field Survey
Fig: 3.68.

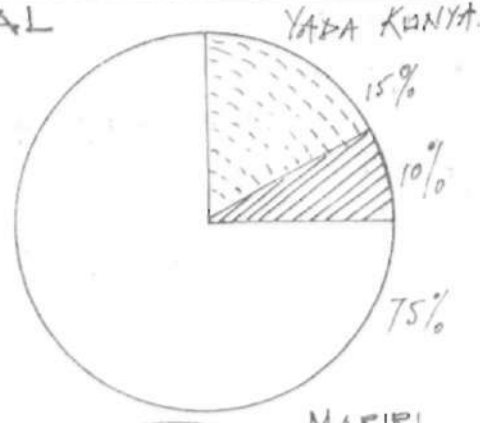
Therefore, based on the above assertion there is absence of adequate sanitary arrangements. None of the roads has proper drainage gutters. Consequently during the rainy season, surface drainage is chaotic as the roads are covered with pools of water. In like manner, refuse disposal dumps are found randomly on roadsies or anywhere (Fig. 3.60). This is true of Dorayi settlement where over 70% of refuse disposal system is mainly outside either by burning at the back or infront of individual buildings. It is the same system in other settlements (Fig. 3.61). They thus constitute not only aesthetic eyesore but but health hazard by by providing breeding grounds for rats and flies. They also constitute dangerous air pollutants. All over these settlements, there are no organised waste disposal arrangements. At the same time, pit latrine is a common phenomenon in most of the houses in these settlements (Fig. 3.62). Some even use nearby bush or open spaces for the some purpose.

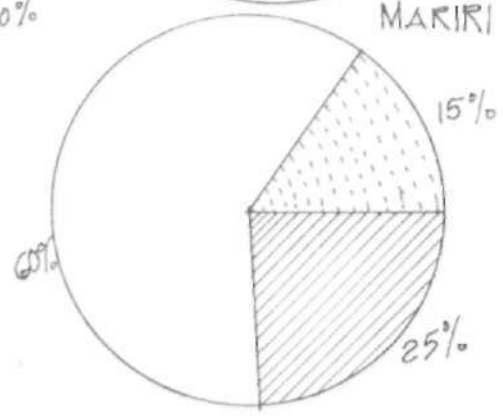
3.76 Provision of Utilities and Services

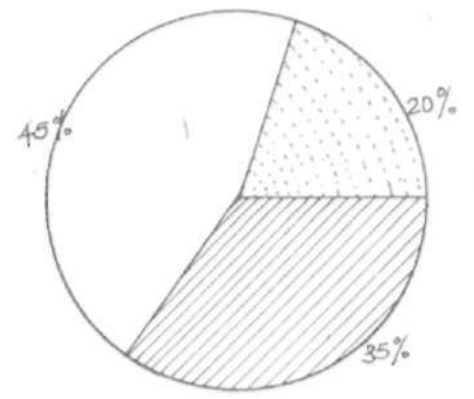
These are generally insufficient in number and when provided, the quality and arrangement fall below required standards. In spite of the rapid growth in the population of these settlements, they lack many basic facilities, services and utilities as can be seen in Table 3.00. Provision

REFUSE DISPOSAL

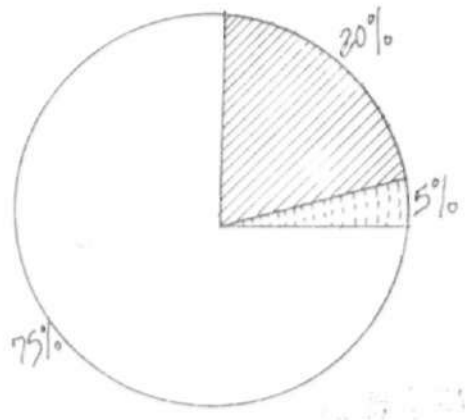








TAMBURAWA



DORAYI.



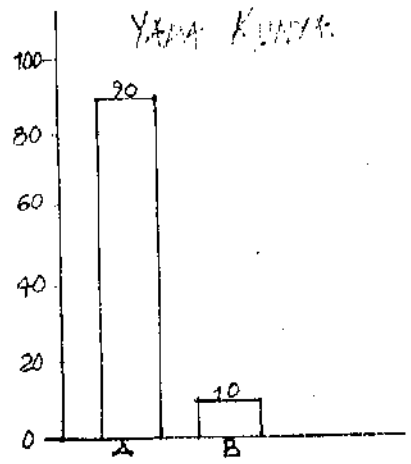
DAWANAU.

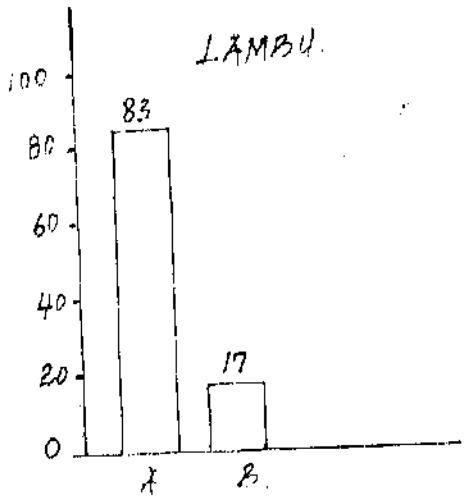
In the bin Outside Anywhere

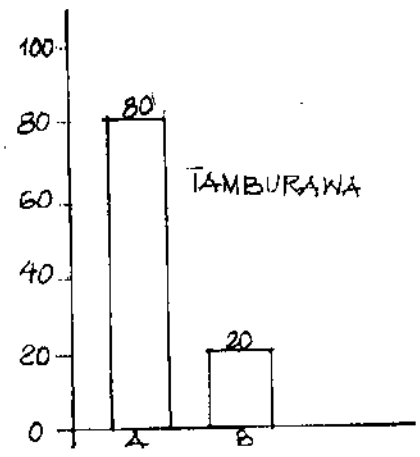
TAHIR M.L.
URP M.Sc.11 1998

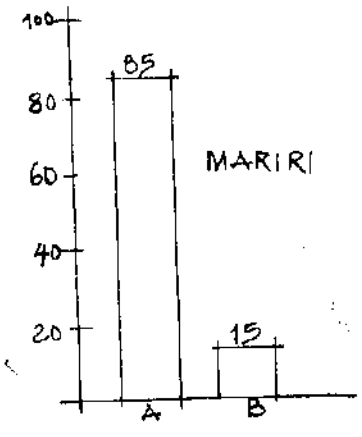
SOURCE: Field survey
Fig: 3.60.

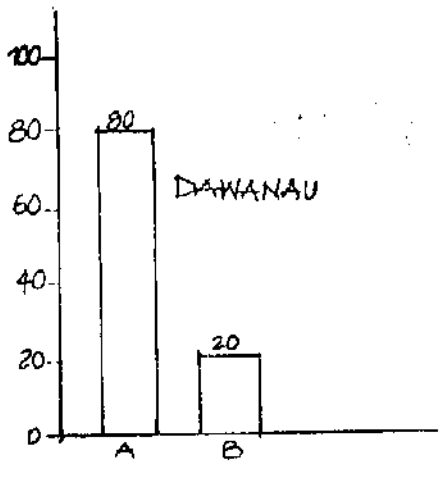
TOILET TYPE

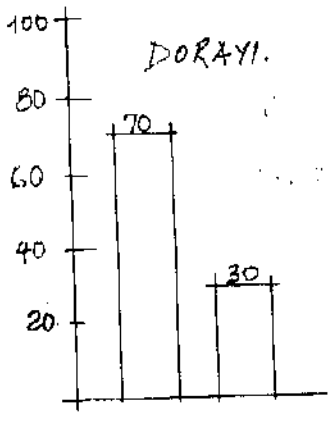












A - Pit B - Water closet

Fig: 3.70b.

TAHIR M.L

URF M.SC.111288

SOURCE: Field survey

Fig: 3.61.

of primary school is the only common service in some of these settlements. As for other utilities and facilities, such as electricity, pipe borne water, health services and others are rare occurance in these settlements.

3.80 SOCIO-ECONOMIC CHARACTERISTICS

3.81 Population Characteristics

The population size of an area gives an indication of the overall dimension of the physical growth, and supplies a basic yardstick for the estimation of space needs for various landuses. With regards to the above, majority of the people living in Kano urban periphery are migrants, young, ange and of different ethnic groups. (see Fig. 3.64). Although, Hausa/Fulani are the most predominant tribe, they might come from different parts of Northern Nigeria. Therefore, we can see that, the population of the peripheral settlements is hetrogenous which consists of different tribes with different religion.

3.82 Occupational Patterns

Occupational structure is based on agriculture, private sector employment, public sector employment and trade/marketing. This categorization became necessary due to the variety of occupations that are found within the sampled respondents. Therefore, it has been observed that,

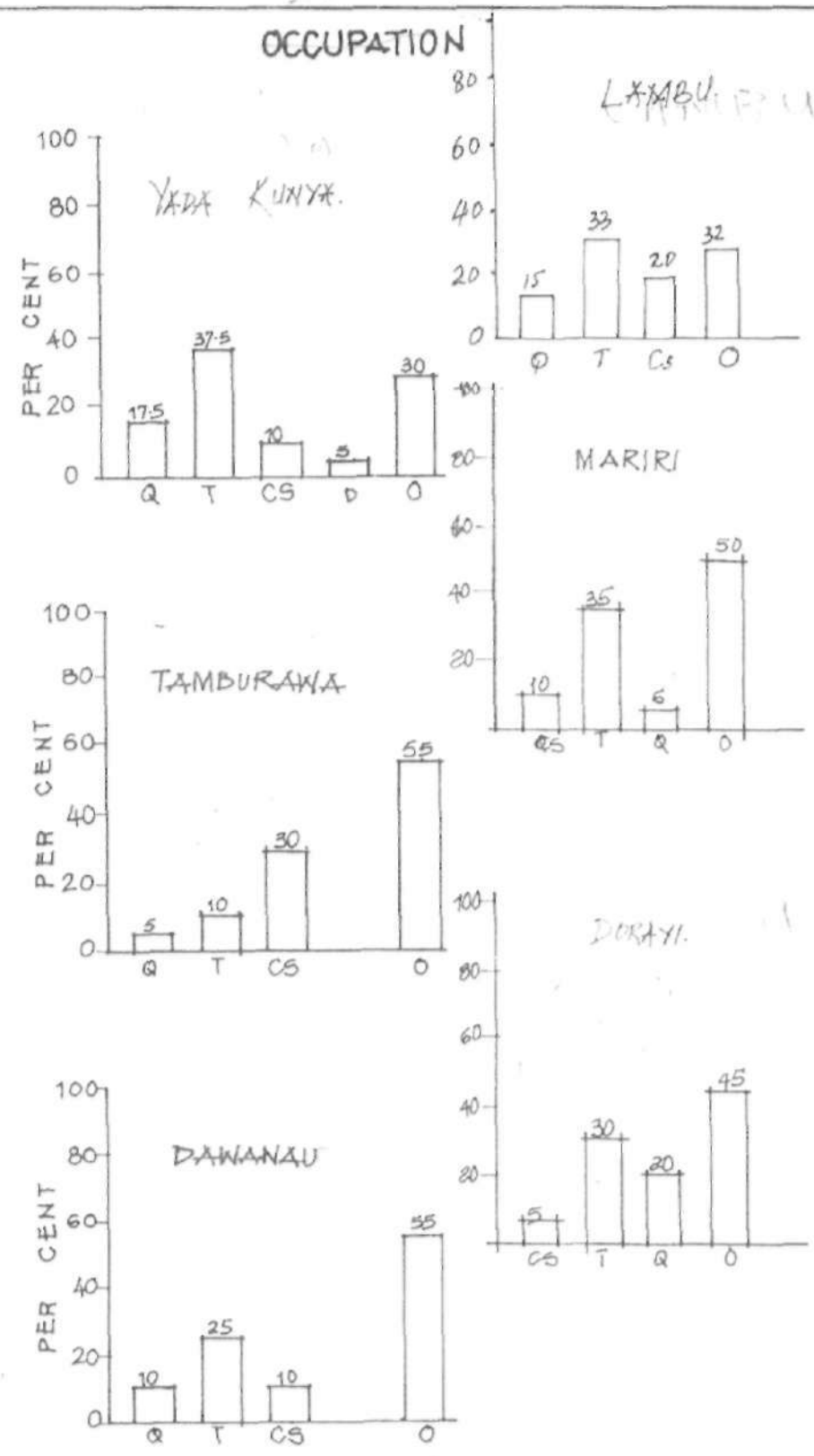


FIG. 3.13.

SOURCE: Field Survey

OCCUPATIONAL PATTERN IN THE STUDY AREA.

majority of the people interviewed intervened in these settlements falls under others (Fig. 3.64) which simply means are casual labourers, nail cutters, barbers, might watchman, domestic servants mechanics, etc. Some of them work in private firms and some one self-employed.

3.83 Ethnic Composition

The attraction of "stranger elments" to these settlements has resulted in a melting pot situation within the favoured settlements. People from different parts of the country are seen in most of these settlemmts (Fig. 3.62) and this, the entire structure is becoming more cosmopolitans today.

3.84 Educational Status

The data gathered during the survey as per figure 3.65 indicated that a large number of the residents are illiterates or semi-ulliterates. For example at Tambirawa about 35% of the people interviewed did not attend school, 45% secondary school level, 15% primary school and 5% post secondary education respectively. This applies to other settlements.

3.85 Monthly Incomes Level

The montly income of the people interviewed shows that a substantial proportion of the residents

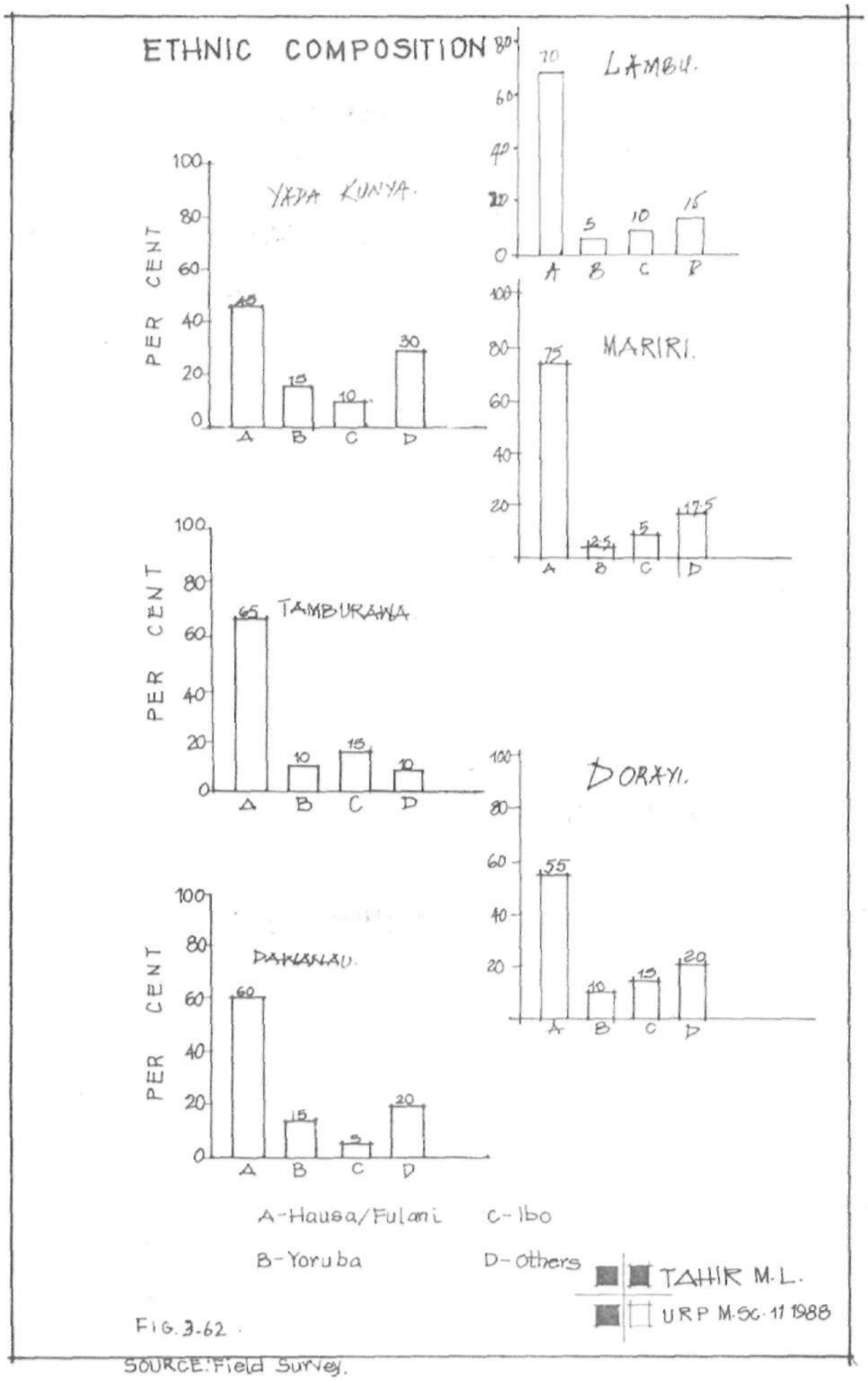
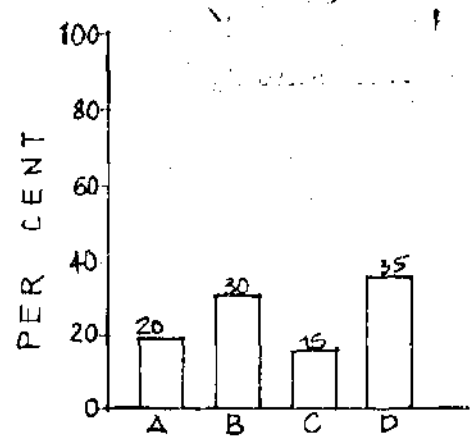
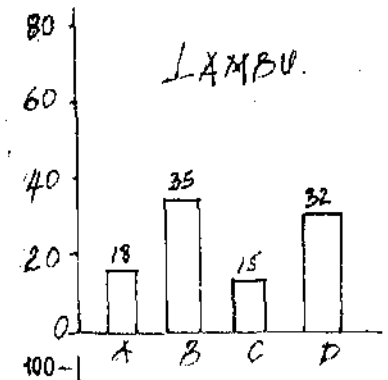


