SMALL URBAN CENTRES IN SIERRA LEONE: A GEOGRAPHICAL STUDY WITH PARTICULAR REFERENCE TO THEIR ROLE IN RURAL DEVELOPMENT.

Thesis submitted in candidature for the degree of Doctor of Philosophy

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by

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ABBREVIATIONS

S.L.P.M.B.	Sierra Leone Produce Marketing Board
I.L.O.	International Labour Organization
N.T.C.	National Trading Compnay
DIMINCO	National Diamond Mining Company
DELCO	National Development Company
I.D.A.	International Development Agency
C.S.O.	Central Statistics Office
I.B.R.D.	International Bank for Reconstruction and Development

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ABSTRACT

Regional inequalities in the developing countries have in recent years led to increasing attention to various proposals of deconcentration and decentralization, which in turn have triggered renewed interest in rural development and the potential significance of small urban centres.

Yet little is known about the social, economic and geographical relations of these centres with whom the majority of the rural population have contact. This thesis is a geographical study of small urban centres paying particular attention to their role in rural development in Sierra Leone. In choosing these centres as subjects of study, the author echoes other scholars, that the instances where they play a positive role are few and that to get them to do so would entail transformations within the economy and society which though necessary may prove so difficult under the present political and economic structures.

The study is divided into two sections. Section I (Chapters I - III) forms the theoretical framework. Section II (Chapters IV - VII) is devoted to testing the hypotheses in the study area.

The thesis starts with introducing the aims and objectives of the study, definition of terms and concepts used and justifies their application in the study area. The data and methodology are also fully discussed and the structure of the study outlined (Chapter I).

The second chapter reviews various economic and spatial theories and literature on small urban centres forming the theoretical framework

on which the hypotheses drawn are based.

Studying small urban centres without paying attention to the macro-economic and political context in which they are set and operate may prove futile. The third chapter therefore examines those aspects of the study area which are considered relevant to this investigation.

Section II of the thesis starts with tracing the origins of these centres and finds out how these origins have influenced their functions and thereby structures. Here a retrospective approach is adopted by tracing their pre-urban origins and discussing the factors which contributed to their urban status. The implications of these origins for rural development are pointed out (Chapter IV).

In assessing their present role (Chapter V) the numbers and spatial distribution of these centres and their relative centrality are examined. From the funtional units within these centres, centrality ratios are calculated to determine whether these centres are adequately provided for. The limitations imposed on the positive role they can play in rural development by their lack of adequate numbers and low centrality is examined and their implication on using the present framework for the delivery of goods and services is assessed.

Chapter VI is devoted to an examination of the relationships of small urban centres and their immediate rural hinterlands, through the consumer travel patterns to secure goods and services from these centres. Where no positive links exist the chances of such centres acting as stimuli for rural development are indeed limited.

The functional relationships of these centres through consumer travel patterns form the subject of investigation in Chapter VII. These relationships give us an idea on the way these centres function with other members in the urban hierarchy. The analysis is based on the hierarchical concepts of central place theory.

The conclusion (Chapter VIII) summarizes the findings of the study and makes recommendations where it is deemed necessary and in each case pointing out the implications of such recommendations.

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The author however wishes it to be known that none of those mentioned are responsible for any ideas expressed.

Tom Obaleh Kargbo.

Dedicated to my late mother Leah Susannah and my dad Pa Yamba Kargbo, my late mother-in-law Madam Cynthia, my late brother Victor, my wife Mary and children Cecilia, Germaine and Tom Obaleh (Jnr).

S E C T I O N O N E

THE THEORETICAL FRAMEWORK

C H A P T E R 1

INTRODUCTION

1.1 AIMS AND OBJECTIVES

The problems of regional inequalities in the developing nations have in recent years led to increasing attention to various proposals of deconcentration and decentralization which have triggered renewed interest in rural development and the potential significance of small urban centres. Yet little is known about the economic, social and geographical relationships of these small urban centres with which the majority of the rural population have contact.

Most urban studies have concentrated on large cities usually the national or regional centres and very little has come out on the rural population. Yet they form a majority in the Third World. In order to understand the plight of rural poverty, Southall (1977) proposed a study of those points "of articulation between the national systems of marketing, distribution and policy developments on the one hand and the interests and productivity of the rural poor on the other"(1) is necessary. These small centres could therefore act as pointers to the success or failure of any rural development projects. Of the seventy-six centres in Sierra Leone with populations of 2000 and over, seventy fall within the category of small urban centres. So that in terms of numbers and the provision of goods and services to the rural population, they are very important.

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(1) Southall, A. (1977) Small Urban Centres in Rural Development in Africa. Paper July, African Studies Programme. University of Wisconsin, p.1.

This study is therefore a geographical examination of these centres, with the aim of contributing to a better understanding of their relationships in a small West African state - Sierra Leone.

In choosing these centres as the subject of study, the author echoes the views already expressed by other scholars, that the instances where they play a positive role in rural development at present are very few. The hypotheses drawn on the subject are based on the argument that if rural development is to be effectively achieved, these small urban centres have a crucial part to play. That to achieve this role may not seem as easy as is thought because it entails transformations within the economy and society which though necessary may be deemed undesirable under the present economic and political structures. The role they currently play and can play in various parts of the Third World is examined from the literature, on the basis of which hypotheses would be drawn for testing in Sierra Leone. This is done in Chapter II.

1.2 DEFINITIONS

Before going any further, it is necessary to define some terms and concepts which are used in the thesis.

Development, many scholars believe is not simply a process of quantitative expansion but one implying qualitative change. Economic and social development concern fundamental transformations within an economy or society. It involves the spread and acceptance of ideas and ways which are considered new to a particular economy or society. There have been as many definitions as there are scholars,

each restricting his definition to that part of the economy or society which is the focus of his investigation.

Economic development as used in this study refers to the process which involves expansion of production which assist in the provision of goods and services to enhance the wellbeing of a people.

Rural development though old, has come to stand for a new idea in the development process in the developing world. It is a process which implies raising the welfare of rural people through their own efforts with assistance from internal as well as external forces. The most important point made here is that development should be through one's own effort. Scholars differ as to the approach and implications of rural development. The present situation in developing countries warrants that if the rural people are to improve their wellbeing, there must be an equitable distribution of the benefits of development. Such a distribution would have to include the provision of services such as education, health, shops where goods can be purchased, without which an improvement in welfare cannot be achieved. Economic polarity which is well documented in the literature on Economic Planning in the developing world cannot be denied and evidence suggests that the gap between urban and rural and rich and poor continues to widen. Any correction or attempts to lessen this gap would entail massive transformation steps. This is a theme taken in greater depth in Chapter II and highlighted in subsequent chapters of this study.

One major difficulty confronting students of urbanization is to adequately define the term 'urban' as it means different things to different disciplines. It frequently refers to living in towns as

against living in the rural areas and it is with this meaning that quantitative indices of urbanization are constructed. Another definition sees it as a process of population concentration in which the ratio of people living in towns to the total population increases. This implies a definition of cities independent of the process of urban growth; but White, H.P. and Gleave, M.B. (1971) observed that "an increase both in the size of the individual points of urban concentration and in the number of points of urban concentration may occur without an increase in the urbanization of a territory."(2)

Sociologically, urbanization according to White and Gleave (1971) refers to "cultural change and to the spread of behaviour and value patterns classified as 'urban'"(3)

Whichever of these definitions is used, there are many problems involved in attempting to assess the levels of urbanization in the developing world. The lack and unavailability of data coupled with the fact that different countries define 'urban' in different ways make it even more complicated. No figure has been generally accepted to differentiate between urban and rural even for a small country like Sierra Leone. In Nigeria, for example, towns are defined as centres of compact groups with populations exceeding 5000 people. Such definitions of urban never explicitly explain what compactness is or how it is measured. Assuming that it refers to housing density, it exhibits an inadequate and unsatisfactory index because housing density can be influenced by tradition, administrative and military necessity, physical and economic scarcity of land.

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(2) White, H.P. and Gleave, M.B. (1971) An Economic Geography of West Africa, 6. Bell & Sons. London, p.358.

(3) Ibid. p.258.

Oram (1965) views an African town as a settlement having a built up shopping and business area with a network of streets with no zoning. In the developed world, it is observed that at certain population levels, urban functions are represented in the settlement pattern. In much of Britain for instance civil parishes of 2500 or more people have developed urban functions. While population may represent at least a fair index of urbanization in many developed countries, it is by no means as reliable in assessing levels of urbanization in inter-tropical Africa and in many parts of the Third World.

In Sierra Leone, there is no official definition of 'urban' and various scholars either have to rely on ad hoc definitions or invent their own. Usually, because of simplicity and attractiveness, crude population totals have been largely used. Harvey (1966) used the 1000 figure with the presence of at least two central place functions.

Siddle (1966) on the other hand used a measure of 200 huts as a cut off figure. Clarke (1968) suggested an urban threshold of 5000 but drew attention to Harvey's (1966) observation that 1000 would be a more appropriate and realistic figure qualified by the presence of two central place functions. Mitchell (1972) advises raising the cut off figure to 2000 and attempted in his essay to identify an urban hierarchy based on size, function and occupational structure of the country's settlements.

The United Nations Economic Commission for Africa however has chosen the 20,000 figure for indicating urban areas in Africa. There seems to be no strong case for this choice bearing in mind that

many African countries are small. If this figure is applied in Sierra Leone, using the 1974 census figures, urban places will be restricted to six. One can only say that such definitions are aimed at preserving uniformity with the industrial nations of the West. The Commission used the following definitions to be applied in Africa:-

A. Urban Population - population in towns with 20,000 and more inhabitants.

B. City population - population in cities of 100,000 and more inhabitants.

C. Big city populations - population in 'Big Cities' with 500,000 or more inhabitants.

While it may be useful to have a universal definition, it must be stressed that the concept of a town varies with both the historical and geographical settings. One should also note that even within a particular area, micro-cultural and politico- economic differences influence the development of city systems as well as the morphological and functional patterns of members of the system.

Students of urbanization have recognized two types of city-size distributions. The rank size, in which the distribution of cities by population size class is truncated lognormal. The primate city size distribution is one in which one town or city dominates the distribution and there are deficiencies in cities of intermediate size class. Scholars have often debated on whether the lognormal city-size distribution is associated with city systems of the developed world and primacy, with the developing world.

The possibility of there being a relationship between city size distributions and levels of economic development continue to arouse a lot of interest among scholars. This is an aspect which is dealt with in greater detail in Chapter II where theoretical issues of development are discussed.

As this study is on small urban centres, identifying them in Sierra Leone is therefore necessary. Sierra Leone's city size distribution emphasizes the dominance of Freetown. The 1974 Census figures reveal towns which could be grouped into four categories. The Capital Freetown with about 274,000 people stands out above the rest, followed by a group with populations between 20,000 and 75,000, then towns with populations between 2000 and 20,000 and other settlements below 2000 people. In an area of dispersed settlement as in Sierra Leone, a settlement of 2000 people is quite significant. The census also reveals gaps between the groups which have been identified. It was therefore decided that small urban centres as used in this thesis refer to all centres with populations between 2000 and 20,000.

The concept of the urban system or hierarchy holds that urbanization - the demographic, economic and geographic changes - is a process of systems growth and structural transformation in which towns or cities and urban regions consists of a set of inter-related systems arranged in a progression from an individual town to a national system. This type of organization may consist of at least three levels.

A. A National System:- in which there is domination by the Metropolitan Centre or centres, and other centre or centres follow in a step-like hierarchy with the centres increasing at each level and population decreasing in a regular fashion.

B. A Regional System:- exists within the national system usually organised around a metropolitan centre. Generally, the city sizes are smaller and drop off more quickly than in the national system as one moves down.

C. A Local or Daily Sub-system:- This represents the daily life space of residents and it develops as the centre expands.(4)

As growth and decline occur the centres within the system change positions. Interest in the study of urban systems rests on a growing awareness of the contribution of spatial differences to national growth and wellbeing.

The important concepts and terms used in the study have thus been defined and their applicability in the study area justified where necessary. The next section in this chapter discusses the data and the methodology used in this investigation.

1.3 DATA AND THE METHODOLOGY

A considerable amount of data was extracted from the 1963 and 1974 census of population. As the important aspects of the study relate to small urban centres and rural development in Sierra Leone,

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(4) Bourne, L.S. (1975) Urban Systems. Strategies for Regulation. A comparison of policies in Britain, Sweden, Australia and Canada. Clarendon Press Oxford. p.12.

the Western Area is excluded although references for comparative purposes are made from time to time where necessary. The Western Area is, as in most studies of the country, considered the most developed from which according to traditional development theory innovation spreads to the rest of the country. The performance so far leaves much to be desired.

Eight small urban centres were chosen for study. They are a random sample stratified by level of development, and the numbers chosen from each region is related to the relative proportion of the areas of the regions. Identification of the levels of the economic regions is based on Forde's (1967) classification of economic regions in Sierra Leone, an essay which has been the subject of much criticism by other scholars. These regions are represented in Fig.1.1. Of the eight small urban centres, four are chosen from the least developed region, two each from the less developed and more developed regions. Justification for this choice of these numbers of centres is based on the time available for research, financial resources and the realization that the least developed region makes up about half of the study area, while the other half is almost equally divided between the less and more developed regions. Furthermore as the least developed region is physically divided into two and the smaller part is about a quarter of its total size, it was thought appropriate to choose at least one centre for study in this area.

The centres, and the villages around each centre are given in tables 1.1 and 1.2.

