PLANNING OF URBAN MARKETS: A STUDY OF THE PHYSICAL CHARACTERISTICS OF MARKETS IN KANO METROPOLIS AND PLANNING PROPOSALS

By

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A Thesis submitted to the postgraduate school, Ahmadu Bello University, Zaria, Nigeria in partial fulfilment of the requirements for the Award of a Master of Science Degree in urban and Regional planning

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NOVEMBER, 1990

DECLARATION

I hereby declare that this work "Planning of Urban Markets; A Study of the Physical Characteristics of Markets in Kano Metropolis and Planning Proposals" has been written by me and that it is a record of my own research work. It has never been presented in any previous application for a higher degree. All information obtained from literature are clearly acknowledged in the bibliography.

....

S I G N A T U R E D a t e

CERTIFICATION

This thesis entitled: "PLANNING AND URBAN MARKETS: A Study of the Physical Characteristics of Markets in Kano Metropolis and Planning Proposals" by Dangora, I. W. meet the regulations governing the aware of the degree of Masters of Science (U.R.P) of Ahmadu Bello University and is approved for its contribution to knowledge and literary presentation.

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DEDICATION

This Work is Dedicated to My Late Friend

SHEHU TUKUR DOMA

who died in the course of pursuing a Post Graduate Degree in Urban and Regional Planning - May his Soul Rest in Perfect Peace - AMEEN!

ACKNOWLEDGEMENT

All thanks to Allah Subhanahu Wata'ala for according me the opportunity, guidance, good state of mind, health and courage to persevere through all hardships to fulfil all expectations of the course.

The writer is indebted to maltitude personalities who cannot all together be mentioned here. However, a mention of some few persons and organizations who made prominent contribution is inevitable.

Thanks are due and most gratefully offered to the Head of Urban and Regional Planning Department, Ahmadu Bello University, Zaria, Mallam I. D. Suleiman for the moral courage he offered to me right from the day I joined the Department. Prominent contributions made by my two supervisors viz; Mr. G. P. Khanna and Mallam Ma'aruf Sani are noteworthy. In fact theirs is that of path finding, guidance through the rough route and persistent leadership to the end of this work, especially having sacrificed much of their leisure hours to read the manuscripts. I also wish to express my sincere gratitude to Dr. J. B. Kaltho, Dr. J. O. Popoola of the Department of Urban and Regional Planning, Ahmadu Bello University, Zaria and Dr. D. Ariyo

Dr. D. Ariyo of the Department of Geography, Ahmadu Bello University, Zaria. I wish to thank the Kantin Survey Company for accepting my reductions at reduced prices and the Kano State Government for the sponsorship accorded me.

Mention can also not be forgotten of the following persons: Mrs. Altine Mohammed Ja'afar, Mukhtar D. Ja'afar, Abba U. Ja'afar, Ahmed ado Daneji, Hauwa Ali and many other friends and well wishers.

--- Dangora, I. W.
1990.

A B S T R A C T

The issue of market planning is not that of structural detereoration alone, neither is it that of sole locational insuitability. Rather it is a hydra-headed problem that can only be comprehended through an indepth study of **all** existing markets collectively. This unvails the short comings encompassed by interractions between all existing markets, and between them and other land uses particularly residential and productive, e.g., industrial and agricultural. These apart, there are also the internal problems that create mulfunctions in individual market. In-other-words, market study is that of spacio-physical issues that covers the spatial characteristics of markets in relation to their patronage areas and also the internal and structural morphological set ups.

With respect to the first issue, i.e., the spatial characteristics, it is of relevance to study markets' location thereby giving due considerations to distances covered by customers to patronize them. Within one particular town, it is these distances from customers' residences to the different levels of markets, particularly town, community and neighbourhood serving

markets, that influence customer patronage. Regional market mostly offering single commodity are visited from whatever distance because of cheapness of goods or of the fact that they remain the only markets offering such goods. Similar study is done of all markets in Kano township.

The second part undertakes detail study of the internal characteristics of markets in Kano township and from it was discovered that of all the existing market, one has serious physical and structural problems. It is for this market that planning solutions are recommended.

In short nine markets are considered in solving the problem of distant patronage based on the locational characteristics of the existing markets. Also a preservation method is used for the improvement of the internal physical condition of Kurmi market in contrast to the very expensive redevelopment strategy.

_____DANGORA, I. W.

1990

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CHAPTER - ONE

INTRODUCTION

1.10 GENERAL INTRODUCTION

Market places like all other fields of human endeavour form an important institution of human socio-economic activities which have regional, sub-regional, intra-city and internal spatial impression. They do not constitute the whole spatial components since they exist in close integral relationships with other landuses as residential, industrial and other work places.

To maintain these relationships between markets and other landuses, it is necessary to ensure that their locations are made quite closer depending on the intensity of interractions between markets and any particular landuse. For this reason, markets should be as close as possible to residences, than to recreational areas, industries, etc. This is to make them locationaly accessible to their major sources of patronages.

Apart from locational accessibility, markets should be easily accessible in terms of network of linkages to their potential and real patronage. This will enhance their trade volume and in turn raise their turn over.

Thirdly and equally important too is the internal nature of markets as regards congestion, circulation, provision of essential facilities, utilities and services, building conditions, landuses and commodity zoning. These put together must be in organized and standardized shape to make trading easier.

It is only with the proper planning of markets at these three stages that convinience can be achieved.

1.20 STATEMENT OF PROBLEM

Markets are associated with numerous problems. The less understood among these problems is that of its locational accessibility to the people it serves. Other problems pertains to the internal characteristics of the market which in one way or the other affects its functional performances.

The locational characteristics of markets in Kano metropolitan area is such that some areas have market at an easy and close reach while people from other areas have to cover much longer distances to procure items of everyday use. This clearly highlights the fact that the distribution of markets within the metropolis is faulty bringing about over concentration of markets in some places and creating their absence somewhere else.

The internal characteristics of markets in Kano metropolis with regards to landuses, building condition and the provision of essential facilities such as parking spaces, loading and unloading, circulation and toilets is quite inadequate. The provision of utilities as water and electricity is also inadequate, likewise the provision of other services needs to be improved.

1.30 JUSTIFICATION OF THE STUDY

Kano township has its over five million people s spread over nook and corners of the sprawling settlements that come together to form what is today known as Kano town. These people are spread over the urban scape in a dense population concentrations of the Walled City, Sabon-Gari, Tudun-Wada, Fagge, Gandu, the Government Reserve Quarters (G.R.A), Hotoro, Tarauni and the recently engulfed settlements at Tudun-Fulani, Tudun-Murtala, Dakata, Yankaba, Sheka, Bachirawa and Dawanau only to mention but few.

As a reknown commercial and business centre, Kano serves the shopping needs of these concentrations through its numerous markets which like their serving population are also spread within and at the peripheries of these residential quarters, thereby, making them easily accessible to their customers. However, in some

places of the township there are some problems of distribution associated with these markets. This is conspicously seen in areas recently populated within and outside the Walled City. And it is even more glaring in those places whose residents have to travel for quite a long distance to obtain some daily essential goods offered in some distant places.

Secondly, within the existing markets, there are various problems of inadequacy or even complete absence of required facilities, utilities and services, and more importantly the problem of congestion caused by either rowdy development or concentration of market stalls. Infact it is not uncommon to observe the side effects congestion, faulty location and inadequate market space all coming together to compound the problem of ineffective market activities.

For all the outlined issues, it becomes highly justifiable to attempt evolving an effective distribution of market places and also to suggest changes in the physical characteristics of existing markets.

1.40 AIM

To study the locational and physical characteristics of markets in Kano metropolis with a view to recommending planning proposals for market development.

1.41 OBJECTIVES

The aim outlined above is to be achieved through the following objectives:

i. To discuss the roles of economic forces and the need for physical planning in the Development of markets.

ii. To examine the locational and physical characteristics of urban markets in Nigeria.

iii. To analyse the locational and physical characteristics of markets in Kano metropolis.

iv. To review locational as well as design concepts and standards for urban markets' development.

v. To make physical planning proposals for market development using selected concepts and standards.

vi. To make recommendations for effective implementation of the proposals.

1.50 SCOPE AND LIMITATION

This work intends studying the physical characteristics of markets in Kano metropolis with particular reference to markets within Kano township. Moreover, special attention is intended to be given to general goods markets.

This work does not intend covering such commercial establishments as local or corner shops, shopping street, departmental stores and super markets.

1.60 METHODOLOGY

1.61 DATA COLLECTION

Data for the study was collected in the following ways:

(a) Observation

(b) Secondary Sources

(c) Primary Sources

1.61.1 Observation

Personal survey of existing market places was undertaken so as to study various aspects of the physical characteristics of these markets as it pertains to their internal morphologies and the characteristics of their immediate surroundings.

From this source evolved the data on the characteristics of stalls, the pattern of internal circulation and network of linkages that connect the markets to other places. Other relevant information that emerged includes the landuse structure and type and zonation of commodities in the markets.

1.61.2 Primary Sources

Both formal and informal questionnaires were administered to market administrators, traders and customers.

This technique revealed information on such issues as the total number of stalls in each of the markets, the customer's places of origin and of course the distance covered to patronize such market. Other useful information obtained are with regards to total purchases made by customers and number of customers received by traders daily.

1.61.3 Secondary Sources

Review of relevant literature has become necessary so as to obtain the theoretical background of the work. From this review of useful literature done is solely to understand the locational characteristics of markets in relation to their patronage areas and the physical characteristics of markets as regards the nature of stalls, circulation, parking and other related space-based facilities and services.

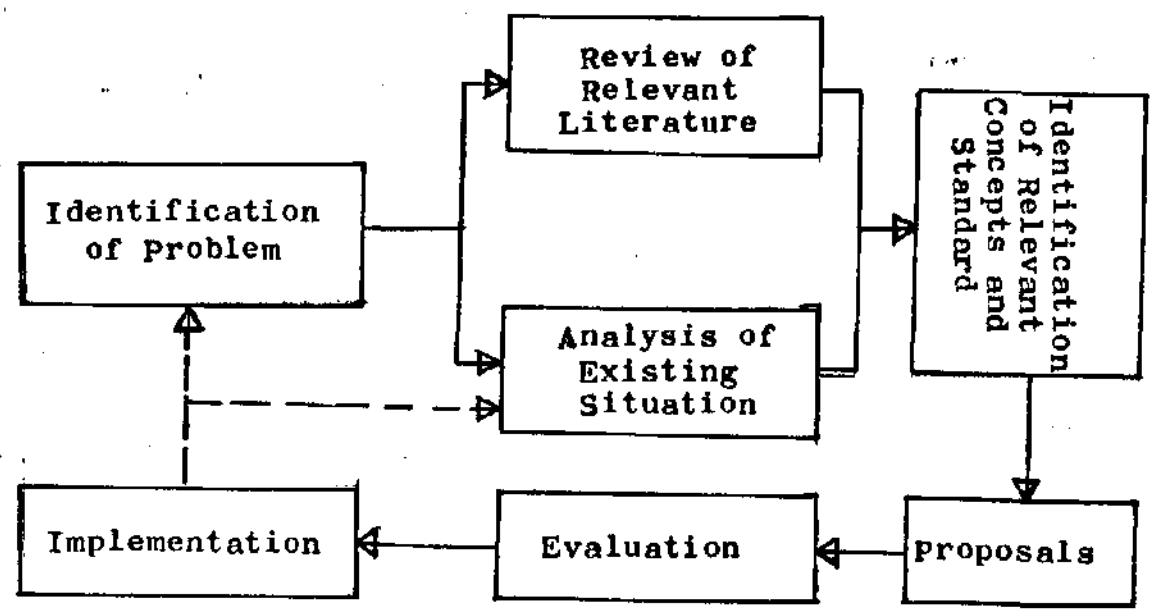
Importantly, the review of such materials revealed the concepts and standards to be used in solving the identified locational and physical problems.

1.62 ANALYSIS AND PRESENTATION OF DATA

Analysis of collected data is done using statistical techniques and the data is presented in both tabular and graphic forms. Maps have been used to provide understanding on the various and diverse customers' origins particularly where such are located within the metropolis. Attempts have been made to use the map to at least point at the directions of customers from outside the metropolis.

Layout plans are also used to present the physical organization of markets and in some instances to provide detail information on type of building, the landuse structure and even the commodity zoning.

1.63 CONCEPTUAL FRAME-WORK



1.70 DEFINITION OF TERMS

1.70.1 MARKET PLACE

Market, market place or shopping centre as referred to in Western Countries is generally defined as site of assembly for both traders and customers which apart from serving exchange functions also serves other social, political and religious functions. In otherwords, market in the sense used here refers to as "an authorised concourse of buyers and sellers of commodities, meeting at a place more or less strictly limited or defined, at an appointed time (Hodder and Ukwu, 1969). It should, however, be stated that the meeting can either be daily or periodic. In the former, the market operates on everyday basis while it operate's in a cycle of some specified number of days which could be every other day, weekly, etc.

This therefore, reveals certain means of classifying markets, i.e., being daily or periodic. These apart, there are other means still within which markets can be classified. For instance market can also be classified as being specialized or general goods market and either wholesale or retail market. Of much relevance to the planner is firstly the nature of market's development, i.e., whether it is organic laidout or

planned. Secondly, market's classification according to hierarchy which enables the planner to determine the required services and facilities. Among the various levels in the hierarchy of market are region serving, city serving, district serving, community serving and neighbourhood serving markets. This method of classification, however, may differ from place to place denending on the size and type of residential units. This is because whatever level a market is found to be, it signifies the extent of its catchment hinterland.

1.70.2 URBAN MARKET

A definition of urban markets can only be done in close comparative basis to their rural counterparts. By virtue of their location, urban markets tend to serve a population that might have originated from close and distant locations. With this in mind urban markets tend to be more functional in terms of the population served and the level of exchange of both higher and lower order goods, especially, bringing to focus the density of urban population and their level of per capita income. Infact, this even tends to distinguish urban markets from those in the rural areas in such a way that turnover which is also a function of volume of trade tends to be higher in urban markets.

Another distinguishing characteristics worthy of consideration is the type of commodities dominantly offered in the markets. While urban markets tend to offer commodities predominantly of industrial manufacture, the rural markets mostly offer good of primary production such as farm produce and livestock.

The provision of essential facilities, utilities and services tends to be more enhanced in urban markets than in rural markets.

On their evolution, however, the rural markets evolved in response to the dictates of local economic impetus whereas urban markets combine both economic and demographic parametres. This is because urban centres, apart from being areas of industrial concentration are also potential market sites due to high population concentration.

1.80 BACKGROUND OF THE STUDY AREA

1.80.1 KANO METROPOLIS

Kano is the largest town in the Northern States of Nigeria and the third largest in the Federation. It is the primate city of its economic region which includes the whole of Kano State and much of the other Northern States. In addition, Kano acts as a centre for



FIG 1 KANO STATE IN NIGERIA

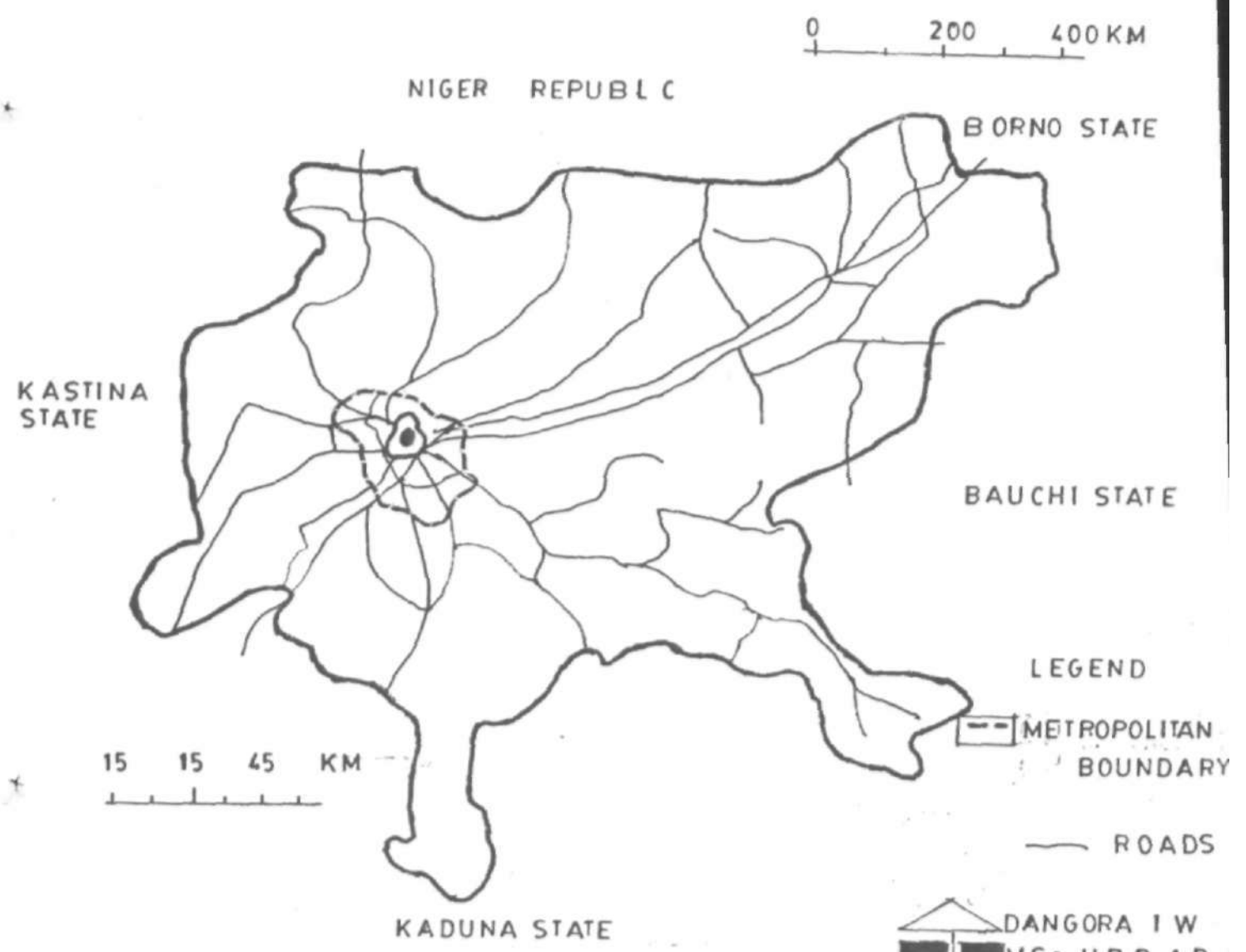


FIG 2 KANO METROPLITAN

distributing certain commodities and services to the Republics of Niger and Chad.

The town lies in latitude 12° 03' N and longitude 8° 32' E. Historically Kano had enjoyed the position of being the most influential town in the Sudan Zone for many centuries. From available historical sources, the settlement is over 1,000 years old and was first sited in the vicinity of Dala Hill.

The old town settlement later spread to form many of the city wards around its ancient market known as Kurmi Market. With the advent of British rule, however, the spread of Kano became even more to such an extent that the settlement can not be contained within the wall and other wards emerged outside. In 1912, the railway line connecting Southern and Northern part of Nigeria was laid and having linked Kano to the South, many Southern migrants arrived at Kano and settled around Sabon Gari to form the present day Sabon Gari Market.

From that time and before, many settlements were established to accommodate influx of migrants. Among them are Tudun Wada, Dakata, the Government Reservation Area (Tarauni), Hotoro, Gyadi-Gyadi, Bachirawa and many others.

Presently, metropolitan Kano is contained within an average radius of 18 kilometre. The township however, has continued to spread reflecting persistent residential, industrial and commercial development.

Today, Kano township has an estimated population of about 1 million while the metropolitan area contains well over 5 million people.

CHAPTER - TWO

THEORETICAL BACKGROUND

2.10 ROLES OF ECONOMIC FORCES ON URBAN MARKET DEVELOPMENT

The roles of economic forces on market development are two fold. These include the way certain economic considerations influence market location on both regional and intra-city basis. On regional scale numerous economic factors as population, production potentials and accessibility interms of distance and communication network are all note worthy in market development. In the first place population as the major factor determines the extent of market since it is the population that tends to influence the volume of exchange that is likely to emerge. Other factors, however, also have significant contribution, for instance communication network and distance particularly between areas of production and consumption. Economic forces having regards to the issue of profit maximization mostly tend to direct location of markets in production zones where distance is minimal and that in itself enhances profit.

On intra-city basis, economic considerations have influences on market place development, particularly as it relates to location. This is in consonance

to the issue of locating retail and commercial activities on space as influenced by accessibility which is in turn determinant of land value and land rent. The other side of location in urban areas relates to issue of reachness of markets by their customers so as to enhance the frequency of visit. The achievement of this encourage high level of exchange which in turn improves profit. In other words both approaches emphasize accessibility and centrality of shopping activity to potential and real customers.

In developed countries location of shopping activity is particularly determined by the need of a site which tends to attract large number of customers because of its centrality, ease of reach and accessibility. This, however, is always associated with land rent since such site is most likely to approach the centre of the city where land value is particularly high. For this shop owners always have to weight the advantages accruing from the site and the total cost of land on which to locate.

In developing countries, however, except for European - like commercial establishments, shopping location is very much influenced by centrality and accessibility since it tends to locate on site central to the people served but with no due consideration for

land rent. This is largely due to the fact that market development is somewhat viewed as a social venture whereby the government's development effort is not always based on the intention of realising profit from such programme but with the intention of bringing social services and other facilities close to the people. To achieve this markets are developed and charges per stalls are very much subsidized.

2.20 THE NEED FOR PLANNING IN MARKET DEVELOPMENT

Physical planning like economics, has a vital contributions to the whole process of market development. Its contribution can also be viewed from two levels viz; regional and intra-city levels. At whatever level planning decisions on market development are influenced by economic considerations. For it is only after thorough analysis of economic promises of site that planning integrate space for efficiency and convinience.

On regional context, planning considerations are given to town as being the major and dominant independent centre or subordinate and dependent centre on a more dominant one. Whatever the case may be, regional analysis takes care of different level of market centres arranged in hierarchical order in accordance to functional dominance of one or more centres over others. The

regional analysis discovered that a system of centres arranged in a hierarchy provides an efficient way of articulating distribution to, and administration of regions (Berry, 1967). It again accepts the fact that identification of a network of centres and the scale of activities appropriate to each level makes possible the proper location of new facilities or where the scale of enterprise is changing rapidly, a systematic base for rationalization (Berry, 1967).

On intra-city or urban basis, the need for planning in market-place development can be seen in line with the development of different levels of shopping centres to serve appropriate levels of residential units. In this regards planning identifies "three-level hierarchy of neighbourhood serving, community serving and region serving shopping centres plus a special class of highway serving uses" (Berry, 1967). For these various levels of shopping centres, it is revealed that the main role of planning is the "establishment of location and space requirements for such centres and their subsequent incorporation into some overall plan" (Berry, 1967). Guideline were outlined by planners to help in determining locations of and even to some extent the types of facilities and services required by, each level of market.

For instance Berry (1967) after identifying the levels of shopping centres went ahead to recommend their locations, space requirements and the input required by each of the shopping centres. These recommendations are summarized in the following Table-1.

Type of Market	Location and Requirements
Regional Business Centre	On main arterial highways with adequate site peak parking needs and sufficient services to serve several hours of shoppers time.
Community Serving Centre	These are located on major thoroughfare, on in-town edge of trade area.
Neighbourhood Serving Centres	Located within convinient walking distance of the families served.

SOURCE: Berry, B. J. L.(1967): Geography of Market Centres and retail distribution.

Apart from these aforesaid contributions of planner to the issue of market development, it is still revealed that occassionally as influenced by the circumstances,

the planner uses tools at his disposal to affect the location and development of markets.

> Other means planners use to affect the location of centres include the city zoning ordinances that reserve certain tracts of land for business centres of such kind. To do this, however, the planner enjoys absolute freedom in new town development, since he uses all available techniques to encompass within the plan any form of commercial development appropriate for the town (Berry, B. J. L., 1967).