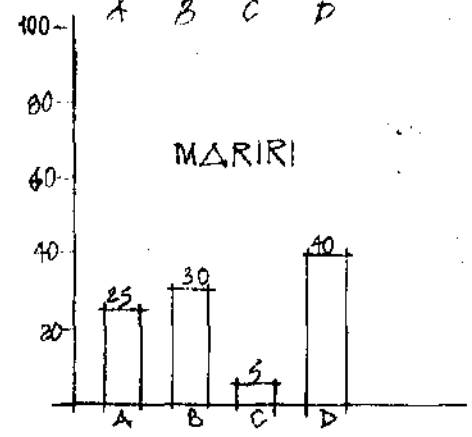
FIG. 3-62.

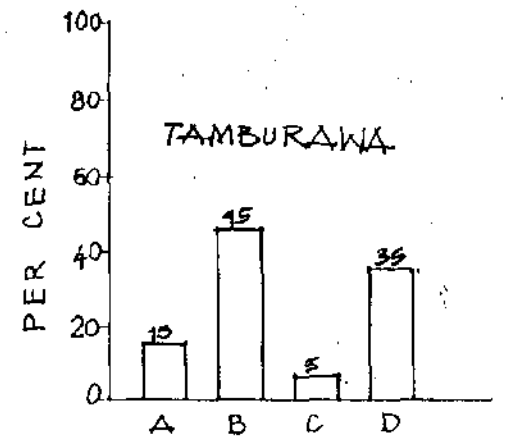
SOURCE: Field Survey.

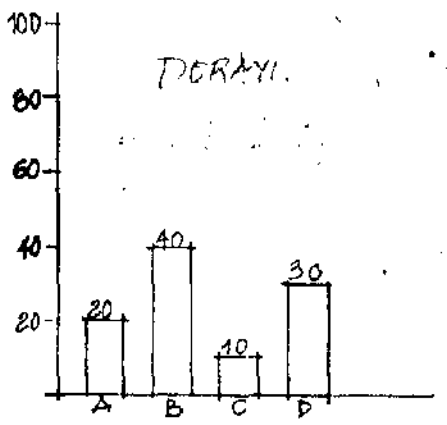
EDUCATION

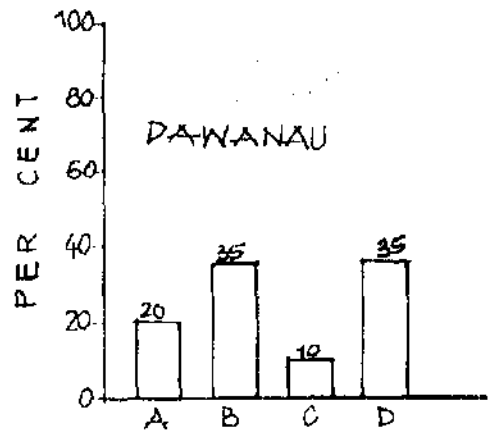












LEGEND

A- Primary B- Secondary

C- Post secondary D-No Schooling

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FIG. 3.64.

SOURCE: Field Survey

MONTHLY INCOME

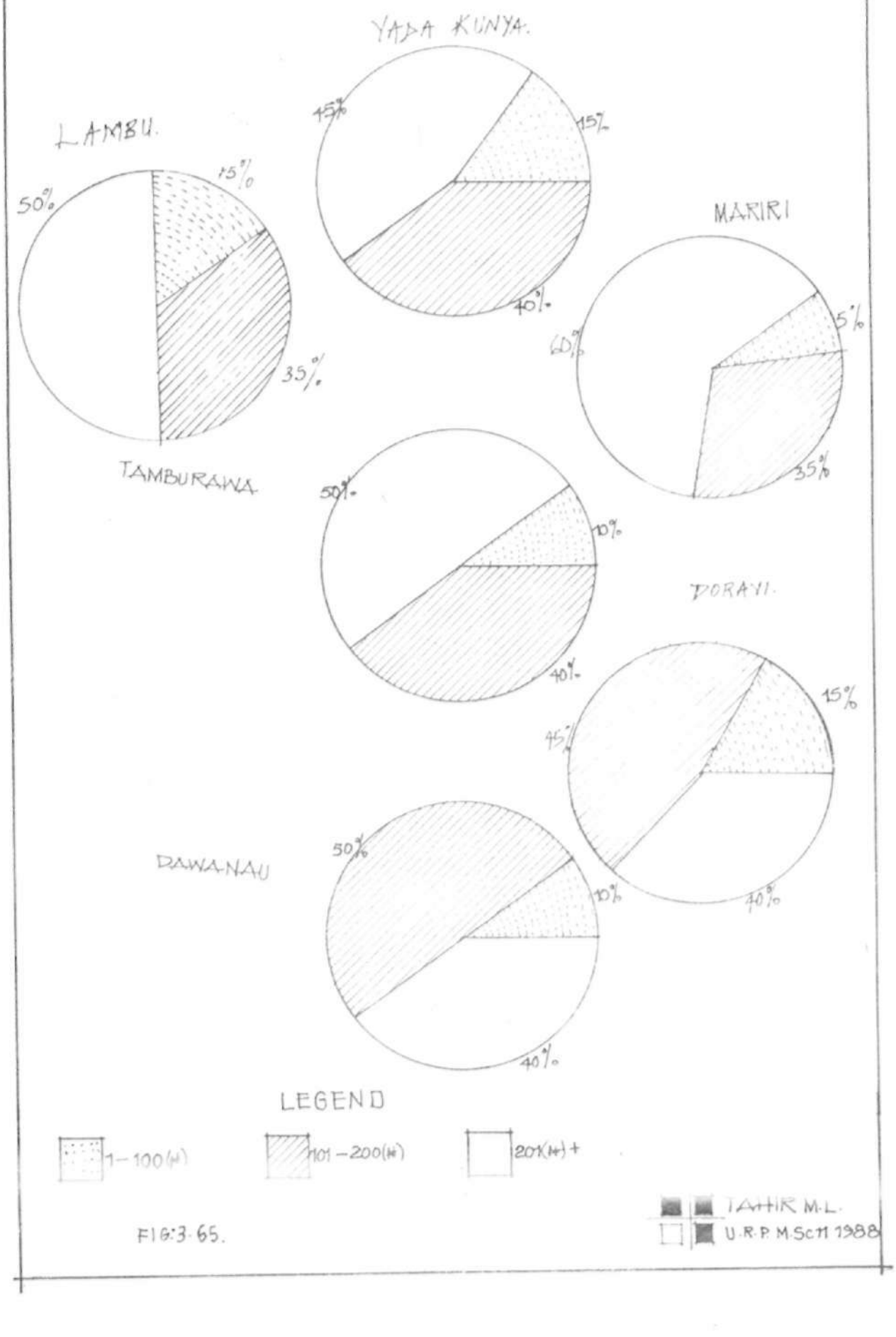


FIG:3·65.

in these areas are low income earners with large families (Fig. 3.67). For instance, at Mariri over 35% of the residents earn ₦101-₦2000 per month, 5% ₦1-₦100 and 60% earn ₦201 and above per month respectively. This also applies to all the settlements in the periphery of Kano Metropolis (Fig. 3.68).

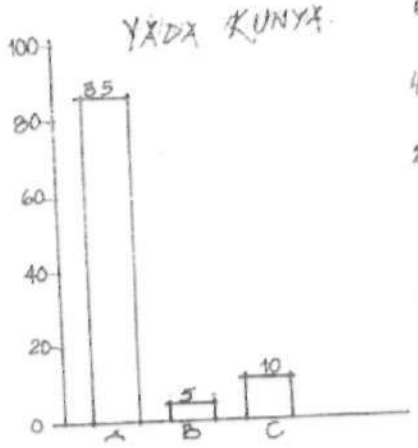
3.86 House Ownership and Household Size

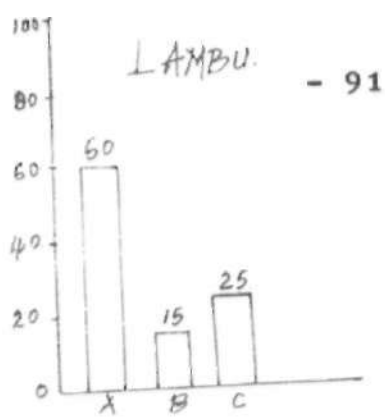
It has been observed during the survey that most of the residents are tenants. This is true when one looks at the situation at Timbirawa where about 70% of the residents are tenants, 10% woned by family and 20% is self-owned respectively. This is the general situation in other areas; as can be seen in figure 3.67. Not only that, iterms of household size, about 50% and above have 5-9 persons in all the settlements, (Fig. 3.68). For example in Yadakinya, about 70 of the houses contain 5-9 persons, 12% 1-5 persons and 15% 10 and above persons respectively.

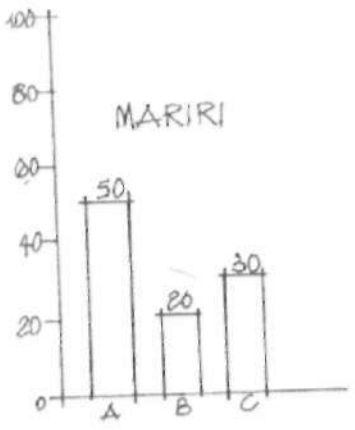
3.87 Recreation and Socialisation

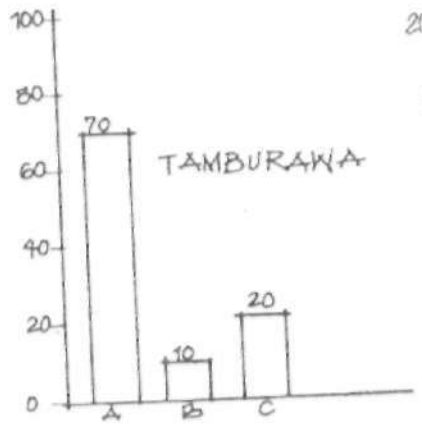
People from the peripheral settlemats in metropolitan Kano do come to the town to recreate either in gardens, parks, play grounds, cinema houses or drinking places because of the proximity of these areas to the urban centre. In Kano and

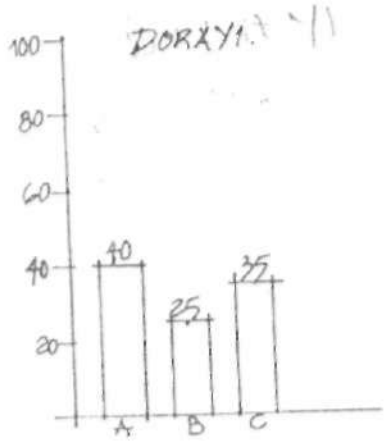
HOUSE OWNERSHIP

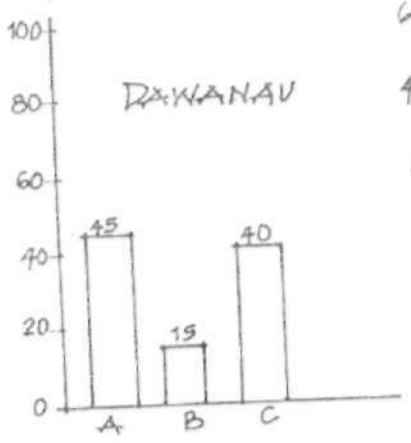












A - Tenants B - Family C - self owned

TAHIR M.L.
URP M.SC.II 1988

FIG: 3.66.
SOURCE: Field survey

HOUSEHOLD SIZE

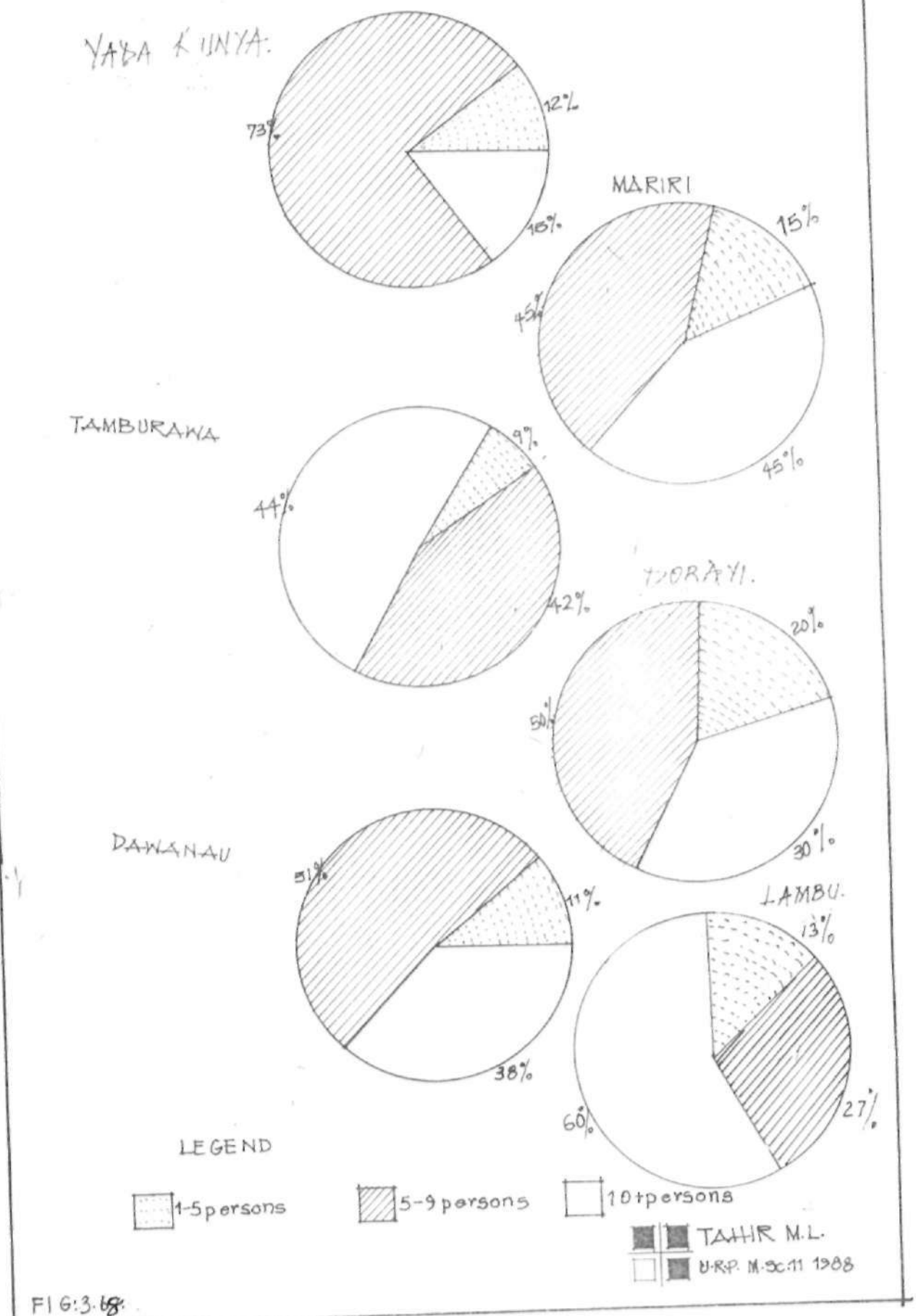


FIG:3.6

SOURCE: Field Survey.

most of the Northern States, Friday and Sunday are important days for socialization between the people of urban periphery and relations in the urban centres. Apart from coming to mosque or church on these days, they also visit friends.