FIGURE 1.1 REGIONS OF ECONOMIC DEVELOPMENT (AFTER FORDE)

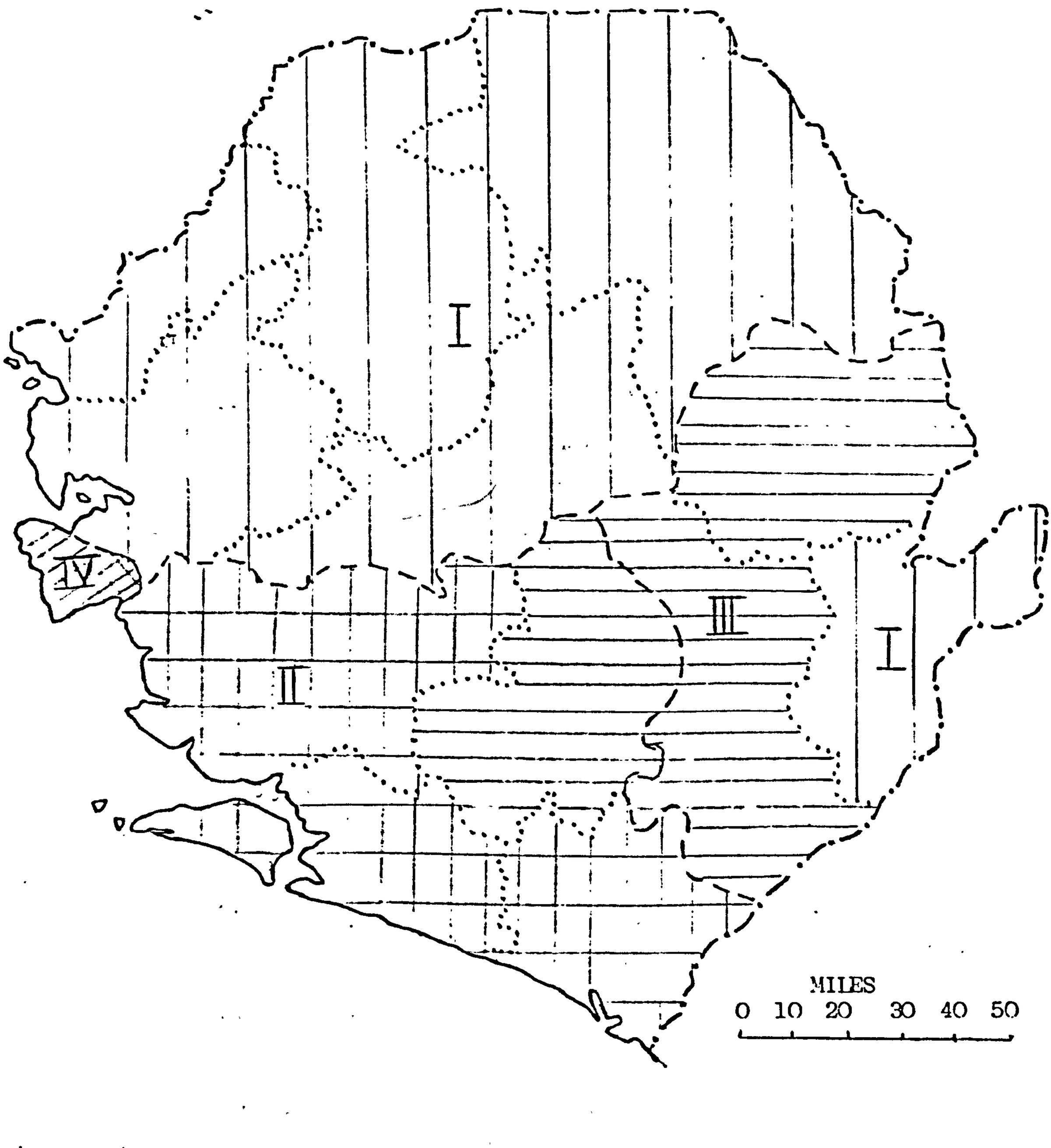

TABLE 1.1 SAMPLED CENTRES, POPULATION AND HOUSEHOLDS

A. LEAST DEVELOPED REGION

CENTRE	POPULATION	HOUSEHOLDS	HEAD OF HOUSEHOLDS INTERVIEWED
1. Segbwema	6,900	1034	103
2. Kamakwie	4,750	561	56
3. Mambolo	8,900	437	44
4. Kabala	10,350	1292	129

B. LESS DEVELOPED REGION

CENTRE	POPULATION	HOUSEHOLDS	HEAD OF HOUSEHOLDS INTERVIEWED
5. Mano	2,350	341	34
6. Moyamba	6,425	1144	114

C. MORE DEVELOPED REGION

CENTRE	POPULATION	HOUSEHOLDS	HEAD OF HOUSEHOLDS INTERVIEWED
7. Serabu	2,000	329	33
8. Panguma	4,500	597	60

Using the 1:50,000 maps a ten percent stratified random sample of villages around a three, six and nine miles radii of each centre were chosen and these are presented in table 1.2.

TABLE 1.2 VILLAGES CHOSEN AROUND EACH SAMPLED CENTRE

LEAST DEVELOPED REGION

1. Segbwema - Kailahun District

a) Baoma b) Fola c) Kpubu d) Giema e) Foyama.

2. Kamakwie - Bombali District

a) Kadada b) Gbonko c) Maron d) Robat e) Kadigidigi

f) Kagborie g) Kamenthe h) Kabba Ferry.

3. Mambole - Kambia District

a) Wolaw b) Katima c) Kalenke d) Mando e) Robis

f) Bosmya g) Malambey h) Mahera.

4. Kabala - Komiadugu District

a) Herenakono b) Yisimaia c) Yagala d) Benikoro e) Kasasi

f) Senekedugu.

LESS DEVELOPED REGION

5. Mano - Moyamba District

a) Laponga b) Kerebu c) Mokebi d) Motehun e) Magbamu

f) Follywamu

6. Moyamba - Moyamba District

a) Gondama b) Mokente c) Periwahun d) Falaba e) Towubu

f) Mokende g) Moyogba h) Kwellu.

MORE DEVELOPED REGION

7. Serabu - Bo District

a) Tokpombu b) Yengema c) Vaama d) Taninahun e) Potebu

f) Kanga g) Jagbwema.

8. Panguna - Kenema District

a) Bandajuma b) Gandorhun c) Dandabu d) Mamboma

e) Jagbwema f) Levuma.

Three sets of questionnaires were formulated, one set for the heads of households in the eight small urban centres, another set for heads of households in the surrounding villages and a third set for businessmen in the eight centres. It was decided to interview the heads of households because they are the units of decision, and the head is the decision maker. According to the Central Statistics Office in Freetown, a household is "A group of people who stayed in the same building on census night and were responsible to the same head who stayed in that building on census night."(5) This definition has raised a number of arguments among scholars. For a start the household is not as stable as is often thought, its size and composition are subject to fluctuation. People could stay in different buildings, and yet be responsible to the same head. Despite these controversial issues, it was decided to retain the official definition. The data from the questionnaires is intended to bring out the kinds and intensity of relationships between small

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(5) 1963 Population of Sierra Leone Vol. 3, p.17. Central Statistics Office, Freetown, Sierra Leone (1965).

urban centres and other centres in the urban system, and secondly between small urban centres and their rural hinterlands. It is believed that these findings would provide information on the way these centres function and the role they at present play.

The heads of household interviewed in the small urban centres and the villages are a random stratified sample whereas as many businessmen/women as possible were interviewed. In the same urban centres a ten percent sample size of the heads of households were interviewed for each centre; whereas in the villages, with no available data on either households or population, it was virtually impossible to know exactly how many should be interviewed for any meaningful conclusions to be arrived at. However, judging upon arrival on the field trip, it was discovered that there is very little variation in the size of the villages. Although this may have little effect on the number of heads interviewed, nine heads of households were interviewed in each of the villages which were located within three, six and nine miles band of each small urban centre. Nine miles, the most distant of the villages from each centre is thought to be the maximum walking distance that can be covered in a day. The number chosen for the interviews was sufficient enough to cover the whole of the small villages and at least half of the largest villages. The total numbers of those interviewed in the small urban centres was 573, 486 for the villages and 162 businessmen.

With no individual town maps, the centres had to be covered initially by motorbike and the extent of their sections noted and given numbers which were then picked from a bag. The streets in the selected sections were also numbered and picked from a bag. The

same procedure was used for the heads of households. The procedure was repeated for the villages. This ensured that different heads of households in different sections of the centres and villages stood the same probability of being chosen and also that sections of the centres and villages were proportionally represented in the sample. As many businessmen/women as possible were interviewed, although this part of the exercise can only be described as partially successful as people were most reluctant to give away any information.

In the eight centres the following data was also collected.

a) Data on origins.

b) Distance to major metropolitan centre and other higher centres.

c) Types of public facilities and services.

d) Commercial establishments.

e) Type of transport services.

f) Employment facilities.

g) Educational institutions.

Data collected in the rural areas also included

a) Land tenure information.

b) Linkages with urban centres.

c) Crops produced and sold.

d) Marketing and Storage facilities.

e) Types of agricultural processing activities.

Other data sources include oral tradition, previous publications by other scholars.

It was necessary upon arrival in Sierra Leone to report to

the Ministry of Education (my sponsors) who generously provided a research grant for travel and documentation during the fieldwork. Some information was also collected from the following departments and ministries; Ministries of Education;Economic Development; Agriculture and Forestry; Interior, Social Welfare and Rural Development; departments of Central Statistics, Criminal Investigation and the National Authorising Office. Letters of introduction were supposedly dispatched from the Ministry of Social Welfare and Rural development to various areas where the author was to visit. This was supposed to be a move to ensure the smoothness of the exercise. The majority of the chiefs and headmen in the centres which were studied claimed they neither received letters nor any information concerning the survey. This was the first major stumbling block. With careful persuasion, the survey went on but not without incident especially in Mambolo, Kabala and Segbwëma, where there were minor political disturbances and the author had to withdraw to other parts of the country until things were relatively quiet before coming back to continue the survey. The difficulties of conducting research in a developing country, where nearly 80 percent of the inhabitants are illiterate are overwhelming. Apart from the distrust and suspicion with which the western educated researcher is treated, there is the problem of movement from one area to another on some of the worst roads, unpassable in the rainy season. Added to these are language and cultural barriers which may prove strong impediments in extracting information.

Despite these difficulties, researchers should not be held back. The author believes that as education penetrates the interior of the country, more people would appreciate the benefits gained from research.

One month was spent in each centre and its surrounding villages. In all, nine months were spent on fieldwork as a participant observer and the data collected form the basis of investigation in this thesis.

1.4 STRUCTURE OF THE STUDY

The study is divided into two sections. The first section (Chapters I - III) examines the theoretical issues setting up the background of the study, from which the hypotheses are drawn for testing in the study area. The second section (chapters IV - VIII) is devoted to testing the hypotheses drawn up in Section One. The thesis is composed of eight chapters.

Chapter Two sets up the theoretical framework drawing on different aspects relating to the subject of study. From the literature review and knowledge of the area hypotheses are drawn upon which the analysis of the collected data is based.

The study area is discussed in the third chapter. This chapter provides a general background picture of the study area paying special attention to those aspects which are relevant to the study. The chapter describes the environment in which the small urban centres are set and operate.

The fourth chapter traces the origins, and examines how far these origins influence the functions and therefore structures of these centres. A retrospective approach is taken in this chapter but care is taken to distinguish between pre-urban and urban origins. From the census data, the functions of centres are derived from their

employment structures and the physical layout of these centres is also discussed.

Chapter Five examines the spatial distribution and relative centrality of these centres. This, the author hopes would enable us to assess the roles which these centres play and can play in the development of the hinterlands. The percentage of the population that could be served by any urban centre is calculated. The implications for rural development are then assessed.

The relationship of these centres and their rural hinterlands are the subject of discussion in Chapter Six. These relationships would be valuable information in judging their potential in stimulating the development process where they operate.

Chapter Seven investigates the functional relationships of these centres. Through an analysis of the consumer travel patterns, the way these centres interact with other members of the hierarchy is outlined and the implications for rural development are discussed.

The concluding chapter summarises the findings of the thesis and suggestions are made where deemed necessary.

C H A P T E R I I

SMALL URBAN CENTRES: THEORETICAL FRAMEWORK

2.1 INTRODUCTION

The 'urban' concept which is quite a thorny issue among scholars can best be defined by reference to the literature on the evolution and growth of towns. Empirical evidence on towns in Europe and the rest of the 'developed' world is abundant in the literature but there is still some work to be done particularly in inter-tropical Africa, where much of what is known on the origins and growth of towns is based on legend and sometimes mere speculation and at best from what happended since recorded history.

This lack of knowledge has often led to a growing tendency to think of urbanization and its related concepts in terms of the experiences and hypotheses of the 'developed' world in what is a different socio-economic and cultural setting. But urbanization in the sense of both the number of towns and people living in them is a phenomenon not restricted to the 'developed' world. It would be erroneous however to dismiss these western based concepts of urbanization in the study of non-western areas because as Eze (1970) noted an observation already made by other scholars

> "We are only just emerging from a half-century of cautious fact-gathering. During this period geographers working in non-western areas have had the opportunity to test existing theories based on western experience." (1)

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(1) Eze, J.O.N. (1970) "The Urban Concept in relation to inter-tropical Africa:- A re-appraisal" in Geographical essays in honour of K.C. Edwards, University of Nottingham, p.163.

One of these areas which has yielded valuable results from this experience is Japan. Ginsburg (1965) noted that Japanese scholars have displayed

> "a commendable familiarity with basic concepts concerning urban functional organization, the dynamics of urban morphological change, centrality and accessibility, cultural inertia and other influences on the urbanization process. Out of their work is coming some stimulating application of Western derived concepts and techniques and possibly some important modification, as well as confirmation of theories concerning the functions, structure and patterns of cities and urban systems." (2)

While accepting the invaluable worth of these western derived concepts, one should not neglect the significance of cultural, economic and political forces in town development in other situations especially the Third World. Such neglect has often led to indigenous towns in the Third World being labelled "Villages" by M.K. Trowell and P.K. Wachsmann (1953); "Urban Villages" by M.K. Buchanan and J.C. Pugh (1953) and "Settlements of doubtful urban character" by P.K. Mitchell (1972). Some scholars like Dresch (1948) and Prothero (1955) even declared that urbanization was alien in these parts before the establishment of colonial rule. It was left to other scholars like Mimer (1953), Bascom (1955) and Mabogunje (1968) to pioneer studies which led to the recognition of medieval urbanization in certain parts of Africa.

2.2 URBANIZATION AND DEVELOPMENT

Although with low levels of urbanization (less than 10 percent

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(2) Ginsburg, N.S. (1965) "Urban geography and Non-Western areas" in Urbanization - an Overview: The study of urbanization (P.M. Hauser and L.F. Schnore (eds.)), J. Wiley and Sons, London, p.277.

of its people live in cities of 100,000 inhabitants)[3] African countries are experiencing rapid and skewed urban growth. By this is meant that these countries continue to be characterised by one or a few large cities and a dearth of medium-sized cities. Growth tends to be concentrated in the large cities. This type of urbanization should not only be assessed in terms of its impact on the cities and their inhabitants but also the effects on the rural hinterlands. The growth of these cities has led to concentration of resources, rural to urban migration and a chain reaction of concentrated unemployed youth among other things. These massive concentrations of people and resources, facilities and services have led to the urban areas being dynamic, leaving the rural areas decaying and underdeveloped, resulting in more people moving to these dynamic areas to take advantage of the facilities present. Sadly some of these migrants never get to realise these dreams and join the unemployed, at times turning to crime, and vice, and adding to the social problems which are already a landmark in the cities of the Third World.

In an attempt to cope with housing shortages, services and other facilities to service the cities, with the little resources available, governments have merely succeeded in making the urban areas more attractive to rural migrants. This regional dimension of development and its associated problems have become increasingly recognized as of fundamental importance to development scholars and governments throughout the Third World and various attemps are being made, not excluding para-military methods, to curb rural to urban migration.

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(3) Little, K. (1974) Urbanization as a social process. London and Boston, p.7.

Until comparatively recently, economic development in the Third World has been pursued in the imitation of the 'developed' world, with emphasis on capital investment, stages of growth, poles of development, demonstration effect and trickle down. In a general assessment of the development process in the developing world, the then President of the World Bank, McNamara (1978) observed that "the trickle down theory is an insufficient basis on which to expect human needs to be met in a reasonable period of time"(4) In short the results so far of the formerly accepted theories of development have fallen far short of the expected results, and yet to alter this is proving so difficult within the present economic and political framework of Third World countries. A close look at some countries particularly in Africa would demonstrate the enormity of this disparity between the urban and the rural areas.