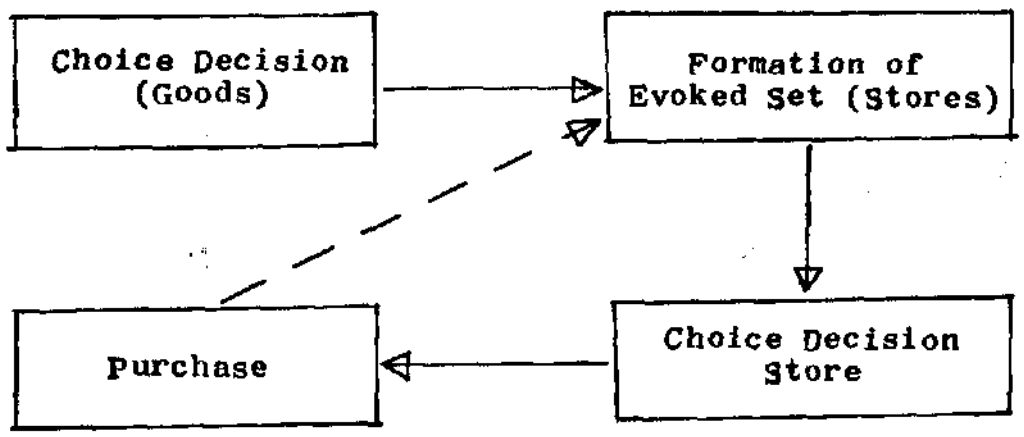
This in other words established the fact that planner has adequate freedom in planning new towns at their initial stage of development. From this it can be assertained that there are certain instances where the planner is limited to only making adjustment. "In existing town however, the planner's work is limited to adjusting a system which is internally changing and where a system is declining his best activity is to attempt to remove excess capacity causing commercial blight or to change the nature of the changing market that is causing blight"((Berry, 1967).

To pursue these tasks the planner takes due regards to existing socio-economic and developmental factors upon which the system rests.

It has by now becomes apparent that in developing countries like Nigeria both economic forces and some

levels of planning considerations are clearly integrated. This is because both the approaches emphasize on the centrality of markets and their accessibility to customers within certain catchment area of patronage. In other words both approaches tend to favour easy and short reach distance to customers who patronize the market for shopping. This seems to go in line with the customers' behaviour to shopping. The behaviour dictates the types of goods to buy and even the particular store or market to visit. This calls for the review of shopping process as it influences customers' choice of both goods and services and where to get them.

FIGURE - 2: Customer Behaviour to Shopping



SOURCE: Guy (1980)

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The shopping process presents different stages of customers' decision on which goods to buy and which particular store or market to visit to buy them. Where the customer intends to visit a market for selected goods and eventually obtain such goods from that market then the whole process is completed. However, where the customer is unable to obtain his goods from the selected market, then the decision on market is reviewed and another selection is made.

Whatever the customer's choice of goods to buy, the essential point of relevance to the planner is that, the type of goods desired by customer have an important

influence on the effort and time he may wish to expend in acquiring the good. To this regards customer prefers expending little effort and time in reaching markets that offer frequently required continent goods, while the customer can put so much effort and time in obtaining higher order of goods and services because the trip to purchase them is normally pre-arranged and does not involve the purchase of only one, but many other goods. In other related circumstances customers are determined to cover long distances to patronize specialised markets than that they cover in visiting general goods markets particularly where purchases are meant for lower order retail goods.

Apart from the issue of nearness of markets which most customers prefer, there are other reasons that are involved in making shopping trips and such reasons can be the pursuance of some social engagements as visiting or meeting friends or some other conviniences. This as a whole makes the shopping process, particularly in developing countries, a complex phenomenon.

Even with the respect to the issue of closeness of market location, there are some characteristic complexities. This is because locational closeness in itself is a relative term since the nearness of a

market is usually judged in relation to some other distant markets. Rarely do customers consider closeness of a market in isolation of other markets. Thus, a particular market may be termed close though customers may have to travel for longer distances to reach it than they would have covered to reach an equally important and locationally planned market. Locationally planned market is that which its siting is based on specific distance to be covered and time to be spent to reach it. This means that the success of market location can only be judged when viewed against distances and time spent in reaching it as provided by established standards.

2.30 LOCATIONAL CHARACTERISTICS OF URBAN MARKETS IN NIGERIA

Having outlined the relevant considerations that guide market's location in the previous paragraphs, it is only pertinent here to accompany such considerations with live examples as obtained in Nigeria.

Conceptually speaking market's location follows areas of population concentration since in most cities the main market tends to be situated amidst areas of dense residences. This therefore, tallies with one of the major economic forces that influence market's

location. As represented in figure 4(a), the main market appears to be centrally located within residences, thereby confirming with the existing planning provisions of centrality to catchment hinterland. Secondly, the network of linkages radiating from the market enhances ease of access to all areas of the catchment hinterland.

The development of market is a dynamic process just as the expansionist distribution of residences is also a dynamic one. Areas newly settled even within a particular urbanscape tend to evolve almost simultaneously and sponteneously with their markets, even though this is not always the case. Figure 4(b) provides a schematic representation of spatial location not only of the main city market, but also that of smaller order of markets that supplement the offerings of the main market. These smaller markets are also centrally located within the small section of the large city. Thus, contineous redistribution of population and residences leads to the evolution of new markets.

The same pattern is obtained in many Nigerian urban areas. For instance, in Yoruba towns such as Ibadan (Figure 5(a), the main market popularly known as "Oja Oba" meaning the King's market is closely

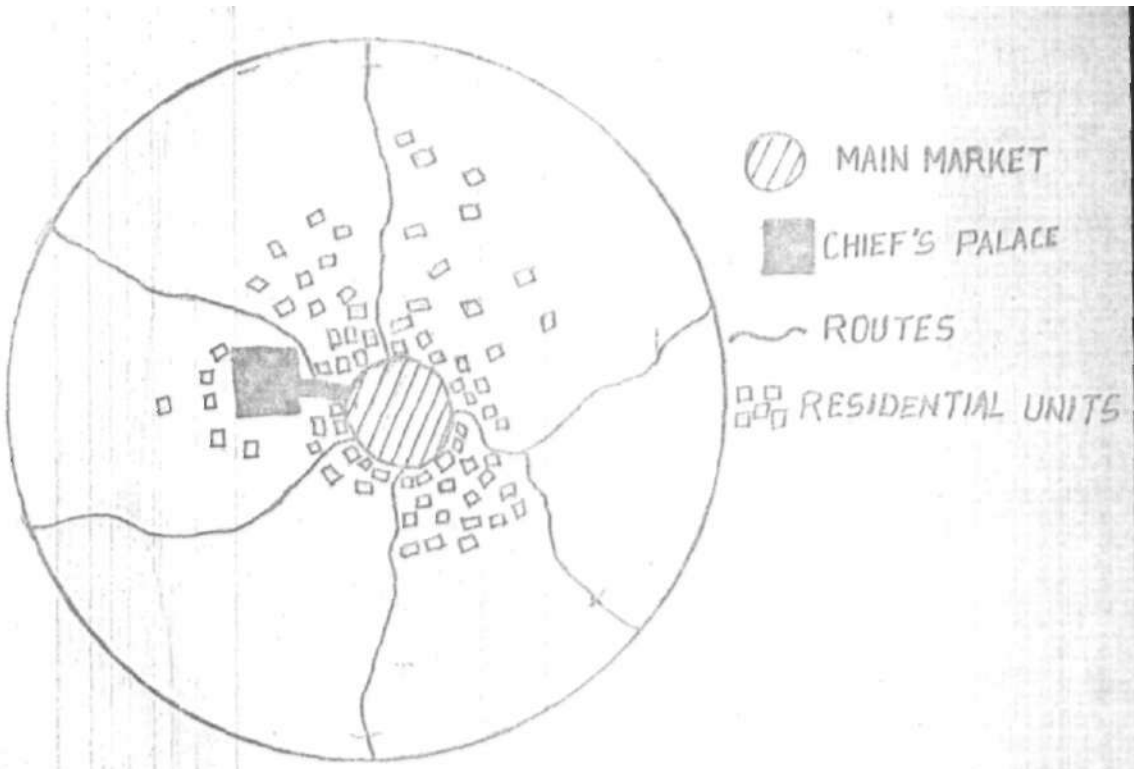
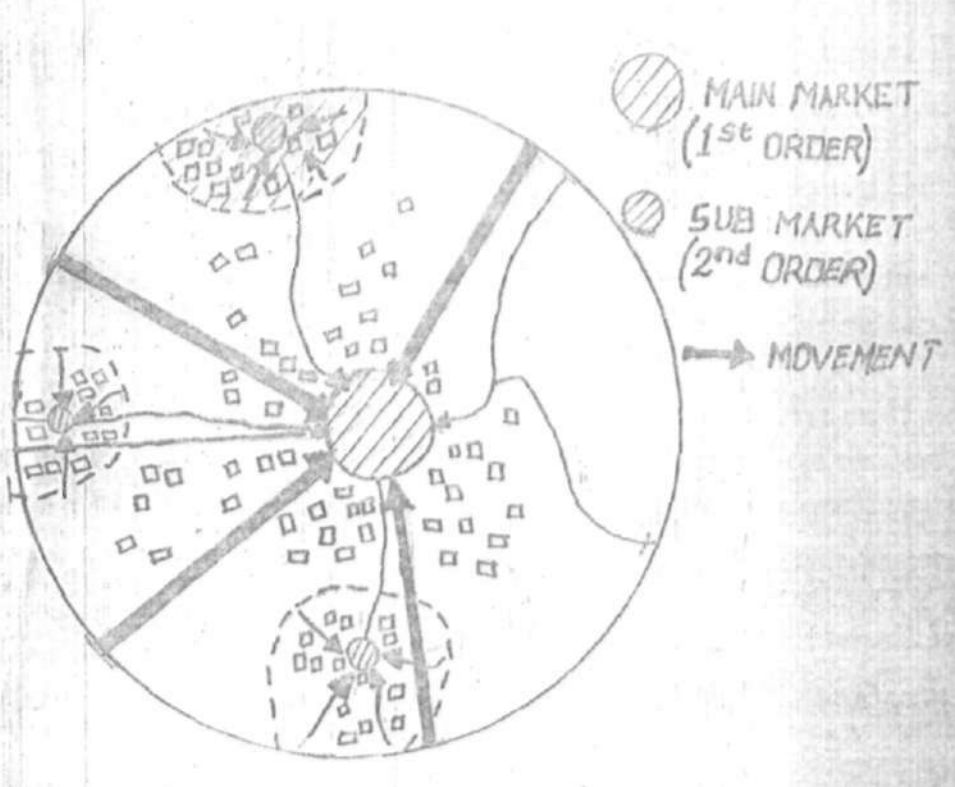


FIG. 4a; SCHEMATIC LOCATION OF MAIN TRADITIONAL CITY MARKET

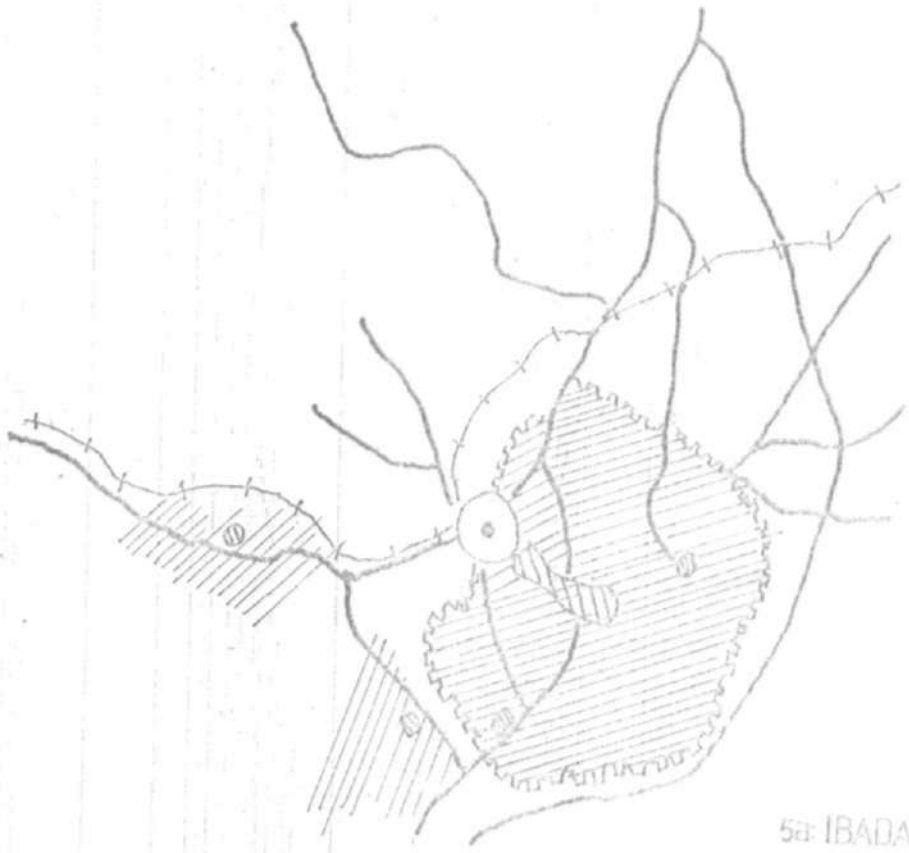


4b; SCHEMATIC REPRESENTATION OF HIERARCHY & SPATIAL LOCATION OF MARKETS.

SOURCE DEGGE F. T. M SC (URP) 1982



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5a: IBADAN TOWN

LEGEND

- MARKET
- DEVELOPING AREA
- ROAD
- RAILWAY LINE
- CITY WALL



5b: ABA TOWN

FIGS 5a & b: LOCATIONS OF MARKETS IN SOME NIGERIA TOWNS

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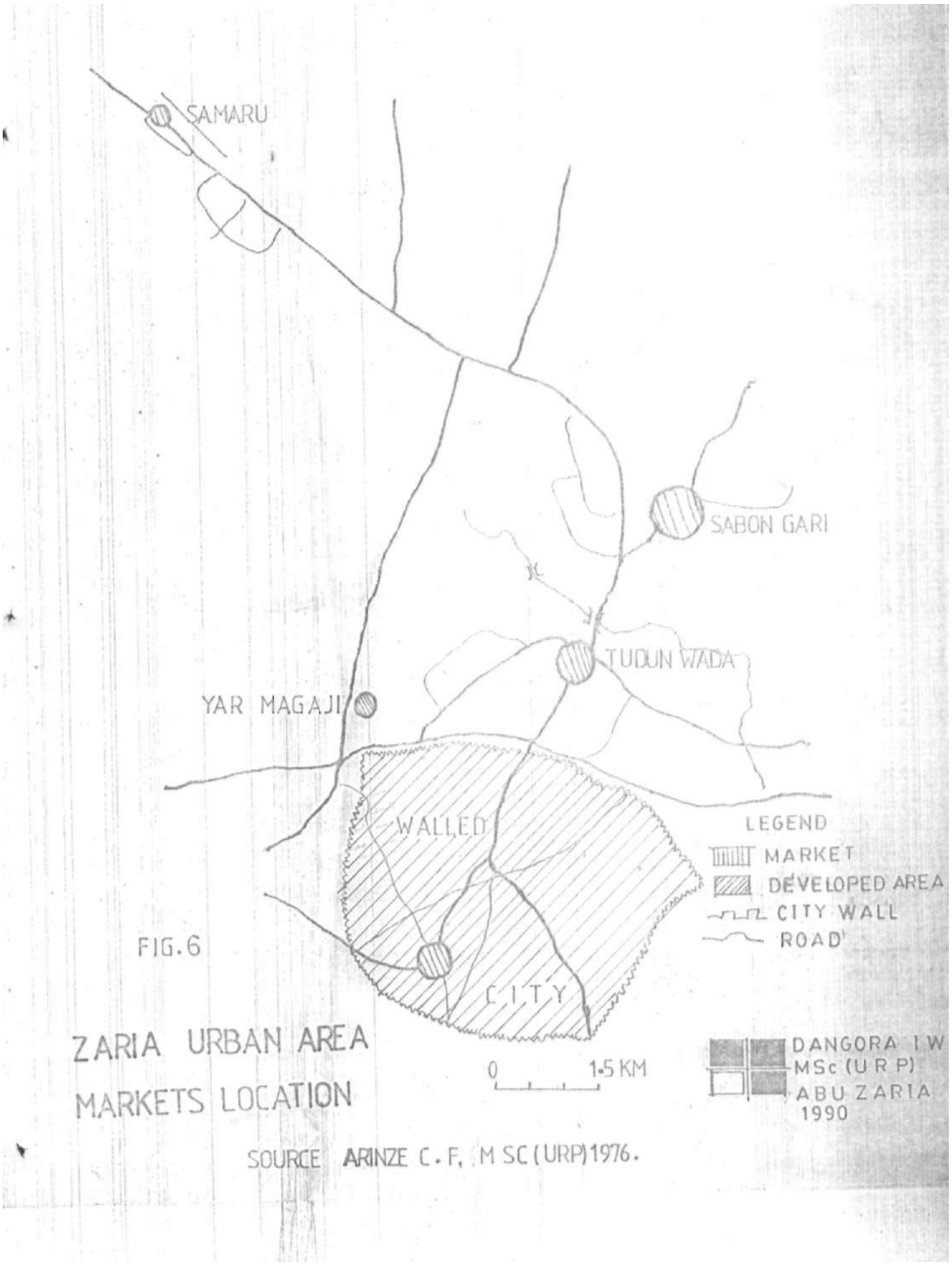


FIG.6

ZARIA URBAN AREA

MARKETS LOCATION

SOURCE ARINZE C. F, M SC (URP) 1976.

located to the Oba's Palace. This gives the market its central location to the people it serves. Infact this is even more glaring with respect to its image as the focus of economic, social and political lives of the inhabitants.

A typical example of market location in Hausa-Fulani cities is provided by Zaria (Figure 6). The ancient town of Zaria encompases within its wall, the oldest market of the town. This market in itself provides centrality to the teaming walled city population. From this market radiate several grades of roads and foot-paths penetrating the dense residences in which majority of the market's customers live.

As dispersed as the Igbos of Nigeria were known to be, few of their concentrated population are currently very common in cities and towns. Aba as an example of a typical Igbo towns also manifest the central location of market. As shown in Figure 5(b) the main market and other commercial development are located in the central areas of the town so as to enhance easy reach. Moreso, the main market is sited at a meeting point of linkages to the different parts of the town.

In all these examples, the main market is now being assisted by many other smaller and in some cases

even larger and more important markets. In Zaria the old city market is no longer the most dominant and functional market since the establishment of Sabon-Gari market, Tudun-Wada market, Samaru market and Yar Magaji market. Indeed the same pattern is common in Ibadan where there exist presently well over twenty six (26) markets in the metropolitan area. In Aba also markets have evolved in different parts of the Aba township. These all confirm the dynamicnature of markets. Thus, the retail activities of metropolitan areas are not quite unchanging and they are as expected involved in gradual transformation with the growth of the urban population. Population expansion and redistribution account for the over-all spatial pattern of retail change within the metropolitan region (Berry, 1977).

It thus, follows that with those growth, distribution and redistribution of urban population to hitherto unsettled areas, there will emerge the need for the establishment of other smaller markets apart from the major markets. This is to bring closest to these redistributed population, the services of small markets. Consequently, the city becomes the abode of main market and sub-markets which are located within neighbourhoods and districts of the town (Degge, 1982). The major market serves the whole town while the smaller district

and neighbourhood markets serve their respective areas of location.

In all cases their locations signify centrality and accessibility to the population served. It is on parameters as population served by market, average distance covered to visit market, commodities sold in the market and many others that hierarchical levels of markets can be established. With the establishment of these levels of hierarchy that different order of markets can be identified as first order, second order, third order, etc., indicating declining functional importance respectively.

2.40 PHYSICAL CHARACTERISTICS OF URBAN MARKETS IN NIGERIA

The physical characteristics of urban markets in Nigeria are usually numerous but can however, be broadly classified under four headings viz; site and terrain, landuse characteristics, condition of market area and provision of facilities, utilities and services required in these markets. In whatever level of hierarchy the physical characteristics of markets in Nigerian urban centres reflect physical problems leading to malfunction in one way or the other except in properly

planned markets such as the recently replanned Kaduna and Sokoto markets.

2.41 SITE AND TERRAIN

The sites of many urban markets are generally small in extent and because of this trading activities progressively spilled onto public open spaces, roads, residences and other spaces for the provision of certain facilities and services. Because of this the markets are therefore, extremely congested, due to the absence of any scope for expansion (Vagale, 1969). Infact this situation was observed in many Ibadan markets, and it is discovered that the inadequacy of site areas has resulted in not only extreme congestion but also encroachment on public roads and open spaces as commercial activities are gradually spreading to lanes and bye-lanes in residential areas adjacent to markets, and in this regards "Oja'ba" and "Oje" markets represent typical example (Vagale, 1969). On the nature of terrain, however, some markets are found to be wrongly sited on difficult terrains, as some of them are located on hilly sites. A majority of the markets in Ibadan are, located on rolling sites while three are situated on site slightly hilly (Vagale, 1969). This shows the absence of any rational locational

consideration even though the hilly and rolling terrain has facilitated easy draining of the market sites it has caused difficulties of loading and off-loading (Vagale, 1969).

Still related to site, it is not uncommon to witness excessive site coverage in markets which leads to crowdness. Markets are extremely crowded due, among other factors, to excessive site coverage and clandestine construction of shacks in open spaces and between building blocks. The two important markets in Ibadan namely "Dugbe and Oja'ba" have site coverage of 68.5 and 75.0 percent respectively (Vagale, 1969). These excessive site coverage has increased fire hazards and reduced air circulation and light (Vagale, 1969).

2.42 CONDITION OF MARKET AREA

This section deals with such issues as the environmental condition, type and nature of market buildings and the age of buildings in the markets.

Environmental quality of market sites are generally poor and unhygienic. The quality of environment in the markets of Ibadan, with few exceptions, is deplorable. Extreme congestion, dumping of garbage and other solid

wastes at street corners, open drains, outdoor cooking, lack of trees and shrubs, absence of open spaces are all too familiar scenes (Vagale, 1969). Added to these are other characteristics of market sites which include noise, dust, foul odour, fumes, flies and roddents.

Greater proportion of market buildings are of the temporary type made solely with temporaly materials and superstructures. Only few are therefore, of the permanent type amongst which only much fewer are made of high quality and durable materials. In "Dugbe" market nearly two thirds of the building blocks are temporary while in "Mokola", "Ode-Olo" and "Eleiyele" markets, nearly seventy-five percent of all building blocks are permanent. An in terms of super structure used in erecting buildings, it is realised that timber is the most common materials used for construction of shops. This accounts for fire out-breaks in the markets resulting in loss of materials and human lives (Vagale, 1969).

Age of buildings in many markets in Nigeria can be traced back to the age of the market itself. This in recently established markets, the buildings are of course newer than in aged markets. In some cases, however, the buildings contineously undergo serious

redevelopment leading to the use of more durable materials. In some markets which, persistently, withstand the threat of redevelopment, it is common to pick buildings which are as old as the market.

2.43 COMMODITY ZONING

Suprisingly zonation of commodities sold in markets appear to be in a regular order. This means that traders are distributed within the market according to the commodity they sale and it is easily observed that traders of similar commodities gather in some particular locations within the market encouraging an efficient system of commodity pricing among them and also enhancing easy access to patches commodity zones. "Within the market itself, there is spontaneous grouping and agglomeration of stalls devoted to particular commodities, though the market is not a planned one" (Vagale, 1969).

2.44 PROVISION OF FACILITIES, UTILITIES AND SERVICES

Provision of facilities such as, efficient circulation, open spaces, parking, organized refuse dumps, drainage, toilets, utilities like water, electricity, telephone, mail boxes and services like administrative, commercial offices, fire service

station and police post are very important to creating convinience, safety, security and sanitary condusive trading atmosphere within the market.