3.88 Reason for Living at the Periphery

Information obtained on why the migrants or residents of this study area migrated or reside can be due to many reasons ranging from the availability of cheap land, ease of plot acquisition, cheap accomodation, near working place and many others (Tables 3.92, 3.90)

Table 3.90: REASONS FOR LIVING AT THE PERIPHERY

STUDY AREA	AS AN INDI-GENCE %	CHEAP ACCOM-MODA-TION %	NEAR WORK-ING PLACE %	ACCOM-MODATION IN THE CITY %	TOTAL %
Dawanau	25	40	24	21	100
Yada Kinya	5	54	30	11	100
Mariri	15	46	24	15	100
Tamburawa	10	50	30	10	100
Dorayi	12	38	32	18	100
Lambu	13	45	28	15	100
AVERAGE	13.4	45.6	28	15	100

Source: Fieldwork 1988.

3.90 INTERACTIONS BETWEEN METROPOLITAN KANO AND THE PERIPHERAL AREAS.

The interactions or relationships of peripheral areas and metropolitan Kano are based at two levels.

- Horozontal relationships - that is relations between the peripheral settlements themselves.
- Vertical relationships - Relationships between the settlements and the Kano Urban Centre.

3.91 Horizontal Relationships

This type of relationship is very minimal when compared with the vertical interactions. This is because settlements do interact among themselves occasionally. It could be on socio-cultural basis, that either on marriage or religious activities which is always once in a while. They do also interact on agricultural exchanges that is during the farming season and also on some festivities which is usually done during the dry season. They also meet in periodic market days for buying and selling.

3.92 Vertical Relationships

This is the most prominent way of interaction between the periphery and the urban centre. However, the most identifiable relationships can be seen in terms of

- workplace
- flow of goods

- education
- social and newspaper circulation

(a) **Mode of Transport to Workplace**

As being mentioned ealier, Kano serves as commercial as well as administrative town of the State. Due to its position, a large number of the residents in these various settlements troop into the metropolis daily because it serves as working place for majority of them. Others come to the various markets in the urban centre inorder to trade. This is true when one looks at the value of traffic being generated every morning from different directions using different modes of transport to work. A survey was conducted on the modes of transport to workplace from the sixe sample settlements and the result obtained can be seen in Table 3.93 below.

Table 3.93 : MODES OF TRANSPORT TO WORK.

SETTLEMENT	WALKING %	MOTOR/ BICYCLE %	BUS/ TAXI %	PERSONAL VEHICLE %	TOTAL %
Dawanau	5	20	60	15	100
Yada Kunya	6	25	65	4	100
Mariri	1	15	75	9	100
Tambirawa	2	20	70	8	100
Dorayi Lambu	20	25	50	5	100
AVERAGE	6.8	21	64	8.2	100

Source: Fieldwork 1988.

(b) Flow of Goods

Kano acts as a market centre for its surrounding region. The villages sell their foodstuffs and other craft materials. The daily flow of agricultural products from the periphery to the urban centre is another important interaction between these two areas. The most common flow of agricultural products are vegetables such as tomatoes, fruits and other most espceially from Tambirawa side because of the irrigation activities of Hadejia Jamaare River Basin Development Authority. Not only that, some villagers have urban based employments and therefore earn their living through this means. At the sametime, the villagers purchase their needs from the town.

(c) Education

Children from Tambirawa attend post primary and post secondary school at A.T.C. Unguwa Uku and Kumbotso Teacher College. While children from Mariri attend school at Hotoro and those from Dorayi and Dawanau attend school at Kunfa College and Ungogo (Mil Tara) Teachers College respectively. This educational interaction between the periphery and the urban Kano is daily except on Saturdays and Sundays.

(d) Newspaper Circulation

The activities of vendors is very common in some peripheral settlements close to the urban centre. It is a common thing to vendors rushing to Doray1, Tambirrawa, Dawanau, Mariri and others to sell their papers almost everyday but more common on week-ends.

(e) Other Social Interactions

The social relationship is an aspect usually not given much attention as it is tied strongly to intangible values. However, a measure of the social interaction between the settlement and the urban centre was given by number of non-economic trips to the urban centre.

Therefore, social relationships were based on visits to friends, relatives, entertainemtn and religious purposes. All non economic trips to the urban centre that were not religious were taken as recreational.

The religious aspect was found to be a strong reason for the visit as can be seen under the factors of influence (Table 3.94). This is more evident on Fridays where people from the different parts of the periphery troop into Kano for Friday prayers. Within Kano, there are about 20 Friday Mosques which is lacking in the periphery of Kano Metropolis.

Tab.e 3.14: MODES, TRIP FREQUENCIES AND FACTORS OF INFLUENCE BETWEEN PERIPHERAL AREAS AND KANO METROPOLIS

TRAFFIC ORIGIN	Total no. of People Interviewed	MODES						FACTORS OF INFLUENCES						TRIP FREQUENCIES					
		Bus	Car	Lorry/ Trailer	Taxi	Motorcycle	Bicycle	Commuters	Commercial	Rain Materials	Social Visit	Medical Influence	Religious Influence	Daily	Weekly	Monthly	Occasionally	Seasonal	Annually
Dawanau	50	18	10	2	9	9	2	15	20	2	3	6	4	30	9	5	2	2	2
Yada Kinya	50	16	12	-	8	12	2	19	24	-	1	4	2	31	11	3	2	1	2
Mariri	50	19	12	3	2	10	4	16	24	2	2	20	6	34	9	4	2	-	1
Tamburawa	50	27	3	9	1	9	1	12	27	5	3	2	1	41	5	1	1	1	1
Dorayi	50	22	7	-	5	10	6	19	23	1	3	2	2	32	11	3	1	2	1
Labmbu	50	19	10	3	4	11	3		24	2	2	5	3	34	9	2	3	1	1
AVERAGE	50	20	9	3	5	10	3	16	24	2	2	5	3	34	9	3	2	1	1

Source: Fieldwork 1988.

CHAPTER FOUR

4.00 PLANNING PROBLEMS OF PERIPHERAL AREAS IN KANO METROPOLIS

A city planner professionally attempts not only to maintain efficient functioning of the city at present, but also to guide the direction of the spatial growth to desirable pattern so as to maximise the efficiency in the overall functioning of the city systems. Every city has a unique identity and image. These qualities make it possible for an observer to have a mental picture of one city as distinct from another. The planning problem here is not only how to maintain or preserve such an image or identity but also how to improve and emphasize it in the face of rapid spatial growth, new structural accretions and inevitable physical alterations associated with such dynamic forces. The result of this uncontrolled development going on at the periphery of any urbar centre, its image and identity as unique planned settlement is been distarted.

However, planning problems of many cities and their peripheries seem to result from the rate of spatial growth of such cities. Here, the problems become critical when the observed growth rate exceeds the capacity of the planning authority to provide adequate city infrstructure.

City peripheries are the growth fronts. It is in the peripheries that most rapid physical growth impulses occur either in planned or spontaneous manner. Incidentially, it is one of the ironies of city history that some of the efforts made to cure the evils originally caused by city growth have infact enabled cities to grow still more rapidly. This is particularly true about the provision of utilities like electricity and water to peripheral locations which have the effect of producing accelerated physical developments in the areas affected, which is the true situation of what is happening in Metropolitan Kano (Table 3.80).

Therefore, the broad groups of planning problems identified in Metropolitan Kano in relation to the growth of its periphery are discussed below; and these problems can be in terms of physical planning problems, socio-economic and institutional problems respectively.

4.10 PHYSICAL PROBLEMS

These are identified in the different systems and patterns of urban activities, and they are seen in the following:-

4.11 Conflicting Landuses

In the periphery of the built-up area of Kano Metropolis there is a confused landuse allocation. Land is being developed anyhow since development

control is not effective in the area. This has led to the haphazard development in which sometime resulting into environmental deterioration and uncompatible landuse are found to be sited side by side, more especially in areas where obnoxious industries are sited within the residential areas. This is the true situation of Challawa and Dan Zaki areas where industries are sited within the residential areas (fig. 3.40). All the same, some form of landuse based on specialised occupation exist within these areas. These specialized occupation groups occupy different quarters within the peripheral areas. This is mostly found in Tamburawa, Mariri and Dorayi areas as can be seen in the landuse map of peripheral areas of metropolitan Kano (Fig. 3.40). This lack of specialized landuse may be due to the origin of these areas, from hamlets or village to their present status.

4.12 Housing Standard

There is an absence of adequate modern planning in these areas. The existing compounds, houses, mostly back the major roads or in some cases there is an absence of roads, except foothpaths. The houses are substandard and overcrowded. The families are large and occupancy ration very high as can be seen in figure 3.66 and 3.67 on household size and ownership respectively. According to the

survey conducted, it was found that about 21.6% of the buildings in the sample areas are temperorarily constructed 78.4% of permanent construction (Table 3.70). Also on the materials used for construction only 25% are of modern standared, 11.2% of thatched type, 63.8% of mud/zinc roofing (Table 3.70). The emergence of this modern buildings within the traditional type is making the whole environment very unaesthetical. This is because, the town planning regulations are hardly enforced here.

4.13 Accessibility

From the map of the existing physical layouts of the sample areas figures 3.50 - 3.55, we can see that majority of the settlements have no plan and where roads are available, are narrow, pot holed, refuse laden and dirty. Most of the residences in this area are not easily accessible. This is a true situation of Dorayi, Lambu, Mariri and some parts of Dawanau [illegible]

4.14 Poor Sanitary Arrangements:

There seem to be absence of well organised refuse collection system in these areas. The domestic refuse is disposed anyhow. 60% of the residents dispose their refuse anyhow and only an average of 30% dispose in the bin. Apart from that, since these areas have no water supply except by well, most of the houses are served with pit latrine (Fig. 3.61)

which are not always kept clean. An average of about 80% of the residents use pit latrine. There is also the evidence during the investigation that, some human waste are disposed at nearby open spaces. Therefore, the general refuse disposal in these areas are not adequate.

4.15 Lack of Services and Amenities:

This is another serious physical planning problem faced by this peripheral areas in Metropolitan Kano. The survey revealed that these areas are inadequate supply of these services and amenities as can be seen in Table 3.80. Only in some parts of Tambirawa, Dorayi, Moriri and Dawanau that have electricity supply. The availability of these services and amenities in these peripheral areas are only possible in public buildings and some private industries as the case with Tamburawa area where some private industries are dotted here and there e.g 7 Up industry which have all the supply of the above. Other amenities such as public health services, educational facilities and recreational facilities are either not available or are inadequate supply.

4.16 Lack of Integration

From the existing physical layouts of these areas (Fig. 3.50 - 3.55) it is found that most of them are not integrated which is a serious physical

planning problem to these areas. Due to lack of proper planning and ineffective development in these areas, residents are located anyhow in which compounds are located here and there in disperse nature. Therefore, there will be always problem when integrating them into a uniform settlement or integrated to the existing city built up area with the necessary provision of facilities, utilities and services.

4.20 SOCIO-ECONOMIC PROBLEMS

The socio-economic problems are tied with over-concentration of functions in a single location, overcrowding of people and their activity centres. An important characteristics of the sub-urban population is the concentration of low income group. This in effect means less revenue for the provision of amerities. These problems are however examined below.

4.21 Absence of Community Organisation

From figure 3.62, it is being observed that the periphery of Kano constitutes many ethnic groups and this hetrogenity of the residents makes it difficult to form an organised body for communal purposes which will improve their environment. Therefore, in most of the settlements there are no community organisations for the improvement of these areas, which the people take no interest to improve.

4.22 Transportation Problem

Because of the nature of the location of the peripheral areas in Kano , transportation is posing a serious problem to the resients. As the settlements are not properly laid out, there is problem of getting transport from one peripheral area to another or even sometimes to the city. It is not possible for one to catch a bus from Tanburawa straight to Dorayi or Lanbu, he has to change about three to four vehicles and it most be through the city which takes alot of time. There is no adequate transport provision to Kano City not even to talk of within the settlements themselves.

4.23 Serves as Hideout for Criminals

Since this area developed haphazardly without any proper planning it sometime serves as the hideout for criminals more especially the armed robbers. This is so because, both planning authority and law enforcement agents are not actually effective in this area, because there are no police posts in most of these places. Shanty development here results into environmental degradation.

4.24 Low Income Level

It is an important characteristics of the suburban population. Because it has the concentration of the low income group. This in effect

means less revenue for the provision of amenities. From the previous discussion we have seen that these areas constitute migrants from different ethnic groups and which are of low income group. Their main reason for coming to settle at the periphery is mainly because they cannot afford either house or land in Kano City because of their economic stand.

4.30 ADMINISTRATIVE PROBLEMS

The administrative problems which affect city planning functions can be observed in lack of strong administrative management. This results in contravention of planning schemes, attitude of the traditional rulers, delay in granting permit and certificate of occupancy, building by-laws as well as lack of public enlightment respectively. Therefore, the above mentioned problems are briefly discussed in the following.