In the Gambia for instance, virtually all of the manufacturing industries are concentrated in Banjul.. Dakar in Senegal has 81.4 percent of all the country's industries, while Freetown in Sierra Leone boasts of 75 percent of the nation's manufacturing industry. Besides this, the cities also have a greater share of employment opportunities, public-services, better medical, educational facilities and housing. Mali's capital (Bamako) for instance has 54 percent of all wage earners; 62 percent of national production; about 49 percent of all salaries and wages; 33 percent of all profit from business and consumers, and 45 percent of all imported goods. Similarly Nairobi in Kenya has about 46 percent of all wholesalers; Addis Ababa in Ethopia

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(4) McNamara, R. (1978) New York Times, 2nd April E.3.

has 48 percent of all the doctors, 59 percent of all nurses and 31 percent of all hospital beds in the country.(5) In Sierra Leone, the Western Area (where Freetown is) occupies only one percent of the country's land area but almost nine percent of the population, while the Northern Province with 41 percent of the total area has only 13 percent of the urban population but despite having a much smaller population, the Western Area has the largest numbers of Secondary Schools, hospitals and dispensaries, post offices and commercial banks, comparable to those in the provinces, indicates as much the control role of the national capital as the under-development of facilities in the provinces.(6) This disparity in the levels of facilities is indicated in table 2.1.

This general picture is repeated in every African country and other parts of the Third World. Such spatial concentration of people and resources raises serious questions of imbalance and the potential of the present socio-economic systems for effecting regional and social equity, promoting political stability and national integration.

This spatial concentration and imbalance has raised the need for various governments in the Third World to consciously institute measures and adopt strategies to counteract the already established and self-perpetuating polarization tendencies of development that favour the urban areas.

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(5) Harvey, M.E. (1976) "Urban Economic Development" in Contemporary Africa: Geography and Change (C.G. Knight and J.L. Newman (eds)) Prentice Hall. Inc. Englewood Cliffs. New Jersey pp.283-306.

(6) Sierra Leone National Development Plan 1974/75-78/79 p.98.

TABLE 2.1 DISTRIBUTION OF SERVICES/FACILITES BY DISTRICTS IN THE PROVINCES OF SIERRA LEONE

		FUNCTIONS		NORTHERN PROVINCE - DISTRICTS					SOUTHERN PROVINCE - DISTRICTS				EASTERN PROVINCE		
				KAMBIA	PORT LOKO	BOMBALI	KOINADUGU	TONKOLILI	MOYAMBA	BO	BONTHE	PUJEHUN	YOKO	KENEMA	KAILAHUN
			Total												
Administration	1.	Political													
		Provincial Secretary	3	0	0	1 c=33%	0	0	0	1 c=33%	0	0	0	1 c=33%	0
		District Officer	12	1 c= 8%	1 c= 8%	1 c= 8%	1 c= 8%	1 c= 8%	1 c= 8%	1 c= 8%	1 c= 8%	1 c= 8%	1 c= 8%	1 c= 8%	1 c= 8%
	2.	Local Court	146	7 c= 5%	9 c= 6%	13 c= 9%	11 c= 7%	11 c= 7%	14 c=10%	15 c=10%	11 c= 7%	11 c= 7%	14 c=10%	16 c=11%	14 c=10%
	3.	Government Treasury	12	1 c= 8%	1 c= 8%	1 c= 8%	1 c= 8%	1 c= 8%	1 c= 8%	1 c= 8%	1 c= 8%	1 c= 8%	1 c= 8%	1 c= 8%	1 c= 8%
	4.	Police - District Headquarters	12	1 c= 8%	1 c= 8%	1 c= 8%	1 c= 8%	1 c= 8%	1 c= 8%	1 c= 8%	1 c= 8%	1 c= 8%	1 c= 8%	1 c= 8%	1 c= 8%
Trans. and Communications	5.	Post and Tele-communications (Day & Night Serv.)	31	3 c=10%	4 c=13%	1 c= 3%	0	1 c= 3%	7 c=23%	2 c= 7%	3 c=10%	1 c= 3%	1 c= 3%	4 c=13%	4 c=13%
		Post Office	29	2 c= 7%	3 c=10%	1 c= 3%	1 c= 3%	2 c= 7%	6 c=21%	2 c=7%	2 c= 7%	1 c= 3%	2 c= 7%	3 c=10%	4 c=14%
		Postal Agency	65	2 c= 3%	4 c= 6%	4 c= 6%	0	7 c=11%	10 c=15%	12 c=18%	4 c= 6%	3 c= 5%	5 c= 8%	7 c=11%	7 c=11%
	6.	Petrol Station	40	2 c= 5%	2 c= 5%	3 c= 8%	2 c= 5%	5 c=13%	3 c= 8%	9 c=23%	2 c= 5%	2 c= 5%	2 c= 5%	7 c=18%	1 c= 3%
	7.	Main Road Junction	148	12 c= 8%	24 c=16%	15 c=10%	7 c= 5%	11 c= 7%	9 c= 6%	22 c=15%	5 c= 3%	13 c= 9%	6 c= 4%	10 c= 7%	14 c= 9%
	8.	Railway Station	28	0	0	1 c= 4%	0	5 c=11%	10 c=36%	4 c=14%	0	0	0	4 c=14%	4 c=14%
	9.	Air Transport - Air Port	12	1 c= 8%	3 c=25%	0	0	1 c= 8%	1 c= 8%	1 c= 8%	1 c= 8%	0	1 c= 8%	1 c= 8%	2 c=17%
		- Air Strip	12	1 c= 8%	3 c=25%	0	0	1 c= 8%	1 c= 8%	1 c= 8%	1 c= 8%	0	1 c= 8%	1 c= 8%	2 c=17%
	10.	Banking - Commercial	15	0	2 c=13%	1 c= 7%	0	1 c= 7%	0	2 c=13%	1 c= 7%	0	3 c=20%	3 c=20%	2 c=13%
		Post Office Savings Bank	31	3 c=10%	3 c=10%	2 c= 6%	1 c= 3%	2 c= 6%	6 c=19%	1 c= 3%	3 c=10%	1 c= 3%	2 c=6%	3 c=10.	4 c=13%
Health	11.	Health Services													
		Specialist Hospital	2	0	0	0	0	1 c=50%	1 c=50%	0	0	0	0	0	0
		General Hospital	24	1 c= 4%	4 c=17%	2 c= 8%	1 c= 4%	1 c=4%	3 c=13%	2 c= 8%	2 c= 8%	1 c= 4%	2 c= 8%	3 c=13%	2 c= 8%
		Health Centre - Gov't. Treatment Centres	37	0	0	1 c= 3%	4 c=11%	4 c=11%	1 c= 3%	1 c= 3%	2 c=15%	1 c= 3%	2 c=15%	7 c=23%	14 c=45%
		Health Centre - Gov't. Health Centres	20	2 c=10%	2 c=10%	0	1 c= 5%	4 c=20%	3 c=15%	2 c=10%	1 c= 5%	1 c= 5%	2 c=10%	0	2 c=10%
		Dispensaries	24	2 c= 8%	4 c=17%	3 c=13%	1 c= 4%	2 c= 8%	3 c=13%	1 c= 4%	3 c=13%	0	1 c= 4%	1 c= 4%	3 c=13%
Education	12.	Education													
		University or University College	1	0	0	0	0	0	1 c=100%	0	0	0	0	0	0
		Secondary School	76	3 c= 4%	3 c= 4%	5 c= 7%	1 c= 1%	5 c= 7%	10 c=13%	19 c=25%	3 c= 4%	3 c= 4%	6 c= 8%	14 c=18%	5 c= 7%
		Teacher Training College	7	0	1 c=14%	1 c=14%	0	0	0	2 c=43%	0	0	0	1 c=14%	0
	13.	Public Libraries	10	1 c=10%	1 c=10%	1 c=10%	0	1 c=10%	0	1 c=10%	2 c=20%	1 c=10%	1 c=10%	1 c=10%	1 c=10%
	14.	Water Supply	49	4 c= 8%	12 c=25%	3 c= 6%	1 c= 2%	3 c= 6%	5 c=10%	4 c= 8%	3 c= 6%	2 c= 4%	4 c= 8%	4 c= 8%	7 c=14%
	15.	Electricity	17	2 c=12%	2 c=12%		1 c= 6%	1 c= 6%	2 c=12%	3 c=18%	1 c= 6%	1 c= 6%	1 c= 6%	1 c= 6%	2 c=12%
			863	c=14.4%	c=28.2	c=17.4%	c =8.0%	c=24.8%	c=40.7%	c=31.2%	c=17.2%	c= 9.5%	c=17.2%	c=28.3%	c=27.7%

SOURCE: Ministry of Economic Development, Freetown, 1973.

The vast majority of the Third World population lives in rural areas. If development, however defined, is to be achieved and have any real meaning, this vast majority must benefit from it. Thus the real challenge to development lies in its implications for urbanization, migration, rural development and interregional balance. Shakhs (1974) points out that

> "since African countries are predominantly rural (the population of city dwellers in the population ranges from 2 percent in Burundi to 26 percent in Senegal and a total of 11 percent in all of Tropical Africa) and their cities, despite cries against primacy and urban congestion are relatively small, the spatial dimension of current investment decisions will greatly influence the directions of these countries development for a long time to come." (7)

There is a wide range of attitudes in the literature regarding urbanization and its relationship to national development. One school of theorists see it as a cancer in the development of Third World countries, and its growth must be arrested. Others view it as a necessary evil, advocating strategies to reduce its negative effects. Still others think it is a positive factor which ought to be encouraged. A final group see it as a catalytic force in generating development and its pace and spread ought to be accelerated. Much of the literature on urbanization in the Third World views it with alarm. McGee (1967) sees Third World urbanization as pseudo-urbanization because

> "the process has not been similar to the one that occured in the advanced countries at comparable stages of industrialization and economic growth." (8)

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(7) El-Shakhs (1974) "Development planning in Africa" An Introduction in Urbanization, National Development and Regional Planning in Africa. (Salal el Shakhs and Robert Obudho (eds.)). Praeger Publishers. New York p.3.

(8) McGee (1967) The Southeast Asian City. Praeger Publishers, New York, p.19.

In the West, he further states

> "the growing cities gradually involved an increasing proportion of the total population until the majority was living in cities and an urbanized society had come into being." (9)

Cities in the West were able to absorb their natural population increases as well as migrants because of the industrial revolution. Some of those who take a positive view of urbanization challenge the idea that Third World countries are over-urbanized. Given that urbanization is both an asset and a liability to national development there seems to be disagreement as to what policies to follow.

There are many issues involved but the two most relevant to this study need mentioning here. The first deals with the rate of urbanization and the second with its spatial distribution. These two aspects should be viewed with the two development objectives facing Third World countries; firstly, rapid national growth and the equitable spatial and social distribution of the benefits of development. The success of any national development policy would depend on the way these two objectives are reconciled.

Those who view rapid urbanization negatively insist on it being steered away to other towns rather than the large cities. Even within this group, there is a lack of consensus about which towns it should be directed to. Those who argue in favour of continued concentration of people and economic activities see nothing wrong with increasing primacy but they at the same time advocate policies of promoting the growth of other centres besides the primate cities.

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(9) Ibid. p.20.

The issues raised so far lead scholars, like M'lia (1974) to suggest that urbanization policies

> "cannot be devoid of regional development policies. Indeed, some national urban development strategies aim primarily at reducing regional development imbalances rather than simply reducing primacy and the problems allegedly associated with it." (10)

In practically every developing country the trend of movement is not to nearby towns but to metropolitan centres. Some of these migrants undoubtedly earn more in the cities than they did before, but whether they achieve a better, fuller and more useful life is by no means certain. What is certain is that there is indisputable evidence of physical, mental and moral deterioration. This migration from the rural villages and small towns has been misguided, uncontrolled and unchecked creating a disorderly social change leading to a waste of large amounts of what would have been creative labour and utilized for constructive development tasks. Johnson (1970) noted that

> "worst of all, the unchannelled drift of people to relatively few cities has frustrated and counteracted any prospects of a diffused type of orderly urbanization whereby a vitalization of rural landscapes could be set in motion by the location of new industrial establishments, processing plants, and service industries at carefully selected growth points. It has allowed the nations that most urgently need an organically regional development to weaken the links between town and country and allow an unplanned dual economy to emerge." (11)

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(10) M'Lia, J.N. (1974) "National urban development policy: The issues and the options" in Urbanization, National Development and Regional Planning in Africa (S. El-Shakhs and R. Obudho (eds.)). Praeger, p.87.

(11) Johnson, E.A.J. (1970) The Organization of Space in Developing Countries. Harvard University Press, Cambridge, Mass. p.162.

The policy problems of such development as has been discussed is not how to eliminate these differences since this is probably impossible, but how to reduce them and prevent them from widening.

2.3 THEORIES OF SPATIAL STRUCTURE

Theories of regional development began to appear in the literature in the 1950s. The publication of Hirschmann (1958) was an analysis of the means of getting economic development under way and an answer to views presented by Nurkse (1953) and others. Right from the beginning two schools of thought had developed. The 'balanced growth' argument against the 'unbalanced growth'. The 'balanced growth' theory starts with an explanation of the 'vicious circles of poverty'. This simply means that there is a circular constellation of forces tending to act upon each other in such a way as to keep a poor country poor. Of these forces which contribute to this state of affairs in the Third World, the most important according to Nurkse are those that afflict the accumulations of capital. The supply of capital is governed by the ability and willingness to save and the demand by the incentives to invest. In the Third World, the low levels of real income are a result of low productivity which is due to the lack of capital. The inducement to invest may be low because the buying power of the population is small which is because of low incomes mainly due to low productivity. The low levels of productivity are due to the small amount of investment which in turn may be the result of the small inducement to save.

Nurkse (1953) revealing that such a situation had existed in the developed nations proposed that to break the deadlock of this

vicious circle of poverty, poor countries must pursue policies of 'balanced growth'. To break the deadlock Nurkse (1953) proposed that "an increase in production over a wide range of consumables so proportioned as to correspond with the pattern of consumers' preferences, does create its own demand."(12) Unlike Nurkse, Hirschmann (1958) advocated development through a chain of disequilibria in which the expansion of one industry creates external economies for another wherever such industries are in a complementary relationship of any kind. Whereas Nurkse advocated even development, Hirschmann introduced a new spatial component in which emphasis is placed on investment over a sequence of regions, concentrating initially on rapidly urban industrial expansion and moving outwards into the periphery when the need for further investment in the centre declines. Arguments in favour of such policies view the situation thus; that in the early stages of development, concentration of resources in chosen growth points will be paralled by retardation elsewhere due to the centripetal forces generated by such points. The polarization effects are offset by an increase of purchases by the rapidly growing region from its surrounding area and an increase of investment in the periphery by the core region. To get this trickle down effect, it is assumed that the core region relies on the products of the periphery to some degree for its expansion. Viewed from such an angle, the regional development problem is seen as a spatial case of unbalanced growth and that in the failure of market forces, the state can intervene to correct the inbalance. The relevance of this theory to Third World countries could be viewed in the light of scarce resources which limit even investment. However too much reliance on the theory provides justification for the urban - industrial bias,

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(12) Nurkse, R. (1953) Problems of capital formation in under-developed countries, New York, p.14.

a feature already characteristic of development in the Third World.

Another approach towards a theory of regional development was that of the Swedish economist Gunnar Myrdal (1957). His analysis started with a differentiation between rich and poor and a discussion of the vicious circle of poverty and its disadvantages. From his discussion he proposed a theory of cumulative change, believing that the principle of interlocking circular interdependence within a process of cumulative causation should be the main hypothesis in studying under-development. He believed that the play of free market forces works towards inequality between regions and that such inequality is reinforced by the movement of goods and services. On the question of spread effects, his theory differs from Hirschmann's (1958) for he believes that

> "in no circumstances, however, does spread effects establish the assumption for an equilibrium analysis. In the marginal case, the two kinds of effect will balance each other and a region will be stagnating. But this balance is not a stable equilibria, for any change in the forces will start a cumulative movement upwards or downwards." (13)

His conclusions express doubt on the adequacy of theory in describing economic development and under-development.