Many Nigerian urban markets are provided with such facilities, utilities and services even though in many of them their provision are inadequate. In some however, there is over provision of some functional elements of the market and a complete absence of others whereas the provisions should be properly standardized so as to avoid mulfunction of the market.

CHAPTER - THREE

LOCATIONAL AND PHYSICAL CHARACTERISTICS OF MARKETS IN KANO METROPOLIS

3.10 MARKETS IN KANO METROPOLIS

Kano metropolitan area comprises of several markets spread over different wards of the urban scape and even to the various local government headquarters within the confines of the metropolitan area and some smaller ones in various villages and hamlets.

In all there are well over fifty markets of varying sizes, importance and functions. Of relevance to this study, however, are the Seventeen markets situated within the limits of Kano township. These include Sabon-Gari, Kurmi, Kara, Rimi, Kantin-kwari, Kofar-Wambai, Yan Awaki, Kofar-Ruwa, Dawarnai, Sharada, Sheka, Yan Lemo, Yan-Kaba, Tarauni, Bachirawa, Tudun-Wada and Gama markets. These markets are shown in Figure 7.

These markets can be classified either as specialized goods or general goods markets or as wholesale and retail markets. This is because all these markets are daily as such the use of parameters like periodicity is of no relevance. However, other parameters are used to draw up a hierarchy of markets

METROPOLITAN KANO



FIG 7 MARKETS IN KANO TOWNSHIP

(1) KARA (2) YANAWAKI (3) YANKABA (4) DAWANAU
(5) K/KWARI (6) K/RUWA (7) K/WAMBAI (8) YANLEMO
(9) SABON GARI (10) KURMI (11) RIMI (12) SHARADA (13) GAMA
(14) SHEKA (15) T/WADA (16) TARAONI (17) BACHIRAWA.

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MSc U R P
ABU ZARIA
1990

Source field work (1990)

so as to make the analysis an easy one. Among these parameters are size of population served by each market, number of stalls, turnover and the average distance covered by customers to attend the markets. These parameters are allocated weights ranging from 5 to 25 as can be seen in Appendix 1. The weights earned by each market were summed and these were given a general weight and from it emerged three level hierarchy. The specialized goods markets are separated from the general goods markets so as to ensure adequate and uniform analysis and are hence classified as specialized goods markets. The hierarchy of the general goods markets is thus, further qualified under identified hierarchical structure of public facilities and services as contained in the metropolitan Kano 2000 development plan.

Order	Residential Level	Market(s)
First Order	Town Level	Sabon-Gari
Second Order	Large Community Level	Kurmi
Third Order	Small Community or Neighbourhood Level	Rimi, Gama, Tudun-Wada, Bachirawa Tarauni, Sharada and Sheka markets

METROPOLITAN KANO

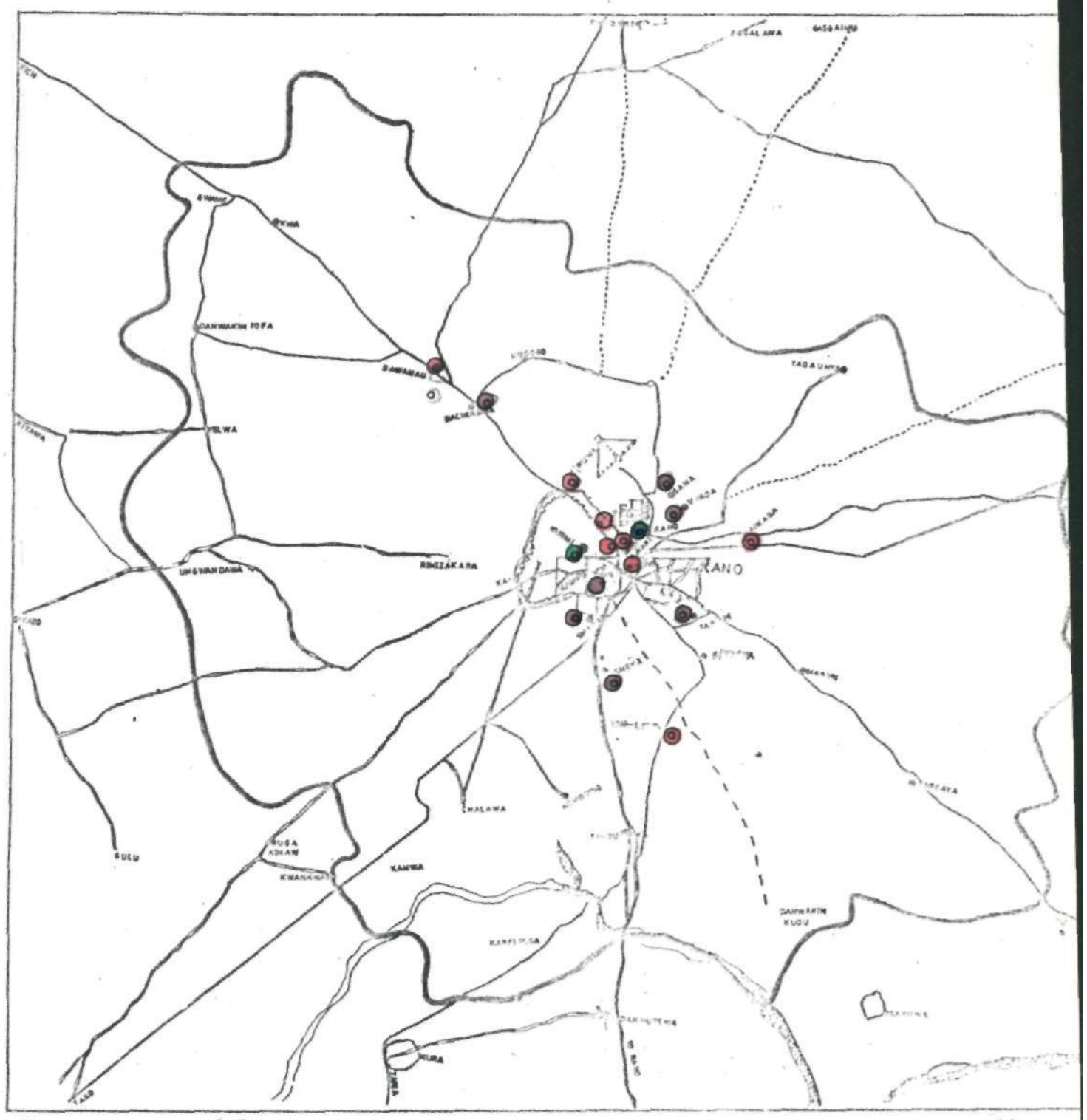


FIG 8 HIERARCHY OF MARKET

- REGIONAL MARKET
- TOWN LEVEL MARKET
- COMIMIUNITY LEVEL MARKET
- NEIGHBOURHOOD LEVEL MARKET

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Using these levels of the hierarchy an analysis of locational characteristics of these markets will be done and still from these levels will be selected at least one general goods market so as to discuss the physical characteristics of markets in Kano township.

3.20 COMMODITIES SOLD IN THE MARKETS

Before a discussion of the locational characteristics of the markets in Kano township, it is essential to have an insight into the types of commodities sold. This is particularly necessary if any meaning is to be derived from the location of these markets vis-a-vis the extent of their patronage areas.

As highlighted earlier, the markets offer different goods and services with only few of them specilizing in the sales of single commodity. The succeeding analysis covers the different range of commodities and services commonly offered in those markets.

A range of general goods are sold in Sabon-Gari market. In fact all commodities are offered by the market except livestock and apart from selling of such commodities on a retail basis, they are also offered on wholesale purchase basis. In this regards customers

purchase in bulk for onward sale to individual retail consumer.

Kurmi as a second order and/or large community serving market offers all commodities except for livestock as cattle, sheep and goats. These sales of Kurmi market are, however, done on retail basis. Here the traders have to visit Sabon-Gari market for supplies where goods are of industrial manufacture. But supplies of food stuff and other locally produced goods and crafts are obtained either the surrounding villages or from the many wards of the walled city.

Markets of the third order or small community markets as Rimi, Sharada, Sheka, Gama, Tudun-Wada, Tarauni and Bachirawa are all general goods markets even though offering is limited to few goods. Most of these goods offered are everyday needs type such as food stuff, meat, provision goods like sugar, salt and others. Also offered are the accompanying milling machine services where things sold therein as vegetables and grains are grounded. The offerings here are on retail basis to customers. The supplies come from Sabon-Gari, Yan-Kaba markets and other surrounding villages.

The specialized goods markets which can be termed as regional because of the unique bulk sales bulk sales they offer to not only the metropolis but also areas outside it. In fact the services of some of these markets extend to as far places as Lagos, Enugu and Abeokuta. Kara, Dawanau, Kwari as can be seen in Appendix 2, respectively offer such goods as cattle, grains and textile materials. The sales in these markets are generally wholesale type. Other specialized goods markets as Yan-Awaki, Kofar-Ruwa, Yan-Lemo, Yan-Kaba and Kofar Wambai engage in the sales of livestock (sheep and goats), building materials, fruits and vegetable, vegetables (tomatoes, onion, pepper, etc), textile and footwear products. In all these later markets are sales, except for Kofar Wambai are mostly on wholesale basis. In fact this is likely to influence the flow of customers from far and nearby locations. Kofar Wambai which is an outcome of the e expulsion exercise of many troders in a bid to decongest Kwari market, offers textile materials along with locally made leather shoes.

3.30 LOCATIONAL CHARACTERISTICS OF MARKETS IN KANO

Having discussed the different range of goods and services offered in each of these markets, it is

worthwhile to analyse how these goods and services influence customers' trip to them.

3.3.1 REGIONAL OR SPECIALIZED GOODS MARKETS

TABLE-2: Average Distances Covered by Customers to Specialized Markets

Market	Average Distance Covered by Customers
Kara	395 Kilometres
Kwari	39 "
Dawanau	63 "
Yan Kaba	103 "
Yan Awaki	108 "
Kofar Ruwa	35 "
Kofar Wambai	21 "
Yan Lemo	7 "

SOURCE: Field Survey, 1990.

The catchment areas of these markets, as represented by the extent of customers' travelled distances, are varied, ranging from 7 kilometre to 395 kilometre. Taking them one by one, it is easily understandable that customers consider cattle as an essentially high costly goods and they undertake whatever length of distance to obtain such cattle

from Kara market where they are relatively cheaper than elsewhere particularly in the Southern part of Nigeria as Figure 9(a) indicates. Here is shown that majority of the market's customers actually originate from outside the State as also reflected in Table 3.

TABLE - 3: Origins of Customers to Kara Market

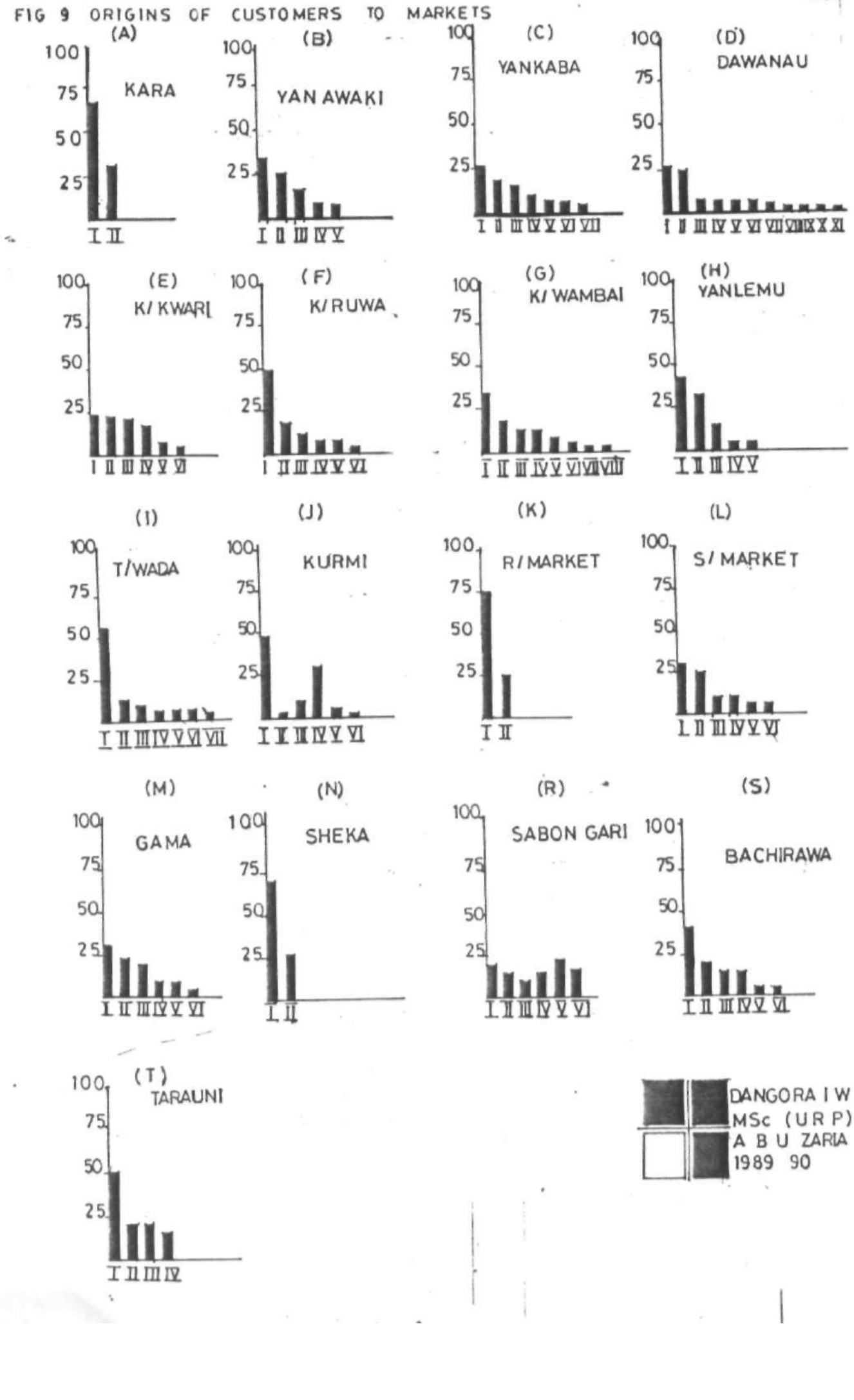
Serial Number	Origin	Percentage of Respondents
I	Other States	66.67
II	City	33.33
Total		100.00

SOURCE: Field Survey, 1990.

The various directions of these customers is also presented in Figure 9.

Yan Awaki is another specialized market and like Kara, also engage in the sales of livestock such as Goats and Sheep. Though it attracts many customers from its immediate surrounding because of its locational advantage, it is also patronized by customers from far places particularly the Southern part of Nigeria. This later group of customers prefer visiting this market because of the relative cheapness of goods. Figure 9(b)

FIG 9 ORIGINS OF CUSTOMERS TO MARKETS



and Figure 10 respectively show the origins of customers to this market, as is also shown in Table 4 below:

TABLE-4: Origins of Customers to Yan Awaki Market

Serial Number	Origins	Number of Respondents	Percentage of Respondents
I	Lagos	4	36
II	City	3	27
III	Fagge	2	18
IV	Sabon-Gari	1	9
V	Gandu	1	10
Total		11	100

SOURCE: Field Survey, 1990.

The sales of such goods as vegetables is a trade that attracts customers from both near and distant locations. Yan Kaba market offering these vegetables both in wholesale and retail basis attract wholesale customers from distant locations and at the same time meeting local demands of customer from all parts of the Kano township. The purchase of this commodity by distant customers evolve out of the realization that goods as vegetables are best produced in the Northern part of Nigeria. This notion makes customers to flow from distant places to patronize Yan Kaba market

METROPOLITAN KANO



FIG. 10. ORIGINS OF CUSTOMERS TO

1 KARA
2 YANAWAKI
3 YANKABA
4 DAWANAU

because these goods are much cheaper in this market than in Southern markets. Local customers from the township also engage in bulk purchase of these vegetables which they sale directly to consumers spread over the township. At the same time the vegetables are offered directly to consumers residing in wards around the market. Breakdown of these diverse customers' origins is provided by Table 5 and it is graphically represented in Figure 9(c). The directions of these customers is also provided by Figure 10.

TABLE - 5: Origins of Customers to Yan Kaba Market

Serial Number	Origins	Number of Respondents	Percentage of Respondents
I	Yan Kaba	10	28.57
II	Sabon-Gari	7	20.00
III	Tudun-Wada	6	17.14
IV	Dakata	4	11.43
V	Enugu	3	8.57
VI	Tarauni	3	8.57
VII	City	2	5.72
Total		35	100.00

SOURCE: Field Survey, 1990.

Dawanau market is predominantly a grain market, established as an off-shoot Sabon-Gari market during the resettlement of grain sellers who were associated with accurance of persistent fire out-break. Its locational advantage as claimed by the market administrator unfold lots of exchange opportunities whereby customers not only from within the township but even from distant areas patronize the market particularly for purchase purposes. Thus, customers from places as far as Katsina, Gusau, Daura frequent this market where they buy grains and store them in the numerous available warehouse built within the market site. Apart from these customers, there are also the local buyers from within the township and neighbouring villages. These customers' origins are provided in table 6, figure 9(d) and figure 10.

Kantin Kwari is a textile materials markets which offers bulk sales of commodities to surrounding local governments and other distant towns. The commodities mostly produced by textile industries in Kaduna, Kano and Lagos to which many of the traders are registered dealer and in some cases share holders. For this even customers from Kaduna patronize Kantin Kwari for bulk purchase. At the same time, however, the

TABLE - 6: The Origins of Customers to Dawanau

Serial Number	Origins	Number of Respondents	Percentage of Respondents
I	City	31	26.95
II	Dawaki	30	26.08
III	Ungogo	9	7.82
IV	Sabon-Gari	7	6.08
V	Bichi	7	6.08
VI	Dam-Batta	8	6.95
VII	Katsina	6	5.21
VIII	Sokoto	5	4.34
IX	Dawanau	5	4.34
X	Daura	4	3.47
XI	Kazaure	3	2.68
Total		115	100.00

SOURCE: Field Survey, 1990.

market offers retail sales to customers particularly from the city and other parts of the metropolis. Below is a breakdown of customers origins to Kantin Kwari market. Other representations of the markets customers origins are shown in figures 9(e) and figure 11.

TABLE - 7: Origins of Customers to Kantin Kwari

Serial Number	Origins	Number of Respondents	Percentage of Respondents
I	Other parts of the Metropolitan	14	24.56
II	Outside the Local Government	14	24.56
III	City	12	21.05
IV	Other States	10	17.56
V	Sabon-Gari	4	7.01
VI	Tudun-Wada	3	5.26
Total		57	100.00

SOURCE: Field Survey, 1990.

The Kofar Ruwa market offers all kind of building materials even though it also offers such commodities as second hand spare parts. The offering of these commodities in actually not something that attracts customers from very distant origins because building materials are usually offered in every major towns of the country. However, because of the fact that certain industries specializing in the manufacturing of these materials are located in Kano, makes the market the first important distributor of the materials. This advantage however, does not influence the flow of customers from many outside states. In fact even the

METROPOLITAN KANO

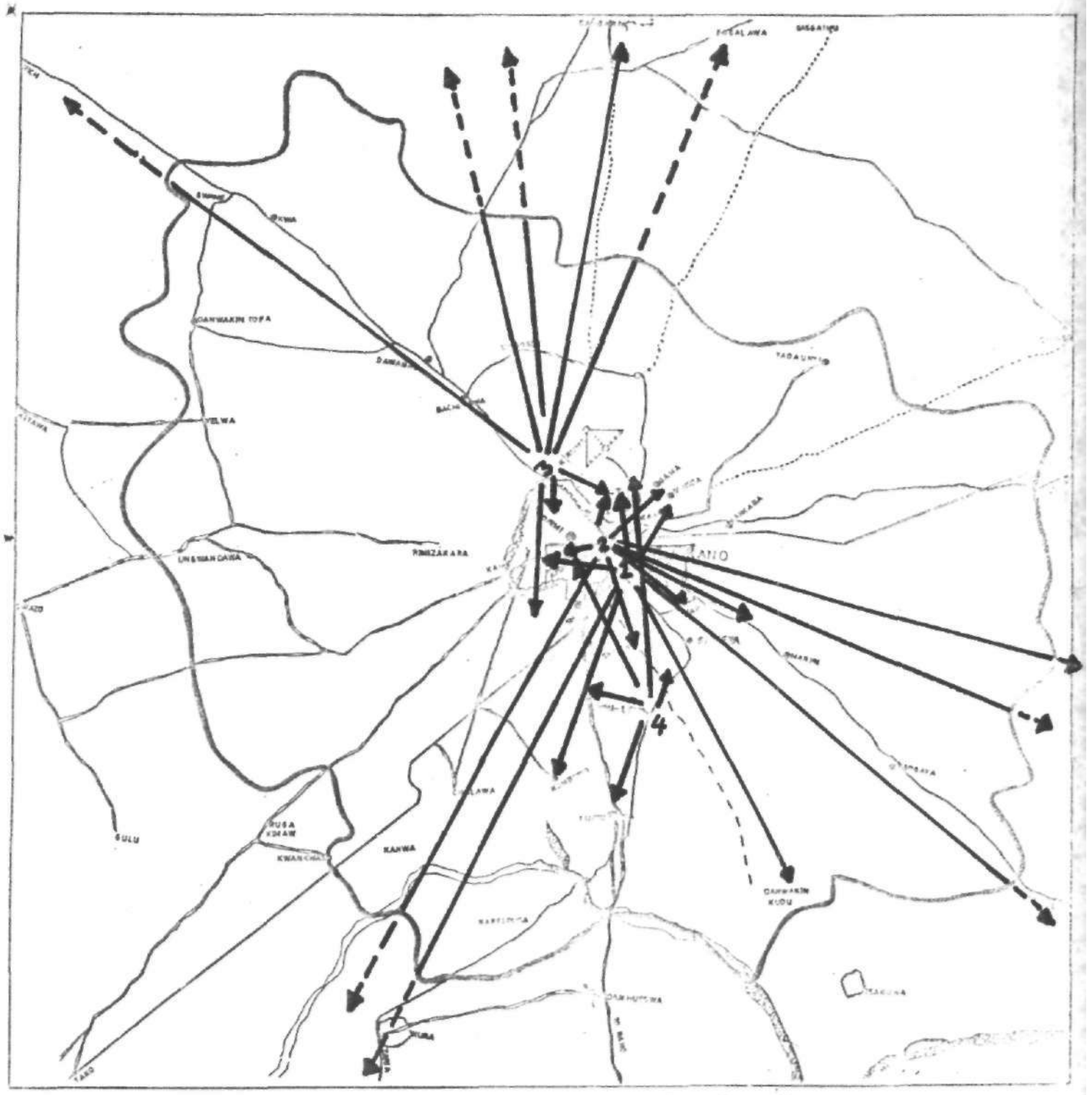


FIG 11 ORIGINS OF CUSTOMERS TO

1 K/ KWARI
2 K/ WAMBAI
3 R/ RUWA
4 Y/ LEMO

0 3 6 9 12 KM.

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few are found to be not only patronizing the services of the nearby motor park to Katsina and other places. The customers' origins to Kofar Ruwa market are presented in Table 8 and represented in Figures 9(f) and 11.

TABLE - 8: Origins of Customers to Kofar Ruwa Market

Serial Number	Origins	Number of Respondents	Percentage of Respondents
I	Other Parts of the Metropolis	33	47.82
II	City	13	18.84
III	Outside the Local Government	8	11.62
IV	Sabon-Gari	6	8.69
V	Other States	6	8.69
VI	Tudun Wada	3	4.34
Total		69	100.00

SOURCE: Field Survey, 1990.