4.31 Contavention of Planning Schemes

Due to lack of strong administrative management, contravention of planning scheme by some arms of government has also contributed to the growth of peripheral areas in metropolitan Kano. The Ministry of Land and Survey for example has on many occassions interfered with Urban Development Board Planning schemes. For instances, in some peripheral areas like Dorayi, Naibawa, Kawaji and

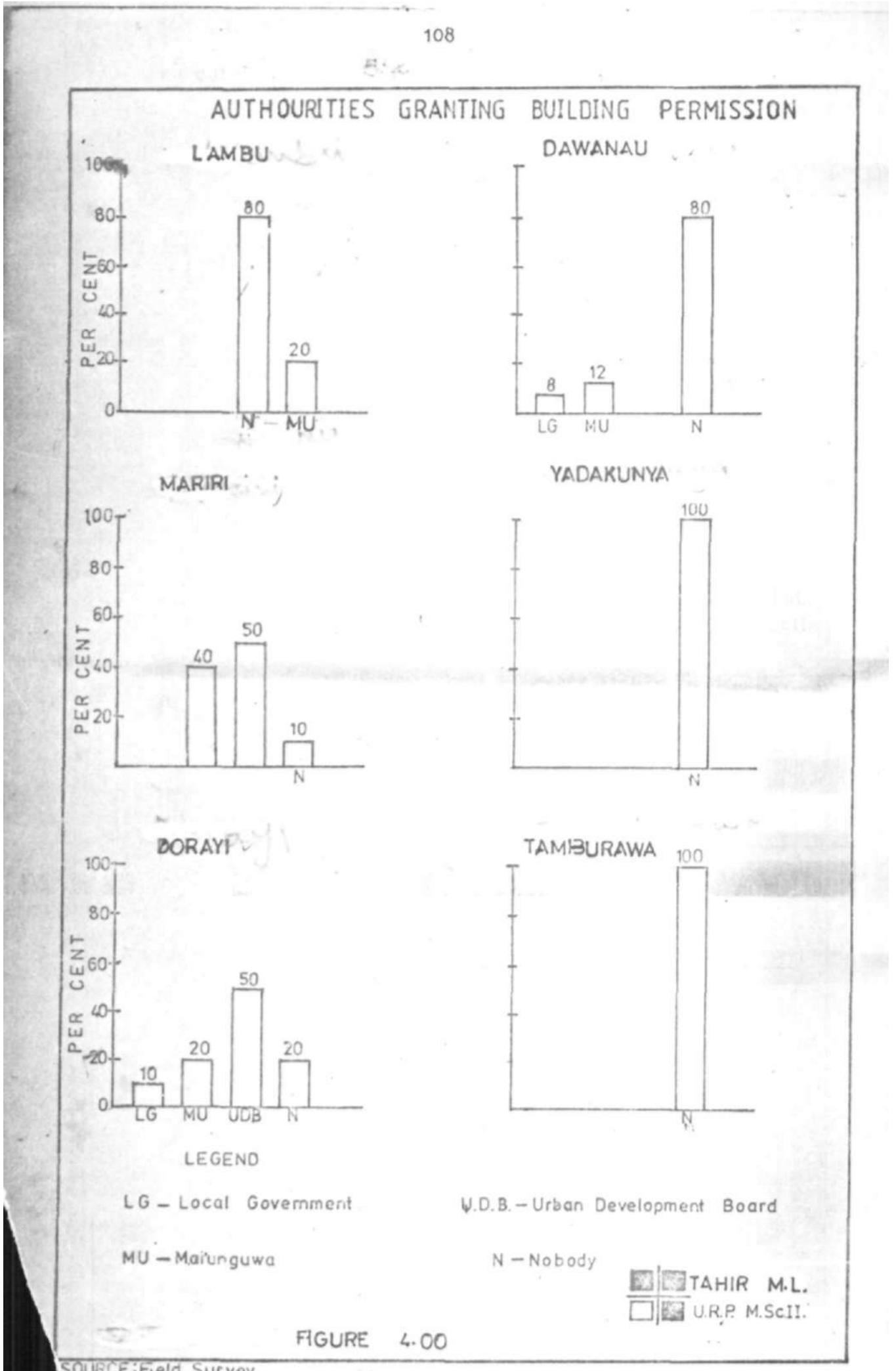


FIGURE 4.00

SOURCE: Field Survey

Shoradia areas open spaces have been converted to residential plots. In such a situation development and control of the periphery has been left to the dogs. Moreover, during the last civilian (1979-83) there were alot of plot subdivisions. There were many directives and counter directives to the Managing Director of Urban Development Board (U.D.B.) to leave some areas that contravene planning schemes. The Kano Municipal Local Government has also contributed towards the growth of peripheral settlements. There is no doubt that management of urban landuse was and still the responsibility of U.D.B. as stipulated in the Landuse Decree, but the Municipal Local Government has on many occasions overpowered the U.D.B. claiming some areas to be under its jurisdiction. This has resulted in the disterion of planning schemes because neither the U.D.B. nor the Local Government take any action on the said area which results in people take over and develop it haphazardly.

4.32 Attitude of the Traditional Rulers

In this case, the traditional rulers connive with some people in need of land in the periphery. Within few days or months farmlands are converted into residential plots. Such illegal areas cover wide expense of land to such an extent where U.D.B. cannot demolish. All this results due to lack of

strong administrative management on the part of the Planning Authority.

4.33 Delay in granting permit and Certificate of Occupancy

This causes inpatience and result in many developers start building without permission by the U.D.B. It takes about one to three years before Certificate of Occupance (C. of O.) is granted.

4.34 Building Bye-Laws

The building bye-laws have also contributed towards the growth of peripheral areas in Kano Metropolis. The laws being foreign only take cognisance of English style and building materials. This has feightened many people to come forward to seek permission because they know that the type of materials they well want to use will not be accepted by the Board.

4.35 Lack of Public Eblightenment

A very important factor that contributes to the growth of periphery in Kano is lack of public enlightenment and awareness on the provisions of the existing building bye-laws and planning regulations as regard to property development. Planning education is generally lacking among the people. This makes people to sell their farmlands or buy and start building. Any effort to stope them meet confrontation by any staff.

4.40 Causes of the Problems

The causes of these problems can be attributed to some factors identified as contributing to the scale of disorderliness in the physical nature of the settlements at the periphery in Metropolitan Kano. These causes are:-

4.41 Lack of Effective Development Control

"Development control or Landuse control is a collection of interrelated para-legal and administrative techniques and instruments designed to safefuard, regulate, conserve and disburse land or part thereof in the interest of the overall community. As a physical planning instrument, development involves regulating, retraining, keeping in order or checking material charges on land. Its application tends to have a negative approach to development, while at thesame time it is a creative and permissive tool for a planned development". Vagale (1975)[1]. It aims at solving the problem of ensuring compatible use of land and bringing the area in line with general plan and controlling land development.

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1. Vagale, L.R. (1975) "Development Control" Its Importance in regulating Urban Growth. Occasional Paper, The Polytechnic Ibadan.

Therefore, the Kano State Urban Development in Kano faces many problems in enforcing planning regulations which are the basis for controlling landuse despite the policy guidelines provided by the Edict. As such the following has been distingushed as one of the factors contributing to lack of effective development control measures.

(a) 4.42 Lack of Trained Personnel

The lack of personnel to man the ever increasing landuse planning problems has militated against the effective enforcement of development control measures. At present there are only ten (10) qualified Town Planning Officers in the whole Board. The majority of the staff are not trained so this limits effective supervision and monitoring of areas. This has facilitated the growth of haphazard developments particularly residential. This can be explained in tables 4.10 and 4.20.

Table 4.10: LIST OF PROFESSIONALS IN KANO STATE URBAN DEVELOPMENT BOARD

PROFESSIONALS	NUMBER
Planners	12
Architects	6
Engineers	8
Technical Officers	29
Surveyors	6
Estate Managers	2

Source: K.S.U.D.B.

Table 4.20: EQUIPMENT FOR DEVELOPMENT CONTROL IN U.D.B.

TYPE OF EQUIPMENT	NUMBER
Inspection Vehicles	2
Bull dozers	6

Source: U.D.B. Kano

4.13 Inefficiency in Implementation of Planned Proposals

The institutional framework that paves the way for planning implementation is essentially loose. With all the millions of naira spent to prepare Master Plans (Travellion 1963-83 and Reviewed Master Plan 1983-2000) for the metropolis the legal backing is most often lacking . This explains why all the two Master Plans prepared were not approved as legal documents by the State Governor. This poses a problem to Urban Development Board for any attempt to harness development of land can be challenged in court as the Board lacks legal ground to justify its actions. Moreover, the institutional mechanism is also shaky in the preparation of layout as well as the allocation of plots. Several residential layouts have been prepared for Kano metropolis, but none of them has been implemented. This leads to unplanned development in both areas having planning scheme and those having none. Therefore, Urban Development

Board finds it difficult to control such unplanned development. This is because such developers are not to blame because they are desperately in need of plots to build houses which government is not ready to provide.

4.4. Land Speculation

Rising price of land within the city centres, forces potential developers to search for alternative sites at the periphery which promote illegal sale of land which inturn lead to haphazard developments. We can see from Table 4.91 that about an average 70% of the residents in the periphery of Kano got their land illegally i.e through the traditional head, 23.4% as personal pursonal purchase and only 6.6% got their land through the Local Government which according to the Landuse Decree of 1976 it is not the proper authority to allocate land within a designated urban area, which is the sole responsibility of the State Military Governor. Virtually from the survey conducted, all land purchased at the periphery of Kano is illegally acquired, which is a serious planning problem.

However, apart from the planning problems posed by these peripheral areas, they still have prospects by virtue of their location near urban centres. These prospects are however examined in the following paragraphs:-

4.50 PROSPECTS OF PERIPHERAL AREAS IN METROPOLITAN KANO

It must be understood that any change taking place in the periphery of Kano Metropolis can thus be directed towards achieving desired goals and objectives, through deliberate planning intervention. This should be directed at enhancing the physical characteristics of these areas which are considered positive and bringing these areas into the mainsteam of the planning process and urban development. Therefore, the best prospects for these areas lie in deliberate planning actions by the planning authority. However, apart from the above assertions, the following are the possible prospects of the peripheral areas in Metropolitan Kano.

4.51 Economic Dependence

It was being discussed in the previous chapters that, the urban centre derives some economic benefits from their peripheral areas more especially in the supply of agricultural goods for raw materials and other purposes and vice-versa. Therefore, as Kano grows and expands to engulf these immediate peripheral areas, land becomes more intensively used. As the available agricultural land shrinks to give way to urban functions, land which is left devoted to agriculture is used more intensively for the production of food for the people in the city.

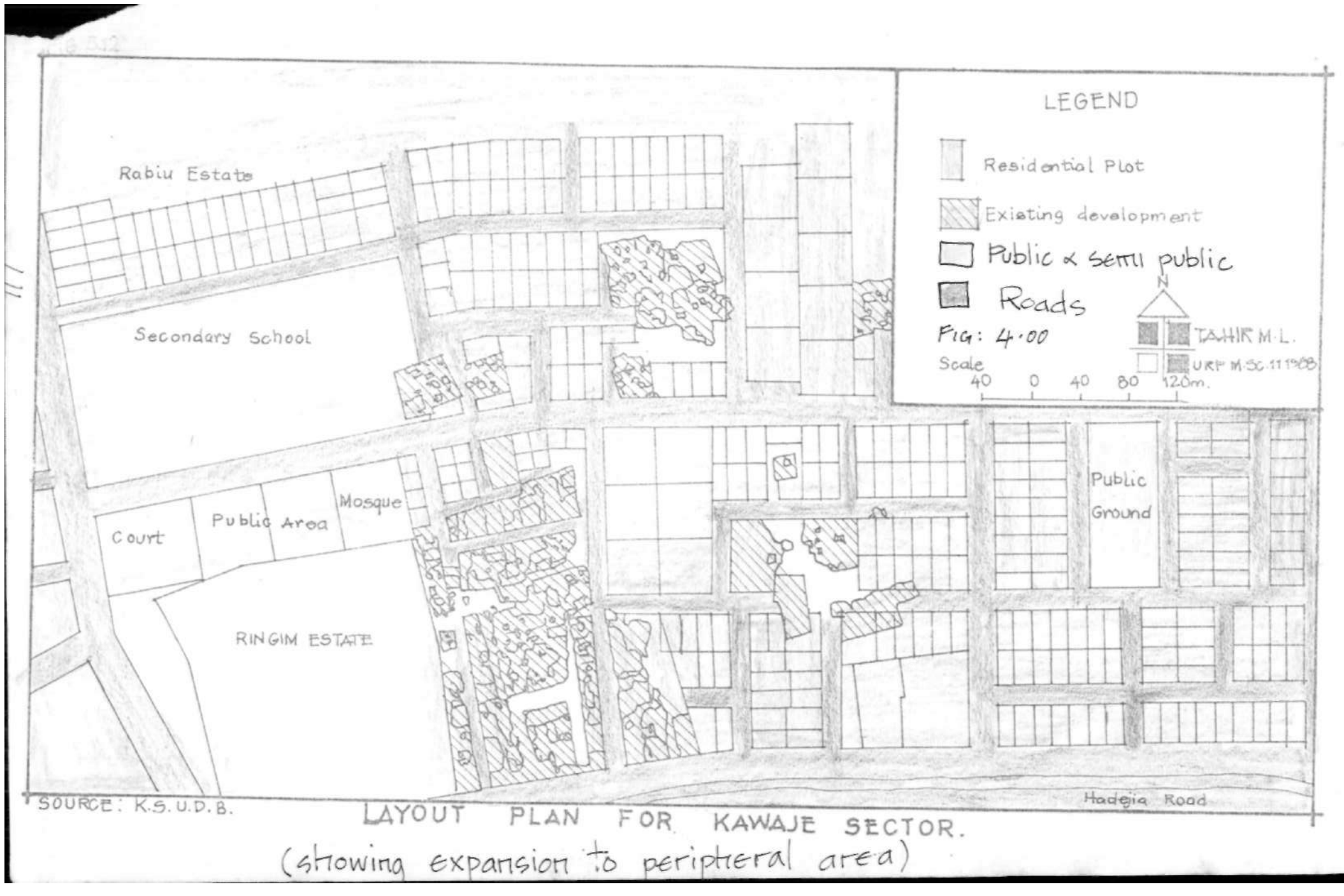
This is common around Lanbu and Yada Kinya areas which supply the metropolis with the agricultural products. On the other hand, the people living in the periphery depend on metropolitan Kano for the supply of manufactured goods. They also supply the metropolis with cheap unskilled labour for construction and other manual jobs.

4.52 Infrastructural Development

The peripheral areas of metropolitan Kano could be gradually engulfed or be merged with the town in near future. In this way urban facilities, utilities and services would be provided for such areas. Typical examples could be seen in Hotoro, Unguwa Uku, Hausawa, Kawayi and many others which were formerly peripheral areas, but now are engulfed into the city and are provided with these facilities and services.

4.53 Government Policy

Like the other former peripheral areas in Kano, whenever growth affects any of the areas, such areas are either engulfed by the expanding town as the case with above mentioned areas, or if the existence of such areas is considered hinderance to the town's development by the government, the residents are moved and given compensation as the case with Shorada. Here, people were moved and resettled in a different area when the new Sharada



LAYOUT PLAN FOR KAWAJE SECTOR.
(showing expansion to peripheral area)

Industrial Estate Phase I, II and II affected the people. In case of some peripheral areas which are engulfed by the expanding town like Kawayi, Unguwa Uku and Hausawa, nothing is usually done to improve their physical layouts. What results therefore is the development of slunties in the face of modern urban development and the areas so engulfed standout in contrast to the general tone of the town's development. Examples of such already engulfed areas in Metropolitan Kano are Kawayi, Hausawa, Gobirawa and Hotoro existing physical layouts, (Figs. 4.10 and 4.20) which shows that the settlement patterb before and after the engulfment remained untempered. They hardly have any formal streets and the houses are fumbled together. This is true when one comes from Zaria for instance, Unguwa Uku which has become merged with Kano can be clearly identified.

4.54 Shift in Occupation

This is another prospect for the peripheral areas in Kano Metropolis. There is the possibility of shift in occupation from primary to tertiary and secondary activities. The residents of the periphery without basic skills may find jobs in construction industry within Kano City. This might act as a training ground for acquiring skills which could be used to advantage in other areas of economic endeavours.

CHAPTER FIVE

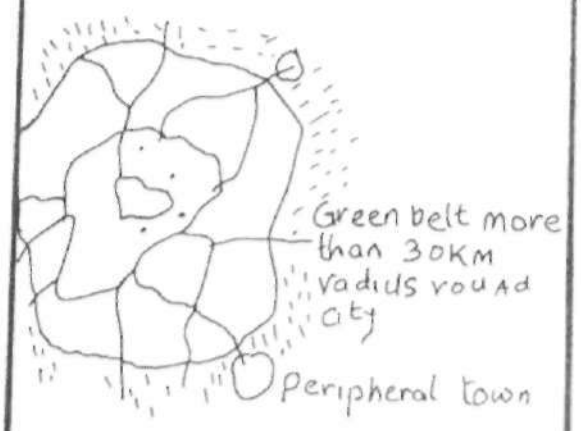
5.00 REVIEW OF THE EXISTING PLANNING STRATEGIES FOR THE DEVELOPMENT OF URBAN PERIPHERIES AND THEIR SUITABILITY FOR APPLICATION IN THE STUDY AREA.

Planners from different parts of the world have evalved different types of strategies for the development of urban centres. These available strategies have been applied in different cities of the world with the aim of controlling their growth. With regards to this, there is no specific strategy being adopted for the control of this ground. This is because each strategy applied depended on its suitability since urban growth is part of urban phenomenon. Therefore, the various strategies adopted in different cities of the developed countries have aimed at establishing a limit on the physical growth of the settlement which were meant at forceful limitation of spatial growth of these cities in some other cases (Fig. 5.00). This is contrary to the strategies adopted in the developing countries because they are meant at finding alternative solutions to the problems of city oversprawl as well as accepting what cannot be rejected. Therefore these strategies are classified into two main groups. They are curative as well as preventive strategies.