Despite being now overshadowed by other theorists, the contributions of these early theorists led to the realization of disequilization of the development process becoming firmly established in the literature.

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(13) Myrdal, G. (1957) Economic theory and underdeveloped Areas. London, Duckworth, p.32.

Prominent among the theories of disequalization in economic development is the core-periphery concept. The realization of this in development started with work of Presbich (1949) in Latin America. He started his analysis by drawing a distinction between western industrialized nations which he called the 'core' and the primary producing nations which he referred to as the 'periphery'. In the late 1950's and 60's the concept was further examined at the national level but one whose contribution has entrenched it in the literature is J. Friedmann (1966).[14] From his analysis in Venezuela, he observed that

> "the indisputable fact is that regional convergence will not automatically occur in the course of a nation's development history. Impressive evidence has been collected to show why the equilibrium mechanism that has been posited in the theory will, in fact, breakdown. Even with a century and a half of sustained industrialization, the advanced economies of the United States and Western Europe continue to be preoccupied with problems of depressed and backward regions inside their own national territories. It may be that in the very long run, when the society has advanced into an era of prosperity and mass consumption, interregional inequalities can be made to dwindle into insignificance. On the whole unrestrained forces of a dynamic market economy appear to be working against a convergence of the centre and the periphery."

In an earlier publication Friedmann and Alonso (1964) proposed a framework for regional development, which Friedmann (1966)[15] later modified. They proposed that

> "if there is a spatial pattern corresponding to each stage of economic development it may be further suggested that there is an optimal strategy for spatial transformation from one stage to the next."

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(14) Friedmann, J. (1966) Regional Development: A Case Study of Venesuela, The M.I.T. Press, Cambridge, Mass, London.

(15) Friedmann, J. and Alonso, W. (1964) (eds.) Regional Development and Planning. A reader, The M.I.T. Press, Cambridge, Massachusetts.

They derived two public policy concerns for spatial organization: Firstly, where economic development is unequal over the national territory, regional differences in levels of welfare may become an urgent political issue and secondly where the manner in which economic space is organized affects the space and structure of economic growth, policy must be directed to strategies of spatial evolution to further general development of the economy. In practical terms these policy concerns hover around specific programmes concerning the priority and location of economic activities. Friedmann and Alonso (1964) proposed that the national space economy be viewed in terms of a core-periphery to be able to identify problem areas which need special attention; the ultimate aim being to integrate the national space economy by the gradual elimination of the periphery on a national scale with the substitution of an interdependent system of cities.

The basic problem facing Third World countries is the need to reconcile growth and equity goals. Present policies are geared towards the former and have led to the inequalities which have already been discussed in the section on urbanization and development. The relevance of the core-periphery concept lies in its contribution to measures to counteract inequalities in Third World countries.

Closely associated with the core-periphery concept is dualism. The notion originated from Boeke's(1953) analysis of the Indonesian economy which he proposed as a general theory describing the economies of Third World countries. He concluded from his experiences in Indonesia that any attempt to help developing countries with western

technology would fail. His theory has been much criticized not only on the grounds that dualism is not restricted to developing countries but he failed to realize that there are different types of developing countries and at different stages of development. The core-periphery and dualism concepts arise from the distribution of resources both at national and international levels. This unequal distribution is seen in terms of conflict by some Latin American social scientists who have put forward the dependency theory. It revolves around the notion that powerful corporate and national interests representing capitalist societies have established outposts in the principal cities of Third World countries, a sizeable surplus for the dependent economy in the form of primary products to expand the market for goods and services produced in the home countries of advanced capitalism. These social scientists see the western educated ruling elite in the Third World as co-opted members of the system pursuing policies in their countries which entrench the system and lead to large disparities between urban and rural and rich and poor. Processes of circular and cumulative causation tend to sustain accelerated growth in the cities with the result that, there have been massive transfers of rural people to urban areas in the hope of improving their standards of living but in the end joining the ranks of the unemployed. This group are seen by those social scientists as a revolutionary force waiting to explode to get what is denied them. The dependency theory is very much like the core-periphery concept, only that it is interpreted in socio-political terms.

It seems clear then that, what is needed, are stategies designed to moderate, blunt, reduce and ultimately check the pattern by the development of graduated hierarchies comprising towns, small towns

and medium-sized cities which will offer opportunity to that influx of people now migrating into the metropolitan 'areas'. Johnson (1970) stressed that

> "whereas it is easy enough to recognise the need for a recentering of economic activity, finding a solution for this problem is very difficult for the simple reason that the existing number of central places is entirely inadequate and any program contemplating a wholesale town-building operation looks like a town planner's dream because the fiscal burden involved would seem to be completely unmanageable in virtually every poor country." (16)

2.4 THEORIES OF HIERARCHICAL STRUCTURES

At roughly the same time as Zipf (1941) advanced the concept of rank-size regularity to describe the distribution of city sizes, Mark Jefferson (1939) introduced the concept of urban primacy which has been adopted for Africa by Clarke (1972). A number of scholars, among whom are Berry (1961); Linsky (1965); Mehta (1964) and Stewart (1958), have formulated a variety of hypotheses concerning the development of primacy. It has often been associated with the following:-

(a) The small size of countries.

(b) Short history of urbanization.

(c) Economic and/or political stability.

(d) Marked absence of entrepreneurs to diffuse industry in medium-sized manufacturing towns.

(e) Low per capita income.

(f) Export oriented and agricultural economies.

(g) Small areal extent of dense population.

(h) Ex-colonial status.

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(16) Johnson, E.A.J. (1970) The organization of space in developing countries. Harvard University Press, Cambridge, Mass, p.169.

(i) Rapid rates of population growth.

The above hypotheses are still inconclusive. Primacy according to Jefferson (1939) occurs when the largest city is several times the population of the one that is second in rank. Later authors have applied the concept to the whole distribution of cities of different sizes. Primacy according to those later scholars exists when a stratum of small towns is dominated by one or more very large town or city and there is a dearth of intermediate towns than would be expected from the rank-size rule.

Rank-size regularities have been associated with the existence of integrated systems of cities in economically advanced countries, whereas primate cities have been associated with "over-urbanization" with the superimposition of colonial economies on developing countries, and with political and administrative controls of indigenous subsistence and peasant societies. Rank-size rule gives a lognormal distribution of cities and is considered by many scholars as the "normal" distribution. Primate city size distributions may therefore be considered abnormal and have paralytic effects of the development of smaller urban places. Hauser (1957) stated that

> "these cities tend to be parasistic in that they tend to obstruct economic growth in their country of location by retarding the development of cities in the nations by contributing little to the development of their own hinterlands, by being orientated primarily towards the contribution of services to the colonial power abroad or the indigenous elite in the great city itself." (17)

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(17) Hauser, P.M. (1957) "World and Asian urbanization in relation to economic development and social change" in Hauser (ed) Urbanization in Asia and the far East. p.87.

But Berry (1961) postulates a transformation of the primate city size distribution to lognormality, as a consequence of increasing development in a country.

Although some of the views expressed by these authors on the parasitic nature of primate cities may be justified, care must be taken not to overstate the case and thus neglect the generative aspects. After all, the primate city presents an opportunity for migrants that force innovation which those in the countryside, if left to themselves may never make. The implications of primacy for economic development lie in the distribution of resources in the countries of the Third World among various regions and peoples.

A considerable number of suggestions, sometimes conflicting have been made by a number of scholars on how to manipulate the growth and size of urban areas. On the one hand, some advocate promoting the growth of big cities so that they can act as growth points from which innovaton filters. Others suggest that urban hierarchies be engineered to conform to rank-size rule or Löschian distributional patterns. Still others propose the restriction of the growth of cities and even to reverse the seemingly inexorable flow from rural to urban area.

The most recognized of the spatial theories is Christaller's (1966) central place theory, which has been the subject of much investigation in different parts of the world. The theory requires the examination of settlements as a system. The emergent patterns are considered important in estimating their role as instruments of regional development.

Studies on the theoretical issues of central place theory are abundant in the literature but only aspects relevant to our study will be discussed. Central places as conceived by Christaller are a product of spatial competition in which patterns of higher order centres contain functions additional to those possessed by lower order centres. In short, central places are regarded in terms of their hierarchical functions. As central places are classified so are the goods and services at such places. There is always a tendency to confuse the size and importance of a place. Though the two are related and size contributes to the importance of a central place, the two are by no means synonymous. The importance of a place lies in its centrality which is a measure of the functions performed by the place, the offering of goods and services produced in central places and consumed at many scattered points. The importance of a central place therefore lies in its trading function and this ties every central place to its complementary region. Such a region varies from time to time and for different types of goods and services.

In abstract terms howeven, Johnson (1970) suggests that

> "the size of a complementary region is relatively constant, since its radius is a function of what Christaller calls economic distance, a dimension determined by factors such as costs of freight, transit losses, travel time and the discomfort of travel. Economic distance determines the maximum travel a dispersed population is willing to undertake in order to purchase the goods and services offered at a particular central place." (18)

It must be added that the attraction to a central place is not only

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(18) Johnson, E.A.J. (1970) The organization of space in developing countries. Havard University Press, Cambridge, Mass, p.126.

dependent on distance and its related aspects but also by the variety, quality and prices of goods and services offered. The offering of these goods and services is also dependent on the receipts that may be expected from the sale of goods and services, in short the range and threshold of goods and services are very important.

Central place theory has been widely tested in many parts of inter-tropical Africa. In one study, A.J. Grove and L.I. Huszar (1964) attempted the determination of central places in Ghana using a ranking system whose limitations have been brought out by W.K.D. Davies (1966). In another study M. McNulty (1972) attempted a description of Ghana's urban system; whereas W. Roder (1969) working on smaller settlements in the Sabu valley applied some of the assumptions of the theory. J.O. Abiodun (1967) in south-western Nigeria found a five-level system conforming with the main principles of the theory whereas in neighbouring Abeokuta due mainly to historical circumstances, no such pattern exists.

Within East Africa there have been a large number of studies. Mascarenas (1971) examined the national pattern in Tanzania. In Kenya both Taylor (1970, 1972) and Obudho (1970) have demonstrated the existence of a central place structure. Similarly in Uganda, Splansky (1971) and Funnell (1974) have examined the theory in different regions. Certain conclusions can be drawn from these studies. These centres have a distinctive range of functions as Funnell (1974) noted that "in many cases the detailed structure resembles that of the Christaller model. Some of the spatial patterns indicate distributional

regularities based upon the level of functions provided."(18) The small service centres from these studies appear to be hierarchically structured. One drawback of these studies so far is that there is an assumption that these hierarchical structures observed are the result of a process of spatial competition and the emergence of distinct trade areas around the centres even though the assumption of the theory are not verified.

Even if the hierarchical structures exist, very few studies have concentrated on the evolution of these centres. In some part of the developing world these are a result of an imposed colonial structure whereas in others, they merely reinforce the traditional pattern.

The main elements of central place theory have become embedded in regional planning and are featuring increasingly in the planning of settlements in rural areas. For planning purposes a hierarchical system is necessary for the provision of social services to a dispersed population. The numbers of levels and the point in a system at which a particular service appears should be carefully considered. The Christaller model has usually been used to provide the services and facilities to a dispersed population. What we don't know is whether it is efficient in delivering these services and facilities to a dispersed population. This is an aspect which is examined in the thesis.

2.5 THEORIES ON THE ROLE OF SMALL URBAN CENTRES

One of the basic differences between developed and developing

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(19) Funnell, D.C. (1975) 'The role of small service centres in Regional and Rural Development: with special reference to Eastern Africa.' in Development planning and Spatial structure (ed. A. Gilbert). J. Wiley and Sons. Chichester, New York, Brisbane, Toronto. p.87.

countries is the number and dispersion of central places. In the former, the varied hierarchy of central places has not only made possible an almost complete commercialization of agriculture but has facilitated a wide spatial diffusion of light manufacturing, processing, and service industries providing many employment facilities and using the skills of workers in services. The developing countries on the other hand lack this dispersion of central places and can therefore not utilize the advantages endowed in such a dispersion.

In the absence of an orderly hierarchy of centres, renewed interest in regional planning particularly rural development, greater interest has been focussed on the potential significance of small urban centres with which the majority of the people have contact. The recognition of the importance of these centres is credited to Middleton (1966). These centres he proposed may be used as a framework for the delivery of services to ensure an equitable distribution, or sets of centres may be carefully chosen to act as channels through which ideas and innovations flow to stimulate change around their hinterlands. They may also be chosen for locating economic activity which has been decentralized in an attempt to curb the growth rate of the city and at the same time, stimulate economic activities in and around the centre.

Literature on small urban centres in Africa, Latin America and Asia, convey to scholars who advocate their use as positive instruments in furthering rural development that the instances in which small urban centres are playing anything like an adequate positive role are distinctively rare, and most situations convey the very strong impression that quite fundamental transformations in society - of political and.

economic structures will be necessary if they are to have any serious chance of doing so.

The relationship between small urban centres and the rural hinterlands is the cornerstone of policies designed to use these centres to enhance rural development. There is a divergence of views on the nature of this relationship but one can broadly divide these into two major schools of thought.

One school of thought consists of scholars like Barber (1967), Frank (1971) and Ahmed and Rahman (1979) who maintain that these centres are 'parasitic', acting as outposts of a system of extraction resulting in transferring wealth from the rural to urban areas and eventually to metropolitan centres in other continents. Similar views have been expressed by neo-Marxists social scientists working in Latin America and other parts of the Third World. While accepting the important role of these small urban centres as strategic points for the extension of services and welfare to the rural countryside, their role is portrayed as an arm to serve the purpose of more effective exploitation of the rural countryside.

The other school of thought consists mainly of scholars like Middleton (1966), Johnson (1970), Funnell (1976) and Southall (1979) who view these small urban centres as having a positive developmental role in the local economy emerging from the increased development of these centres. Evidence supports the concept that innovation and modernization move from the major urban centres to smaller urban centres and then into rural areas and for that, a well developed urban hierarchy is essential. In the absence of the latter, strategies

should be directed to incorporating isolated rural inhabitants in the development process and since the small urban centre is probably the smallest unit, Taylor (1974) suggests that "an adequate package of basic services, and which will not be in danger of vanishing or disappearing over the next twenty years "[20] in these units it must therefore present the best opportunity for locating these services to a dispersed population.

If innovation and modernization filter down through the hierarchy with time and distance decay effects, to reduce these would require a strategy that would introduce innovations at the lowest level. Concentration of services and facilities in these centres, Oniude and others(1971) suggest would ensure that "input of capital resources into the rural areas is used with the maximum possible efficiency and to the greatest possible benefit of the regional economy and the convenience of the local people."[21] Small urban centres may be points of distribution of agricultural implements, fertilizers etc., to the rural populations. At the distributional level, they dispense the goods provided by the national politico-economic system - the consumer goods (small shops and stores), medical care (dispensaries, clinics and sometimes hospitals), education (the first level of non-village senior primary schools which attract students to secondary levels), despite arbitration and law enforcement (the first level of police and court appeal outside the village - headsman or junior chief level).