The catchment hinterland remains very much less in extent compared to Kwari market despite the fact that both of them offer the same commodities, i.e., textile products. This is largely due to the fact that Kofar Wambai market generally occupied by the former open air traders of Kwari market who are mostly small

scale traders. These traders now settled in Kofar Wambai market still sale on retail basis and because of this trip to the market are generally for the purchase of textile commodities on retail basis. Apart from this, the market's location is not far from Kwari market and this pulls away many customers who might have come from far places. However, the market serves customers from its immediate surrounding areas and from some few local government areas both within and outside the metropolis. The few customers from outside states particularly patronize Wambai market for the purchase of locally made leather foot-wear. Indeed the Kofar Wambai market and its surrounding residences are popular in the craft of shoe making. The few customers from other state originating from Zaria constitute about 2.85 percent of the total sampled customers. The following table provides the proportion of customers originating from different places. The table is graphically illustrated by figures 9(g) and 11.

Yan Lemo market is a known specialized market predominantly involved in the sales of oranges and other related fruits. It's site is the first point of call of vehicles conveying fruits from the Southern parts of the country. It's catchment area as indicated by

TABLE-9: Origins of Customers to Kofar Wambai Market

Serial Number	Origins	Number of Respondents	Percentage of Respondents
I	City	40	33.33
II	Hotoro	19	18.09
III	Sabon-Gari	15	14.28
IV	Outside the Local Government	15	14.28
V	Gandu	9	8.57
VI	Tudun-Wada	6	5.75
VII	Tarauni	3	2.85
VIII	Zaria	3	2.85
	Total	105	100.00

SOURCE: Field Survey, 1990.

its average distance is very limited to areas within the township. This may be due to the fact that the railway station in some extent acts as a market of fruits brought by train from the Southern parts of Nigeria. Rural populace connected by the railway line prefer obtaining the commodities directly from the railway stations in their respective villages and towns while those that are not linked by the rail obtain their supplies from the railway station. This actually may shorten the catchment hinterlands of the

market. Breakdown of these customers' origins can be seen in Table 10 below and also illustrated in Figures 9(h) and 11.

TABLE - 10: Origins of Customers to Yan Lemo Market

Serial Number	Origins	Number of Respondents	Percentage of Respondents
I	City	9	42.85
II	Na'i Bawa	7	33.33
III	Sabon-Gari	3	14.30
IV	Tamburawa	1	4.76
V	Gurun Gawa	1	4.76
Total		21	100.00

SOURCE: Field Survey, 1990.

3.3.2 TOWN SERVING MARKET

Sabon-Gari market which is the only town serving market is a general goods market. The market, though eventually fall under town serving level, has a very wide sphere of influence, infact much more than that of many region-serving markets.

As indicated in Table 11 and illustrated in Figures 9(r) and 12, the majority of the sampled customers originate from different parts of the state outside the metropolitan boundry. This group constitutes

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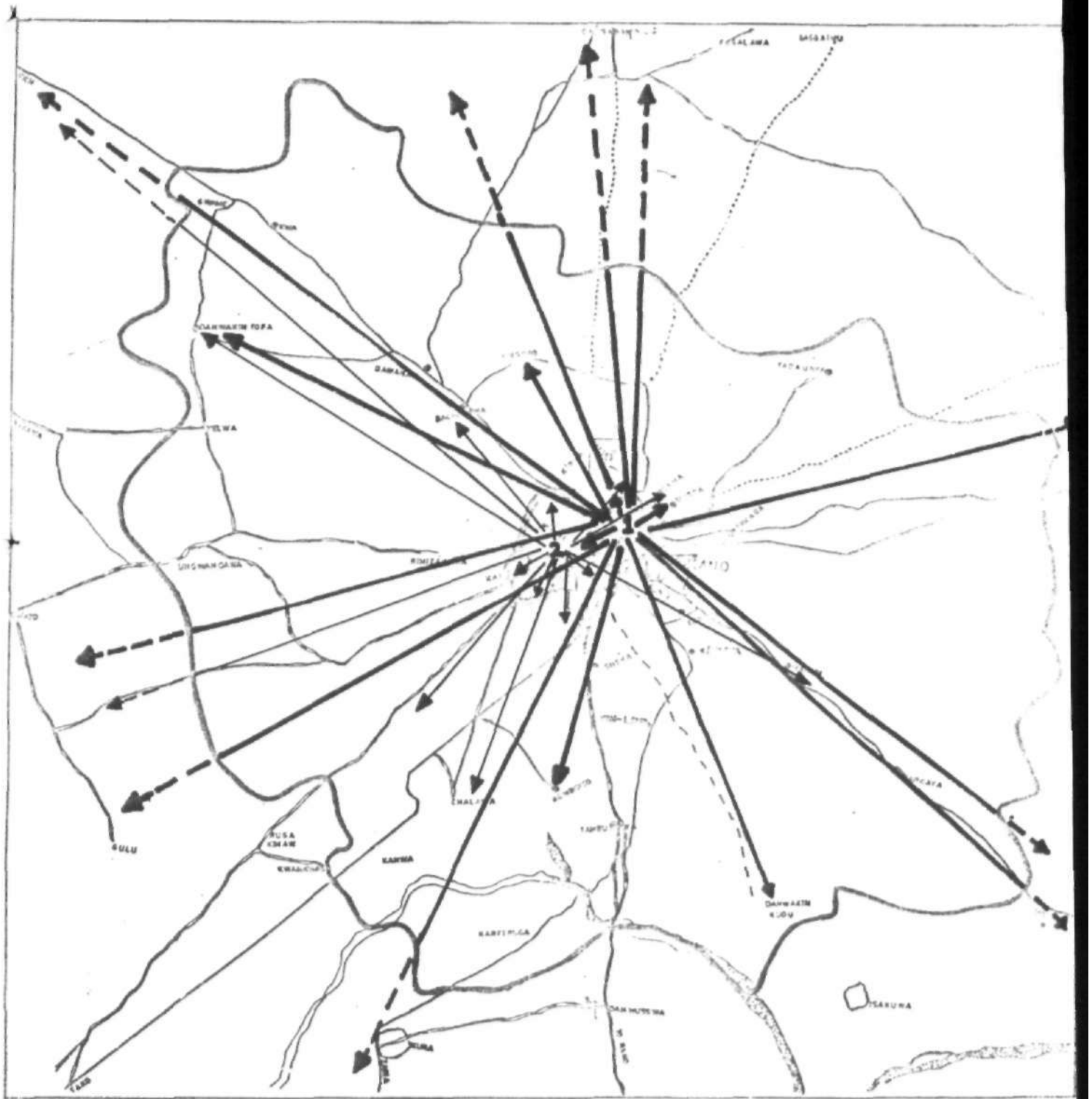


FIG 12 ORIGINS OF CUSTOMERS TO
1 SABON GARI 2 KURMI

0 3 6 9 12 KM.

DANGORA I W
MSc URP ABU
ZARIA 1990

about 23.3 percent of the total sampled customers. However, about 20.1 percent of the customers come from city in contrast to other areas within the metropolis such as Sabon-Gari itself, Tudun-Wada, etc., whose population is by far less than the densely inhabited walled city. About 17.3 percent, 14.3 percent, 14 percent and 11.3 percent of these customers originated from other states, Sabon-Gari, other parts of the metropolis (such as Gandu, Hotoro, Tarauni, Bachirawa, Gama, Sheka, Sharada, other local government towns and village within the metropolis) and Tudun-Wada respectively.

TABLE-11: Origins of Customers to Sabon-Gari Market

Serial Number	Origins	Number of Respondents	Percentage of Respondents
I	City	181	20.10
II	Sabon-Gari	129	14.30
III	Tudun Wada	102	11.30
IV	Other Parts of the Metropolis	126	14.00
V	Other Local Government	210	23.30
VI	Other States	155	17.30
Total		903	100.00

SOURCE: Field Survey, 1990.

3.3.3 LARGE COMMUNITY SERVING MARKET

Kurmi is the only market in the large community level. The market has a smaller area of coverage compared to Sabon-Gari market. Majority of the market's customers tend to flow from within the city limits and infact only very few attend the market from other state mostly for the purchase of locally made crafts such as leather works materials. The market only supplemented by Rimi market in the offering of lower order commodities, tends to recieved customers from all over the city for the purchase of all types of goods. This means that people have to travel to obtain all order of goods regardless of the distance. The customers' patronage to Kurmi market as provided by Table 12 and illustrated in Figures 9(j) and 12 indicates that 49.2 percent come from the city. This reflects the facts that the market mostly serve the surrounding community. Another significant source of patronage to Kurmi market are the numerous villages and towns within the metropolis. This can be easily associated with traditional nature of the market providing not only exchange opportunities but also social interaction among the urban and rural populace.

TABLE-12: Origins of Customers to Kurmi Market

Serial Number	Origins	Number of Respondents	Percentage of Respondents
I	City	280	49.20
II	Other Parts of the Metropolis	189	33.20
III	Tudun-Wada	46	8.08
IV	Outside the Metropolis	36	6.33
V	Sabon-Gari	8	1.40
VI	Sharada	8	1.40
VII	Other States	2	0.39
Total		569	100.00

SOURCE: Field Survey, 1990

3.3.4 SMALL COMMUNITY SERVING OR NEIGHBOURHOOD MARKETS

The markets in this group constitute the neighbourhood markets and as can be seen from Table-13 the markets are reachable from varied distances ranging between 0.5 kilometre and 8 kilometre.

Customers to Rimi market as the analysis (Table 13) reveals originated mostly from within the city and from other parts of the metropolis such as Hotoro, Gyadi-Gyadi and even beyond. This is justifiable from the respective figures of 75 percent

TABLE - 13: Distances to Neighbourhood Markets

Market	Average Distance (Km)
Rimi	8.0
Sharada	2.0
Gama	2.0
Sheka	0.5
Tarauni	2.5
Bachirawa	1.5
Tudun-Wada	1.8

SOURCE: Field Survey, 1990.

and 25 percent. Patronage area of Rimi market is greatly influenced by the nearby location to the market of the City General Hospital, since visitors to the Hospital sieze the opportunity of stopping-by to buy one or more goods. This is of course due to convinience reasons which take significant proportion of the customers' preference to the market. These breakdown is shown in table 14 and figures 9(k) and 13. 13 below.

Tarauni market attracts customers from its immediate surroundings of Tarauni, Hotoro, Gyadi-gyadi, Badawa and different parts of the Government Reservation Area (G.R.A). These respectively form 50 percent,

18.75 percent and 12.5 percent. These customers spread in areas close to the market site are obviously attracted to it due to its closeness to them. Table 15 and Figures 9(t) and 13 show the pattern of customers' flow to Tarauni market.

Gama a nearby market to that of Tudun-wada extends its influence to places as Gama 35.29 percent, Tudun wada 7.8 percent, Tudun Fulani 23.52 percent, Tudun Murtala 19.60 percent, Brigade 9.80 percent and Gawuna 3.99 percent. Customers from Tudun Wada, yet bye-passing Tudun-wada market to visit Gama market are mostly there on social and convinience grounds. These are shown in Table 16 and Figures 9(n) and 13.

Tudun-wada market tends to have less attraction on such places as Gama, Tudun-Murtala, Brigade and Tudun-Fulani than Gama market which is clearly due to the fact that these places are closer to Gama market than they are to Tudun-Wada market. The influence of Tudun-wada market is such that it attracts 54.83 percent from Tudun-wada, 6.45 percent from Brigade, 12.90 percent from Bompai, 6.45 percent from Tudun-Murtala 3.22 percent from Tudun-Fulani, 9.7 percent from Dakata and 6.45 percent from Gama. The flow of customers from those various places is shown in Table 17 and illustrated both graphically in Figures 9(I) and 13.

METROPOLITAN KANO



FIG 13. ORIGINS OF CUSTOMERS TO

R RIMI | S SHARADA | TW T/WADA | T TARAONI

SH SHEKA | B BACHIRAWA | G GAMA

DANGORA I.W.
MSc URP ABU
ZARIA 1990

TABLE - 14: Origins of Customers to Rimi Market

Serial Number	Origins	Number of Respondents	Percentage of Respondents
I	City	18	75.0
II	Other Parts of the Metropolis	6	25.0
Total		24	100.0

SOURCE: Field Survey, 1990

TABLE - 15: Origins of Customers to Tarauni Market

Serial Number	Origins	Number of Respondents	Percentage of Respondents
I	Tarauni	8	50.00
II	Hotoro	3	18.75
III	Gyadi-Gyadi	3	18.75
IV	Badavia	2	12.50
Total		16	100.00

SOURCE: Field Survey, 1990.

TABLE - 16: Origins of Customers to Gama Market

Serial Number	Origins	Number of Respondents	Percentage of Respondents
I	Gama	18	35.29
II	Tudun-Fulani	12	23.52
III	Tudun-Murtala	10	19.60
IV	Brigade	5	9.80
V	Tudun-Wada	4	7.80
VI	Gawuna	2	3.99
Total			100.00

SOURCE: Field Survey, 1990

TABLE - 17: Origins of Customers to Tudun Wada

Serial Number	Origins	Number of Respondents	Percentage of Respondents
I	Tudun-Wada	17	54.84
II	Bompai	4	13.00
III	Dakata	3	9.60
IV	Tudun Murtala	2	6.45
V	Gama	2	6.45
VI	Brigade	2	6.45
VII	Tudun Fulani	1	3.21
Total		31	100.00

SOURCE: Field Survey, 1990

Bachirawa, Sharada and Sheka markets as can be seen from their respective analysis in Tables 18, 19 and 20 illustrated on their respective maps and also in graphic figures 9(s), 9(k) and 9(n) respectively.

TABLE - 18: Origins of Customers to Bachirawa

Serial Number	Origins	Number of Respondents	Percentage of Respondents
I	Bachirawa	8	40.0
II	Kurna	4	20.0
III	Rijiyar Lemo	3	15.0
IV	Miltara	3	15.0
V	Rafin Mallam	1	5.0
VI	Garun Iya	1	5.0
Total		20	100.0

SOURCE: Field Survey, 1990

TABLE: - 19: Origins of Customers to Sharada Market

Serial Number	Origins	Number of Respondents	Percentage of Respondents
I	Sharada	10	33.0
II	City	8	27.0
III	Gaida	4	13.0
IV	Ja'en	4	13.0
V	Gwazaye	2	7.0
VI	Rin i	2	7.0
Total		30	100.0

SOURCE: Field Survey, 1990

TABLE - 20: Origins of Customers to Sheka Market

Serial Number	Origins	Number of Respondents	Percentage of Respondents
I	Sheka	5	79.0
II	Hausawa	2	21.0
Total		7	100.0

SOURCE: Field Survey, 1990

3.40 PHYSICAL CHARACTERISTICS OF MARKETS

Having hierarchically classified the markets in Kano township according to levels of functional status, it is only convinient at this point to select particularly the general goods markets from each level of the hierarchy for the analysis of their physical characteristics. This selection method is used basically because of two reasons. Firstly, there is the fact that general goods markets are the most frequently visited than the specialized markets and secondly running through all levels of the hierarchy provides a cross-section and cross-patterned picture of all the markets with regards to their physical characteristics. For these reasons the following markets are selected:

(a) Sabon Gari

(b) Kurmi

(c) Rimi and Sharada

However, a brief discussion of the specialized goods markets will be done.

3.4.1 Location

The locational issue now under consideration is in contrast to the locational characteristics disscused

above, since here it is viewed in relation to the areas markets are sited as opposed to the locational characteristics of markets in relation to the population they serve.

Sabon Gari market is located, as the name suggests, at Sabon Gari area of the township. Its location is somewhat central to the whole township, and this makes the market site to neighbour residences, department stores and certain industries like the Coca-cola Company. For a market of its nature, i.e., patronage characteristics, it is not of easy access since customers originating from outside the township have to traverse an enourmous part of the township to reach their destination.

The location of Kurmi market is even worse than that of Sabon Gari because it is sandwiched on all sides by areas of extreme high residential density. The same situation is obtained in Rimi market which is located on mid-eastern part of the city only some few kilometres from the centrally located Kurmi market. It is only in Sharada market that the location even though surrounded by settlement but the density seems a little relaxed as against the other markets.

It can thus, be clearly stated that Sabon Gari, Kurmi and Rimi markets are characterized by limited site spaces which allow no future expansion of trading activities. The condition is less severe in Sharada market whose present site is yet to be fully developed.

3.4.2 Area Coverage

As mentioned earlier the present sites of Sabon Gari, Kurmi and Rimi markets allow no future horizontal expansion and the markets have to content themselves within their limited spaces. Table 21 gives the approximate area coverage of the four selected markets.

TABLE - 21: Area Coverage of Four Selected Markets

Market	Area in Hactres
Sabon Gari	19.19
Kurmi	12.13
Rimi	2.00
Sharada	2.25

SOURCE: Field Survey, 1990

It is within these limited areas of the different markets that are accommodated stals, walking spaces

and other facilities, utilities and services of varying dimension of land requirements.

3.4.3 Nature of Stalls

Except for Sabon Gari and Rimi markets, the market stalls can be easily classified into two or three types; those of temporary and permanent nature and those of historical and architectural value.

Sabon Gari and Rimi markets having been redeveloped have their stalls very much standardized with respect to their nature since they are all of permanent type built with the burnt bricks and their sizes developed on standard dimensions of 3 x 3.5 metre and 3 x 3 metre. Sharada and Kurmi markets however, have varied types of stalls. In Kurmi market majority of stalls numbering 4133 which is about 73 percent of the total stalls of 5,691 are built of temporary materials such as corrugated zinc and wood while only 1,558 equivalent of 27 percent of the total are built. Even of this number much fewer are of durable concretized materials, i.e., substantial part of them are made of mud. The implication here is that the corrugated zinc type stalls are characterized by excessive heat in the day which corresponds with the trading hours. This is even more inconviniencing

considering the climatic condition of the area. There are also to be found buildings of architectural value which still stand in Kurmi market. Sharada market with over 600 stalls have all the six hundred stalls of standardized sizes and made of durable materials with only very few of its total stalls made of temporary thatch and sticks materials.

Having seen the nature of stalls in these markets, the following table 22 gives proportions of market area they occupy in each market.

TABLE - 22: Total of Market Area Occupied by Stalls

Market	Actual Area Covered by Stalls (Hectare)	Percentage of the Total Area
Sabon Gari	6.34	33.04
Kurmi	6.739	55.56
Rimi	1.08	54.00
Sharada	0.739	32.88

SOURCE: Field Survey, 1990

From the above table 22, it is clear that there is high use of market space for trading purpose in Kurmi market and Rimi market, so as to accommodate as many traders as possible. This makes the two markets

to be very much crowded by stalls while Sharada and Sabon Gari markets are just developed to incorporate not only the trading activities but many other uses.

3.4.4 Circulation, Parking and Walkways

Circulation around these markets except for Sharada is characterized by high traffic congestion. Sabon Gari market being the focus of all trading activities becomes congested from morning to evening, the hours during which it operates. This is despite the adequate parking spaces provided to incoming customers and traders. The congestion is mostly on the major ring road along which curb parking by buses and other vehiclar traffic is obvious.

Around Kurmi market congestion is only restricted to certain confluence points where buses and other vehicular traffic wrongly park and also the narrow nature of the ring-road which hardly provides sufficient space for smooth traffic flow. This situation led to restricting the direction of traffic movement to a single direction (one way) system. This has however, little or no positive impact on the congestion of traffic.

Around Rimi market, congestion is eminent only along the major side road linking the market to its areas of patronage like Kofar Nasarawa and the city hospital. Along this road curb parking is so rampant and the fact that provision for such parking is not enhanced continuously led to traffic congestion.

Sharada market, however, completely isolated from the major roads by residences and the vast land of Federal aviation transmitting station and also with sufficient land outside its realm is generally free from the boring problem of traffic congestion. This is made a much traffic free market by the fact that hardly do vehicular traffic visit the market because of its inward location from the main roads.

TABLE-23: The Actual Market Area Allocated to Circulation, Parking and Walkways

Markets	Actual Area Occupied by Parking, Walkway and Circulation (Hectare)	Percentage of the Total Area
Sabon Gari	11.29	58.85
Kurmi	4.58	37.8
Rimi	0.568	28.40
Sharada	0.596	26.5

SOURCE: Field Survey, 1990

Internally, the physical conditions of these markets with regards to circulation for both vehicular and pedestrian traffic and parking space provision are varied. In Sabon Gari market there is ample space for both pedestrian and vehicular circulation. This together with the numerous parking spaces provided account for about 58.85 percent of the total market area as can be seen in Table 23. Infact the ease of pedestrian movement is enhanced not only by the provision of this ample circulation but also by the restrictive policy of allowing vehicular traffic into the market premises only after the closure of trading activities.

In Kurmi market internal circulation, for both pedestrian and vehicular traffic, and parking spaces provision consumes about 37.8 percent of the total market land. However, because of the confused and haphazard distribution of stalls, pedestrian flow becomes very difficult. This is even worse when consideration is given to the narrowness of the walkways and at some points within the market, there is the conflict between vehicular and pedestrian traffic.

In both Rimi and Sharada markets, circulation and parking forms about 28.40 percent and 26.5 percent respectively, even though the parking provided in Rimi market falls completely at a space separated from the walls of the market. Because of the simplified pattern of flow and the fact that vehicular traffic in both cases are restricted only to the outside parking areas makes pedestrian circulation easier.

3.4.5 Provision of Essential Facilities, Utilities and Services

The adequate provision of utilities, facilities and services essential to trading activities make market place more functional and attractive. To this regard such utilities as water, electricity, and telephone; services like Banks, Administrative offices, Fire service office, post office and police station and also such relevant facilities as toilets, organized refuse dumps, ware-houses, workshops, dispensing clinics and restaurants are very essential.

The total market area occupied by these required facilities, utilities and services is provided for each of the selected markets in Table 24 below. However, the provision of these facilities, utilities and services in accordance to standard are only the characteristics of well planned markets.

TABLE - 24: The Amount of Market Land Occupied by Facilities, Utilities and Services

Markets	Area Occupied by Facilities, Utilities and Services (Hectare)	Percentage of Total Area
Sabon Gari	1.25	6.51
Kurmi	0.706	5.82
Rimi	0.163	8.16
Sharada	0.010	0.44

SOURCE: Field Survey, 1990

The provision of essential utilities as water, electricity and telephones is characteritics of Sabon Gari market. Facilities as toilets, ware houses, workshops, dispencing clinics are adequately provided in Sabon Gari market leaving out such essential ones as refuse dumps, restaurants and drainage lines. Other essential services available in the market are fire service office, bank, police station, administrative office, etc. These makes Sabon Gari market followed by Rimi to be the few well organized markets in Kano.

Kurmi market however, has police station, post office and very few deteriorated toilets, administative office and court for settling conflicts that might

arise in the course of business undertaking. Other available utilities are of course water and electricity.

Sharada market which is just a developing market, recently established has water, toilets, electricity and one of stalls serving as administrative office.

3.4.6 Open Spaces

The importance of open spaces within the market site can not be over-emphasized, at least for one function, that is of breaking monotony of the exhausting and tiring shopping expedition.

In Sharada market which is just developing, there is open space taking about 0.9 hectares of the total market area thereby, covering about 40.02 percent.

Rimi market has about 8.0 percent of its total area as open space while in Sabon Gari market only about 0.90 percent serves as open space. In Kurmi market, however, there is no space left unused except of course for the narrow drainage line which is also gradually being encroached by stalls.

3.4.7 OTHERS

Other facilities within the market site are also provided in these markets. The most important among them being Mosques and praying grounds. Provision of land to this usage is attached so much importance, particularly, in Rimi, Kurmi and Sabon Gari markets where it consumes 1.44 percent, 0.82 percent and 0.70 percent of the total market land. The provision of Mosque is very well distributed in Sabon Gari market since every sector or the market has its own Mosque just centrally located.

In Rimi market the Mosque just as the restaurant and the toilets, it is centrally located within the market site ensuring easy and somewhat equi-distant access to the whole traders. The distribution of Mosques in Kurmi market is highly irregular creating a situation whereby people in some parts of the market have to cover very long distance to pray in these Mosques. This situation actually makes people to convert the frontage of their shops into praying grounds. This same situation is common in Sharada market where only one Mosque is available and it is situated at the extreme Southern end of the market.