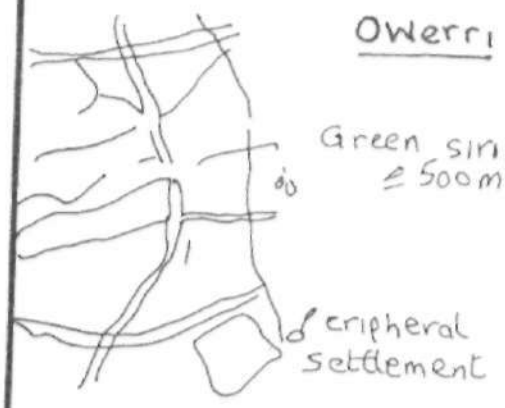
CITY GROWTH CONTROL STRATEGIES.

MASTER PLAN.

Paris

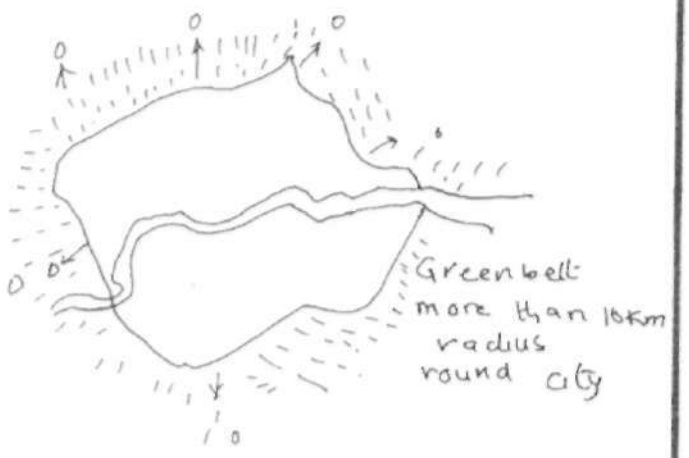


Owerri

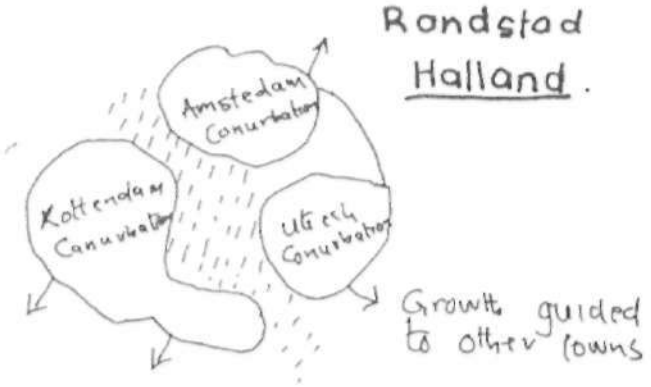


DISPERSAL

London.

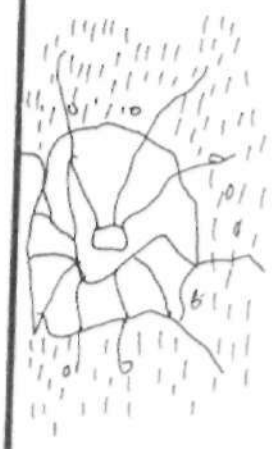


Rondstad Halland.



GREEN BELT

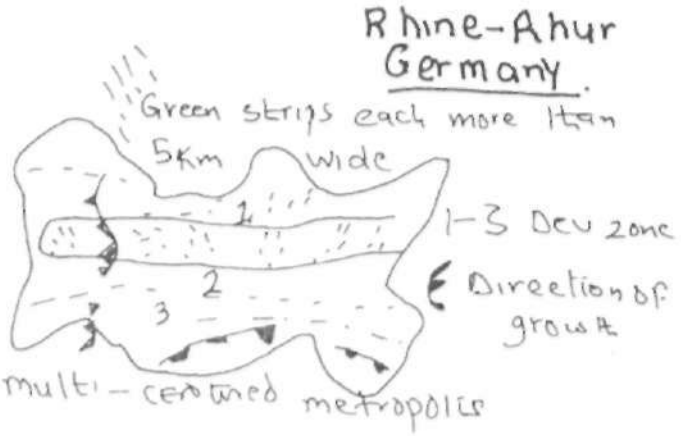
Moscow.



Green strips each more than 5Km wide over a radius of 20Km round city

GUIDED

Rhine-Ahur Germany.



SOURCE :- PETER Hall (ed).

Fig: 5.00.

5.10 CURATIVE STRATEGIES

These strategies involve physical planning solution that deal with the existing situation which comprises of re-grouping and integration approaches. However each of the strategy will be examined seperately in the following:-

5.11 Re-grouping/Re-location

This strategy has mainly been associated with the displacement of people as a result of other development projects. It involves the removal of people from one point to another. Bridger (1962)[1] defined resettlement on "the transfer of population from one area to another on a planned basis, the objective being to raise the standard of living". The concept therefore involves seperation of conflicting landuses and relocate them to where they should belong. For instance, residential landuses lying side by side with heavy industrial landuses are relocated to larger residential areas where they are compatible. It is a very difficult strategy to apply within the physical and economic context of the city and its peripheral area, because it involves heavy expenditure interms of compensation and reconstruction. Another probel is that it needs alot of persuation on the part of the people that are to be involved. It is fexible if there is growth of make shift buildings on unauthorised land in the peripheral areas (Fig. 6.00 . Therefore, this strategy has advantage and disadvantse

1. Bridger, G.A. (1962) "Planning Land Settlement Scheme" In Agric. Econ. Bulletin for Africa No. September, 1962.

as discussed in the following:-

PHYSICAL ADVANTAGES:

(i) Compatible landuses are joined together (that is residential and recreational landuses) and the settlement develops on a planned basis from the onset, with necessary facilities, utilities and services.

(ii) Economic:-

The people within this relocated or regouped area provide urban centre with labour and the urban centre provides opportunities to exist within the framework of the urban area.

(iii) Social:-

The settlement to able to remain as a social unit with the urban area maintaining their various cultures and traditions.

DISADVANTAGES

(i) Certain ties such as historical and cultural and cultural may be lost by the old part of the settlement to the new re-grouped or relocated settlement.

5.12 Integration

This strategy is concerned with the physical integration of the settlement with the urban expansion. This usually occurs without deliberate

planning with chaotic results. The concept expressed in this alternative is geared towards ensuring a greater progress towards the attainment of the desired goals at minimum cost. It involves improvement of the existing situation with the ultimate aim of integrating it with the city (Fig. 5.30). For instance, larger nulceated residential, industrial and commercial landuses which are well established are provided with infrastructures and facilities and make them accessible and integrated to the city. This strategy has certain advantages and disadvantages.

ADVANTAGES

Physical

(i) There would be no physical removal of these areas when they get integrated with the expanding town, and hence there will be no problem of relocating them elsewhere. Also these settlements get urbanised and served with services, utilities and facilities with the growth of the town.

(ii) Economics:-

The integrated settlements would be provided with opportunities for wage employment in industries, commerce and government. The industries and companies more especially the construction ones would utilize the

unskilled labour of these areas since they exist in abundance. Money is not going to be spent on them by the government on relocating the people since no settlement will be uprooted. Compensation will be paid to them on the acquired land and such money could be utilized in one form of trade or the other.

(iii) Social:

There is always high level of interaction between the people of the expanding city and the people in these settlements. This reaction could be interms of social, cultural, religious and recreational levels as with the case of Kano (Table 2.10. The social unrests associated with physical removal of people from their homes and relocating them elsewhere would be avoided. People in these settlements would have better living standards leading to change of life styles.

DISADVANTAGES

(i) Physical

There may emerge conflicting landuses if proper care is not taken during the planning stage of these areas. Their

emergence will not be in harmony with the surrounding developments initially. Such settlements if not properly controlled, may become, slums and shanties in the face of modern urban development.

(ii) Economics

The problems of change of occupational patterns from primary to secondary and tertiary might arise. Also, not all the people will be abld to secure jobs in various industries, convenience and government, and having lost their land would remain unemployed.

(iii) Social

There will be cultural conflicts within the settlemnts and urban inequalities and injustice among the residents.

5.20 PREVENTIVE STRATEGIES

The strategies here comprise of comprehensive Master Plans, green belt containment, dispersal or new town policy, guided growth as well as others, in order to stop the reoccurance of the problems. They are however examined in the following ways:-

5.21 Comprehensive Master Plans

Comprehensive Master Plans is a policy guide to decisions about the physical development of an urban centre. It is an official public

document adapted by Planning Authority. It indicates in a general way of how a structure plan for the spatial expansion of an urban area expressing official contemplations on the course of its transportation, housing and community facilities should take and making proposals for industrial settlements, commerce and population distribution and other aspects of growth and development. The essential characteristics of the plan are that it is comprehensive, general and long range. The problem with this type of strategy is that it caters for a fixed period and extent of the city. As soon as both components are exhausted, the inherent problems of city growth will re-emerge. It is therefore not flexible and may turn out to be costly over a long period of time.

5.22 Green-Belt-Containment Policy

This strategy was devised by British Planners to restrain the lateral growth of London Conirbation. One of the tools of achieving growth control used in this method affected city within which building activity could be controlled. In this case force is being used to control the growth of cities which failed in most cases, or produced other side effects like over-swelling up of the populations of existing towns or producing new towns outside the belt which subsequently led

to greater conurbations. This development has leap-frogged, the protected girdle of most of large towns where this has been applied.

5.23 Dispersal Policy - New Towns

The policy was used as a sort of regional approach. It conceptualized a central city which is surrounded by a circle of sattelite towns, all linked with each other and the mother city by easy communication but physically seperated by agricultural and recreational land. This approach was later modified in a number of metropolis, like Paris, Tokyo, Moscow, the Ruhn Basin of G rmany and the Rondstand into the principle of creating New Towns in order to decongest existing towns. The concept was successful but it also produced negative results. For example, the development of New Town of East Kilbride, which was specifically created to relieve congestion in Glasgow only, has flourished by drawing industry not from its congested parent but from all over England and America as well. All the strategies mentioned are illustrated in Figure 5.10.

5.24 Guided Growth Strategy

It involves making advance plans for communication in future development zones. For example, in planning the Ruhr area as described in its Planning Atlas 1960, the law gave the SVR ("the Siedlungs Verban Ruhr Kenlenbezerk) to

establish the line of a future road development which is then kept open for an indefinite time. So the SVR can plan a future network in the sure knowledge that future development will not set the plan at nought".[1]

This strategy can readily recommend itself to developing countries particularly from the economic point of view. To lay out in advance, sufficient land area, in planned network for a city's future road system is very good where the government is capable of paving the roads at once. This will g guaranttee an orderly spatial growth of the city and ease in the provision of basic infrastructure along the defined routes in future when resources for such undertaking are available.

However, in the developing countries this type of strategy requires alot of energy and necessary tool to implement, because there is little regards to planning regulations by developers. This is because of ignorance and physical planning is of recent in these countries. Therefore, all the strategies mentioned above orginated from the

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1. Peter Hall, op. cit., p. 153.

developed countries whose physical planning has been part of city development for many years. Their applicability with the exception of comprehensive master plans in the Third World Cities will have to bear on the following issues:-

(a) Functionality

This refers to the functional ability of the strategy to solve the problems at hand. It must be convenient, flexible and gives maximum accessibility to all components in a city.

(b) Adaptability

It is the successful application or realization of the strategy considering the prevailing conditions and circumstances in a given set up. Factors affecting adaptability could be physical characteristics of the areas, the limited available land, the complexity and requirements of the strategy or other factors, like policy/ machinery control

(c) Cost

This refers to the cost interms of money, existing structures, etc. that would have to be sacrificed before the strategy could be implemented.

(d) Acceptability

This relates to the people for whom the strategy is intended. The people will relate the strategy, the sacrifices to be made before it is realised, its characteristics interms of their values and their socio-cultural setting.

(e) Appropriateness to City Expansion and Administration

This relates to the growth rate of a city and ability of the strategy to be able to meet up with the rate. Experiences have shown that most of the existing strategies are cut up on the way by city growth before they are implemented. Another consideration relates to administrative machineries, manpower and expertise.

Therefore, from the strategies it has been realised that, all with the exception of comprehensive master plans were meant for the pre-planned cities of the developed countries and as such it is important to select some suitable strategies out of them for application in the developing countries in general and the study area in particular.

5.30 APPLICATION OF THE SUITABLE STRATEGIES TO THE STUDY AREA

It is accepted that growing urban centres expand into their peripheral areas. Thus bringing the areas in the periphery into positions of disadvantage within the urban area. Some of the preventive strategies reviewed are taken from growth control strategies which are concerned with aspects beyond the scope of this study. While all the curative strategies are drawn from the field of practice both in Nigeria and other developing countries like India. As earlier mentioned, the strategies considered here are into two parts. The first part are those curative measures that solve the existing problems while the second part concerns those preventive measures which will stop the re-occurence of the problem in future.

However, the suitable strategies proposed shall be judged on the basis of the characteristics of the growth in various parts of the periphery.

Not only that, in any part of the city periphery, where there is the existence of incompatible landuses, growth of transitory nature, regrouping shall be appropriate and where they are well entrenched, functionally related to landuses, they are to be integrated with the urban structure. However, on the basis of the already discussed parameters of functionality, adoptability, cost, acceptablity and appropriateness to city

expansion and administration, integration strategy is deemed the most suitable for solving urban peripheral growth problems. It must be noted that not all the elements within the peripheral area can be integrated as noted above, hence some are deemed for relocation. Therefore the combination of the two strategies will be the most appropriate approach at solving these problems. On the other hand, for preventing the re-occurence of this growth, comprehensive master plans that concern planning proposals and policies as well as administrative controls and machineries should be implemented. Therefore on the basis of the above, the foll ng strategies are found to be suitable for application in the study area.

5.31 Curative Strategies

As already explained, curative strategies are the physical planning solution that deal with rhe existing situation. This comprises of re-grouping and integration approach.

(a) Re-Groupg/Relocation

Under this strategy, most of the scattered settlements in the periphery of Kano such as Karkasara, Hausawa and Darmanawa were regrouped for the provision of common utilities and facilities. On the other hand, settlements on the western part of the city such as Dorayi, Danbare and others are

re-located at Dijiya Zaki. Also some scattered settlements around Kirna and Gobirawa were regrouped with the two main settlements in the area (figure 5.10 and 5.20).

(b) Integration

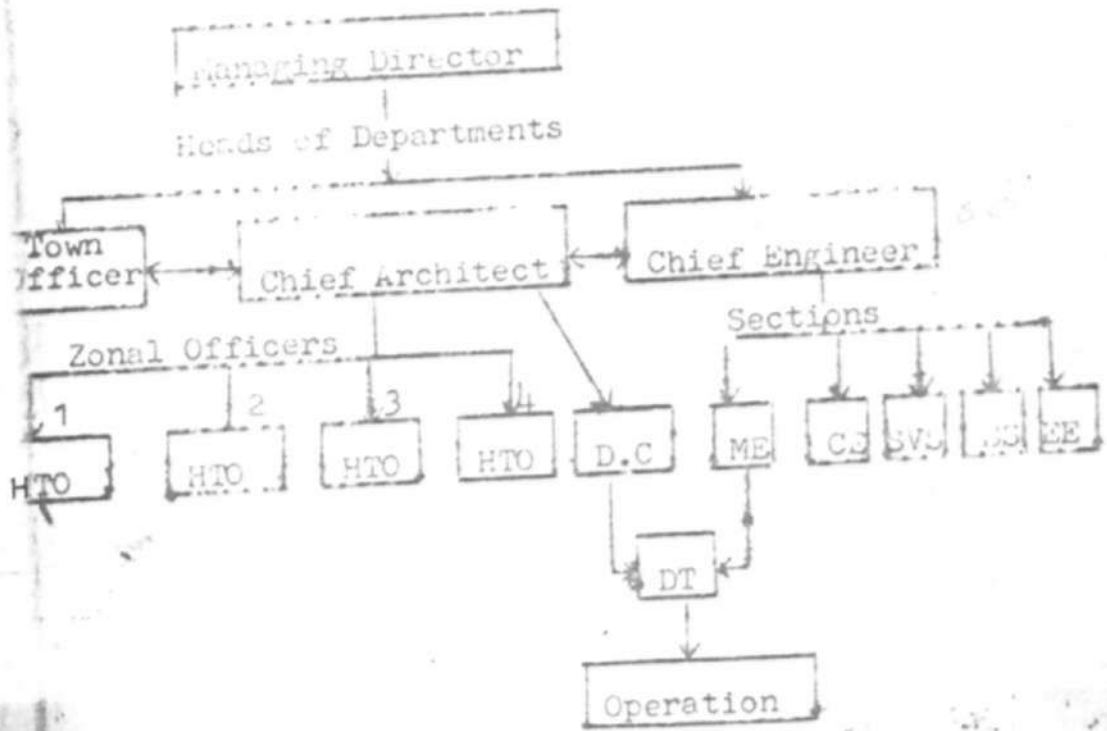
The application of this strategy was madw possible at some of these peripheral settlements like Gobirawa, Kawayi, Unguwa Uku and Hotoro areas. They were integrated with the city and provided with necessary services and facilities (figures 4.00 and 4.10).