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(20) Taylor, D.R.F. (1974) 'The role of the smaller urban place in development: The case of Kenya' Urbanization, National Development and Regional Planning (eds. S.El.Shakhs and R. Odudha), p.155.

(21) Oniude, S.H. Ligale, A.N. & Cahusac, A.A. (1971) Urbanization and Environment in Kenya. Mimeographed (Nairobi, Working Committee on the Human Environment) p.18

They also perform important social and religious functions but they are often relegated to 'rural places' or villages. From diverse origins these centres have become local towns whose raison d'etre remain the agrarian economy. From the review of the literature, we know they are not a single unique type, there is a variety and hierarchy of these centres. It is at this level that the problem of migration from rural to urban centres begins. If small urban centres, at several levels can be given the services and amenities required to hold an appropriate part of the population in them, the problem of out-migration, swelling the numbers of unemployed in the larger cities may be solved.

2.6 CONCLUSION

Finally it must be pointed out the scholars who view the role of small centres as being positive pre-suppose de-concentration and decentralization. Most Third World countries are highly centralized. Deconcentration and decentralization may be economically good but whether it is feasible under present circumstances is quite another matter. This study draws on the literature on small urban centres and related aspects as a theoretical framework to their investigation in Sierra Leone. From the review the following hypotheses are drawn for testing in the study area - Sierra Leone:-

1. That small urban centres are of different origins which are likely to influence their functions and thereby structures.

2. That large parts of rural Sierra Leone are unlikely to be served by small urban centres which are few and are poorly distributed.

3. That the functional relationships of small urban centres are hierarchically structured.

4. That small urban centres are inadequately developed and may thereby inhibit rural development.

5. That the character of relationships between small urban centres and their rural hinterlands are likely to be related to the nature and levels of development.

To study these centres without paying attention to the macro-economic and political context in which they are set may be futile. It is therefore the aim of the next chapter to discuss those aspects of the study area which are relevant to this investigation.

C H A P T E R I I I

THE STUDY AREA

3.1 INTRODUCTION

Sierra Leone with 2.9 million people (1974 census) is a small country of 73,326 square kilometres lying on the west coast of Africa between latitudes $6^{o}55'$ and 10^{o} north and longitudes $10^{o}16'$ and $13^{o}18'$ west. With a few racial minorities, the country is predominantly west African. The cultural differences between it and other west African states are based on tribal origins and the type of European colonization experienced.

It was British-administered for about 150 years until 27th April 1961 when it became independent. It has however retained a strong British impress especially in Freetown originally founded as a settlement for freed African slaves. The official language is English, although Krio is the lingua franca. Until very recently, its currency was based on the sterling. It has now entered into an economic union (Mano River) with its two neighbours, the Republics of Guinea and Liberia.

Administratively, the country is divided into three provinces and the Western Area. The provinces are divided into twelve districts which are sub-divided into numerous chiefdoms.

3.2 AGRICULTURE

Studies of West Africa have identified three major food economies; the Northern grain economy; the Southern root economy; and the Western grain economy (B.F. Johnson, 158; W.B. Morgan and J.C. Pugh, 1969; H.P. White and M.B. Gleave, 1971). Sierra Leone lies in the Western rice economy and the majority of its people are subsistence farmers whose primary aim is to satisfy their own needs even though it has not been possible. The staple food is rice, supplemented by sorghum, millet, maize, cassava, potatoes and groundnuts. Alongside these are cash crops mainly cocoa, coffee, palm kernels and to a lesser extent piassava, kolanuts, ginger and tobacco.

Sierra Leone's economy is heavily dependent on subsistence agriculture. Gleave (1978) suggested that agriculture accounts for

> "36 percent of the gross domestic product in 1966, provided 11 percent of export revenue, whilst in 1963; it provided together with forestry, hunting and fishing no less than 77.3 percent of the employment." (1)

In terms of employment and contribution to gross domestic product, agriculture is very important. The crops were grown traditionally by shifting agricultural techniques which have now taken the form of rotational bush fallowing rather than shifting cultivation. Rotational bush fallowing has undergone modification under the impetus of various pressures of which the two most important are the growth of production for the market and increasing population pressure.

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(1) Gleave, M.B. (1978) "Agricultural Development in Sierra Leone: Some Basic Patterns" Discussion Papers in Geography No. 6, Feb. 1978, University of Salford. p.1.

Under the influence of producing for the expanding market farmers sell the so-called marginal surplus of food crops and some engage in cash cropping of export crops while at the same time growing food crops for their own use. Where tree and bush crops are grown the bush fallow sector has been invaded by a permanent system of agriculture. As more land is brought under cultivation, the fallow periods are shortened, reducing the available area for fallow. Increasing population pressure has the same effects. As population increases, the area becomes unable to provide sufficient food for its people unless the growth of population or of cash cropping is accompanied by technological innovation which increases the productivity of land. The response to the deterioration of the bush fallowing system, innovation in the food sector in Sierra Leone has taken the form of swamp rice cultivation.

Of the 31.3 percent contribution of the agricultural sector to the gross domestic product in 1971/72 rice accounted for 37 percent. It is also the staple food and 86.3 percent of all holders produce some rice.(2) Most of the rice cultivated is by small farmers whose aim is to produce enough to feed the household and provide a marginal surplus for sale. There are two methods of rice cultivation, upland and swampland. The latter is by far more productive. Swamps of Sierra Leone are classified under the following headings: (Table 3.1)

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(2) Ibid. p.13.

TABLE 3.1 SWAMP TYPES

SWAMP TYPE	AREA PRESENTLY IN USE	AREA OF POTENTIAL USE
1. Inland Valley swamps	90,000 acres	550,000 acres
2. Riverain grasslands (Bolilands)	30,000 acres	120,000 acres
3. Deep flooding grasslands	10,000 acres	150,000 acres
4. Riverain grasslands of the South	20,000 acres	
5. Mangrove swamps	30,000 acres	265,000 acres

Source: Gleave, M.B. "Mechanisation of Peasant Farming: Experience in Sierra Leone". Discussion Papers in Geography No. 3. May 1977. Table 1.

The location of these swamps is represented in Figure 3.1. Farms are small, about 65.4 percent of all holdings are less than 5 acres; about 19.4 percent between 5 and 10 acres.(3) Apart from the small size of these farms, they are fragmented and these vary between and within provinces. Data on the percentage of holders growing and selling various crops is present in Table 3.2 below.

TABLE 3.2 PERCENTAGE OF HOLDERS GROWING AND SELLING SELECTED CROPS

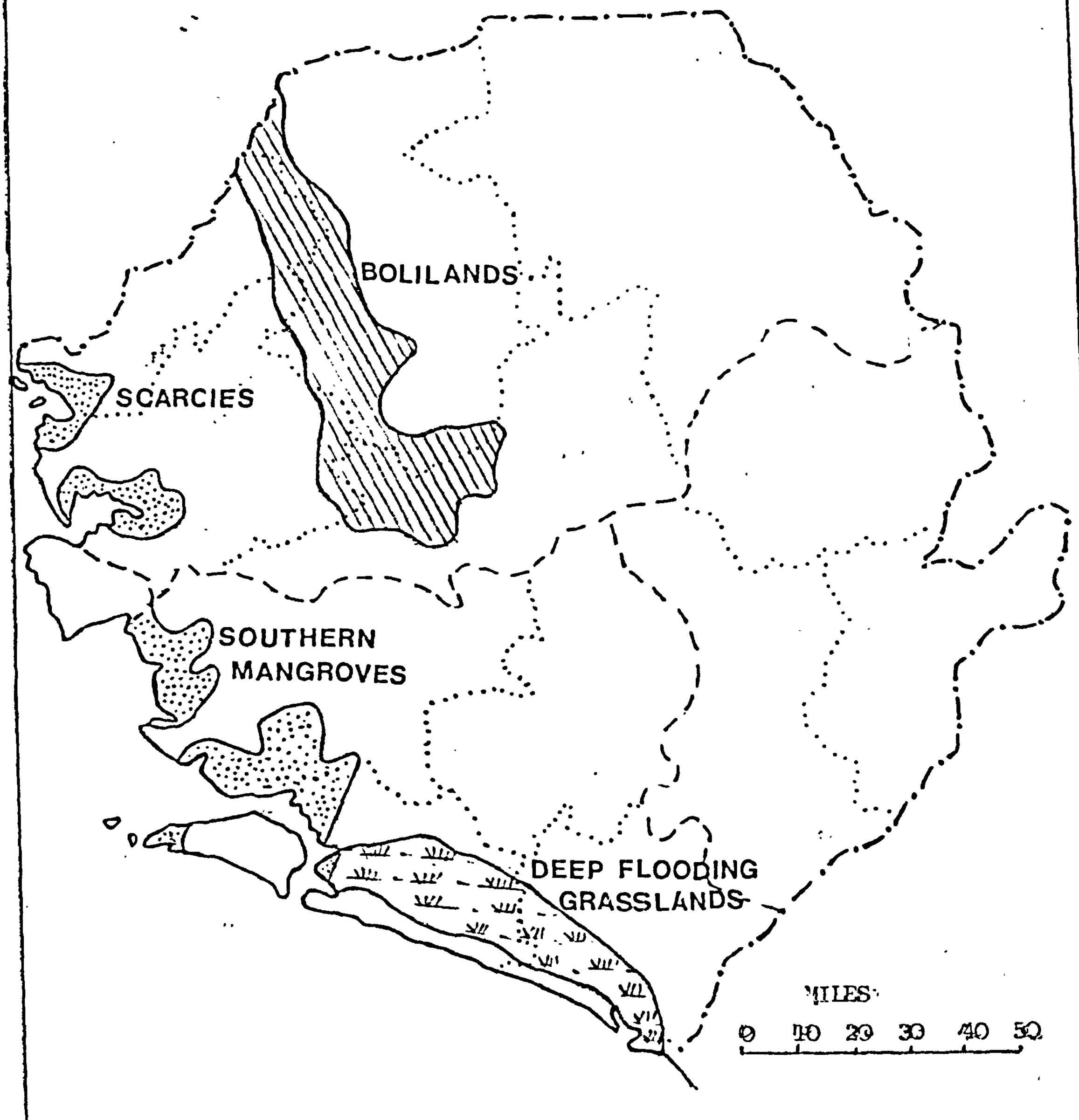
Food Crops	Grow	Sell	Export Crops	Grow	Sell
Rice	86.3	18.1	Kola Nuts	40.4	12.1
Cassava	62.3	6.2	Cocoa	33.2	17.3
Maize	46.1	4.2	Palm Kernels	26.1	20.4
Groundnuts	34.2	10.5	Coffee	21.2	9.6
Sorghum	31.6	1.0			
Sweet Potatoes	30.8	1.8			

Source: Gleave, M.B. (1982) "Assessing levels of agricultural development: The Sierra Leone Case" Singapore Journal of Tropical Geography, Vol.3 No.1 Table 1.

The more important food crops are grown widely whereas the export cash crops are restricted to the southern and eastern provinces. The

(3) Gleave, M.B. (1982) "Assessing levels of agricultural development: The Sierra Leone Case". Singapore Journal of Tropical Geography, Vol.3 No.1 p.19.

FIGURE 3.1 STAP TYPES



Source: M.B. Gleave (1977) "Mechanization of Peasant Farming: Experience in Sierra Leone" Discussion Papers in Geography, No.3. May. Fig. 1.

average value of sales according to findings by Gleave (1982) was "Le 34.5 suggesting that money yields for individual crops were likely to be small whilst it seems reasonable to suppose that money yields for all crops were likely to be small in the case of many individual holders as some variation about the mean is to be expected."(4)

The inland valley swamps vary in size but are generally scattered and small. The vegetation is also dense and very difficult to clear. Although the characteristics are different, the same problems of clearance are posited in the mangrove swamps. Added to these are the poor roads making access difficult while the small nature of the individual farms create insufficient size to ensure efficient tractor operations. Also in the great and little scarcies valleys where some 65,600 acres are in rice and only some 17,500 acres remain as potentially available, population densities are high and labour intensive techniques are used. In the south i.e. in the Ribbi, Bumpeh and Bagru valleys some 15,000 acres are used with a further 167,000 acres potentially available, but many farmers prefer to move to the adjacent riverain grasslands to take advantage of mechanical ploughing which is less arduous. In both mangrove swamp areas, but particularly in Scarcies, considerable problems arise from the land tenure system.(5)

The Bolilands are grassland swamps which are located in the northern province in the Kambia, Port Loko, Bombali and Tonkolili districts. As they have grassland plant communities and located in sparsely populated areas, they are easier to clear and labour shortages can be

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(4) Ibid. p.18.

(5) Gleave, M.B. (1977) 'Mechanization of Peasant Farming: Experience in Sierra Leone' Discussion Papers in Geogrpahy, No.3. May, p.8.

overcome by mechanical ploughing. Another advantage is that the area has fewer land tenure problems than the more densely populated areas. The 'bolis' are saucer-shaped depressions subject to flooding in the rainy season and drought in the dry season. They are of two types: the riverain or contemporary bolis which are more fertile than the inland or old bolis. In both cases soils are naturally poor in minerals but by using fertilizers and planting early acceptable yields of rice can be achieved.

The riverain grasslands are situated in the headwater valleys of the Rokel, Sewa and little scarcies rivers in the Koinadugu; the scarcies region in Port Loko and Kambia districts; in the lower and middle mano and moa valleys; and in the southern region on the lower flood plains of the Jong, Sewa and Waanje in Bo, Bonthe and Pujehun districts.

Mechanical rice cultivation started in 1949 in the Scarcies and southern grasslands gradually spreading to other parts of the country. The growth of mechanical cultivation has been particularly strong in the bolis and grasslands of the south where conditions which have already been mentioned are most favourable to rapid progress. Table 3.3 shows however that progress has not been smooth in time or space. We note in the table the ploughing circles for the whole country. The bolilands make up a significant portion of the northern and north western circles, while the riverain grasslands of the south account for significant portions of the south and south-western circles. Other points in the table which are significant are, the drop in average between 1955-1959 which has been attributed to the change in method of payment for ploughing and harrowing. Before 1958 the £3 per

TABLE 3.3 MECHANICAL RICE CULTIVATION SCHEME (ACRES PLOUGHED)

PLOUGHING CIRCLES	1951	1955	1959	1963	1965	1966	1969	1971	1973	1974*
Southern (Bonthe)	282	4073	3788	8630	11,171	7214	10,624	8458	7156	11,641
South Western (Pujehun)	32	1173	600	-	506	-	906	906	1364	2,191
North Western (Port Loko)	80	1014	243	359	939	1013	1,970	3605	2293	14,514
Northern (Makeni)	-	3600	356	5157	6,859	3297	7,917	12,217	6142	17,300
North Eastern (Musaia)	-	141	319	684	2,144	1910	2,960	2382	1563	920
Kono	-	-	-	-	-	-	-	-	438	
Kailahun West	-	-	-	-	-	-	-	-	300	3,874
Kenema	-	-	-	-	-	-	-	-	-	
Western Area	-	65	21	39	-	-	-	220	555	1,200
-TOTAL	394	10,066	5327	14,869	21,619	13,434	24,479	27.788	19,811	51,640

* Provisional Figure.