TABLE - 25: Composite Table of Area Coverage of Different Land Uses

Market	Area Covered by Circulation and Parking		Area Covered by Facilities, Utilities and Services		Area Covered by Open Spaces	
	Actual (Hectare)	Percentage	Actual (Hectare)	Percentage	Actual (Hectare)	Percentage
Sabon Gari	11.29	58.83	1.25	6.51	0.173	0.90
Kurmi	4.58	37.8	0.706	5.82	-	--
Rimi	0.568	28.40	0.163	8.16	0.16	8.0
Sharada	0.596	26.5	0.010	0.44	0.90	40.02

SOURCE: Field Survey, 1990

TABLE - 25: (Continued)

Market	Total Area Covered by Other Structures and Uses		Area Occupied By Stalls		Total
	Actual (Hectare)	Percentage	Area (Hectare)	Percentage	Area (Hectare)
Sabon Gari	0.134	0.70	6.34	33.04	19.19
Kurmi	0.1	0.82	6.74	55.56	12.13
Rimi	0.03	1.44	1.08	54.00	2.00
Sharada	0.004	0.18	0.74	32.88	2.25

SOURCE: Field Survey, 1990

As regards the actual type of facilities, services and utilities available in these markets can be described as grossly inadequate and in some cases it is the distribution of these facilities and utilities that is quite faulty.

All the selected markets are connected with electricity, however, many stalls are not connected to it except of Sabon Gari and Rimi markets. As Table 26 shows, the number of respondents whose stalls are connected and not connected by either electricity or telephone. As far as the provision of tap water is concerned, all the markets have varying numbers of taps installed in the premises of the existing Mosques. However, the distribution is quite uneven since a large gathering of traders may not be opportuned of having a Mosque nearby while others may have themselves surrounded by these Mosques. Whatever the condition of water, Sharada is the least in terms of number of tap heads with only one standing faucet.

Toilets are also available in Sabon Gari, Rimi, Kurmi and Sharada. However, the deteriorating condition of these toilets in Kurmi market make them useless.

Another service of great importance as far as markets are concern is ware house for storage.

TABLE - 26; Services Available in Selected Markets

Market	SERVICES AVAILABLE			
	Electricity	Telephone	All Available	None Available
Sabon Gari	903	47	47	-
Kurmi	123	--	--	446
Rimi	24	--	--	-
Sharada	21	--	--	9

SOURCE: Field Survey, 1990

Sabon Gari is the only market where ware house are provided. Rimi and Sharada markets being neighbourhood markets may not necessarily require such service because their volumes of trade are small. However, Kurmi market been second to Sabon Gari needs such service where traders can store their commodities. Layout plans of these markets are shown in Figures 14, 15, 16 and 17 respectively.

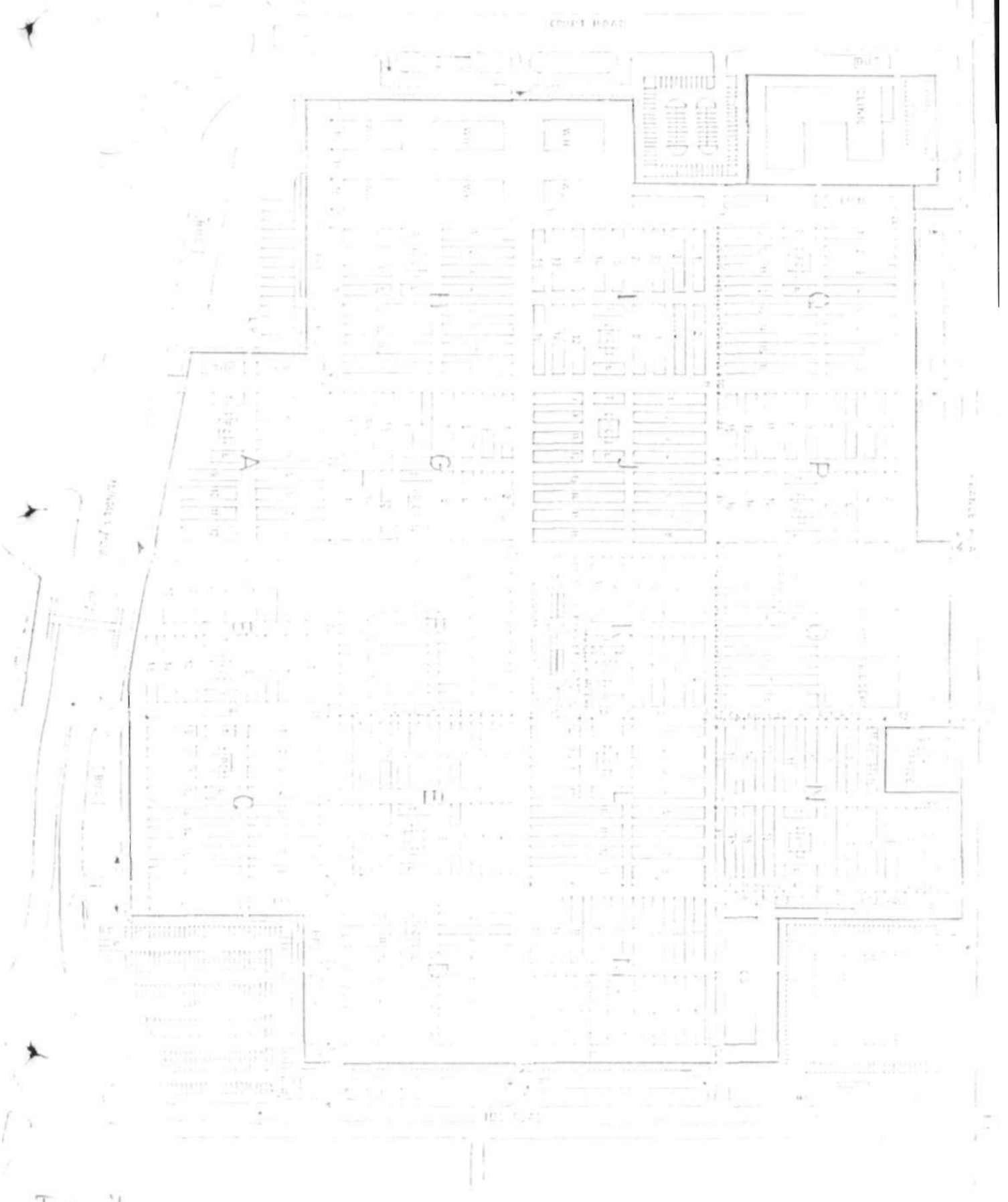
3.4.8 Physical Characteristics of Specialized Goods Markets

3.4.8.1 Location

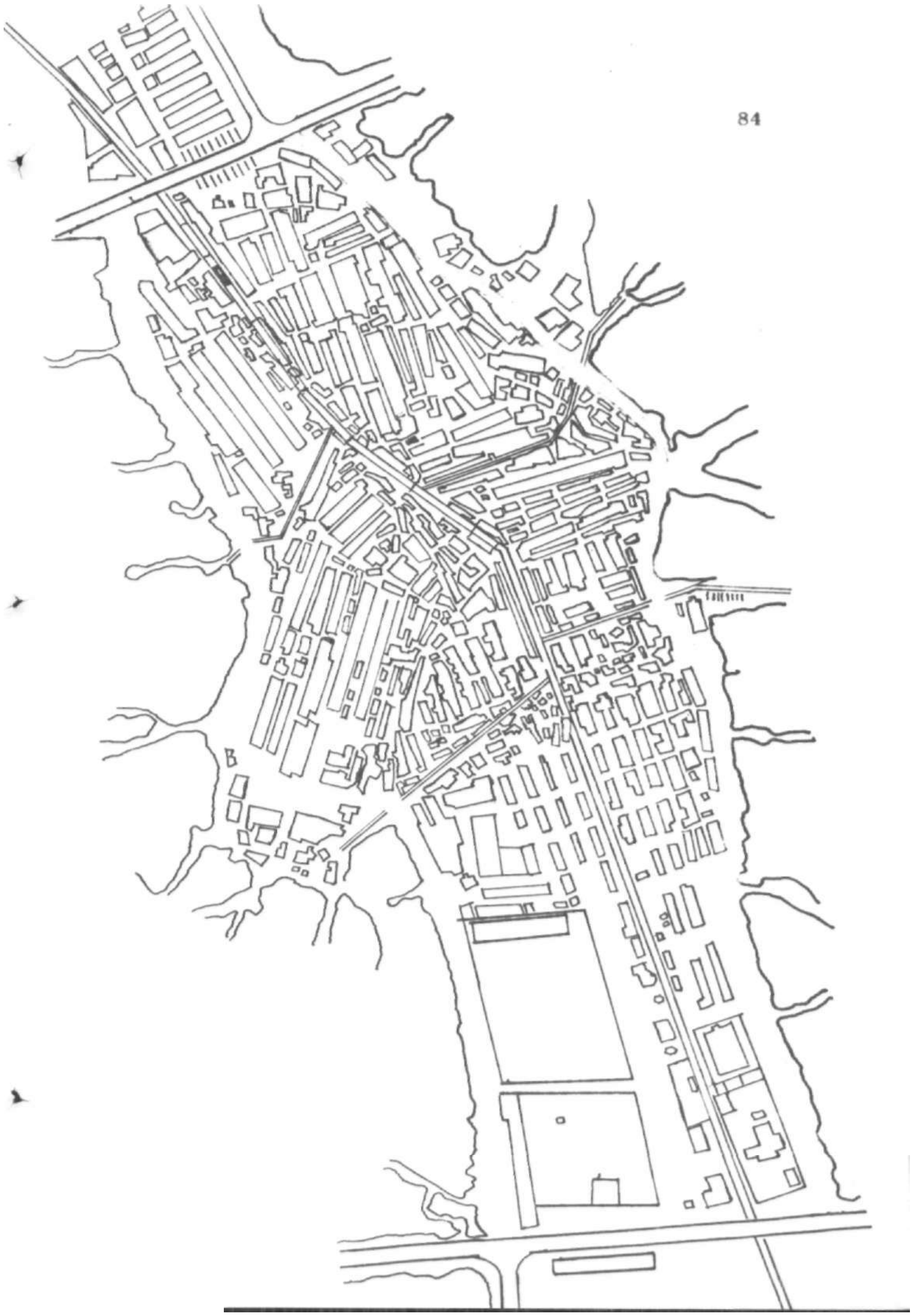
The specialized markets expected to serve much wider community covering not only the metropolitan area but infact the whole state and beyond should locationally occupy such sites that are not only easily accessible to the metropolitan population but even far beyond.

Yan Kaba, Dawanau, Kofar Ruwa and Yan Lemo are located on sites that are at the various approaches into the township and are all well connected to their areas of patronage.

Kara, Kwari, Yan Awaki and Kofar Wambai markets are however, somewhat located amidst areas of dense

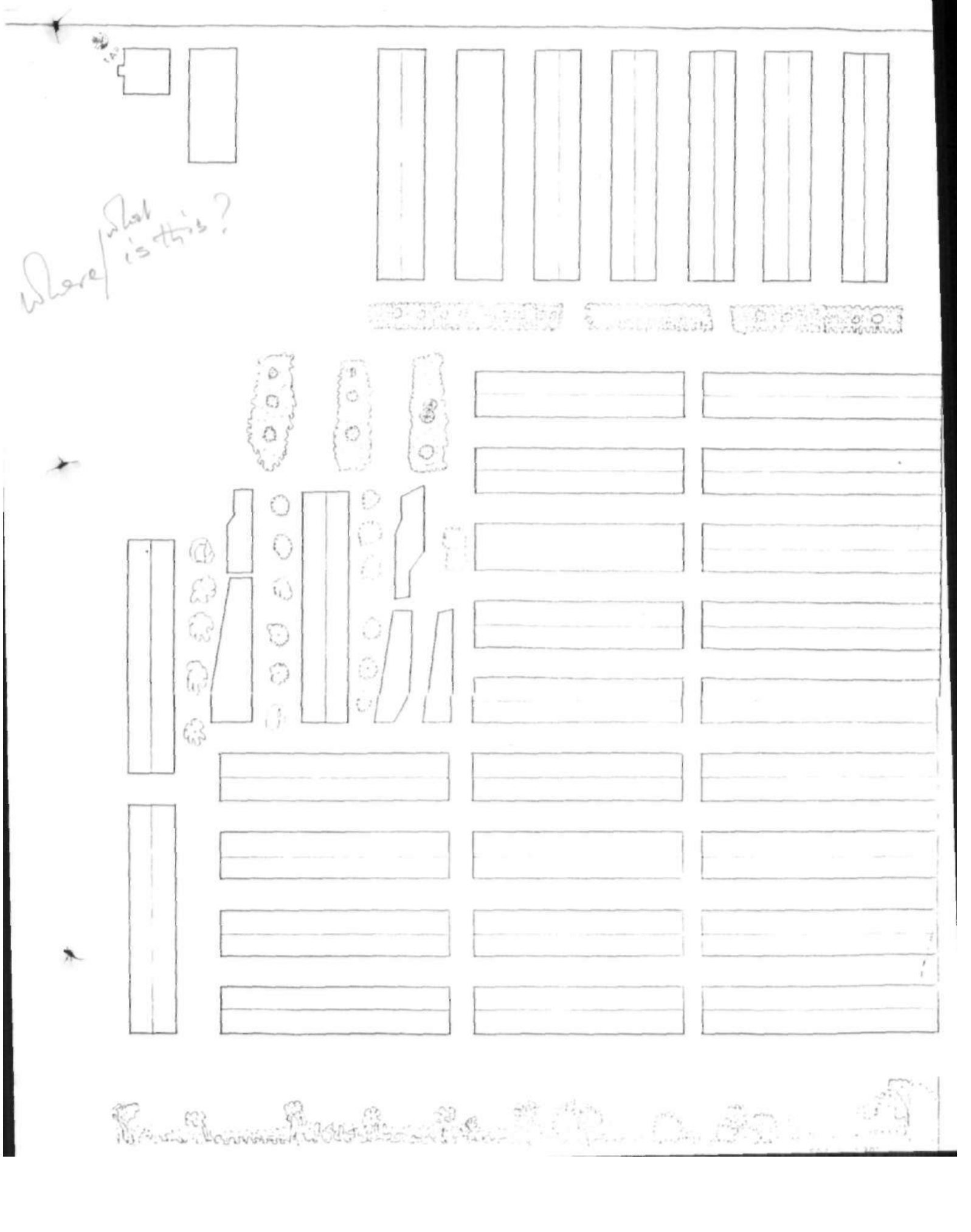


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EXISTING RESIDENTIAL DEVELOPMENT
EXISTING RESIDENTIAL DEVELOPMENT
POLICE
CHANJUCHI TEACHERS' COLLEGE


Where/what is this?

residential development. Infact, for Kofar Wambai and Yan Awaki markets, their locations may be regarded as serving the retail requirements of their customers. Yan Awaki market in particular being an off-shoot of Maitatsine crisis ultimately come to occupy its present site instead of its previous site which is within the walled city. However, considering the proportion of customers and their various origins, Yan Awaki's present site is worth consideration as an easily accessible place. Kara market also located just outside the walled city serves both local and distant customers.

3.4.8.2 Nature of Stalls

By type, the stalls in these markets can be easily classified into two, viz the thatched materials type and the concrete made type of stalls. In Kara, Yan Awaki and Yan Kaba markets the stalls are generally made of local building materials. In Kwari, Dawanau, Kofar Ruwa markets, the stalls are generally made of concrete building materials.

3.4.8.3 Linkages and Circulation

Kwari, Dawanau, Kara, Yan Lemo, Kofar Wambai, Kofar Ruwa and Yan Kaba markets are all accessible by roads, infact some are even located close to main

regional highways. Yan Awaki market however, occupies a site only reachable by railway line that connects it to Kara and its regional catchment hinter lands.

Internal circulation within the markets, however, is such that only Yan Awaki and Kara have no vehicular access while Kwari market is accessible internally by double lane road linking the Northern and Southern extreme boundries. But like the remaining markets vehicular access is only by series of penetrating untared roads.

3.4.8.4 Area Coverage

Like their general goods counterparts, the speicialized goods markets occupy certain varying proportions of urban lands. Table 27 provides estimates of their area coverage.

TABLE - 27: Estimated Area Coverage of Specialized Goods Markets

Market	Area (Hectare)
Kara	1.5
Kwari	3.0
Dawanau	5.0
Yan Kaba	2.0
Yan Awaki	0.6
Kofar Ruwa	4.5
Kofar Wambai	6.0
Yan Lemo	2.5

SOURCE: Field Survey, 1990

3.50 ANALYSIS OF THE EXISTING PATTERN IN KURMI MARKET

Having assessed the physical conditions of four selected markets in Kano township, it was realised that among them Kurmi market emerged as the most congested in terms of its over concentration of stalls. And secondly, this situation has led to underdevelopment or even complete absence of some required landuses in the market. For this an indeapth analysis of the physical condition of the Kurmi market is intended to be carried out.

3.50.1 Physical Setting

Kurmi market as mentioned earlier is located at the centre of the walled city. The market lies in a valley within which run the Jakara River and by this location it lies for about three metres below the general level of the surrounding land which in itself rises gradually to form the historic Dala and Goron Dutse Hills of about 518 metre and 534 metre respectively. Thus, the land surrounding Kurmi market lies at an altitude of between 450 to 500 metre. This depressed nature of the market area makes it an area prone to the menace of flood during the heavy down pour of the rainy season.

The market is surrounded on every side by densely settled residences of such wards as Tudun Nufawa, Madabo, Gyaranya, Masukwani, Daganda, Koko, Kwalwa, Sheshe, Yangurasa, Sanka, Gabari, Darma and Kofar-Wambai. Foot-paths and roads join these wards to the market making accessibility possible from whatever approach.

3.50.2 Land Uses in the Market

The total land area of Kurmi market has been put to various uses right from its establishment. These different land uses are shown in Figure 18.

3.50.2.1 Public Offices

The market area is occupied by public developments where different offices are located. Among the offices are the Police station at Jakara, the Jakara Post office, Court, Administrative offices and the Jakara marternity hospital. These in one way or the other have a significant influence on trading activities of the market.

3.50.2.2 Roads, Foot Paths and Parking

Only very few well developed roads have direct contact with the market. On the extreme Western end of the market runs the major tarred but very narrow road which continues until it forms a

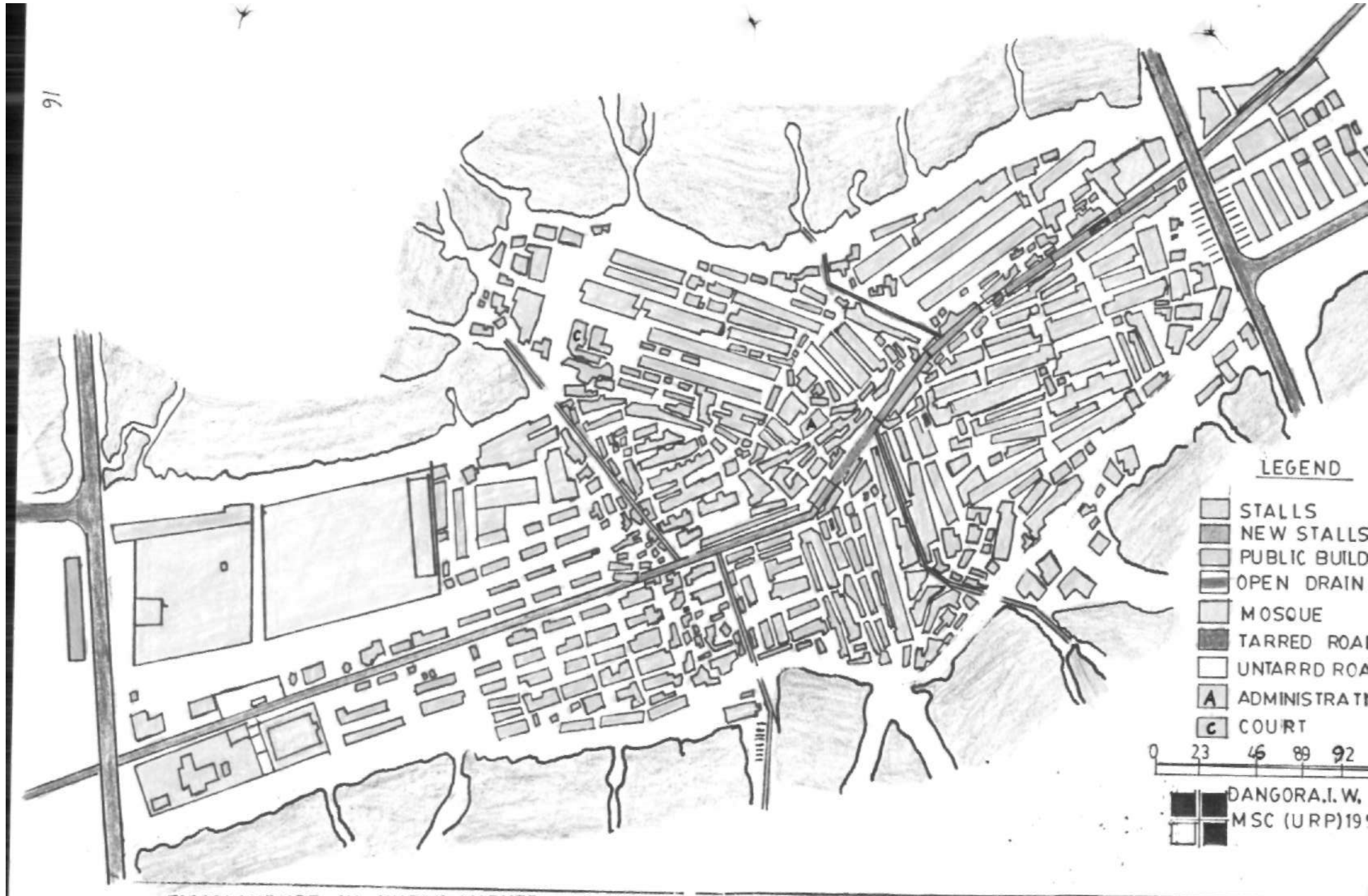


FIG 16 LANDUSE IN KURMI MARKET

complete ring road around both the market and some residential wards and eventually emerge to join the other tarred road at the Eastern end of the market area. Connected with this road are two other roads one of which joins the market to Sabon Gari as can be seen on the Eastern part of the market. The other road links the market to Goron Dutse thereby, making the market accessible to people from Western part of the city and to Gwarzo which is on the Western part of the State.

Immediately surrounding the market is a pair of untarred road one running from West to East on the Southern end of the market, the other also running West to East on the Northern end of the market. These two untarred roads are joined by other untarred roads from both Southern and Northern parts of the walled city. The one going North-wards meet the Ring Road at the Madabo junction while the other going South-wards meet the Ring Road at Makwarari junction. This is hyoothetically represented in Figure 19.

Apart from these roads there are many other foot-paths linking the market with its neighbouring wards.