5.32 Preventive Strategies

Inorder to implement all the policies and proposals as contained in the 1963-1983 Travelion Master Plan, a comprehensive review of the plan was done. In doing this metropolitan boundary was readjusted to cover an area of 1448 sq. km from the former 530 sq. km earmaked in 1971 (figure 1.50). This was done in order for effective growth of the city and wide area coverage for the planning proposals which is based on 17 year period according to 1983-2000 reviewed Master Plan. With the help of this Master Plan most of the mistakes in the former Trovelion Master Plan were corrected by implementing some of the proposals e.g. Sharada Industrial Layout Phases (I - III).

Also most of the landuse zoning are somehow followed.

However, interms of administrative controls and machineries, the whole metropolis was divided into four development control zones for effective monitoring of development activities in these peripheral areas (Fig. 5.30), and Kano State Urban Development Board was made the sole planning authority responsible to these issues. The zonal division of the metropolis was as follows:- Zone I consists of old city, Fagge, Sabon Gari area, Zone II starts from Zaria Road to Airport, Zone III begins from Airport to Gwarzo Road and Zone IV starts from Gwarzo road to Zaria Road respectively. All development within these zones are to be monitored and controlled with necessary planning tools.



- Higher Technical Officer.
- Demolition Coordinator.
- Mechanical Engineering.
- Civil Engineering.
- Survey Section.
- Sewerage Section.
- Electrical Engineering.
- Demolition Team.

: Administrative Structure for Development Control (KSUDB). Figure 6.50

6.00 PLANNING PROPOSALS AND IMPLEMENTATION POLICIES

For any proposal aimed at alleviating the physical conditions of the study areas to be successful, it must take into account the peculiar locational characteristics of the areas as well as the nature and the extent of their physical planning problems. The proposal must aim at efficiency, acceptability and minimum cost. Therefore, for the proper growth and development of the Metropolitan Kano peripheral areas, so that it can perform its most suitable function the following proposals are made from the selected suitable strategies already discussed in the previous chapters.

6.10 CURATIVE STRATEGIES

As it has been discussed in chapter five, curative measures are planning solutions to the existing situation. They are considered in such a way that will call for the dynamic growth of the metropolis. However, they can be divided into the following groups.

6.11 Regrouping/Relocation

The strategy here is always associated with the displacement of people as a result of other

PLANNING PROPOSALS

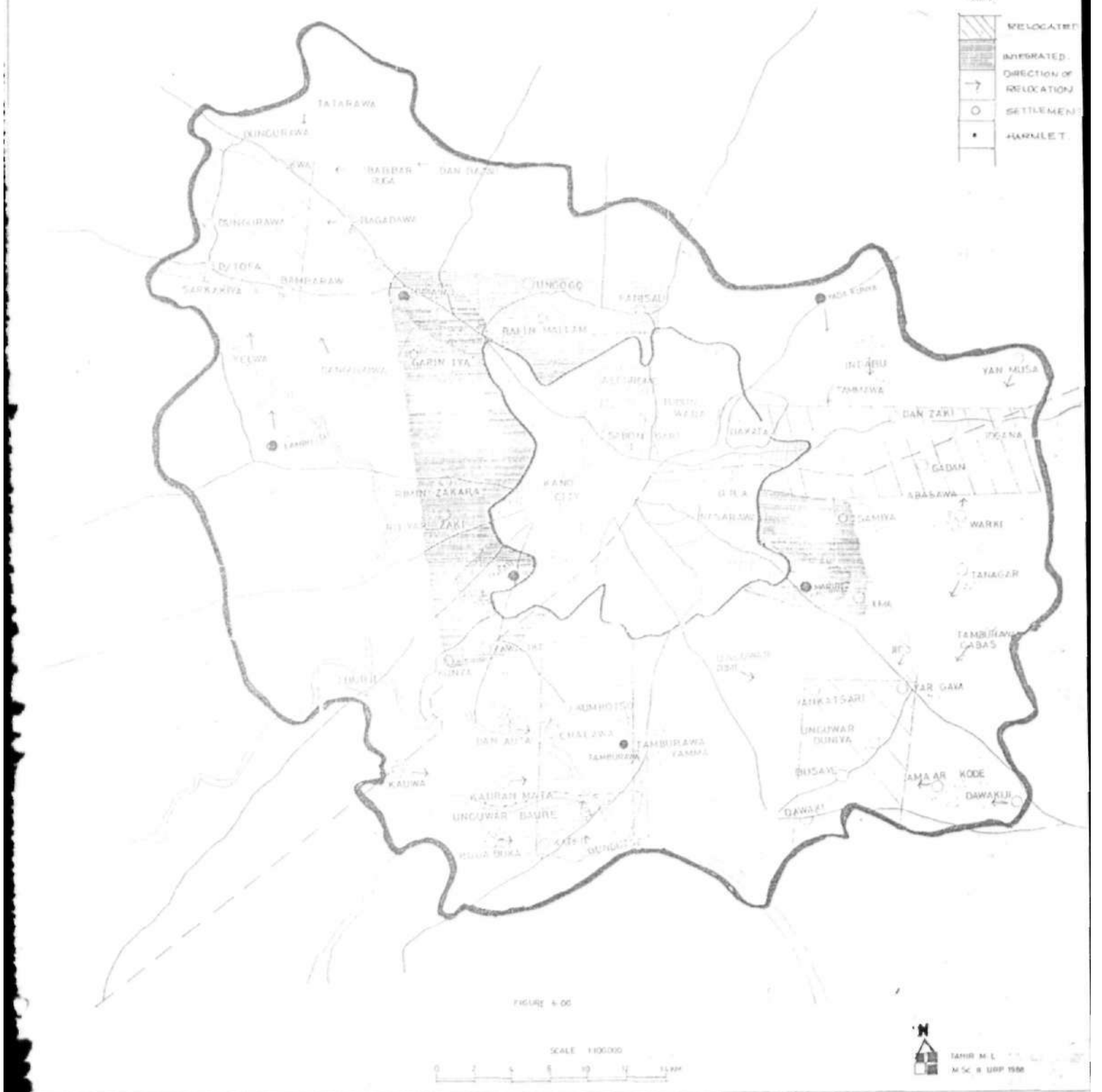


FIGURE 6.05

development projects. It involves the removal of people from one point to another. Therefore, it is being proposed that all the smaller and scattered settlements and those of temporary nature in the metropolitan area should be relocated with larger settlements. For instance, all smaller and scattered settlements around Tanburawa, Dorayi, Lanbu and other places should be relocated with the main settlements mentioned above. Also those ones which are incompatible in their uses are also to be relocated. These are settlements around Challawa, Shorada and Hadejia road areas. They should be provided with the urban services such as utilities and facilities (Fig. 6.10).

6.12 Integration

It is a strategy that involves the physical integration of settlements with the urban expansion. It therefore involves the improvement of the existing situation with the ultimate aim of integrating them with city. Here, therefore it is being proposed that, the whole of Moriri, Dorayi, Dawanau and Gunduwawa should be incorporated into the city (Fig. 6.10). This is because all the settlements mentioned above are very close to the city. This proposals can be achieved through the following suggestions:-

(a) Most of the peripheral settlements in Metropolitan Kano fall outside the area of jurisdiction of Kano Municipal Local Government and as such it has been suggested that the municipal boundary should be realigned to incorporate all the settlements into the municipal area. This would enable proper planning and easier provision of utilities and services.

(b) Survey should be conducted for undeveloped land and the existing developments in these settlements for their improvement.

(c) Planning schemes to guide plan approval for new developments as obtained in the city should be prepared which takes care of integration and relocation measures.

(d) There should be adequate payment of compensation or assignment of new sites in place of demolitions made in the process of implementation of new developments.

(e) It is also being suggested that, all the peripheral settlements in metropolitan Kano should be incorporated into the various planning districts at community level.

6.13 General Recommendations on Curative Measures

Based on the above discussion on both relocation and integration, general recommendations have been outlined below inorder to cure the present situation.

(a) Title to Land

It has been suggested that title to land should be regularised by granting the residents certificate of occupancy. This legal recognition by the government will make individuals to follow planning rules and regulations as well as improving their environment at large. Not only that, all vacant land should be acquired by either Land and Survey Division or Kano State Urban Development Board and designated to specific uses. Also where few incidental open spaces exist can be used for the provision of community facilities.

(b) Road and Drainage

From figures 3.50 to 3.54 on the existing situation of the sample areas, it can be observed that, most of the peripheral settlements in Kano Metropolis have no proper road network or drainage. Therefore inorder to cure the existing situation for the settlements that are integrated with the city or those that are relocated, the existing road network should be improved and where there

is none, a road network should be designed with respect to the existing layout.

However, storm water drainage should be constructed along all roads and access ways. Domestic waste water should be made to flow directly into the drainage along the roads. This can be done by encouraging the residents to use either concrete blocks of pipes in channelling the waste water.

(c) Water and Electricity Supply

From the study, it has been observed that most of the peripheral settlements in Kano Metropolis have inadequate supply of the above (Table 3.80) and where they do exist, their supply is inadequate, and therefore, it has been suggested that, there should be adequate water supply network so that it can be within the reach of all the residents. There should be improvement on the few settlements that have inadequate water supply. Pipes should be laid as close to compounds as possible inorder to facilitate private connections. With this, it is envisaged that all the residents will use pipe borne water.

Thus, it has been pointed out that most of the areas lack electricity supply and with this, inorder to enhance individual house connections, it is being suggested that low voltage lines (LV)

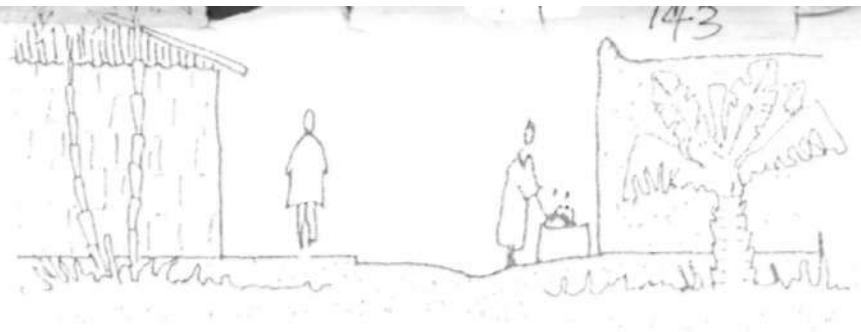
should run along access ways. Activity street lighting should be provided at strategic locations.

(d) Refuse Collection and Disposal

The study of the sampled areas revealed that the refuse collection and disposal systems are in choatic conditions, thus, it is suggested that refuse collection and disposal should also be on the individual and collective efforts of the residents apart from the collection points to be provided by the Municipal Council. In this case, individual households should provide their refuse collection containers as the practice in the city. Sanitary land fill method of refuse disposal should be adapted instead of the usual dumping anywhere (Fig. 6.10).

(e) Health Services

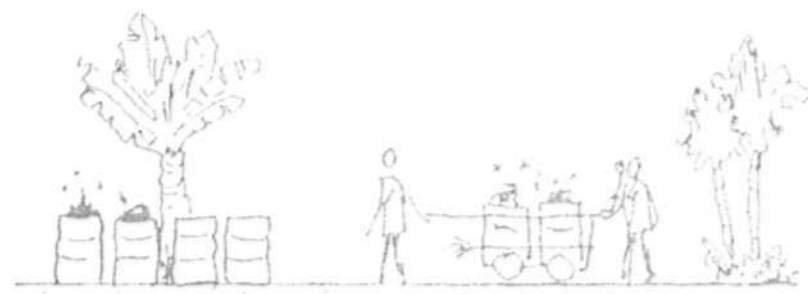
It is recommended that, the State Ministry of Health should build maternity and Child Welfare Clinics in the study areas. This will reduce the hardship encountered by these residents, particularly women as a result of the absence of such services. Therefore, health services should be adequately provided in all the relocated and integrated areas.



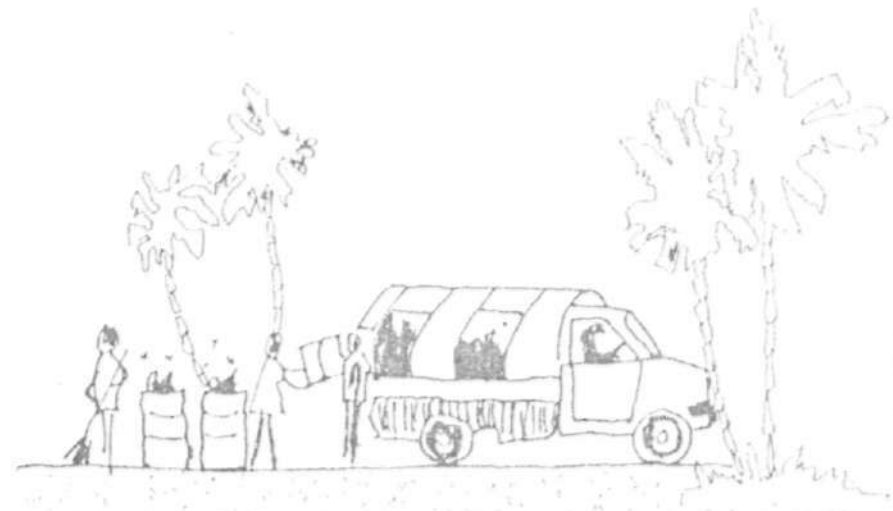
STAGE 1
Compound to bin



STAGE 2
Bin to handcart



STAGE 3
Transfer at vehicle collection poi

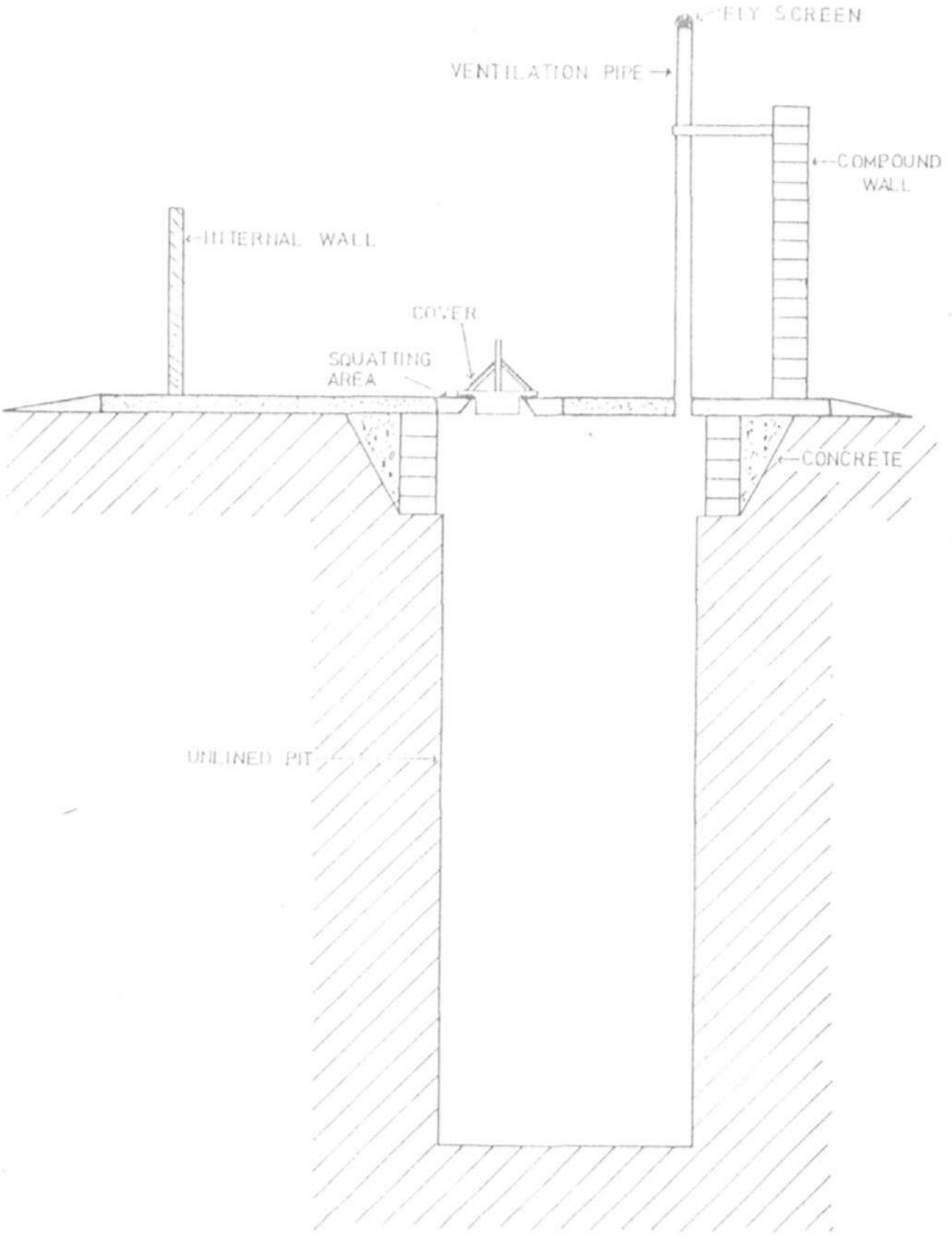


STAGE 4
Transfer to collection vehicle

PROPOSED METHOD OF REFUSE COLLECTION

TAHIR'
M.Sc. URP

FIGURE 6.10



A CONCEPTUAL IMPROVED PIT LATERINE

TAHIR M.L.
M.Sc URP-88

FIGURE 6.20

(f) Public Conveniences and Organised Open Spaces

There should be the provision of public conveniences comprising at least five toilets and bathrooms to stop people from defacting in any available open spaces or uncompleted buildings. Their location should be as close to the main activity areas. There is also the need to create some 'breathing spaces' within the areas. This can be done by utilizing the existing incidental open spaces for such purposes. However, individual pit latrine should be improved as per figure 6.20.