Source:- M.B. Gleave, "Mechanization of Peasant Farming: Experience in Sierra Leone" Discussion Papers in Geography, No.3 May 1977, Table 2.

acre was collected at harvest time, but in 1958 an advance of 10/- had to be paid followed by the balance at harvest time. In 1965 a peak was achieved only to fall in the next year largely due to the transfer of most of the cultivation activities from the Department of Agriculture to the rice corporation and the fact that very many of the tractors were mechanically faulty. The acreage rose to another peak in the following years as a result of a new influx of tractors and the handing back of ploughing activities to the Ministry of Agriculture. Attempts to raise the acreage fee during these years led to delay in ploughing activities and the plan was abandoned. 1974 saw new areas under mechanical cultivation and for the first time extended into the Eastern province.

It has been posited in various parts of this section that mechanical rice cultivation has not been smooth. Like any other activities, it has been confronted with problems which have been dealt with in various unpublished reports and two major reports (C.O.D.E.A. 1968, R.E. Gilbert 1970).

Despite the difficulties, the effects of the scheme both at national and individual level have been beneficial. At the national level there has been an increase of land under rice cultivation which not only increased incomes but also reduced at some stage the need to import more rice. It is difficult to assess the extent accurately but assuming an average yield of 1,600 lbs per acre from the mechanically cultivated deep flooding grasslands and 1,500 lb per acre from inland riverain swamps, then some 18,878 tons of husk rice were produced in 1971 valued at approximately Le 2.1m based on the official price of Le 3 per bushel.(6) Had the scheme not been operated, the loss both

(6) Gleave, M.B. (1977) "Mechanization of Peasant Farming: Experience in Sierra Leone" Discussion Papers in Geography, No.3, May, p.23.

to rural incomes and foreign exchange would have been substantial.

At the individual level the affects of the scheme are several. It made possible for some farmers to grow rice where it had not been grown before, this is especially true of the southern riverain grasslands and the bolilands. In Koinadugu and Bonthe there has been continuous and sustained increases in the area cultivated. Some farmers have, because of the scheme, a regular surplus for sale whilst for others it has meant a change in their dietary habits thus promoting them to a higher subsistence level. New harvest times of rice and artificial fertilizers have been introduced but as a major technical advance in agriculture, it seems to touch the farmer lightly because so many of the operations are still carried on in the traditional manner and the farmer's stake in the scheme is minimal.

Integrated agricultural development projects have been introduced most recently as a way of attempting to transform and modernize rural areas. At present, there are about 30 agricultural projects under the supervision of the Ministry of Agriculture and Forestry. In the southern and eastern provinces the projects cover 32 chiefdoms with an area of 4300 square miles with a population of about 400,000 consisting of 65,000 farm families. In the north, the project covers two districts (Bombali and Tonkolili) and is now being extended to Koinadugu. It covers 1300 square miles and affects 14000 farm families.(7)

The serious question hanging over these projects is that no consideration is given to rural-urban relationships, the projects are only seen in agricultural and technical terms.

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(7) Ministry of Agriculture and Forestry records. 1981.

Peasant export cash cropping led to an increase in money incomes which in turn stimulated demand for consumer goods, thereby boosting trade which eventually led to urban development. Prior to the produce trade, the slave trade had seen the establishment of coastal towns. The establishment of transport, first rail and then road, led to the opening up of the interior and increased trade which promoted the founding of urban centres as collecting points along it, and also led to the growth of intermediate collecting points in the produce areas. By 1910, the urban system consisted of a linear pattern generated by the railway, centres at heads of navigation or important collecting points on caravan routes.

3.3 OTHER FACTORS

The demarcation of the boundaries between Sierra Leone and her neighbours in 1911 and 1912 and the spread of Syrian traders in the interior affected urbanization trends. The demarcation diverted the frontier trade to Freetown and the Syrian advance led to growth in the commercial status of towns especially those along the railway.

The railway therefore firstly caused the elevation to urban status of former villages, secondly it encouraged the gravitation of many centres to it, thirdly it caused the creation of new towns and fourthly the construction of the roads complimentary to it increased its service area and resulted in the creation of small marketing centres.

Mining also contributed to the development of the urban system. The mines (gold, chrome, iron ore and diamonds) were important stimuli to town growth in the last 40 years. Many existing villages grew fast as a result of the wealth generated from the mines and became commercial centres. Secondly, many new centres grew as mining towns.

The gradual spread of roads caused a transport revolution. The result has been the concentration of trade away from the railway line causing decline in the railway towns but growth in nodal centres.

By 1963 the resultant urban system exhibited many components. There was the old linear pattern along the railway and at heads of navigation, the new urban system of the mines, the new urban pattern of the road system. Harvey (1971) pointed out that "by 1963 there had developed in Sierra Leone an urban network consisting of both small, large and very large towns."(8)

The points raised in this section, are dealt with in greater depth in the chapter on the origins of small urban centres and other relevant sections of the subsequent chapters.

3.4 MARKETS

Much has been written about markets in Africa but of particular relevance are those which have dealt with these institutions in West Africa. There have been as many classifications as there are researchers but the classification presented by Hodder (1962) has a scope wide enough to fit most markets in West Africa.

On the basis of location and periodicity he classified Yoruba markets into five different types:-

1. The urban daily market, which takes place everyday and is characteristic of the larger towns like Ibadan.

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(8) Harvey, M.E. (1971) "The changing urban network in Sierra Leone" 21st International Geographical Congress, p.111.

2. The urban nightly market, which is held every evening, beginning soon after dark and continuing to about 10 p.m. It is common in the smaller towns, such as Oyo oi Fiditi, which seem unable to support a regular daily market. It occurs also in the larger towns which have daily markets as well. The Yoruba believe this is to be a peculiarly oyo Yoruba institution.

3. The rural nightly market, occuring at regular intervals as at Ikereku.

4. The rural daily market, which is often primarily for fresh meat, Moniyu is an example of this type.

5. The rural market. This takes place at regular intervals of several days, as at Akimyele.(9)

Sierra Leone fits into this classification as the area has both urban daily markets and periodic markets, though it must be stressed that the latter were present in Kissy Land and only began spreading to the rest of the country recently.

The study of markets is important because for Sierra Leone and other parts of the developing world, for the bulk of the population in both rural and urban areas, it is through the local markets that goods from abroad and elsewhere are absorbed and it is through these same markets that most local agricultural and cottage industrial products

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(9) Hodder, B.W. (1962) "The Yoruba Rural Market Ring" in Markets in Africa (Bahaman P and Dalton G (eds)). North Western University Press, pp.103-118.

enter the economy. The large numbers and different varieties of these markets is a measure of the importance of this institution.

3.5 URBANIZATION

The first census of population in 1963 revealed a figure of 2.18 million. In 1974 when the second census was conducted the population according to provisional figures(10) used throughout this work, had increased by 25.8 percent to 2.73 millions. 64 percent of the increase occured in centres of over 2000 people. The urban population increased by 86.2 percent while the rural population increased by 11.3 percent. By 1974 the number of urban places (i.e. places with over 2000 people) increased by 27 from 53 to 70 (table 3.5). Attention is drawn to the primacy of Freetown (table 3.4) which appears to have decreased due to primarily to the increase in Sefadu/Koidu, the diamond mining centre. Because this increase is largely made up of migrants, this decrease in primacy should be treated as purely artifical as things would resume their normal shape as soon as the mines are depleted.

TABLE 3.4 PRIMACY OF FREETOWN

	CITY		GREATER FREETOWN	
	1927	1963	1963	1974
Two city index	10.25	4.81	6.06	3.63
Four city index	3.83	2.41	3.09	1.87

(10) The census material used here consists of provisional figures, the reports of the Census not having been published at the time my work was being done. The final results have now been published but it has not proved possible to incorporate them in the thesis.

TABLE 3.5 SIERRA LEONE URBANIZATION 1963-1974

	1963			1974		
	Number of inhabitants	Number of places	Percentage population	Number of inhabitants	Number of places	Percentage population
100,000 +	161,200	1	8	274,000	1	10
50,000 - 99,999	0	0	0	75,600	1	3
20,000 - 49,999	26,600	1	1	118,700	4	4
10,000 - 19,999	49,400	4	2	45,900	4	2
5,000 - 9,999	52,300	10	3	75,000	12	3
2,000 - 4,999	117,600	39	5	168,100	54	6
1,000 - 1,999	133,800	105	6	130,350	93	5
under 1,000	1,639,050	18,403	75	1,842,350	17,153	67

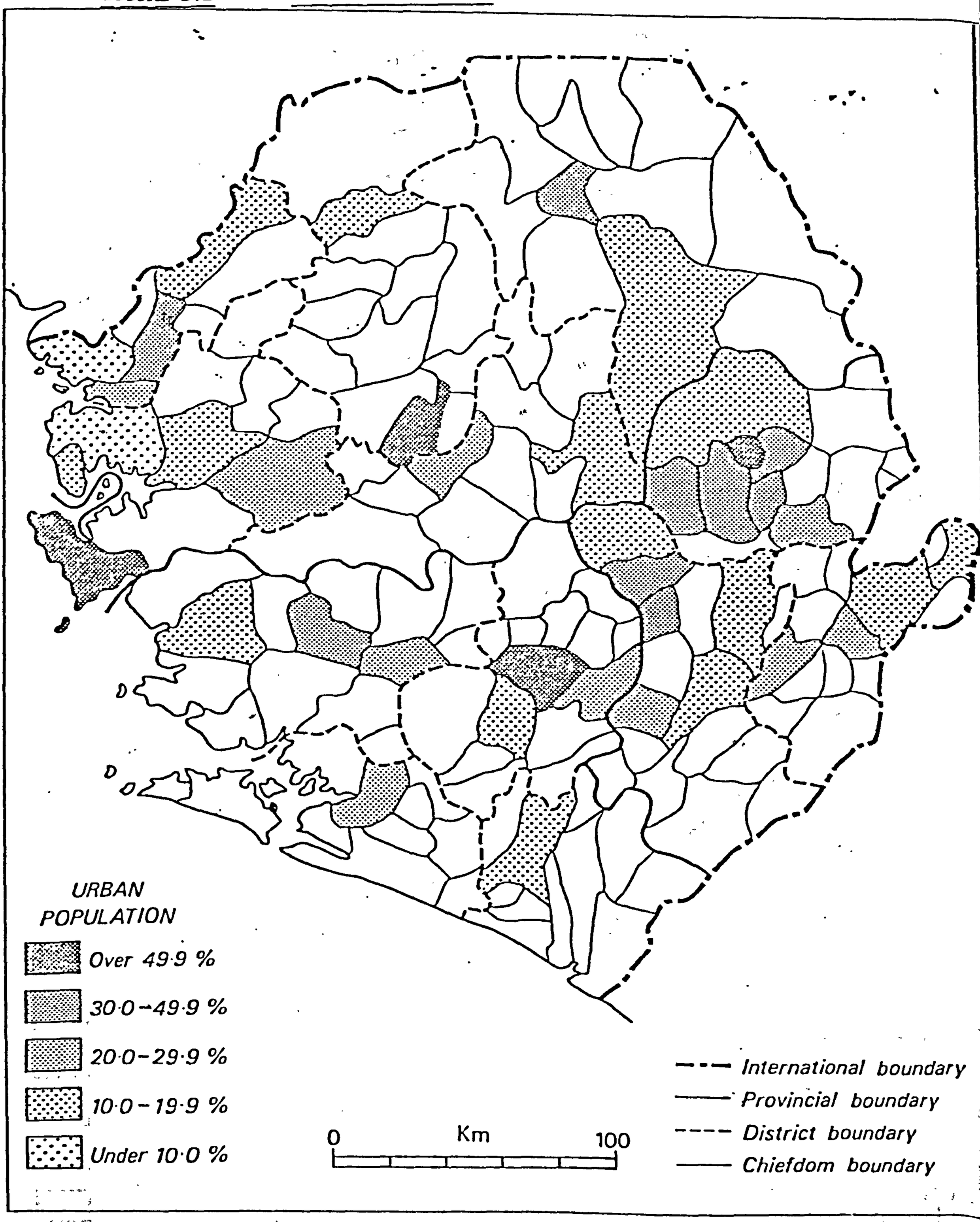
Source: M B Gleave, Urban growth, urbanization and development in Sierra Leone 1963-74. Malaysian Journal of Tropical Geography, Vol.3 June 1981, Table 3.

Urbanization and changes in levels of urbanization are represented in Figs 3.2 & 3.3.In 1963 the urbanized chiefdoms accounted for 28.25 percent of the national territory. These chiefdoms are found in three areas. Firstly they follow a trend of the former railway line into the cocoa and coffee growing areas of the east. The second area is in the alluvial diamond mining areas of middle Sewa . Valley and its tributary valleys where both large-scale and small-scale mining has created disposable incomes and therefore demand for urban services. The third area is in the Scarcies area where cash cropping of rice provides disposable incomes.

Of the 39 chiefdoms considered urbanized in 1963, only 32 had one urban settlement i.e. a centre of over 2000 people. It thus appears that levels of urbanization are related to the size of individual urban centres within the chiefdoms. Those with higher order centres tended to be more urbanized than those with lower order centres. A second trend presents two pictures, first there were chiefdoms with a high proportion of populations in one centre (e.g. Nongowa chiefdom with Kenema (13,246 people) accounting for 69.4 percent of the urban population, whilst Largo (2940 pop) and Hangha (2895 pop) accounted for the rest.

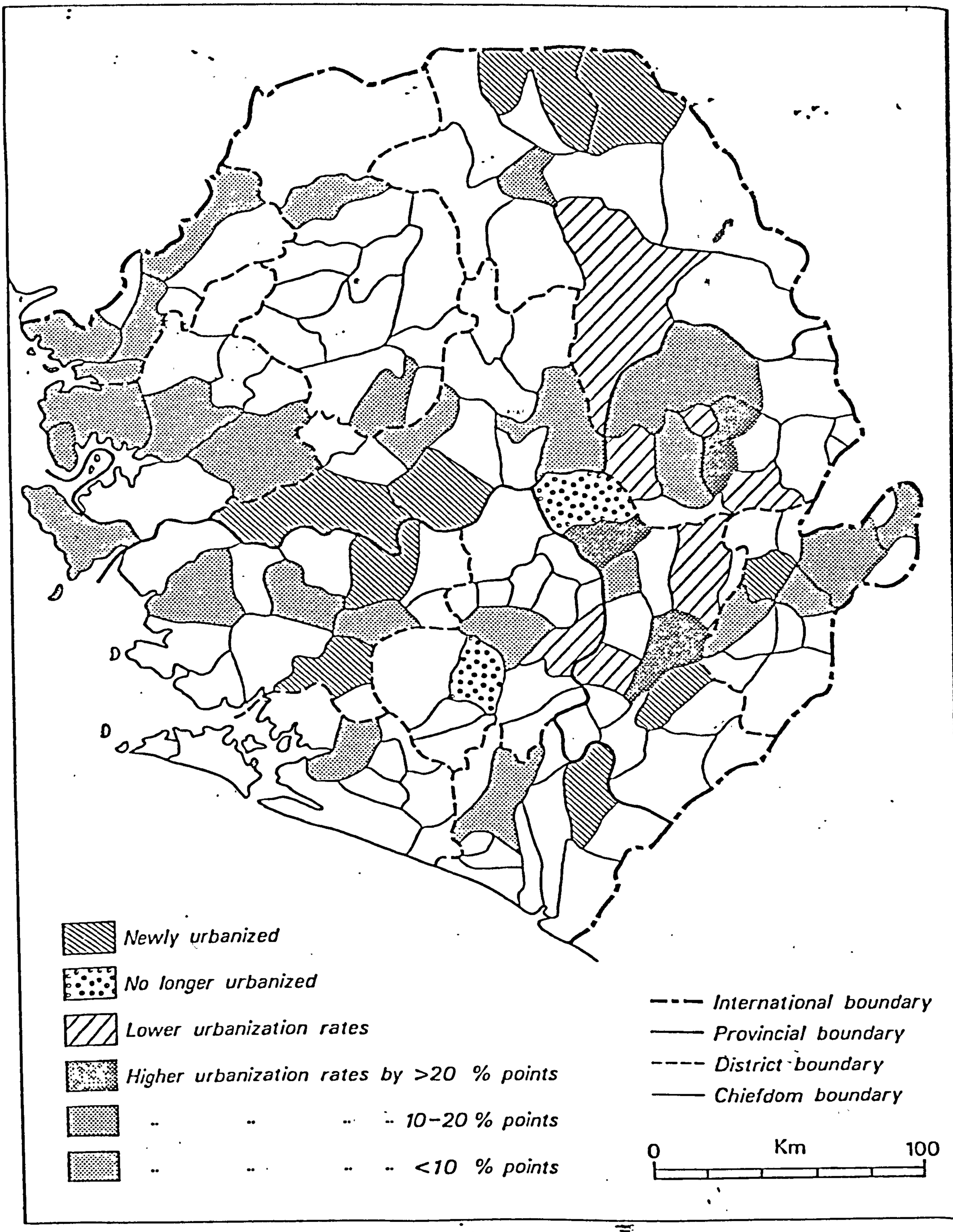
There is a second batch of chiefdoms where the urban population was more or less equally divided between the various centres like the lower scarcies rice growing areas and the central Kono diamond mining area.