With all these approaches to the market, parking spaces exist only at the two major approaches. One of

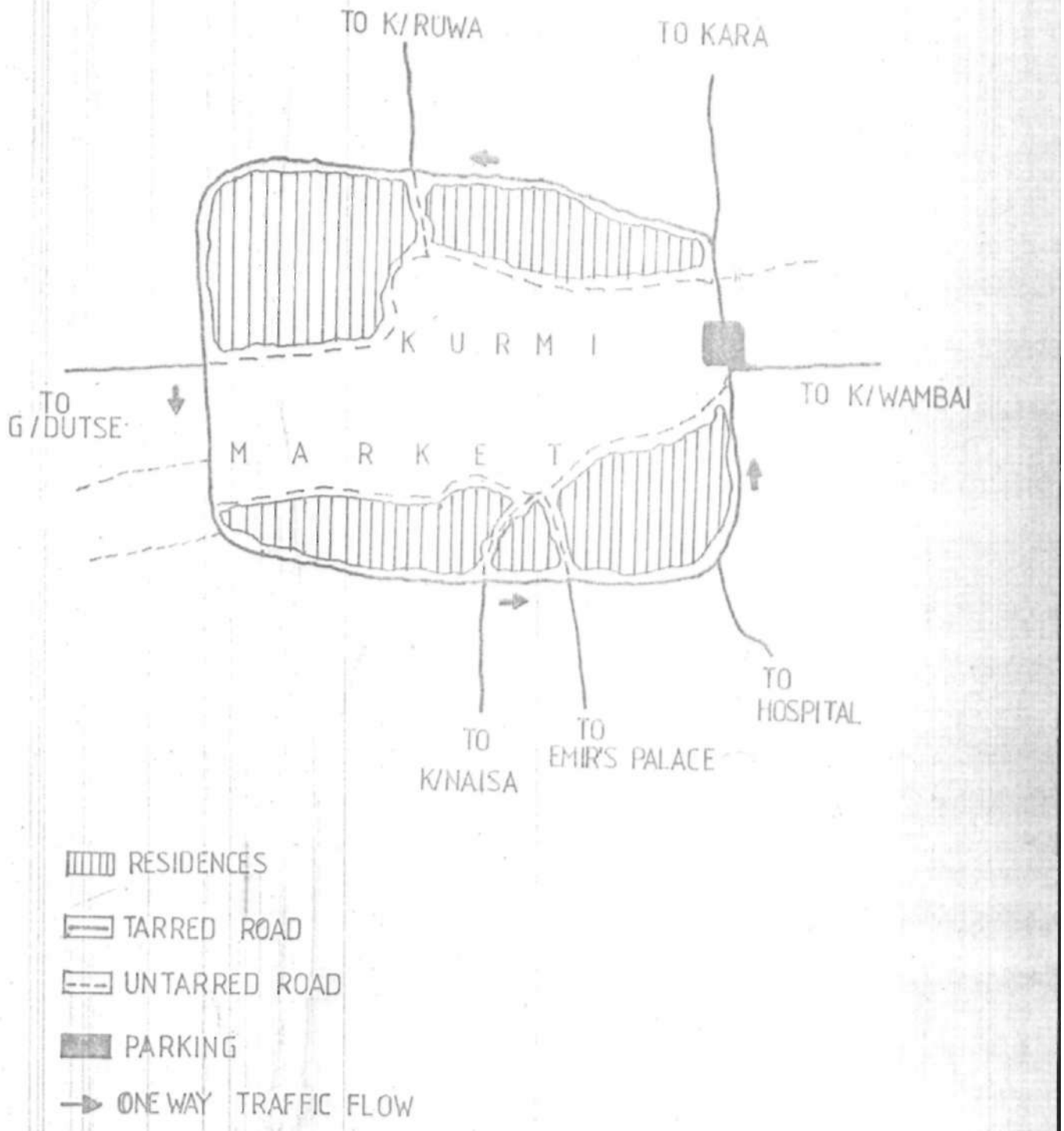


FIG 19: SKETCH OF LINKAGES TO KURMI MARKET

the parking serves traffic originating from Sabon Gari, Tudun Wada and infact all other places to the East and South of the City and even this is extremely congested by traffic because it is very narrow and can accommodate only limited number of vehicles. Another parking space provided on the Western end of the market is quite sufficient to contain very large number of vehicles but its inward location makes it a bit inconvinient to vehicles who prefer parking within the Post Office area.

3.50.2.3 Market Stalls

As mentioned earlier Kurmi market contains up to 5,691 stalls of different types depending on the nature of building materials used in erecting them. Further classification of stalls can be made with regards to their ages and physical condition.

3.50.2.4 Age of Stalls

From the available information, stalls in Kurmi market can, according to age, be classified into three. The first and infact the oldest group of stalls was constructed between in the 15 Century that is corresponding with the establishment of the market itself. These stalls, made of thick layers of mud walls still stand within the market. These stalls are contained in rectangular blocks of six to ten stalls.

The second category are those erected in 1904 that is corresponding with the period of colonial administration. These stalls are made of cement and stones. These form part of the few concrete made stalls in the market and still stand in a perfectly good condition.

The third group of stalls comprise those established in recent past. These are of different types as some of them are made of mud, concrete and majority made of zinc and wood. Most of these were very much destroyed by the occassional fire out-break leading to further deterioration in their quality.

3.50.2.5 Building Condition

Figure 20 shows that about four types of market buildings are easily and broadly discerniable. These include buildings of architectural value, i.e., those established in the 15th Century, buildings long life, i.e., those that can stand for many years to come which are mostly made of concrete and durable building materials, there are also buildings of medium life span, i.e., those made mud and which are mostly plastered, these can hardly withstand long period of incesant down-pour of rain and lastly there are also buildings of short life span which are generally made

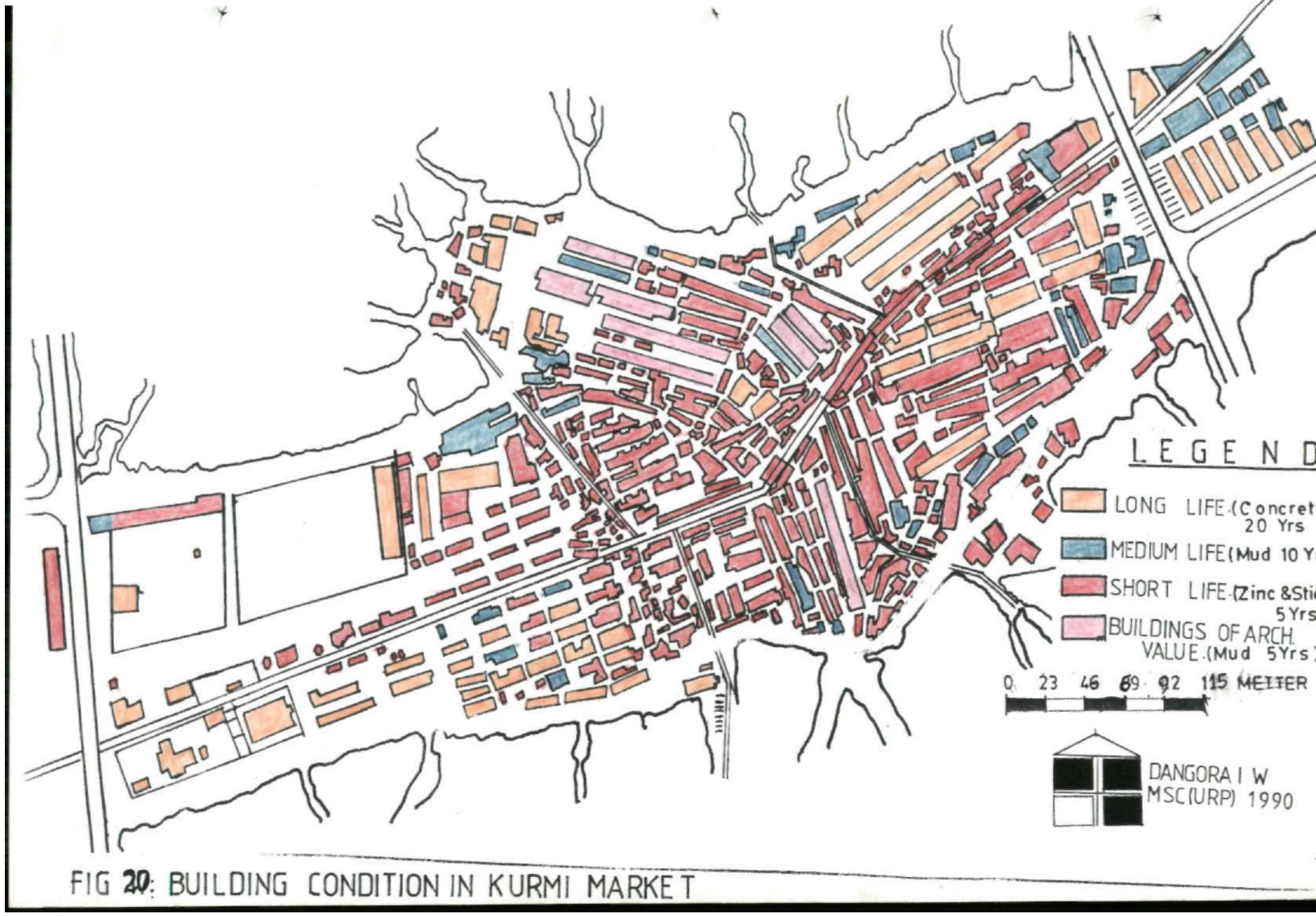


FIG 20: BUILDING CONDITION IN KURMI MARKET

of corrugated zinc and wood material and also those deteriorated mud stalls.

From comparative analysis of the work done on Kurmi market by Kabir,(1977); it is realised that presently, there is a general increase in the number of the short life structures as all the additional 367 stalls are of corrugated zinc and mostly in delapillated condition. It is discovered that over 70 percent of the market stalls are of short life span group and only about 27 percent fall within the medium and long life span categories.

3.50.2.6 Drainage

As already hinted, Kurmi market lies along the valley of Jakara River and this river, though presently converted to major gutter, runs from West to East. The incised valley now forms the major drainage line through which waste and storm water is discharged into Kwaringogau River to the North of Sabon Gari area. The river has its source from wards around Goron Dutse and thus, does not serve only the market but also other places West of it.

This large gutter is joined by other smaller gutters which empty their waste and storm waters from

the surrounding wards both to South and North of the Market. This drainage pattern is shown on the Kurmi land use structure. The drainage pattern is represented in Figure 18.

3.50.2.7 Other Uses

Apart from the few uses of space in Kurmi market already out lined, there are many smaller uses. Among these are such uses as toilets and Mosques.

Presently, there exist only four toilets in the whole market area and even these four are not evenly distributed. Their adequacy of course make them to be over used and since maintenance is very poor, they create a very filthy and unhealthy sights.

Mosque are also available in the market as a reflection of the people's culture. About five well built Mosque and many praying grounds can be found in the market.

3.50.3 Commodity Zoning in Kurmi Market

Zoning of different commodities sold in the market is somewhat organized since like commodities are concentrated in particular parts of the market. Infact the same phenomenon was observed in the market

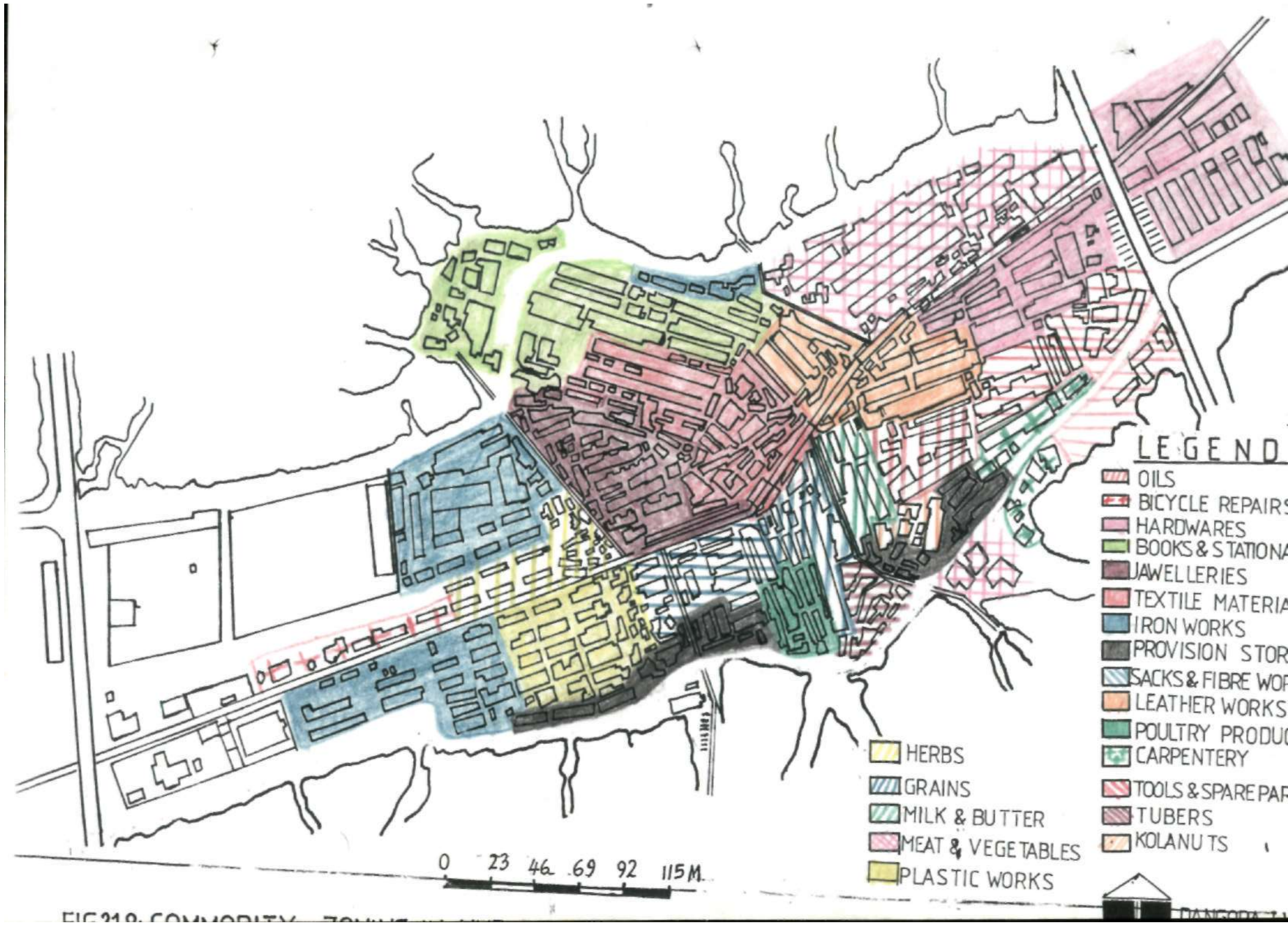


FIG 21.8: COMMODITY ZONING

by Kabir,(1977); though the commodities were not as numerous as is found nowadays. However, it is not uncommon to discover completely unrelated commodities neighbouring one another as is the case with juxtapositioning of such commodities as textile materials and meat and vegetables or iron works and jewellery sellers. This combination persists ever since the introduction of many of these commodities to the market. Commodity zoning in Kurmi market can be seen in Figure 21.

3.50.4 Traffic Analysis

Vehicular traffic of all kind frequent the Kurmi market from various origins. The market being an important element of the peoples' socio-economic lives serves as both a diverging and converging point of peoples' movements.

From the survey conducted, it is revealed that within a period of twelve hours at total number of 9,111 bicycles, 2,618 motor-cycles, 1,683 buses, 524 cars, 187 trucks, 1 tanker, 15 hand-cart (and wheel barrows) enter the market premises at one point or the other. However, only 17 Donkeys conveying loads were recorded. This and the analysis of outgoing traffic are provided in Table 28 below.

TABLE - 28: Traffic Analysis in Kurmi Market (Recorded Over 12 Hour Period)

Type	Number of In-Coming	Number of Out-Going
Bicycle	9,111	8,035
Motor Cycle	2,618	1,287
Buses	1,683	1,679
Cars	524	472
Trucks	187	187
Tanker	1	1
Hand Cart	15	17
Donkey	17	15

SOURCE: Field Survey, 1990

3.60 CONCLUDING REMARKS

The preceeding analysis covered the locational characteristics of both the general and specialized goods markets in Kano township. This part of the analysis established low closeness of markets influenced its customers' composition with regards to their origins.

The second part of the analysis centred around the physical characteristics of particularly some selected general goods markets. Contained here are

the nature of such things as the area coverage by stalls, circulation and parking spaces and other accompanying services facilities and utilities. After this, a highlight of the types of these facilities, services and utilities was given bringing out vividly the in adequacy or even a complete absence of the facilities and services.

Another issue covered is with respect to the identified most congested market. Here an indepth analysis of its physical nature was done including such issues as land use, nature of stalls in terms of age and building materials used in constructing the stalls and other things as the commodity zoning and traffic flow to the market were analysed.

It is with all these in mind that the following inferences were derived.

CHAPTER - FOUR

THE IMPLICATIONS OF THE PHYSICAL CHARACTERISTICS OF MARKETS IN KANO METROPOLIS

Having dealt with both the locational and morphological characteristics of markets in Kano metropolis it has become relevant to stress their implications. However, no adequate review of these implications can be complete without an outline of the general picture of these characteristics.

4.10 LOCATIONAL CHARACTERISTICS

Under the locational characteristics of markets, the centrality and accessibility of markets to their catchment areas were analysed. And from these it can be deduced that, using the varied distances covered by customers the average distances to regional or specialized markets is 96 kilometre. The distance covered to town serving market is 74 kilometre while that covered to the community market is 18 kilometre. The average distance covered by customers to the various neighbourhood markets is 2.6 kilometre.(See Table 29 below). This indicates that customers cover much longer distances to attend both community and neighbourhood serving markets. With regards to the region serving

TABLE-29: Average Distances to the Markets

Level	Distance
Regional	96 Km.
Town Serving	74 Km.
Community	18 Km.
Neighbourhood Serving	2.6 Km.

SOURCE: Field Survey, 1990.

markets a distance of 96 kilometre is justifiable particular considering the fact that these markets engage in the sales of specialized goods. This specialization of the markets is enough to draw customers from distant and nearby locations. This in essence means that trips to the specialized markets is not absolutely influenced by the distant locations of such markets. This is clearly reflected in the pattern of customer flow from such places as Enugu, Lagos, etc., to patronize these markets.

The town serving market also being the most dominant in the supply of generalized commodities is bound to attract customers from near and not too far places as the regional markets. This actually is reflected in the customer composition to Sabon-Gari market. The market draws customers from places spread around it. This makes

the market at a central location to customers from Katsina, Sokoto, Maiduguri and Nguru as well as to customers from Tudun-Wada, City, Tarauni and other parts of the metropolis.

Of great importance as far as local customer flow is concern are the community and neighbourhood markets. These can have clear and easy impact on the township population. In other words these markets have utmost dictates on the customer's trip for convinience goods and services. Their locations therefore, need to be moderately of easy reach, it is even moreso with respect to the neighbourhood markets which are suppose to be the closest to the customer especially in areas where other levels of markets do not exist. This therefore, makes it necessary for this work to review the standards provided on reachness distances to these markets. It is after this that a much clearer assessment of the locational characteristics to their customers can be made.

4.20 PHYSICAL CHARACTERISTICS

From analysis of the selected markets in Kano metropolis, it can be deduced that almost all the markets have one problem or the other. However, in terms of congestion, Kurmi market is found to be the most congested with 55.56 percent of it total area devoted to stalls

alone. This with the presence of other services, facilities and utilities make circulation extremely very difficult.

Taking a detailed study of Kurmi market, it is discovered that it is located along the channel of what used to be river Jakara, but presently encised into a large open gutter of about 5 metre width running across the whole market and thereby, deviding it into two. This main gutter is joined by other smaller tributories all coming from the neighbouring wards. Also discovered is the fact that about 73 percent of the market structures (stalls) are of corrugated zinc type and therefore, temporal. The general conditions of stall's in the market is deteriorating with only very few in good and well maintained condition. Commodity zoning in the market exhibits certain level of order thereby, making easy reach to any type of commodity easier. The flow of 14,139 vehicular traffic to the market premises within a period of twelve hours indicates that about 1,178 vehicles visit the market every hour. These amount calls for the provision of sufficient parking spaces rather than allowing curb parking that creates traffic congestion at some points.

A brief analysis of the physical characteristics of specialized markets accorded the ability of assessing their locational conviniences. Markets as Dawanau, Yankaba, Yanlemo and Kofar Ruwa are located towards the various approaches into the township. Kwari, Kara, Yan Awaki and Kofar Wambai, however, are somewhat located in areas of dense residential developments. With regards to the former, their peripheral locations make them effective in serving both their urban and regional customers. With respect to the later, however, accessibility to them from their regions are difficult having to traverse the whole town to reach them. This is even more difficult with respect to Kara and Yan Awaki markets whole goods are mostly conveyed to distant places by train.

4.30 SUMMARY OF FINDINGS

In short, it can be said that on the locational characteristics of markets, in relation to their customers, there is the need for the establishment of more community and neighbourhood serving markets at various convinient locations in order to ease and reduce the average distances covered by their customers.

Secondly, having found the site of Kara and Yan Awaki markets quite inconvinient to their customers,

FIG 22 SKETH LOCATIONS OF KARA YANAWAKI AND KURMI MARKETS



there is need of relocating them to some outer locations. The present locations of both Kara (Cattle) and Yan Awaki (Sheep and Goat) markets are shown in Figure 22.

On local scale, the condition of Kurmi market is found to be congested, badly maintained and wanting of different facilities, utilities and services. This there is the need for improving such condition. The location of Kurmi market is shown in Figure 22.

CHAPTER - FIVE

REVIEW OF CONCEPTS AND STANDARDS OF MARKET DEVELOPMENT

5.10 STANDARDS AND CONCEPTS OF MARKET'S LOCATION

Concepts exist only in the development of market centres on a regional context to guide on the location of towns proposed to serve varied or similar functions. Even in this case adherence to such concepts is limited because they always have to undergo different modifications to suit the existing situation.

Perhaps the most popular referred to among these concepts is the central-place theory developed in 1933 by a German scholar Walther Christeller. Other concepts of shopping are the gravity model, intervening opportunity model and individual consumer behaviour model.

5.11 CENTRAL PLACE THEORY

The central place theory based upon certain assumptions deals with the issue of shopping location in relation to the customers. The theory identified the fact that certain number of people or threshold population are required for a dominant town also known as central place, to provide the highest level of goods services (central goods and services) to its region of influence.

The theory forwards that the central place dominates the marketing distribution of goods within its service linterland because high order goods or central goods are obtained only from it. This makes the surrounding towns and villages to patronize the singular opportunity offered by this city and for this people travel all the way from the neighbouring subordinate towns to procure goods and services that are not offered in their own locality. Such goods and services are termed 'higher order goods' and can only be obtained in towns whose internal and regional population can sustain their supply because the population threshold is optimal. The central place or town occupies the most central location in relation to its region. Around this central town other settlements of varying order are arranged in a regular hexagonal pattern.

The central place theory has, however, suffered several positive attacks on its application. Most of the congestion problems caused in the nearest central place which make people to visit more distant centre which may not cause any delay. This brought about a decrease in the number of people visiting the centre.

The central place theory, however, remains, despite these criticisms an important and useful tool in the location of new centres.

5.12 GRAVITY MODEL

Application of the gravity model to shopping persistently holds so much respect to the gravitational attraction of trips as applied in the field of transportation planning. This traces its origin to the work of Reilly which assesses the differential attraction of trips to two cities from an intermidiate city. As applied to shopping, the model states that "two cities attract retail trade from any intermediate city or town in direct proportion to the population of the two cities and in inverse proportion to the square of the distances from these two cities to the intermediate town (Robert, 1974). An important distinguishing feature of this work is seen in its separation between shopping trips particularly influenced by the accessibility of the offering town and shopping trips made due to the attractiveness of the goods. The former is concerned with trips made to purchase regularly used items often called 'Convinience goods' "and was taken to be a function of the centre's accessibility to the resident population subject to limitations imposed by the centre's own competative level (Robert, 1974). The competative level of a centre is defined by the variety of goods if offers. The later, however, is concerned with centre's ability to offer durable goods which are not needed frequently.

This is dependent on the centre's accessibility and on its attraction which has to be measured in some way".

One thing common to both the central place theory and the gravity model is the issue of seeing trips to patronize a centre as a function of the type of goods and services that centre can offer. These goods and services thus, force the customers to either visit the nearest centre within their locality or to undertake a distant trip to obtain such goods and services that were not readily offered by the nearest centre.

Both concepts can therefore, be said to encourage close proximity of customers to centres that offer regularly required goods and services. This calls for the establishment of centres offering these goods and services at certain regular and nearest interval so as to ensure easy access from the residents to such markets.

It is as a result of an attempt to ensure this accessibility to centres, particularly in urban areas, that shopping centres are classified into different levels of hierarchy and standards of distances recommended to be covered to each level are outlined. The levels of hierarchy go as follows;

5.12.1 Local Group

6 to 10 shops, including a small market/selling space of some 1000 metre square per serving a local 1,500 resident population living within walking distance of 100 to 200 metre with convinience goods, food, drinks, confectionary, tobacco, newspapers, cleaning and toilet articles and other goods which are purchased regularly and often.