6.20 PREVENTIVE STRATEGIES

It has already been stated that the preventive strategies involve, comprehensive Master Plans, green belt containment, dispersal policy, guided growth strategy as well as policy recommendation. These preventive strategies were meant for the pre-planned cities of the dveloped coutries. As such due to their problems such as functionality, adaptability, cost, acceptability and appropriateness as mentioned in chapter five, their applicability in the study area will meet some problems with the exception of comprehensive Master Plan if properly handled. Therefore, the following preventive strategies have been proposed for the study area.

6.21 Comprehensive Master Plan Strategy (Kano Metropolitan 2000 A.D) Master Plan)

It has been generally observed that the existing landuses in the metropolis contrast markedly with the Master Plan proposals. Some developments were carried out in the areas that have not been proposed for them in the master plan. For instance, the master plan proposes the development of public and semi-public landuses along Katsina Road and west of the City (Fig. 6.30). But what exists now in these area is large scale residential development. Therefore, all the Master Plan proposals with the exception of industrial development have not been complied with. As such, it has been rendered useless and completely ignored in the process of planning the Metropolis. Most of the existing landuses in Kano Metropolis contravene the Metropolitan Kano Master Plan for the year 2000 A.D. Hence, development control at this level is not effective which results in sprawling of settlements in the Metropolis (Fig. 6.40).

However, based on the above, it is being proposed that the prepared Kano Metropolitan 2000 A.D Master Plan should be implemented inorder to take the present development reality into consideration. This should be done by the

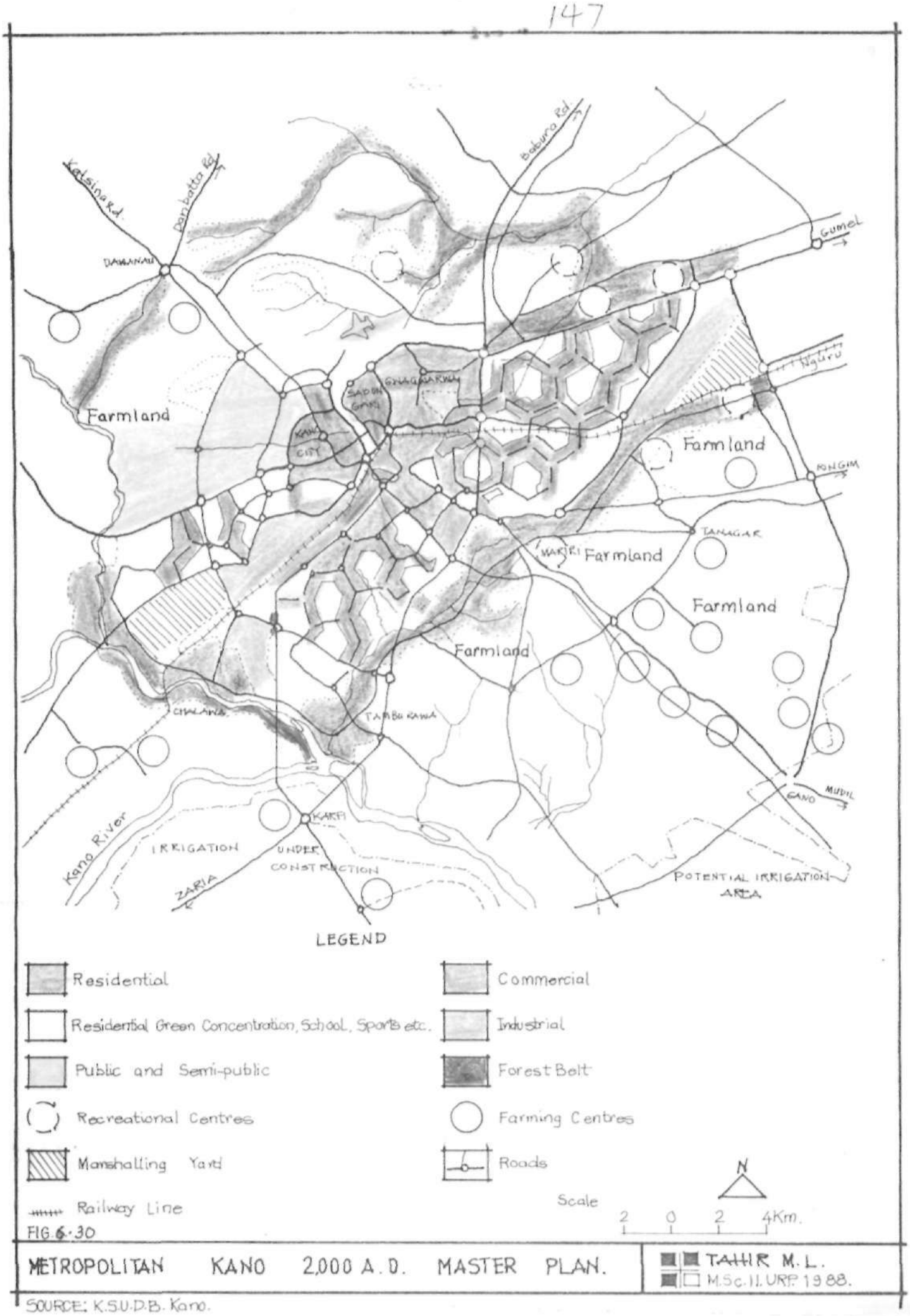


FIG. 6·30

METROPOLITAN KANO 2,000 A.D. MASTER PLAN.

TAHIR M.L.
M.Sc. II. URP. 1988.

SOURCE: K.S.U.D.B. Kano.

the reviewing the Master Plan along with structural plan which is more flexible. There should be also the provision of adequate manpower to implement the proposals and detailed land survey of the whole metropolis.

Moreover, proposed landuse regulations should be clearly stated in the Master Plan. Therefore, the proposed landuse regulations should be operational in the transitional zone as discussed earlier to be reviewed on 5 yearly basis. Therefore, for an orderly development, the following landuses are proposed for the Master Plan to be implemented. The uses are agricultural, organised open space areas, public and semi-public use and future residential, commercial and industrial uses respectively, as discussed below:-

(a) Agricultural Use

The agricultural use are meant for the areas which are purely devoted to intensive cultivation and of temporary nature. Therefore, the following proposals are made:-

(i) There should be a thorough demarcation of the boundary between this zone and other parts of the transitional area.

(ii) The area should be devoted to the cultivation of food crops and vegetables.

(iii) Agricultural pratices can be zoned in response to varying conditions for maximum result.

(iv) There should be rules and regulations prohibiting unauthorised felling of trees or other types of misuse of resources on the land.

(v) Clear peripheral control laws should be made possible to avoid loopholes which may result in the distortion of things. The following are some of the possible regulations suggested.

Uses Permitted

- Agriculture, Forestry and Horticulture.
- Poultry and Crop farming.
- Farm houses on plots of land no less than 0.25 hectares in size.
- Warehousing storage and eports for non-perishable commodities.

Uses Permissible if Approved by U.D.D.

- Preliminary processing and sale of farm products on the property where produced.
- Farm products storage facilities.
- Servicing and repair of farm machinery.

Uses Prohibited

- All the uses not specifically permitted in the two sections earlier defined.

(b) Organised Open Space Areas

The areas under this section should be purely devoted to parks, play fields and natural landscapes. Therefore the following set of regulations are proposed for these areas:

(i) Felling of trees should be prohibited.

(ii) There should be regulations prohibiting bush burning in this area.

(iii) Emphasis should be on the organisation of parks, gardens, play fields for various categories of people and preservation of natural landscaping.

Uses Permitted

- Parks, stadium, playground and parkways.
- Special recreational areas and natural parking areas.
- Bush stand and car parking.

Uses Permitted if Approved by U.D.B.

- Cinemas, out-door theatres, restaurants and selling of eatables.
- Incidental uses should be clearly recreational uses.

Uses Prohibited

All uses not permitted above.

(c) Public and Semi-Public Use

Uses Permitted

- Educational Institutions.
- Religious Institutions.
- Social and Cultural Institutions and manuments.
- Health facilities.
- Community facilities, public utilities, services and buildings.
- Recreational buildings.

Uses Permitted if Approved by U.D.B.

- Residences and other incidental uses.

Uses Prohibited

All uses not specifically permitted above.

(d) Future Residential, Commercial, Industrial Uses

For the zones specifically designated for future residential, commercial and industrial purposes, the following proposals are made for these areas:-

(i) The boundary between each zone should be defined.

(ii) Site plan and plot layout should be made for each zone.

(iii) Necessary infrastructure and facilities should be provided for these areas.

(iv) There should be no development to be allowed without approval from the Kano State Urban Development Board (U.D.B.).

However, the proposals mentioned above should be in accordance with the present landuse zones of Metropolitan Kano. These proposals are in line with Kano Master Plan.

6.30 GENERAL PROPOSALS/RECOMMENDATIONS ON PREVENTIVE MEASURES

6.31 Housing:

From the study, it has been discovered that shortage of affordable houses has been identified as a factor responsible for urban peripheral growth in Metropolitan Kano. For this it is proposed that the site and services programme be adapted and implemented within the framework of the National Housing Policy. This in view of the fact that the present housing does not favour the low income group who form the majority of residents in the periphery within Kano Metropolis.

6.32 Boundary Realignment

The administrative boundary of municipal Local Government (Fig. 1.20) should be realigned to include not only newly absorbed settlements but also all other areas within the metropolis.

6.33 Land Acquisition

Under this we can see that, the existing land acquisition procedure should be made simple so as to increase the chance of the low income group of acquiring land within a reasonable cost. For example, land application forms should be made available to anybody on request instead of the existing practice where only the Director General for land issues them. The non refundable fee of ₦120.00 should also be reduced to an amount that is witain the reach of the less priviledge people. Also 60% of the allocations must always be reserved for the low income group. If this is achieve, it will drastically reduce the growth of these peripheral settlements.

6.34 Demarcation of City Boundary

The extent of the built up area of the city should always be demarcated from the remaining part of the peripheral area which will constitute the transitional zone. This should be reviewed on 5-yearly basis.

6.35 Development Control

For effective growth and development of Metropolitan Kano, it is being recommended that every piece of land in the metropolis should be

under strict control by the Kano State Urban Development. To this effect the present development control zones (Fig. 5.40) should be fully be operational with adequate staff and other development control equipments. Also, coordination between the various government establishments involved in land development like the Ministries of Education, Works and Housing, Industry and Commerce among others should be enhanced. Not only that, the conflict between the Local Government Councils in the Metropolitan Kano (Fig. 1.20) and the Urban Development Board be resolved for effective monitoring of land development in Kano.

6 3.36 Rules and Regulations

There should be a published rules and regulations to control this area for proper development just like the rules being applied to buildings.

Planning standards for land development should be revised to reflect the peoples' socio-cultural backgrounds, their economic status and the level of building technology. The standards should be flexible enough as to allow people to design and build what they want as long as proper ventilation, setback, building height, orientation among others. Efforts should

be made towards promoting local materials and traditional building techniques.

6.37 Land Acquisition

For effective control of haphazard development in peripheral areas in Kano Metropolis, land acquisition should be made easy for developers inorder to forestall land speculation and illegal sale of land which is commonly known by the people as (AWON IGIYA). If land is made available to the less priviledge people, the growth of this haphazard areas will be limited.

6.40 OTHER PROPOSALS

It is suggested here that, a review of the proposals already made in this study should be carried out frequently inorder to ascertain those that would need amendments as a result of charging circumstances. Hence, if these few proposals are considered, it is hoped that control of growth of peripheral settlements in Metropolitan Kano will be more effective.

6.50 IMPLEMENTATION POLICIES

The most important aspect of plans is its implementation. For a successful implementation of the proposals, there must be a body which will be responsible for the coordination of the activities

of other afencies involved in the programme. Therefore, no matter how laudable a plan might be if the apparatus for its implementation is not there, the aim of the progrmme will not be achieved. As such, the following proposals are made for the implementation of the stated proposals.