FIGURE 3.2 URBANIZATION 1963



Source: M.B. Gleave (1981) "Urban Growth, Urbanization and Development in Sierra Leone, 1963-1974" Malaysian Journal of Tropical Geography. Fig.5

FIGURE 3.3 CHANGE IN URBANIZATION 1963-1974



Source: M.B. Gleave (1931) "Urban Growth, Urbanization and Development in Sierra Leone, 1963-1974" Malaysian Journal of Tropical Geography Fig.6

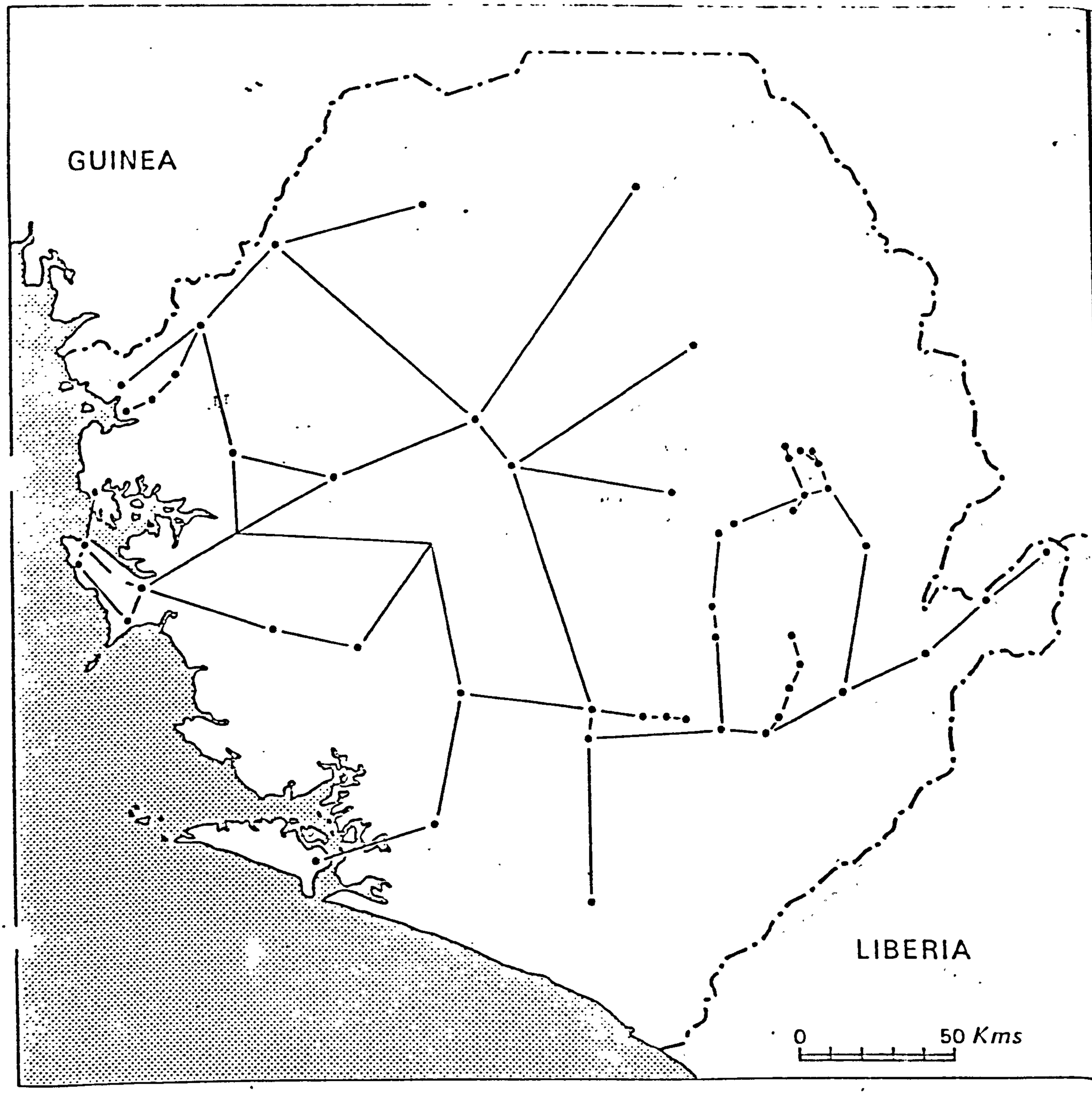
By 1974 the urbanized chiefdoms accounting for 31.91 percent of the country contained 51.16 percent of the population had increased from 39 to 50 of which only 37 had one urban centre. The remaining 13 could be divided into two groups with more than one urban centre. The first consists of chiefdoms in the Kamara and Nimikoro and the second in Nongowa chiefdom in Kenema district.

Between 1963 and 1974 the urbanization picture could be summarized thus:- that there has been concentration influenced by the attraction of diamond mining; wage employment in the mining companies and urban living in the larger urban settlements. While some chiefdoms have tended to hold on to their populations, others have experienced decline. Shifts in population within this context can be explained by the closure and discovery of new and more lucrative mines, closure of the railway and opening up of some areas by a new road network.

3.6 CONCLUSIONS

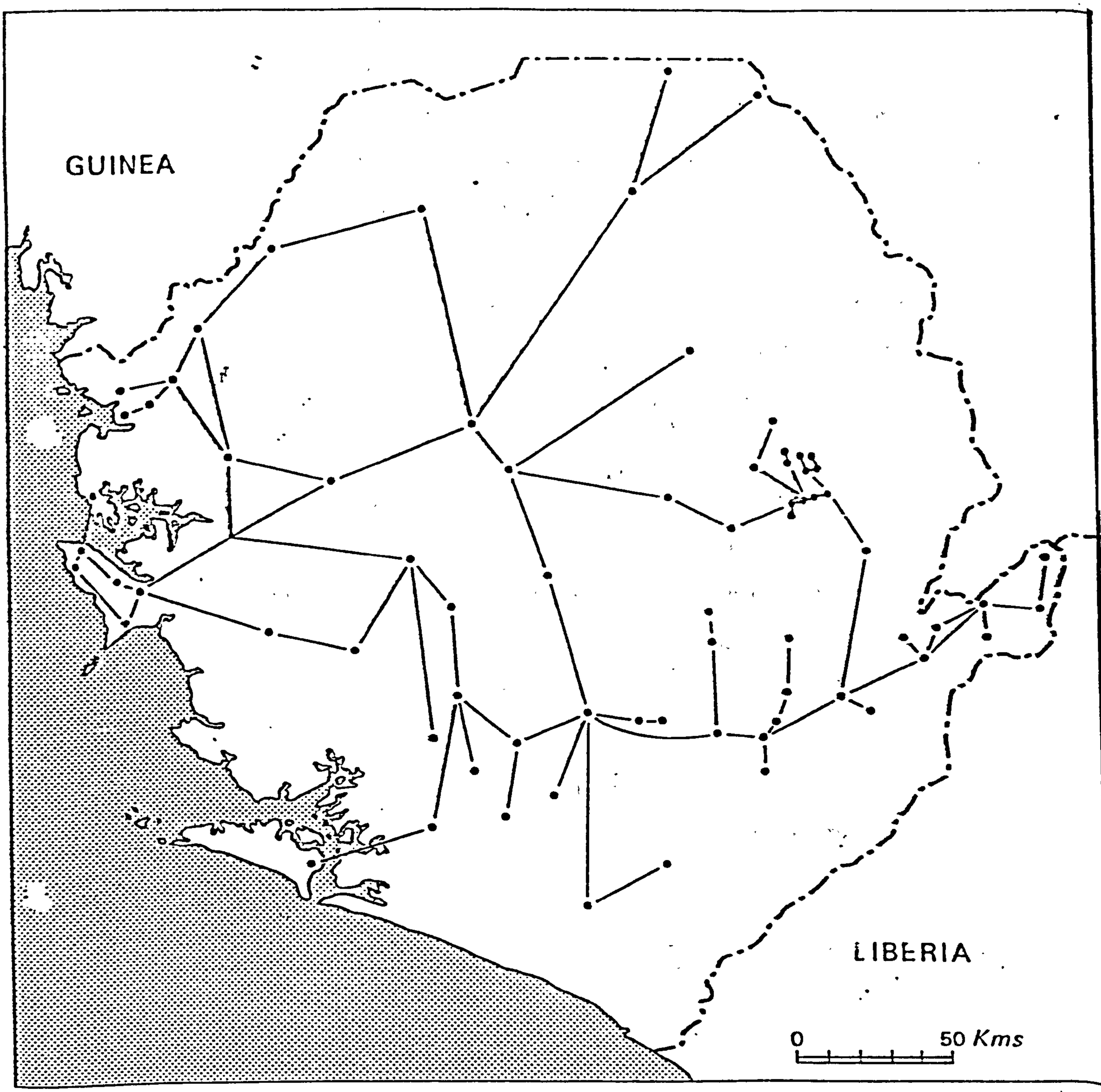
In trying to assess changes in the urban system, it may be useful to think of urban centres as nodes and the transport network as links. Figs. 3.4 and 3.5 represent the urban system in 1963 and 1974 respectively. Change in the system has been affected in one of two ways; infilling and extension. Infilling occurs when a new node enters the system along links joining two other nodes; whereas extension occurs when a new node enters the system of the existing links and nodes. Reference to Figs. 3.4 and 3.5 shows where infilling and extension have occurred.

FIGURE 3.4 THE URBAN SYSTEM, 1963



Source: M.B. Gleave (1981) "Urban Growth, Urbanization and Development in Sierra Leone, 1963-1974" Malaysian Journal of Tropical Geography. Fig. 1

FIGURE 3.5 THE URBAN SYSTEM 1974



Source: M.B. Gleave (1981) '"Urban Growth, Urbanization and Development in Sierra Leone, 1963-1974" Malaysian Journal of Tropical Geography. Fig.2.

Infilling occured in nine places four of them in what Harvey (1972) called the Kono subgraph adding 27,700 new urbanites into the system. Growth here is related to expansion in small scale and illicit diamond mining. The other centres are formed in the centre and south of the line along the Freetown to Bo road.

Extension accounted for 47,750 new 'urbanites' in 17 places. In the north east near the Guinean border, Gbindi and Gberia Fotombu entered the system. Extension is more significant in the south where new nodes along the phased out railway entered the system. The most significant influence on the changes that occured has been the phasing out of the railway and in its place the extension and improvement of the road network. Where the road network has bypassed a certain town, considerable decline has taken place, e.g. Mano. In some cases towns have moved to new sites along the new road e.g. Taiama.

Despite this change the urban system in Sierra Leone exhibits a primate city size distribution, with a dearth of medium-sized centres and a predominance of small urban centres.

S E C T I O N T W O

HYPOTHESES TESTING AND CONCLUSION

C H A P T E R I V

ORIGINS, FUNCTIONS AND STRUCTURE OF SMALL URBAN CENTRES.

4.1 INTRODUCTION

In Chapter III, the study area was examined with special emphasis on those aspects relevant to the subject of study. This chapter is devoted to an examination of one of the hypotheses, namely; that small urban centres have different origins which are likely to influence their functions and thereby structures.

The data for this chapter are drawn from publications of other scholars, the census data of 1963 on the economic and social characteristics of small urban centres and data collected on the field trip.

The examination follows two procedures. The first briefly traces the historical development of pre-urban settlement patterns and the second, the development of these settlements as urban centres.

The origin of human settlement in any environment is a product of many factors, among which the most important are

1. Population size.
2. The extent of effective control over the environment.
3. The prevailing level of technology of the inhabitants.
4. The social organization to which the inhabitants belong.

4.2 PRE-URBAN ORIGINS

Various accounts exist both in oral tradition and the literature on the movements of people in Africa before the first European contacts. These movements resulted in conflicts between different groups over the control of the environment. Because of these conflicts between various ethnic groups many settlement patterns emerged. Harvey (1971) reveals that in Sierra Leone each ethnic group in trying to protect themselves from external attack built

> "stockades around their important centres. In the north-east for example, the Yalunka built many stockaded towns (Musaia, Sinkunia, Falaba, Gberia Timbakho and Gberia Fatombu) at regular intervals". (1)

Such centres were widespread in the country.

The first change to this simple pattern occured with the establishment of trade contact with Europe. These contacts were first in the slave trade and saw the development of large centres along the coast, (Plantain, Shenge) and after its abolition (Freetown, Waterloo Yok and Hastings). The replacement of the slave trade with timber trade led to the development of larger centres in the interior and many villages like Rotfunk and Seniehun quickly developed. Outside the Bagri area many settlements became important camwood trading centres. As centres grew as a result of the timber trade, many which had been slave centres declined while others with new activities introduced continued to grow. The urban pattern was by now characterized by mutability, some centres declined while others grew.

Another factor which contributed to the growth of new centres

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(1) Harvey, M.E. (1971) "The changing urban network in Sierra Leone" 21 International Geographical Congress, p.111.

during the pre-colonial period was the increase in the produce trade, a result of the industrial revolution in Europe. This helped the rapid growth of many centres, for example Port Loko, Mange, Panguma and Bo. The different trade contacts had first been established by European firms on the coast but the establishment of peace in the interior of the country with the declaration of a protectorate meant that energies were transformed from warlike pursuits to trade, resulting in growth of places like Wende, Taiama, Kwellu and Pujehun.

By the beginning of the colonial period therefore, the ground for effective urbanization had been laid. But whether these pre-colonial trading centres deserve the appellation of urban centres is debatable.