5.12.2 Neighbourhood Group

30 to 40 shops including a market, selling space of about 3,000 to 4,000 metre square and catering for a resident population of up to 10,000 people and offering convinience goods and some services. Located within a walking distance of about 800 metre.

5.12.3 Secondary or District Group

100 and more shops, serving a town or district of a large town of between 35,000 and 100,000 population, located within 3 kilometre walking distance.

5.12.4 Central Area Group

Have number of shops dependent upon the size and catchment area of a particular city or town

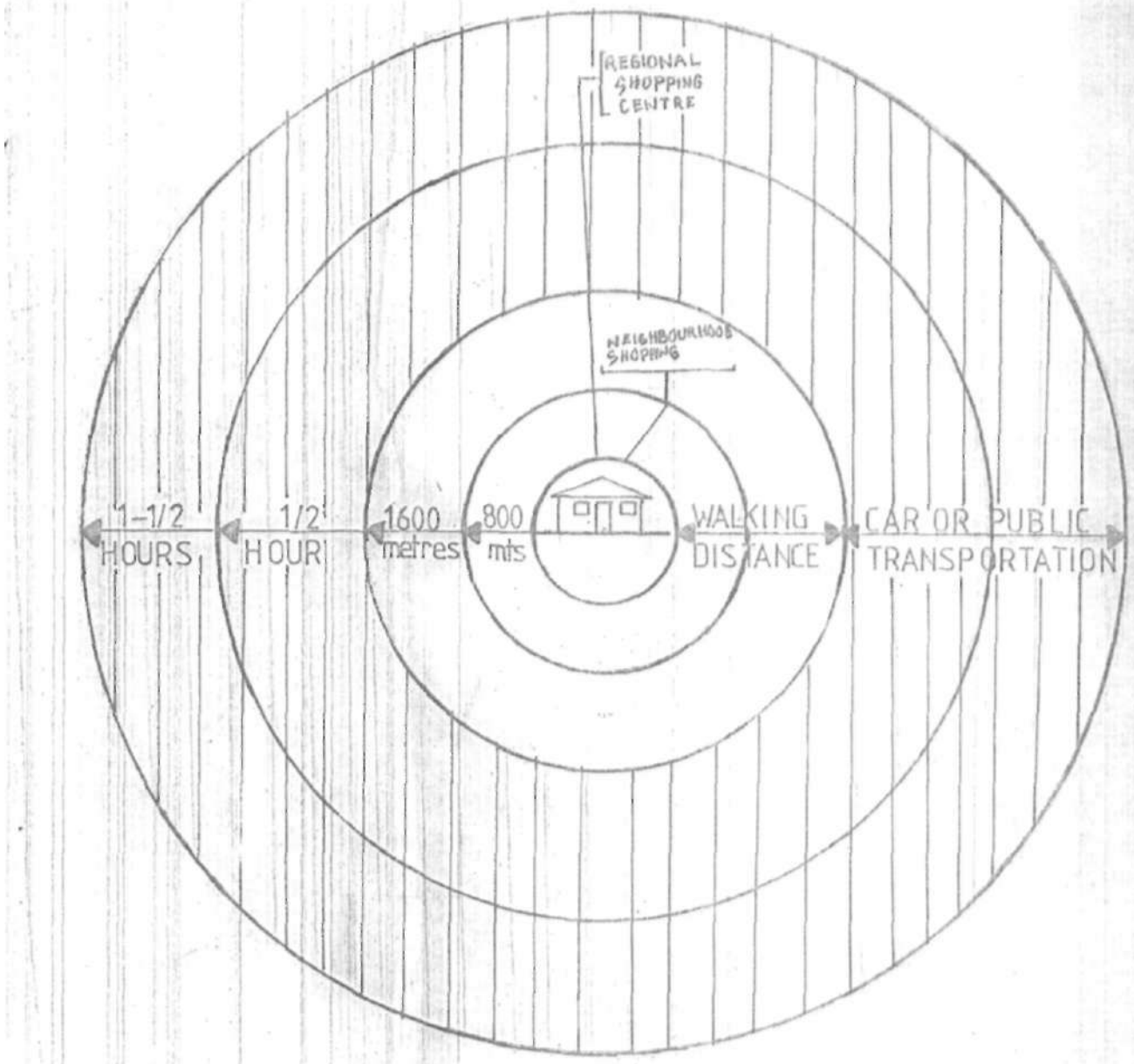


FIG23 CONCEPT OF WALKING DISTANCE AND MAXIMUM DRIVING TIME TO LEVELS OF PUBLIC FACILITIES IN URBAN AREA.

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ABU ZARIA
1990

SOURCE: J. DE CHIARA & L KOPPEMAN.

and offer a range of comparison goods as well as convinience goods. Comparison goods include clothing, footwear, fabrics, furniture, electrical goods and other goods which are purchased generally after coutious comparison of quality and prize. It also offer professional services.

5.12.5 Regional Centres

In a large city, these attract customers from at least 40 kilometre radius with a wide range of fashion clothing and shoes, furniture, electrical equipment and generally expensive and high grade products and including at least one departmental store.

These categories of shopping centres together with walking distances between them and their service population and also the number of people they are expected to serve are given in Figure 23. The standards given here as to the maximum reachness distance of public facilities fall in line with the provision of standards on reachness distances to different level of facilities as outlined by the metropolitan Kano 2000 master plan. In its provision it sees the whole Kano township as comprising of neighbourhoods forming communities and these forming large communities which ultimately and

collectively form the township. And in accordance to these units of residences public facilities such as convinience shops, craft, nursery, school, specialised shops, post office, banks, clinics, youth clubs, primary and secondary schools, etc. These levels of neighbourhoods forming communities and township are classified as 5 minutes walking distance for the neighbourhood, 10 minutes walking distance for the small community facilities, 15 minute walking distance for the larger community facilities and 30 minutes reachness distance further whole township serving facilities. These levels of residential units are shown in Figure 24.

5.20 CONCEPTS AND STANDARDS FOR MARKET DESIGN

Several concepts and standards have been developed to guide the design and development of new and existing markets. The concepts are mostly to guide the placement of different uses within the market, while the standards are to guide the amount of market land to be allocated to various uses.

5.21 CONCEPTS

Among the numerous concept perhaps the most important is that which relates shipping area to parking and vehicular circulation. These area of different

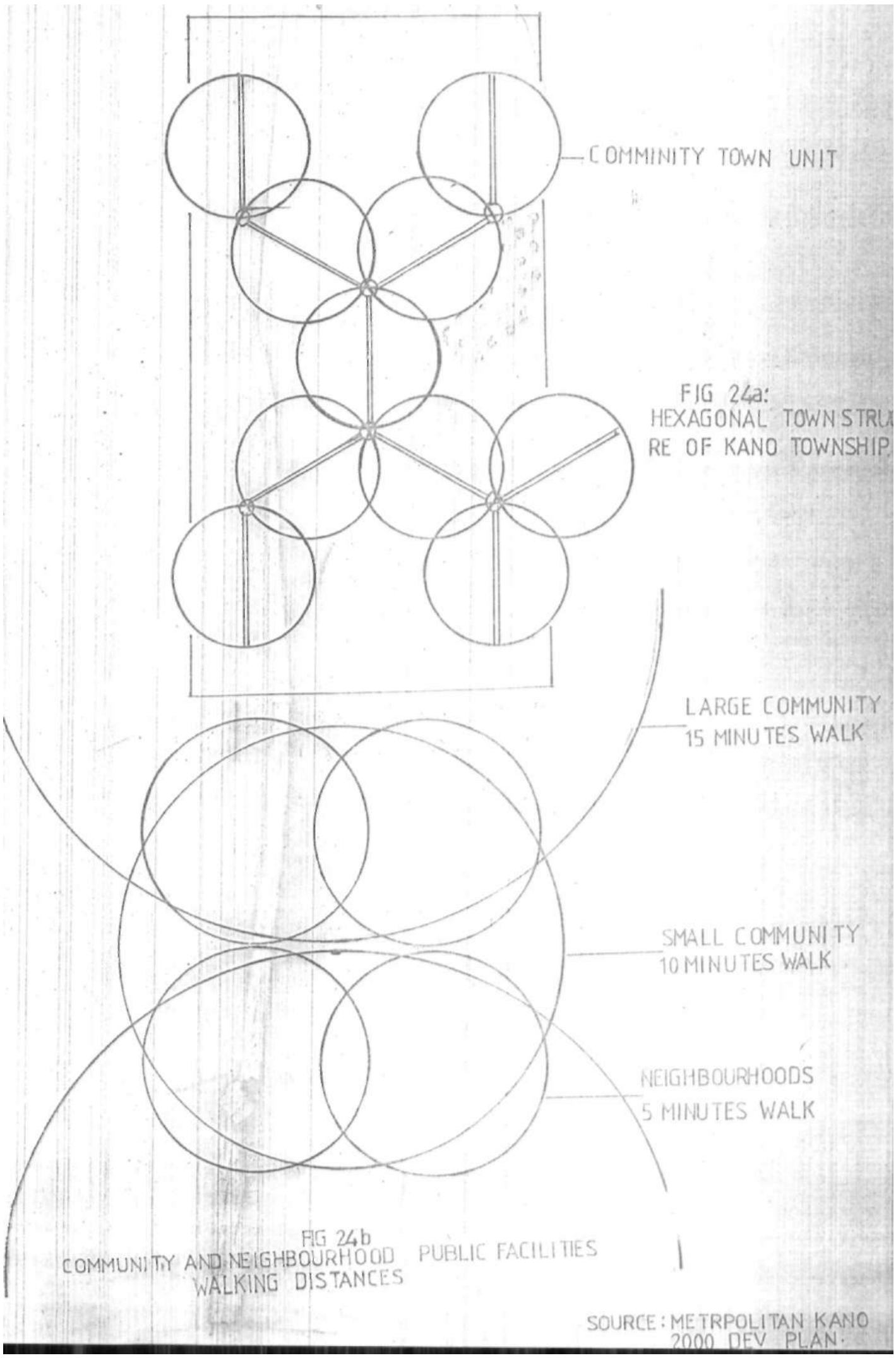


FIG 24a:
HEXAGONAL TOWN STRUCTURE OF KANO TOWNSHIP.

FIG 24b
COMMUNITY AND NEIGHBOURHOOD PUBLIC FACILITIES
WALKING DISTANCES

SOURCE: METRPOLITAN KANO
2000 DEV PLAN.

types depending on their varied perception of the relationship between parking, vehicular circulation, pedestrian circulation and the area of shopping. These are outlined below;

(a) Parking at periphery within market.

(b) Parking across the road movement across the road.

(c) Vehicular traffic within market.

(d) Parking below market.

All the four concepts reflect in one way or the other, the aspect of precinct development concept which aims at curtailing, as much as possible, the movement of vehicular traffic within the market so as to prevent pedestrian vehicular conflict. This alone enhances effectiveness of traffic flow and efficiency of shopping activity. In most cases these are only achieved through rational combination of two or more of the concepts.

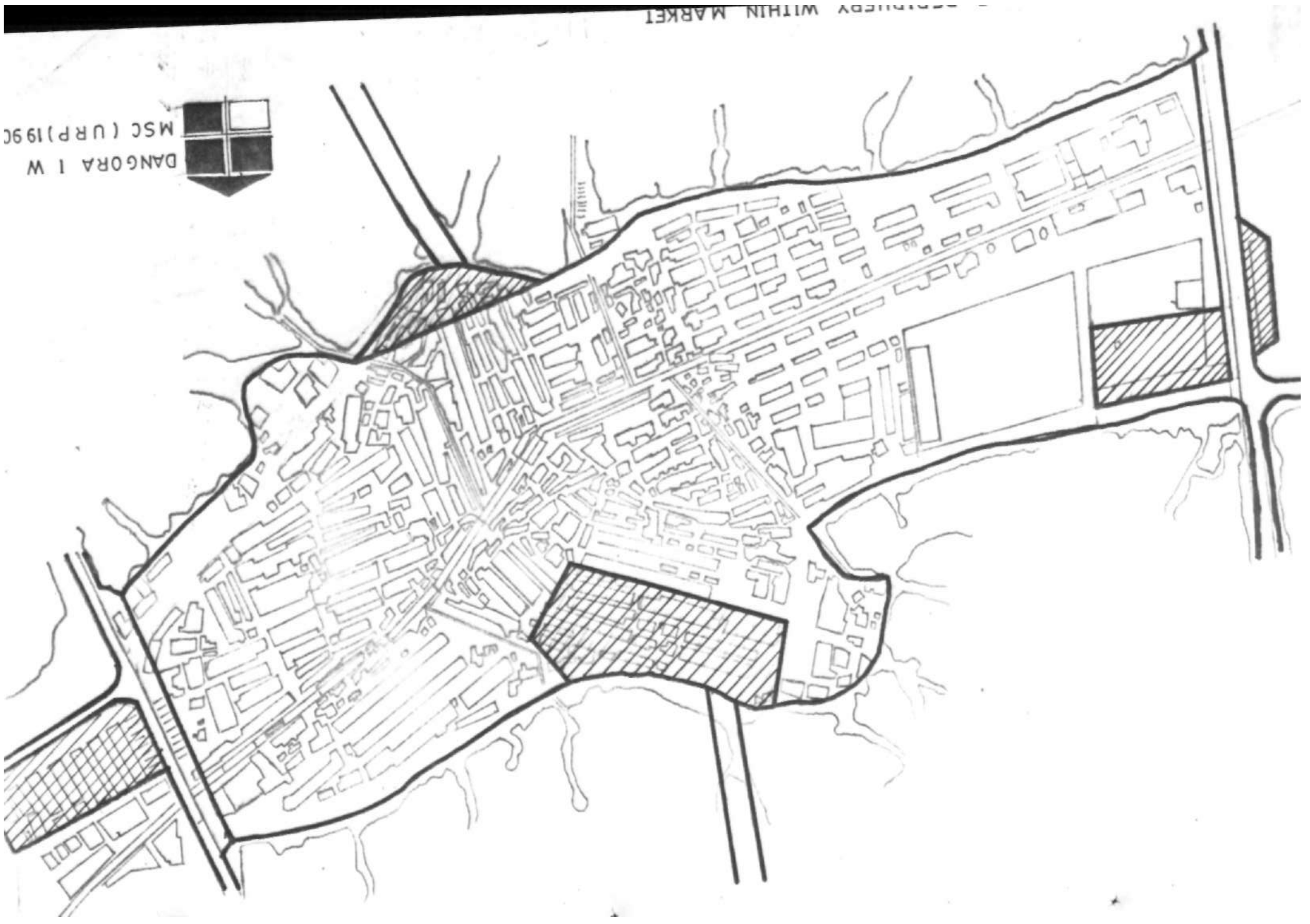
5.21.1 Parking at the Periphery Within Market

This concept involves the complete isolation of vehicular traffic from the market by providing adequate parking spaces at every side of the market land. From these parking areas leading pedestrian walkways are provided to ensure easy access from the parking area to every part of the market. This concept has the

disadvantage of restricting all vehicle from entering the market area, thereby making loading and off-loading of commodities to and from within the market area very difficult. Its major advantage is that circulation of pedestrian is improved and parking is easily accessible from every direction of vehicular flow. Other advantages are those of preventing the risk of cross crossing, and it also cut-down the cost of having to aquire land outside the market site, which can be very expensive particularly in densely settled urban areas. This concept is illustrated using real situation of Kurmi market's site in Figure 25.

5.21.2 PARKING ACROSS THE ROAD MOVEMENT ACROSS THE ROAD

This like the first concept also provides parking on every approach to the market. The only difference between the two, however, is that while the first concepts emphasize providing parking from the market land, this concept emphasize on providing parking spaces out of the market's land. Its advantage over the first concept is that of providing more space for trading. However, the acquisition for this parking space outside the market land can be very expensive especially where it will involve compensating for personal individual land and/or subsequent demolition of houses around the


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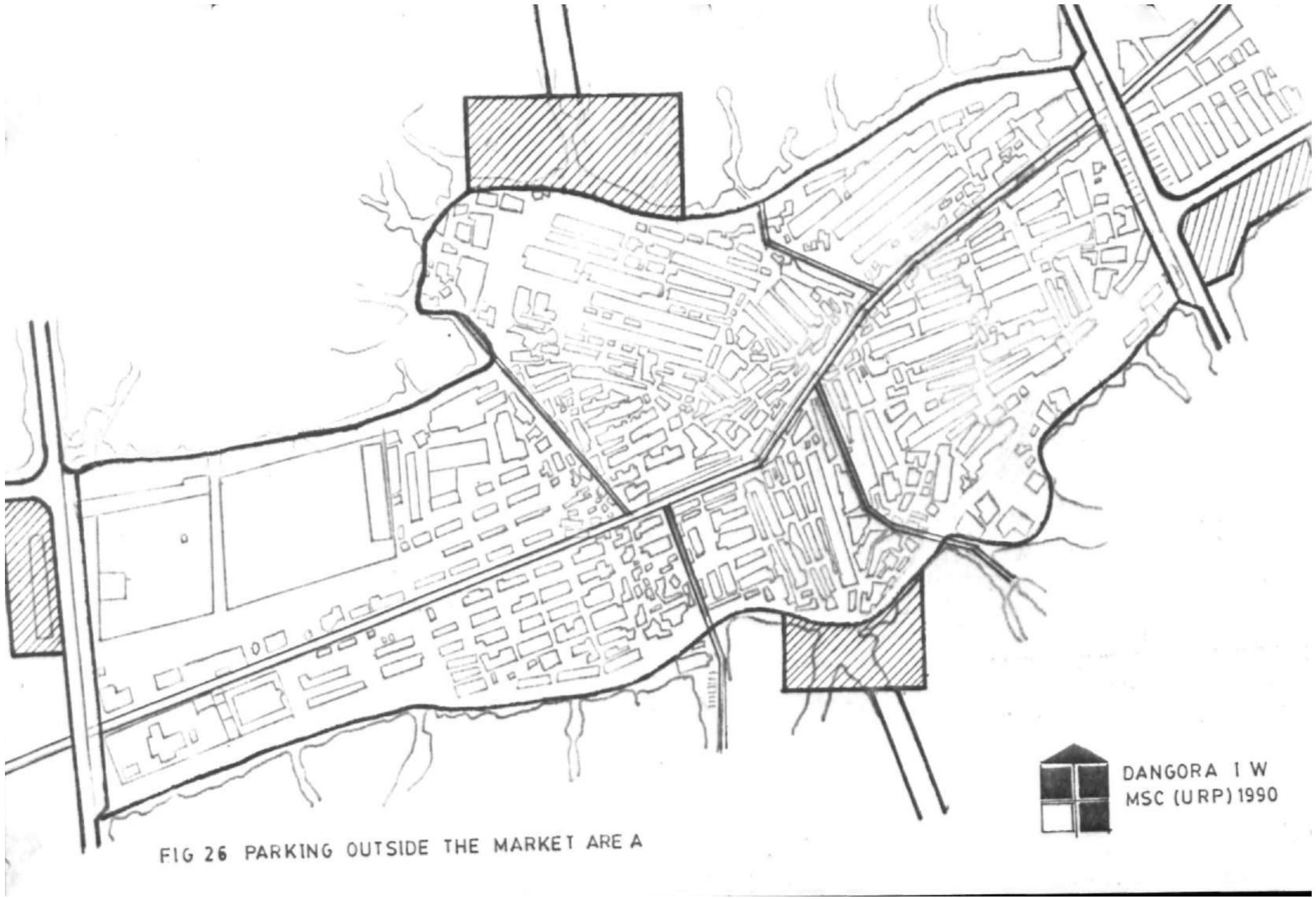


FIG 26 PARKING OUTSIDE THE MARKET ARE A

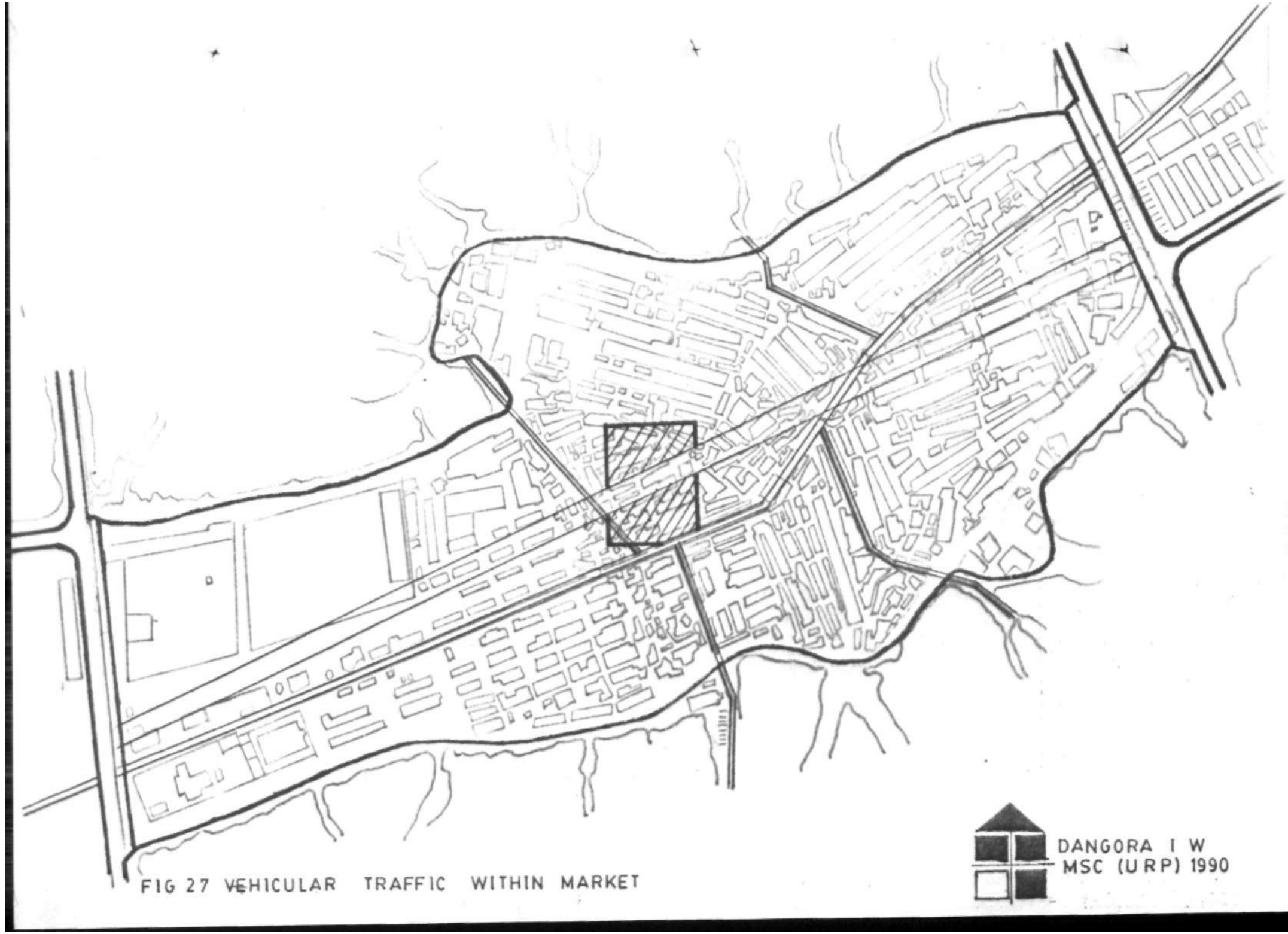


FIG 27 VEHICULAR TRAFFIC WITHIN MARKET

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market's site. It also enhances the rist of criss-crossing the ring-road around the market. This concept is illustrated in Figure 26.

5.21.3 VEHICULAR TRAFFIC WITHIN MARKET

This concept tends to allow more access to vehicular traffic than the other concepts. This is because parking spaces are provided within the market so as to lessen the distance that has to be covered in the process of transporting goods to and from the stalls. However, its disadvantage include increasing pedestrian and vehicular conflicts and also the fact that the parking spaces are located within the market area makes the concept consume some significant amount of market land from shopping activity. This is illustrated in Figure 27.