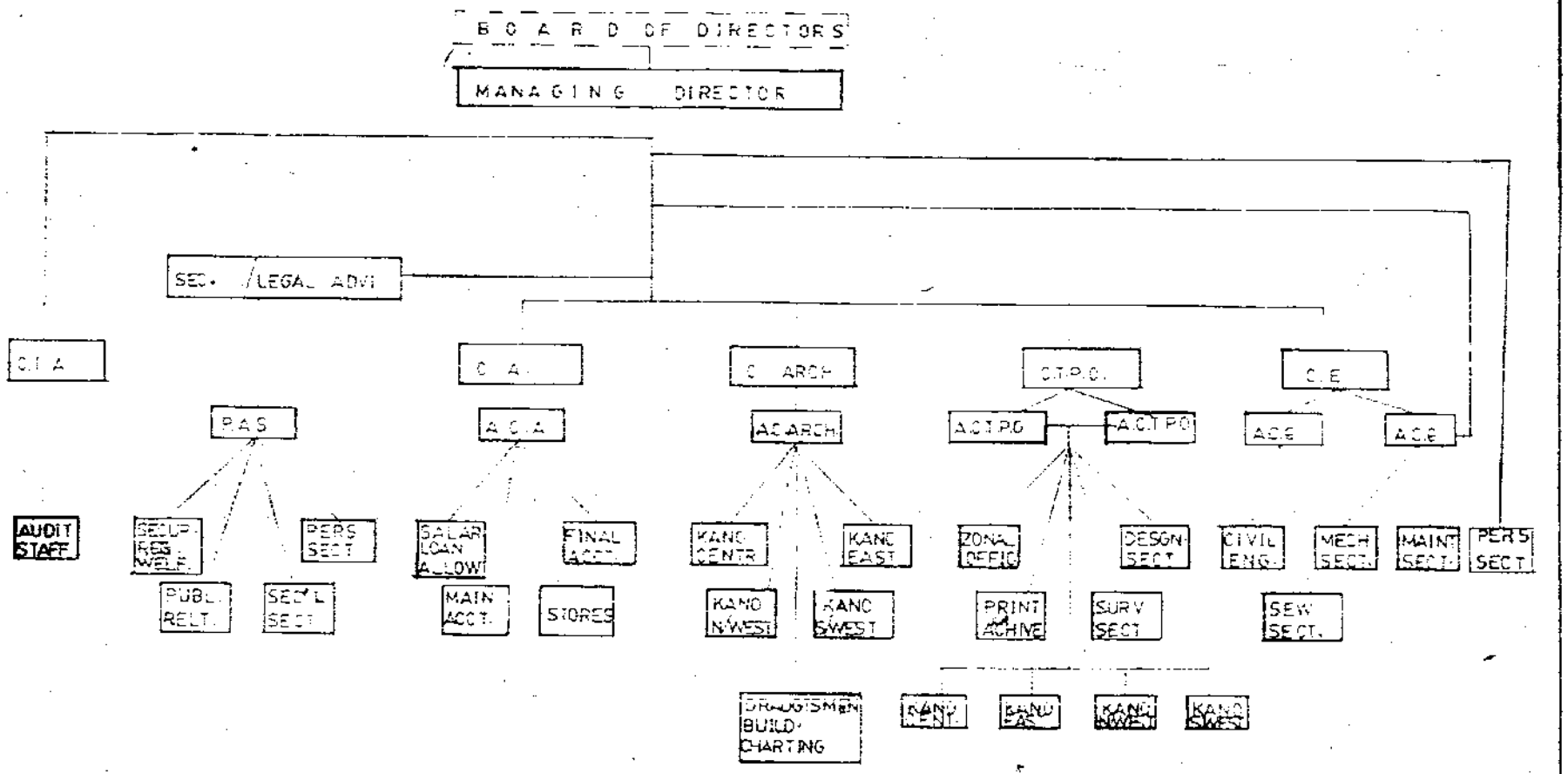
6.51 Administrative Framework

Plans preperation, approval and implementation for the growth and development of Metropolitan Kano should be the responsibility of Kano State Urban Development in conjunction with other bodies and agencies. These bodies and agencies are Municipal Local Government Council, State and Federal Ministries of Works and Housing, State Ministries of Health and Lands and Survey. Others include National Electric Power Authority (NEPA), Water Resources and Engineering Construction Agency (WRECA) and the affected residents. Their functions should be specified so that duplication of function can be avoided and where such occurs the agency responsible can be easily identified. Therefore, the functions of all these bodies and agencies in the implementation process are being enumerated in the following.

1. Kano State Urban Development Board (KSUDB).
   (a) Coordinates the activities of other agencies.
   (b) Development control.

KANO STATE URBAN DEVELOPMENT BOARD

(ORGANISATIONAL CHART 1988)



CTPO CHIEF TOWN PLANNING OFFICER
CARCH CHIEF ARCHITECT
C E CHIEF ENGINEER
C A CHIEF ACCOUNTANT
CIA CHIEF INTERNAL AUDITOR
PAS PRINCIPAL ASSISTANT SECRETARY

FIGURE 6.60

SOURCE UDB KANO

(c) Payment of compensation.

(d) Planning and Finance.

2. Kano Municipal Local Government

(a) Refuse collection and Disposal.

(b) Construction of Markets.

(c) Daily maintainance of drainage.

(d) Construction of public conveniencies.

(e) Construction and maintainance of educational institutions.

3. Ministry of Lands and Survey

(a) Undertakes survey of area and prepares survey briefs.

(b) Provides land.

4. Ministry of Works and Housing

(a) Construction of model houses in the site and services area.

(b) Provides technical advice with regards to house construction.

(c) Liasons with Federal Ministry of Works and Housing.

5. Fedoral Ministry of Works and Housing

(a) To facilitate the provision of mortage to individuals.

(b) To provide expert advice on the execution of site/services programme.

6. Ministry of Health

(a) Construction of clinics.

(b) Staffing and management of health establishments.

7. NEPA and WRECA

(a) Extention of electricity and water lines respectively.

(b) Maintainance.

(c) Bill collection.

Therefore, after defining the functions of various participating body mentioned above, any action that falls short of projected result can easily be identified. In this case Kano State Urban Development Board occupies a central position in this exercise and forms a link between all the participating bodies. This process will help avoid conflict and functional interference between the various ministries and the Board (UDB). Therefore for an orderly growth of Metropolitan Kano and controlling haphazard development the following administrative structure for development control have been proposed, for Kano State Urban Development Board.

6.52 Financial Implementation Policy

Financial problem is one of the major constraints for plan implementation. All the recommendations made cannot be adequately implemented without a strong financial support. In view of this, it becomes necessary to specify the sources of fund to be used in the implementation of the proposals. These sources are:-

(a) Kanon State Government

It will be the main source of finance and its involvement will be through subventions to the main implementation body i.e Urban Development Board and to the other agencies identified to have roles to play in the exercise. The State Government also guarantees loan agreements between banks and the Urban Development Board.

(b) Urban Development Board (U.D.B.).

It is the body responsible for the implementation and its source of finance will be subventions from State Government, loans and development charges.

(c) Municipal Council

This council realises alot of money from rents and levies and part of the money is expected to be earmarked to the project.

(d) Federal Government

Its involvement will be through grants to NEPA and facilitating Mortgage loans to private developers.

(e) Individuals

This will be in form of individual and community contributions. Money may however be realised by charging the individuals on services rendered.

6.53 Phasing Policy

For effective implementation of the proposals, all the Master Plan programmes should be implemented in phases so as to make the project viable and cope with the government financial stand. Here the propose phasing should be based on the financial position of the government. A certain number of Master Plan proposals should be earmarked by the government for implementation. For effective implementation, a two-year phasing programme has been suggested because of the present Structural Adjustment Programme (SAP) being experienced in the country.

6.54 Social Policy

(a) Public Enlightenement

Before preparing, approving and implementing any plan, the KSUD should embark on programmes

to enlighten the public on the importance planning in general. This may involve the use of all forms of communication media including the local leaders whom the people respect.

(b) Public Participation

The Board should encourage public participation in all planning issues, whenever implementing them. The participation of the public will assist the Board in enforcing development control effectively in the metropolis.

6.60 CONCLUSION

The foregone chapters have revealed the various factors, processes and patterns influencing urban peripheral growth in Kano Metropolis. The Planning problems of this growth have been identified, although it is universal in nature, but it tends to be more serious in cities of the Third World countries. In Nigeria's cities generally and Kano in particular, these problems of peripheral growth are very likely to continue unchecked until a more positive approach is adopted towards understanding the needs of the urban poor and solving them.

A case has also been made for the need to evolve an effective planning strategies inorder

to ensure the orderly growth and development of Kano Metropolis. These strategies are both curative and preventive measures, which are carried at solving the existing situation as well as to stop the re-occurence of the problems respectively.

However, the solutions proposed in this study are also both preventive and curative, but much will depend on implementation. To achieve the above objectives, a workable administrative framework has been suggested for its implementation. Kano State Urban Development, shall be the sole agent responsible for planning and development control in Metropolitan Kano in conjunction with other bodies and agencies concerned. But this cannot be achieved until an effective implementaion machinery is set up backed with necessary legal, administrative and financial powers, the existing problems cannot be cured and prevented and its future occurence cannot be predicted.

Moreover, for an orderly development of Metropolitan Kano and also to reduce the over concentration of people in one area, job opportunity should be tied down to provision of accommodation. Also, because of high rate of rural-urban migration in the State, regional planning strategy should be in form of rural development with necessary infrastructure and services, which will provide the rural people with job opportunities.

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APPENDIX I

DEPARTMENT OF URBAN AND REGIONAL PLANNING,
FACULTY OF ENVIRONMENTAL DESIGN,
AHMADU BELLO UNIVERSITY, ZARIA - NIGERIA.

HOUSEHOLD SURVEY QUESTIONNAIRE OF SOURCE
SELECTED PARTS OF KANO METROPOLITAN AREA

INTRODUCTION

I am a post-graduate student from the above University. I am presently undertaking a survey of developments around Kano Metropolis. I should be grateful if you would answer these questions. All informations shll be kept fonfidential as they are purely for accademic exercise.

1. Settlement .....
2. Age: Male/Female .....
3. Age .....
4. Tribe .....
5. Religion .....
6. Education: Primary/Secondary/Post Secondary/None.
7. Occupation.....
8. Employmet .....
9. Average income per month .....
10. Plae of work .....
11. By what means do you go to work? .....
12. From what part of Nigeris do you come from? .....
13. Your home domicile .....
14. Why do you choose to come to Kano? .....
15. Why do you choose to live in this area? .....
16. How long have you lived here? .....
17. Type of house you live in .....
18. Age of the house.....

19. Use of the house Commercial .... Residential ... Industrial ... Others (specify) .....

20. Condition of the house Permanent .... Temporary .....

21. Do you own the house in which you live? .....

22. History of plot on which the house is built Owner inherited .... Leased to owner/bought ... Others (Please specify) .....

23. Who leased the house to you? Government..... Traditional Head ..... Others (Please specify) .....

24 How much did you pay for the plot? .....

25. What is the size of the plot in which the house is built? .....

27. Type of toilet use .....

28. How do you dispose your refuse? .....

29. What is the recreational facilities provided in this area? .....

30. Other facilities in the area

(a) Primary School

(b) Secondary School

(c) Court

(d) Police Post

(e) Post Office

(f) Others (Please specify) .....

(h) None .....

APPENDIX - II

KANO STATE LEGAL NOTICE No. 16 of 1987

THE LAND USE ACT 1978 (No. 6 of 1978)
THE LAND USE (DESIGNATION OF URBAN AREAS)
ORDER 1987

In exercise of the powers conferred upon me by Section 3 of the Land Use Act 1978 and of all powers enabling me in that behalf, I Wing Commander Mohammed Ndatsu Umaru, Military Governor of Kano State of Nigeria, hereby make the following order:

1. This order may be cited as the Land Use (Designation of Urban Areas) order 1987 and shall come into operation on the 19 day of February, 1987. (Citation and Commencement).

2. The towns specified in the schedule of this order are hereby designated as Urban Areas in the State for the purpose of the Land Use Act 1978. (Designation of Urban Areas (Section 3 of the Land Use Act 1978).

SCHEDULE (Paragraph)

Areas designated as the Urban Areas of the Kano State of Nigeria;

1. Babura

All areas covering 10 kilometre radius from the centre of BABURA TOWN, detailed description of which is shown on the survey plan of the area deposited in the office of the Surveyor-General of Kano State

2. Bichi

All areas covering 10 Kilometre radius from the centre of BICHI TOWN, detailed description of which is shown on the survey plan of the area deposited in the office of the Surveyor-General of Kano State.

3. BIRNIN KUDU

All areas covering 10 kilometre radius from the centre of BIRNIN KUDU TOWN, detailed description of which is shown on the survey plan of the area deposite deposited in the office of the Surveyor-General of Kano State.

4. BIRNIWA

All areas covering 10 kilometre radius from the centre of BIRNIWA TOWN, detailed description of which is shown on the survey plan of the area deposited in the office of the Surveyor-General of Kano State.

5. DANBATTA

All areas covering 10 kilometre radius from the centre of DANBATTA TOWN, detailed description of which is

shown on the survey plan of the area deposited in the Office of the Surveyor-General of Kano State.

6. Dawakin Kudu

All areas covering 10 kilometre radius from the centre of DAWAKIN KUDU TOWN, detailed description of which is shown on the survey plan of the area deposited in the Office of the Surveyor-General of Kano State.

7. Dawakin Tofa

All areas covering 10 kilometre radius from the centre of DAWAKIN TOFA TOWN, detailed description of which is shown on the survey plan of the area deposited in the Office of the Surveyor-General of Kano State.

8. Dutse

All areas covering 10 kilometre radius from the centre of DUTSE TOWN, detailed description of which is shown on the survey plan of the area deposited in the Office of the Surveyor-General of Kano State.

9. Gaya

All areas covering 10 kilometre radius from the centre of GUMA TOWN, detailed description of which is shown o on the survey plan of the area deposited in the Office of the Surveyor-General of Kano State.

10. Gezawa

All areas covering 10 kilometre radius from the centre of GEZAWA TOWN, detailed description of which is shown on the survey plan of the area deposited in the Office of the Surveyor-General of Kano State.

11. Gumel

All areas covering 10 kilometre radius from the centre of GUMEL TOWN, detailed description of which is shown on the survey plan of the area deposited in the Office of the Surveyor-General of Kano State.

12. GWARAM

All areas covering 10 kilometre radius from the centre of GWARAM TOWN, detailed description of which is shown on the survey plan of the area deposited in the Office of the Surveyor-General of Kano State

13. GWARZO

All areas covering 10 kilometre radius from the centre of GWARZO TOWN, detailed description of which is shown on the survey plan of the area deposited in the Office of the Surveyor-General of Kano State.

14. Hadejia

All areas covering 10 kilometre radius from the centre of HADEJIA TOWN, detailed description of which is shown on the survey plan of the area deposited in the Office of the Surveyor-General of Kano State.

15. Jahun

All areas covering 10 kilimetre radius from the centre of JAHUN TOWN, detailed description of which is shown on the survey plan of the area deposited in the Office of the Surveyor-General of Kano State.

16. Kafin Hausa

All areas convering 10 kilometre radius from the centrr of KAFIN HAUSA TOWN, detailed description of which is shown on the survey plan of the area deposited in the Office of the Surveyor-General of Kano State.

17. Kafin Maiyaki

All areas covering 10 kilometre radius from the centre of KAFIN MAIYAKI TOWN, detailed description of which is shown on the survey plan of the area deposited in the Office of the Surveyor-General of Kano State.

18. Karaye

All areas covering 10 kilometre radius from centre of KARAYE TOWN, detailed description of which is shown on the survey plan of the area deposited in the Office of the Surveyor-General of Kano State.

19. Kazaure

All areas covering 10 kilometre radius from the centre of KAZAURE TOWN, detailed description of which is shown on the survey plan of the area deposited in the Office of the Surveyor-General of Kano State.

20. Kura

All areas covering 10 kilometre radius from the centre of KURA TOWN, detailed description of which is shown on the survey plan of the area deposited in the office of the urveyor General of Kano State.

21. Maigatari

All areas covering 10 kilometre radius from the centre of MAIGATARI TOWN, detailed description of which is shown on the survey plan of the area deposited in the Office of the Surveyor-General of Kano State.

22. Malam Madori

All areas covering 10 kilometre radius from the centre of MALAM MADORI, detailed description of which is shown on the survey plan of the area deposited in the Office of the Surveyor-General of Kano State.

23. Metropolitan Kano

All the areas covering;

i. the entire Municipal Local Government Council;

ii. the entire Kumbotso District of Dawakin Kudu Local Government;

iii. the entire District of Ungogo in the Minjibir Local Government;

iv. parts of Rimin Gado and Dawakin Tofa Districts of Dawakin Tofa Local Government;

v. arts of Gezawa District of Gezawa Local Government;

vi. parts of Kura District in Rano Local Government.

The detailed description of which is shown on a survey plan of the area deposited in the Office of the Surveyor-General of Kano State.

24. Minjibir

All areas covering 10 kilometre radius from the centre of MINJIBIR TOWN, detailed description of which is shown on a survey plan of the area deposited in the Office of the Surveyor-General of Kano State.

25. Rano

All areas covering 10 kilometre radius from the centre of RANO TOWN, detailed description of which is shown on a survey plan of the area deposited in the Office of the Surveyor-General of Kano State.

26. Ringim

All areas covering 10 kilometre radius from the centre of RINGIM TOWN, detailed description of which is shown on the survey plan of the area deposited in the Office of the Surveyor-General of Kano State.

27. Sumaila

All areas covering 10 kilometre radius from the centre of SUMAILA TOWN, detailed description of which is shown

on the survey plan of the area deposited in the Office of the Surveyor-General of Kano State.

28. Tudun Wada

All areas covering 10 kilometre radius from the centre of TUDUN WADA TOWN, detailed description of which is shown on the survey plan of the area deposited in the Office of the Surveyor-General of Kano State.

29. Wudil

All areas covering 10 kilometre radius from the centre of WUDIL TOWN, detailed description of which is shown on the survey plan of the area deposited in the Office of the Surveyor-General of Kano State.

MADE AT KANO this 19 day of February, 1987.

Wing Commander Mohammed N. Umaru,
Military Governor,
Kano State of Nigeria.