5.21.4 PARKING BELOW MARKET

This concept attempts lowering parking spaces below ground level on which the market is located or raising market above the ground level on which parking spaces are provided. Both cases make parking directly underneath the shopping area of the market. The concept tends to deal with having to acquire land out of market area which can be very expensive. Secondly, it solved

the problem of pedestrian - vehicular conflict. However, its major disadvantage is that, transfering of goods from and to stalls, i.e., loading and off-loading. Secondly, such development can be very expensive.

Apart from these concepts there are other concepts developed to deal with the provision of internal circulation in the market and also the provision open spaces at certain interval so as to prevent the monotony of uniform development.

The first is the radial walk walkway concept which encourages the provision of three levels of hierarchy of walkways. The first level walkway linking the central parts of the market to the parking areas outside the market. The second level of the hierarchy linking other parts of the surrounding area to the market centre, while the third level linking the first to the second level or second to second walkways.

5.22 STANDARDS

Different standards have been developed to guide for an effective development of commercial activities ranging from convinience shops, through minor and major markets to departmental stores and other commercial establishments such as banks, insurance companies, etc.

For the development of efficiency and effectiveness in markets, standards are outlined for the percentages of the total market area to be allocated to different landuses so as to avoid congestion and misuse of land. The breakdown is shown as follows.

TABLE - 30: Percentages of Market Land Allocated to Different Landuses

Land-Use	Percentage of Developed Area
Shops/Stalls	30 - 40
Organized Open Spaces	15 - 20
Utilities, Services and Facilities	10 - 15
Street, Walk-Ways, Parking Lots etc	15 - 20
Other Uses	10 - 12

SOURCE: Vagale, L. R.(1971).

5.22.1 Water Supply

1 stand pipe to 250-300 traders and patrons.

Distance between 2 faucet should be 67-100 metre.

5.22.2 Fire Hydrant

There should be outside fire hydrant ready to deliver 20 m^3 per minute.

5.22.3 Refuse Receptacle

1 receptacle to 10 to 15 shops and there has to be general collection point.

5.22.4 Latrines

1 latrine to every 125 to 150 patrons/customers and traders.

TABLE - 31: Width of Different Category of Road in Commercial Area

Type of Road	Width in Metres	
	Carriage Way	Right of Way
Major Commercial Road	13	24
Minor Commercial Road	11	20
Local Commercial Road	9	16
Path (Walk)	3	6

SOURCE: Vagale, L. R.(1971).

5.30 CONCLUDING REMARK AND CONCEPT/STANDARDS SELECTION

Different concepts and standards for both location and design of markets have been identified in the preceding sections.

Among the two concepts of location viz; central place theory and gravity model, the former is to the

used having being selected for the development of Kano by the metropolitan Kano 2000 development plan. However, the reachness distances to different levels of public facilities and services suggested by the plan based on time will be converted to physical distances in kilometres. This is necessary as the development of Kano does not actually tally with the provision of the plan as such modifications of these provision are eminent.

On the four identified concepts of market design, the advantages of each are to be integrated into a single concept upon which improvements are to be recommended for the markets. On this parking is to be provided from both the market area and outside it so as to ensure adequate space for trading and to reduce expenses of acquiring enourmous land outside the market area.

It is with due cognizance to these concepts and standards that maximum distances of 3 kilometre and 1.5 kilometre will be used for community level and neighbourhood markets. This means that two community markets will be located at an interval of 6 kilometre while two neighbourhood markets are separated by an interval of 3 kilometre.

On the standards for market design, however, consideration will only be given to the provision of

essential facilities, utilities and services. With regards to spatial coverage of the different landuses emphasis will be on the provision of circulation and parking. Since no major redevelopment is likely, strict adherence to other standards can not be guaranteed.

CHAPTER SIX

6.0 RECOMMENDATION, IMPLEMENTATION AND CONCLUSION

In the preceding chapters, the study attempted making a two fold analysis of markets with respect to their location in relation to their customers and their physical characteristics which revealed numerous design problems that lead to functional deformities of varied magnitudes. The recommendations that follow are also in reflection of these analyses.

6.1 RECOMMENDATIONS

6.1.1 Location and Relocation

The main objective of the recommendation on location of new markets and relocation of some existing ones is the achievement of centrality, accessibility and closeness of the markets to customers.

To achieve this objective the distance interval derived, particularly with regards to the location of neighbourhood serving markets is used. Following this, it is discovered that some parts of the township are without any market and the residents population have to cover up to 2.6 kilometre to purchase their basic necessities. For these places are recommended the location of neighbourhood serving markets. To identify the places a maximum reach distance to the neighbourhood markets of 1.5 kilometre as against the

present 2.6 kilometre is used. The 1.5 kilometre maximum distance is used with due consideration to the average working speed of about 50 metres per minute. It is with this that a maximum working time of 30 minutes to the neighbourhood markets is recommended. This therefore, set an interval distance between two neighbourhood market at 3 kilometre. Thus, a total of nine market locations are proposed. These include Dakata, Gyadi-Gyadi, Kofar Gardon Kaya, Kofar Kansakali, Kurna, Hotoro, Yankaba, Rijiyarzaki and Na'ibawa. Added to these markets is the recommendation of transforming Gama market to community level status by introducing more commodities to it. This will bring to two the number of large community serving markets. Consequently, the upgrading exercise will reduce the long journey being made by residents of Tudun-Wada, Gama and their surrounding wards to Sabon-Gari market.

The locations of Kara (Cattle) and Yan Awaki (sheep and goat) markets are found to be amidst the residences and considering the fact that their customers originate mostly from the Southern parts of Nigeria, these markets should be relocated to the periphery of the township and settled on the same site instead of separately as they exist presently. Their site should be made accessible by both road and rail-line. This is in recognition of the fact that their distant customers come by road and convey live stock by rail because it is cheaper. The site

is cheaper. The site suggested should be in the Eastern part of the metropolis particularly at Gunduwawa so that it is easily accessible from the proposed Eastern bye-pass that links Zaria road with Katsina road. At this point, the site is also accessible from the main railway line leaving Kano for Nguru. The Nine proposed neighbourhood markets are shown in Figure 28.

A total land area of 4 hectares to combine both Kara and Yan Awaki is recommended. However, within this land should be established a Veterinary Clinic to deal with all cases of disease out-break.

The site should also be linked with a railway terminal so that customers can have easy reach of means by which to convey livestock.

The site should be provided with adequate water for both human and livestock consumption.

Within this new location should be established an abbatoir to accommodate that which is presently attached to the Kara market.

The proposed new location is shown in Figure 29. However, detail survey should be carried out to ensure the suitability of the selected site.

METROPOLITAN KANO



FIG 28 PROPOSED NEIGHBORHOOD MARKET

1 RIJIYAR ZAKI 2 KURNA 3 KANSAKALI
4 GADON KAYA 5 DAKATA 6 YANKABA
7 HOTORO 8 GYADI GYADI 9 NAIBAWA



DANGORAJI
MSc URP
A B UZARI
1990

METROPOLITAN KANO



FIG 29 PROPOSED SITE FOR KARA AND YANAWAKI MARKET RELOCATION

KEY

PROPOSED BYEPASS ROAD

PROPOSED SITE

DANGORA I.W
MSc U.R.P A
A B U ZARIA
1990

Source field work (1990)

6.1.2 Improvement of Kurmi Market

At a local level, the work will involve the improvement of Kurmi market. The adoption of improvement in contrast to the general redevelopment of the market emerged out of the appreciation of the structural condition of some stalls, the nature of the land use structure, the fairly organized commodity zonning, present and future usefulness of some buildings as the post office, police station, court and mosques. In otherwords it has only become necessary to improve some deficient land uses as parking, loading and unloading, and the internal circulation. Thus, the improvement exercise is to achieve the following objectives:

i. To provide clear and easy internal and external circulation for both pedestrian and vehicular traffic respectively.

ii. To adjust stalls' orientation considering climatic conditions.

iii. To provide adequate space for parking, loading and unloading.

iv. To provide more linkages between the market and its places of patronage so as to ensure easy access from all directions.

v. The preservation of all drainage lines as open foot-paths thereby enhancing accessibility and free pedestrian movement within the market.

vi. To provide essential facilities and utilities to ensure convinience in trading activity.

vii. To provide open air trading spaces so as to entegrate hawkers into the general scheme of market activities.

viii. To provide organized open spaces and attractive land scaping in certain points within the market so as to reduce monotony of uniform market development.

It is therefore, with these objectives in mind that the following recommendations are made.

6.12.1 Parking, Loading and Unloading Spaces

Parking, loading and unloading are presently done on the same piece of land in the market. The parking, loading and unloading space presently available is not entirely inadequate but its location within the market tends to favour some parts of the market. Presently, there exist about 0.61 hectares for parking while it may be said that no space exist particularly for loading and unloading.

For this reason an area of 0.82 hectares is proposed for parking and about 0.28 hectares for loading and unloading. These proposals are distributed to every part of the market so that both customers and traders can choose the nearest to the part of the market they are to go. Apart from that parking spaces are provided for curb parking for buses and taxis that are not intending to use the main parking lots. One of the main parking lots is provided outside the market area thereby increasing the total market area from its present 12.13 hectares to 12.44 hectares. The existing hectrage of parking, loading and unloading and the new proposal are shown in Table 32.

6.12.2 Drainage

The main drain that runs along the whole length of the market in a West to East direction and having a width of 4 metres and depth of 2 metres should be covered with removable concrete slabs upon which pedestrian can walk. The drain should however, be pervorated at certain points to accommodate run-off from other tributary drains and linking foot-paths. The removable slabs are to serve as way-through in times of occassional inevitable blockage.

The smaller tributery drains of 2 metres width and 1.5 metres depth should also be covered with

concrete slabs and also be used as pedestrian walkways. The cover should be made in a way that openings are provided to allow for the in-flow of run-off from roofs and other linking foot-paths.

6.12.3 Stalls

An important objective is that of re-orienting of the positions of stalls in cognizance of the prevailing climatic condition. It is with this objective and other related considerations as clearing stalls from drainage and also easing congestion that the improvement on stalls is undertaken. In pursuance of this the stalls are improved in such a way that some are demolished while some are retained as shown in Table 33. The improvement goes as follows:

i. Long life stalls that are presently occupying a total area of 1.06 hectares and numbering 898 have now been reduced to 674 which occupy 0.79 hectares. This means that about 75 percent of the long life stalls have been retained while 25 percent have been demolished due to the aforementioned reasons.

ii. Medium life stalls presently numbering 398 and occupying 0.47 hectares have about 61.3 percent of it demolished and 38.7 percent retained.

iii. Short life stalls of about 4,161 in number suffer the greatest demolishing. This tally with so many disadvantaged situation of the stalls. Firstly, it is these stalls that are found to occupy drainage tops, secondly, most of them are badly oriented to the wind direction and thirdly, most of these stalls are made of the ugly looking roasted zinc materials. They are also scattered in a haphazard manner disallowing smooth pedestrianization. It is with due regards to all these outlined reason that about 3,728 making 89.6 percent are recommended for demolishing while only 433 making 10.4 percent are retained.

iv. Historic stalls numbering 234, i.e., occupying an area of 0.276 hectares are also affected by the improvement proposal. Here it is recommended that 155 thus, 66.2 percent should be retained while 79 of them constituting about 33.8 percent should be demolished because of their delapidated nature and bad orientation.

In total 4,275 stall occupying an area of 5.05 hectares are recommended for demolishing while 1,416 occupying an area of 1.67 hectares are to

be retained. This means that 75.15 percent of the stalls are to be demolished while 24.85 percent are recommended for retention.

The proposal now given is that a total of 2,419 new stalls are to be erected on ground level to be integrated with the 1,416 retained stalls. This brings to a grand total of ground based stalls of 3,835. Also recommended is that a total of 1,558 stalls are moved to first floor level. Also recommended is that 298 excess stalls should be removed to a location of about 1 kilometre to the West of the present site of Kurmi market. The stalls recommend for this include the plastic works, fibre works and parts of iron works. This is because these stalls are the major sources of refuse in the market. By so doing refuse turn-over from the market will be greatly reduced. Breakdown of these proposal is given in Table 32. Briefly, area occupied by stalls have been reduced from the present 6.74 hectares to 4.21 hectares.

6.12.4 Open Spaces

It may be recalled that there is no any provision of organized open space presently in Kurmi

TABLE - 32: Comparative Analysis of Area Occupied by Individual Landuses in the Existing and Proposed Kurmi Market

Serial Number	Land Use	Existing Area Occupied (Hectare)	Proposed Area Occupied (Hectare)
1.	Parking	0.61	0.82
2.	Loading and Unloading	--	0.28
3.	Roads	1	2
4.	Fire Service	--	0.06
5.	Court	0.07	0.07
6.	Administration	0.01	0.01
7.	Walkway	2.78	3.35
8.	Toilets	0.01	0.02
9.	Drainage	0.25	0.37
10.	Police Station	0.16	0.16
11.	Mosque	0.1	0.15
12.	Open Space	--	0.64
13.	Filling Station	0.04	0.05
14.	Refuse Dump	--	0.02
15.	Stalls	6.74	4.21
16.	Post Office	0.36	0.06
17.	Open Air Trading Space	--	0.17
	T o t a l	12.13	12.44

TABLE - 33: Comparative Analysis of Stalls Retained and Demolished

Type of Stalls	Existing	Retained	Demolished	Remark
Long Life				
Number	898	674	224	Orientation and positioning of stalls in this group is generally in order.
Hectare	1.06	0.796	0.264	
Percentage	--	75	25	
Medium Life				
Number	398	154	244	The orientation of stalls in this group is mostly not proper.
Hectare	0.47	0.182	0.288	
Percentage	--	38.7	61.3	
Short Life				
Number	4,161	433	3,728	Poor and delapidated condition, many situated over drainage line, poor orientation and mostly scatered and unorganized.
Hectare	4.91	0.51	4.40	
Percentage	--	10.4	89.6	

TABLE - 33 (Cont'd)

Type of Stalls	Existing	Retained	Demolished	R e m a r k
Stalls with Historical Value				
Number	234	155	79	Many delapidated and not
Hectare	0.276	0.183	0.093	properly oriented.
Percentage	--	66.2	33.8	
Total				
Number	5,691	1,416	4,275	
Hectare	6.7	1.67	5.05	
Percentage	--	24.85	75.15	

Top Floor Stalls = 1,558

Excess to be Removed to Another Location = 298.

market. That in itself creates monotonous situation whereby the whole market space is being used for one purpose or another. This means that customers, traders and other persons in the market have no any place where they can isolate and detatch themselves from commercial activities. It is in order to arrest this situation that an area of 0.64 hectares is proposed and distributed over different parts of the market.

6.12.5 Roads and Walkways

The provision of circulation in form of roads and walkways is of utmost importance. This can ease congestion of vehicular traffic and friction of movements for pedestrian. It is for this reason that circulation is given greater consideration by the proposed plan.

As can be seen from Table 32 above, roads and walkways presently occupy 1 hectare and 3 hectare respectively. The proposed plan recommends widening of the existing roads and improving the internal pedestrian walkways. Area of 2 hectares and 3.54 hectares respectively are recommended for roads and pedestrian walkways.

This total space recommend for road is achievable by widening both the two roads that set the

market's Southern and Northern limits. These roads running West to East are to be expanded from their present varying width to a uniform width of 12 metres. Also the South-North running roads on the Western and Eastern extremes of the market should be widened from 6 metres to 14 metres. All these are to allow for easy thoroughfare and the market's main in-lets thereby reducing congestion and unnecessary delays.

Importantly too, is the fact that the market should be connected by road to the two major roads which individually run to Kofar Ruwa and Emir's Palace as is shown in Figure 19. The width recommended for these connecting roads is 12 metres.

6.12.6 Facilities, Utilities and Services

All existing facilities and services are recommended to be retained by the proposal. And only where found necessary are their positions changed. In fact many have also been added.

Those retained without any alteration are the court, police station and three mosques. Administrative block, filling station and post office have all been retained with some modifications. Other new facilities and services are introduced. These include refuse dump, which does not exist presently leading to refuse being

dumped on roads. Fire service station in case of any sudden fire out-break. More toilets have been proposed and also open air trading spaces are recommended so as to integrate and accommodate the inevitable influx of hawkers.

Two of the five existing mosque have been demolished, however, four new ones are proposed by the plan. This brings from five to seven the total number of mosques in the market. Each of these four new mosques is to be provided with seven tap heads so as to bring water very close to the people.

Also apart from the four existing toilets, five more have been recommended. Each of these five toilet blocks is to accommodate three flush toilets. This bring the total number of toilets to twenty seven.

Two restaurants are also recommended. Apart from these resting spaces made of benches are provided within the open spaces.

6.20 IMPLEMENTATION

The issue of implementation is crucial for any meaningful development programme. It is this stage that determines the success or otherwise of all development projects. This stage involves such vital

issues as techniques or methods to be adopted in executing the programme, the bodies or agencies to be vested with the responsibility of executing the programme and importantly too, the total cost involved and the sources of such finances.

6.21 PROJECT IMPLEMENTATION TECHNIQUES

Despite the numerous techniques of project execution, the recommendation given here is the implementation of the project through contracts. This technique will help significantly in subdueing the likely effects of the erratic and unstable political atmosphere that prevails at all levels of governance in Nigeria.

Secondly, the phasing technique is also recommended especially considering the fact that improvement of stalls is to be based on their respective life spans. This indicates that the first phase is expected to commence after five years which marks the end of short life span stalls. The second phase comes up in ten years time to improve the medium life span stalls. This is then followed by long life span stall which are recommended to be improved in twenty years time.

6.22 IMPLEMENTING AGENCIES

Kurmi market is owned and managed by the Kano Municipal Local Government. It is the local government that over-sees the daily running of the market in terms of its administration, maintenance of sanitary quality and revenue collection.

It is the Municipal Local Government that have direct control of all benefits accruing from the market. For this reason it becomes the responsibility of the Local Government to play an active role in the development of the market. The Local Government should therefore, shoulder the responsibility of providing fund for the market's improvement.

Another important body that should be involved in supervisory work is the Kano State Environmental Planning and Protection Agency (KASEPPA). This agency will ensure effective execution of the project by the contractor and will help in controlling unwanted development until the end of the project.

6.23 SOURCE OF FINANCE

The Kano Municipal Local Government should acquire fund for the improvement of the market from Commercial Banks as loan. This it should do through the Kano State

Governor's Office. The loan can be paid by the Local Government from the revenue to be generated by the market after all stalls have been rented out to traders. The revenue from the market can therefore, be increased from its present 50 kobo, ₦1;00, ₦20;00 and ₦30;00 per week for small food sellers, hawkers, vegetable sellers and other big shops respectively. The recommendation on the revenue should now be ₦1;00, ₦5;00, ₦30;00 and ₦40;00 respectively, to be collected per week from the small food sellers, hawkers, vegetable sellers and important traders.

6.24 COSTING

This involves an estimate of the total cost to be incurred in undertaking the project. Below is a breakdown of the project into units and the estimated cost of each unit (See Table - 34).

The total cost can be conservatively put at ₦36,105,929;00. However, considering the ever increasing rate of inflation some 10 percent of this total amount can also be added to take care of rise in the prices of building materials. This will therefore, bring the total cost of the project to ₦39,716,521;00.

TABLE - 34: Costing

Serial Number	Item	Cost Per Unit (₦)	Total Required	Total Cost (₦)
1.	Refuse receptacle	30;00	360	10,800;00
2.	$1m^2$ of tarred road	100;00	2 Hectare	2 Million
3.	1 Toilet of size $3m^2$ with Water Closet	2,400;00	25 Toilets	36,000;00
4.	A Tap-head	50;00	28 Tap-heads	1,400;00
5.	Parking with kerb of size $1m^2$	1;00	0.82 Hectare	8,200;00
6.	A Mosque ($135m^2$ x 4m)	108,000;00	4 Mosques	432,000;00
7.	Demolishing of 1 Stall	295;00	4,275 stalls to be demolished.	1,261,125;00
8.	Construction of 1 stall (3.5 x 3m)	8,000;00	3,977 to be built	31,816,000;00
9.	A Fountain	2,000;00	1 Water Fountain	2,000;00
10.	A Restaurant ($172.8m^2$)	10,000;00	2 Restaurants	20,000;00

TABLE - 34: (Cont'd)

Serial Number	Item	Cost Per Unit (₦)	Total Required	Total Cost (₦)
11.	Drain			
i.	Re-inforcement of side of $1m^3$ drain	7;00	$7,816.6m^3$	54,716;02
ii.	Plastering of $1m^2$	10;00	$4,078.4m^2$	40,784;00
iii.	Drain Cover $1m^2$	60;00	$4,078.4m^2$	244,704;00
12.	Electrification of 1 Stall	50;00	3,524 stalls This is based on 78 Percent of 1,416 stalls retained assumed to have no electricity. This is then added to a the 2,419 new stalls to be constructed.	176,200;00
	T o t a l			36,105,929;00

6.30 CONCLUSION

This work has over its various preceding chapters identified the foundamental problems of markets. Among these problems, the two that require urgent solutions are the locational deformities of these markets in relation to their patronage areas and the internal problems that make the markets wanting in their function. The former arises due to distant locations of markets from customers residences while the later is an outcome of planlessness in markets' spatial organization.

With respect to locational issue, recommendations were given as solution to the locational problems of community and neighbourhood markets. This is particularly done because these are the markets that have to be located as close as possible to residents of communities and neighbourhoods within a particular urban area, while town serving market does not call for any close location because whatever the origin of customers to it, the distance may not constitute any problem as far as it is located within the town, it is suppose to serve. This also holds true of the regional markets because wherever their location customers from far and near origins will still patronize them as far as they remain the only closest markets that offer such specified commodities.

Considering the internal physical set-up of the markets, Kurmi market was identified as the most congested and it is taken for detail study from which sufficient information to help in re-organizing it was obtain. The recommendations made on this market give much importance to the issue of circulation within and around the market. Other considerations include the issue of provision of essential facilities, utilities and services. The recommendation given is based on improvement rather than total redevelopment.

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APPENDIX - I

Drawing a Hirarchy of Markets in Kano Township

Market	Commodity Sold	Population Served	Turn-Over	Number of Stalls	Average Distance Covered by Customer	Nature of Trade	Total Score	Hierarchy
Sabon-Gari	15	20	15	15	5	10	80	1st
Kurmi	15	15	15	15	5	5	70	2nd
Rimi	15	10	5	5	5	5	45	3rd
Sharada	10	5	5	5	5	5	35	3rd
Sheka	10	5	5	5	5	5	35	3rd
Tarauni	10	5	5	5	5	5	35	3rd
Tudun-Wada	10	5	5	5	5	5	35	3rd
Gama	10	5	5	5	5	5	35	3rd
Bachi Rawa	10	5	5	5	5	5	35	3rd

APPENDIX - I (Cont'd)

S C O R E S

Commodity Sold

Number of Commodity	Score
1 - 5	5
6 - 10	10
11 - 15	15

Number of Stalls

Number of Stalls	Score
10 - 1,000	5
1,001 - 5,000	10
5,001 - 10,000	15

Population Served

Range of People	Score
1- 50,000	5
100,000-500,000	10
1m - 10m	15
11m and Above	20

General Score

Range of Score	Order
76 - 100	1st
51 - 75	2nd
26 - 50	3rd

Turn-Over

Range	Score
1,000 - 50,000	5
100,000 - 500,000	10
1m - 10m	15

Average Distance Covered to Visit the Market

Range of Distance	Score
1 - 80	5
81 - 160	10
161 - 240	15
241 - 320	20
321 - 400	25

- xx -

APPENDIX - 2

COMMODITIES SOLD

1. Grains
2. Vegetable and Fruits
3. Herbs and Shrubs
4. Poultry Products
5. Other Livestocks
6. Textile and Foot Wear
7. Household and Fancy Goods
8. Electrical Goods
9. Building Materials and Furniture
10. Tools and Spare Parts
11. Books and Stationaries
12. Drugs and Pharmaceuticals
13. Native Herbs
14. Professional Services
15. Others