4.3 URBAN ORIGINS

The establishment of colonial administration saw the imposition of different politico-socio-economic systems upon the traditional system and the changing fortunes of the latter depended upon its ability to adjust to the changing situation.

Four sets of factors have been significant in the origin and growth of towns in Sierra Leone, namely: administration, trade, transport and mining. Riddell (1970) conceived of urbanization in Sierra Leone as a reflection of

> "the evaluation of the colonial administrative organizations and the beginning of trade and commerce along the transport system. Thus urbanization process has had two driving forces - the administrative with its bundle of social and economic services, and the commerical. The spatial arrangement of urban places induced by the two forces were at least partially similar. (2)

(2) Riddell, J.B. (1970) The Spatial Dynamics of Modernization in Sierra Leone. Nortwestern University Press. Evanston. p.67.

As administration spread there was provision of certain services in a hierarchical structure and trade resulted in development and growth of towns at break of bulk points along the transportation system.

These factors which have contributed to the origins and growth of towns are now examined individually in greater depth.

4.4 ADMINISTRATION

Administration contributed not only to the growth of the traditional centres but also to the development of new towns. The colonial administration with its doctrine of indirect rule built upon the traditional system where it was considered suitable. Many centres therefore served as seats of administrative authority and their potential for growth and further development depended on the suitability of centres as either chiefdom, or district headquarters. All of the centres which are the focus of study fall in these two categories. The administrative system did not remain constant, restructuring meant the development of new sites and thus a change in fortunes for such sites.

Before 1896, the colonial administration was restricted to the small enclave in Freetown. When the protectorate was declared in the interior, the police posts which had earlier been established at Karene, Panguma, Bandajuma, Falaba and the valley of Kwellu were chosen to serve as headquarters to administer the five districts of Karene, Panguma, Bandajuma, Koinadugu and Ronietta into which the interior

had been divided. This pattern continued until 1901 when new locations provided better sites for the districts. (From Falaba to Kabala, Karene to Bathkanu, and Kwellu to Moyamba). Political restructuring following the opening of the railway meant a restructuring of the districts again. Panguma and Bandajuma districts were amalgamated into a new Railway district and Kenema on the new railway line was chosen as the headquarters. A central district was carved out of old Panguma and other adjacent districts. The southern chiefdoms were incorporated into the new north Sherbro district with Bonthe as its headquarters, Karene and Koinadugu remained intact.. This pattern continued until 1920 when in place of the five districts, three new provinces, each with four districts were established. Provincial headquarters were established for each province (Nothern province - Magburaka, Central province - Kenema and Southern province - Pujehun). This system continued until 1931 when another reorganization took place within the district system in response to the opening up of the interior by the road system. This pattern of readjustment to meet the administrative and political needs continued until 1946 when the present system was born. The adjustment that took place was related to the transport and communications network of the country.

The present administration is hierarchically structured - with chiefdoms, districts and provinces but only at the district and provincial levels are facilities consistently provided by government.

The effect of the reorganization of the administrative structure has been two-fold. Firstly, those centres which lost their administrative headquarters declined in size, functions and the physical

layout also suffered. Such centres which declined thus in the study area are Batkanu, Falaba, Kwellu and Mabonto. The recipient centres were Makeni, Kabala, Moyamba and Magburaka. In these recipient centres, new European ideas of town planning have been added to the previous traditional pattern. Low density residential areas were laid out for government and expatriate officers. New building techniques were introduced allowing the building of 'storeyed-houses';(3) compounds were broken up and additional roads have been cut through the built-up area. With increase in trade, houses along the main thoroughfares have been converted into shops. Markets were set up. Instead of sellers and buyers meeting in open spaces, markets consisting of concrete based stalls were built with corrugated iron roofs.

The second major effect was in the services. The centres were provided with schools, electricity, and treated water supply. The effect on employment was also positive as labour was needed to service the functions which had been added. This increased the opportunities for wage employment and increasing money incomes. This increased the demand for consumer goods and promoted the possibility of farmers to earn cash by selling their produce. The new district headquarters were connected to other larger centres and Freetown by road and this further expanded the market and movement of peoples.

From this account we have seen how administration first of all opened up the interior of the country and then contributed to the emergence of urban centres either by improving the traditional sites which were chosen as headquarters or by the selection of completely new sites. This was aided by the extension and improvement of the transport network.

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(3) White, H.P. and Gleave, M.B. (1971) An Economic Geography of West Africa. London. G. Bell & Sons Ltd. p.266.

4.5 TRANSPORT

The transport network, at first, restricted to river transport, later railways, and extended to a road network, provided the backbone which strengthened the administrative system. The introduction of transport helped the movement of goods and people. It also, according to Riddell (1970) defined "a structure within which a system of urban nodes, began to emerge in response to administrative complexities and the evolution of an exchange economy."(4)

River transport was restricted to coastal areas and the few creeks up and down the coast.

Construction of the railway, which began in 1895, temporarily halted during the hut tax uprising, resumed after the conclusion of hostilities in 1899 and by 1905, it had been extended into the heart of the oil palm producing area reaching Pendembu in 1908. The completion of each phase stimulated trade resulting in the emergence of centres like Mano, Moyamba, Daru and Kotifunk as collecting points. The railway helped in restructing geographic space in two main ways. It generated a linear pattern of centres along it and intermediate collecting centres which were joined to it by either bullock trucks or well-established routes. Largo and Gerehun are examples of centres which emerged along the line, while Bumpeh and Kailahun were joined to it. The predominating influence of the railway was remarkable as Harvey (1971) noted

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(4) Riddell, J.B. (1970) The Spatial dynamics of modernization in Sierra Leone. North Western University Press, Evanston, p.19-20.

> "that 26 of the 39 centres with over 1000 people were within 32 Km from it. The only towns that were neither within the railway zone nor at heads of navigation were scattered over the north, where all, except one, were important collecting centres on two caravan routes linking Falaba to Port Loko and Largo." (5)

As a further step a branch line was constructed from Bauya to Kamabai.

The impact on export trade especially palm kernels was immediate. From 1901 to 1903 the average annual value of palm kernels exported was £186,000 sterling but from 1905 to 1908 it increased to £344,00[6]

It was soon realized however that the impact of the railway line was limited to a few miles on either side and that to fuller realize its benefits, feeder roads were to be constructed to further open up the interior. The road system led not only to an increase in the volume of traffic but to the growth of urban places at the junctions with the railway. And according to Riddell (1970)

> "here classic break of bulk economies occured and European, Syrian and Greek firms established factories to buy produce and well imported goods. The earliest were set up at Bo, Blama, Hangha and Segbuwema and later branches extended to Pendembu, Kenema, Mano and Moyamba." (7)

On the basis of the transportation network, the towns which emerged are classified under the following headings;

A. Towns along the main line of the Railway: Centres such as Rotifunk, Moyamba, Kanagahun, Mano, Gerihun, Yomandu, Blama, Hangha, Koindu, Segbwema, Daru, Bauma and Pendembu.

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(5) Harvey, M.E. (1971) "The Changing Urban Network in Sierra Leone" 21st International Geographicla Congress, p.107.

(6) Riddell, J.B. (1970) The Spatial dynamics of modernization in Sierra Leone. North Western University Press, Evanston, p.23.

(7) Ibid, p.25.

B. Towns along the branch line of the Railway: Centres as Rŏruks, Yonibana and Magburaka.

C. Towns along the motor roads: Centres as Taiama, Boajibu, Gandorhun, Kailahun and Kabala.

D. Towns with River stations such as Kambia, Rokupr,, Kassiri, Mange, Port Loko, Sumbuya and Pujehun.

E. Towns in the Serbro area such as Bonthe, Mattru Jong.(8)

Transport not only helped to reinforce the administrative network but brought in more centres into the urban system. It also helped to promote trade by easing the movement of goods and people thus providing a sound base on which commerce thrived and led to the growth of centres. It also facilitated the movement of European and Creole traders into the interior and thereby presenting the opportunities for farmers to sell their produce, increasing their cash incomes to be spent on consumer goods. The whole process was therefore cummulative.

4.6 TRADE:

The declaration of a protectorate over Sierra Leone's hinterland expanded commercial opportunities, first with the timber trade and then with produce. While effectively establishing British rule, the declaration meant peace. Its effect on trade was twofold:- Firstly, the Niger trade which had hitherto been going through Guinea

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(8) Laan Van Der H.L. (1978) "European Commercial Enterprise in Colonial Sierra Leone. 1896-1961. A preliminary survey" Afrika Studiocentrum. p.19.

was now diverted from the northern frontier centres as Falaba, Kukuna and Sinkunia resulting in the decline of these centres. Secondly, European rule meant new and stable conditions where enterprise could thrive. With peace in the interior and the extension of the railway and road systems, European, Syrians/Lebanese and Creole traders were presented with the choice of staying in the ports and or trading in the interior. This opportunity was not allowed to slip away and a two-way trade developed combining produce buying and merchandise selling. Firms as C.F.A.O. (Compaignie Francaise de l'Afrique Occidentale) established in 1887; A Genet and Co. Ltd. established in 1901; G.B. Ollivant (1858); P.Z. (Paterson Zochonis 1884); S.C.O.A. (Societe Commerciale de l'Ouest Africain 1906); U.A.C. (United African Company 1929) already established in Freetown, opened up branches in the interior.

Apart from these other European and Syrian/Lebanese and Creole traders set up businesses in various up-country centres. The movement of these traders into the interior and the increased demand for raw materials considerably enhanced the commercial status of many of these centres.

From the trading relations, there emerged three levels of centres; centres with European Commercial firms, Syrians/Lebanese and Creole traders (Bo, Blama Bonthe) were the most important; followed by centres with only Syrian/Lebanese and Creole traders (Bumpeh and Taiama) with the lowest centres only boasting of Creole traders (Falaba and Musaia). The nature of the trade is a theme which is dealt with in greater detail in Chapter VII.

Suffice it to say that trade affected centres in four ways. Firstly it elevated to urban status those centres which had been generated by the railway. Secondly, it had a gravitational pull of the existing centres to the railway. Thirdly, it led to the emergence of new settlements which grew into small towns (Kangahun) and fourthly, it led to the development of small market centres in the oil palm producing areas.

4.7 MINING

One of the most important forces which has contributed to the growth and development of towns in the last 40 years is mining (gold chrome, iron ore, diamonds, Rutile and Bauxite). Because of these mines Swindell (1974) stressed that "both company and native mining led to permanent migration, the emergence of new towns and expansion of existing ones, although native diamond mining has a strong element of seasonality with population moving between farm and diggings."(9)

When gold mining started in 1927 in the Sula mountains and Kangari hills, it generated an influx of people into the area resulting in the growth of centres as Mongheri, Mabonto, Bumbuna and Magburaka. The decline of these mines in the mid 1940's saw widespread decay of towns; only centres like Magburaka which had easy accessibility to roads and rail continued to grow. At the same time as gold mining was declining, there was an increase in iron ore and chrome mining at Marampa Masimera (Lunsar) and Hangha respectively. But because of the centralized nature of these mines their potency to alter the

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(9) Swindell, K. (1974) "Sierra Leonean Mining Migrants, their Composition and Origin" Transactions Institute of British Geographers, p.47.

urban pattern was limited to the growth of these towns and the creation of a new port at Pepel for iron ore shipments.

Meanwhile, the diamond mines which had opened in the 1930's were dispersed over a large area in the Eastern provinces and parts of the Southern province. The mines were first in the hands of the Sierra Leone Selection Trusts (now National Diamond Mining Company or DIMINCO) but by 1956, the alluvial diamond mining scheme allowed in private operators.

The settlement pattern was altered in the following ways: firstly, some existing villages grew fast becoming commercial centres for their surrounding hinterlands, e.g. Yormandu and Sedu. Secondly, many new centres. e.g. Tongo field grew as a direct result of the company building a new settlement. Thirdly, only in the cash crops and rice producing areas in the south-west and north-west of the country did towns withstand this diamond attraction. Elsewhere, towns outside the mines either declined or stagnated.

We have examined the origins of urban centres in Sierra Leone and the influences of the colonial administration, transport, trade and mining in the evolution of these centres. These factors were treated separately for convenience but they are all inter-related. None could have happened without the other but all owe their impact to the colonial administration. One could, therefore, conclude that small urban centres owe their evolution to the colonial administration.

4.8 FUNCTIONS:

Although there was a National Census of Population in 1974, for reasons already mentioned in Chapter III, the author finds himself using the outdated 1963 Census figures. Criticism on the deficiences of the 1963 census (on both conduction and documentation) have already been sufficiently dealt with elsewhere (P.K. Mitchell (1972)) and there is no intention to repeat them here. It is however appropriate to mention that like all developing countries, the data was calculated to reflect the situation in Sierra Leone and at the same time meet the requirements as laid out in the International Standard Classification prepared by the International Labour Organization. A great deal of generalization therefore took place and the resulting distortions are similar to those pointed out in the study of small towns in other parts of the world (Hirst 1973; Jackson 1974).

Data most consistently used in functional classification of towns have either been employment or occupational ratios. This is because there is a clear link between an employment group and a town's function. However, Carter (1972) suggests that "numbers are not immediately important, but rather the proportional place which an employment group takes in the whole range of groups in the town. If mining employs 30 percent of the total occupied population in a town, then this is a clear diagnosis of an important mining function and such figures can be referred to as the diagnostic ratios."(10)

Of the 70 small urban centres in the study area, data on

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(10) Carter, H. (1972) The Study of Urban Geography. Edward Arnold, p.52.

employment is available for 43 and are presented in Appendix A. The most important function is agriculture, followed by commerce, mining and quarrying, then manufacturing and lastly services. The low mean levels in services, construction and electricity are not surprising since we are dealing with small towns where such facilities as services and electricity are not consistently provided by government and construction is minimal.

To force a satisfactory procedure upon the available data pre-supposes some significant differentiating characteristics. The census data which is so highly aggregated brings out some degree of similarity of functions in this set of towns. There are clearly no functionally specialized towns. While accepting that this is the general picture, an attempt is made here to group towns on the basis of closest functional similarity and at the same time identify any latent functional differentiation.

Data on the 43 small urban centres in terms of their employment structures was inter-correlated and then subjected to principal component and cluster analysis. The first two components (Appendix B) account for 70 percent of the original variance and attention is focussed on these two. The first component, accounting for 51.3 percent of the original variance, reveals the emergence of some functional differentiation. This relationship is brought out by figures in Appendix B and C. The centres range from Bonthe (negative score) to Alikalia (positive score) and this the author believes is associated with changes in the functional composition of the centres. Comparison between Appendices B and C reveals that as one moves from positive to negative scores, the centres become progressively 'urban'

in character, i.e. a decrease in the proportion of people engaged in the agricultural sector is associated with an increase in manufacturing, commerce and services.

The second component accounting for 20 percent of the original variance is associated with agriculture and mining. Positive scores indicate a high dependence on agriculture and on mining. The two component scores are represented in Fig. 4.1.

The data on employment structure was further subjected to a cluster analysis with the aim of grouping towns, so that the most similar fell in one cluster. The highest number of clusters that could be extracted was five and these are given below.

1. Kabala, Magburaka, Mattru, Port Loko, Rokupr and Pujehun.

2. Blama, Bonthe, Kailahun, Kamakwie Moyamba, Rotifunk and Segbwema.

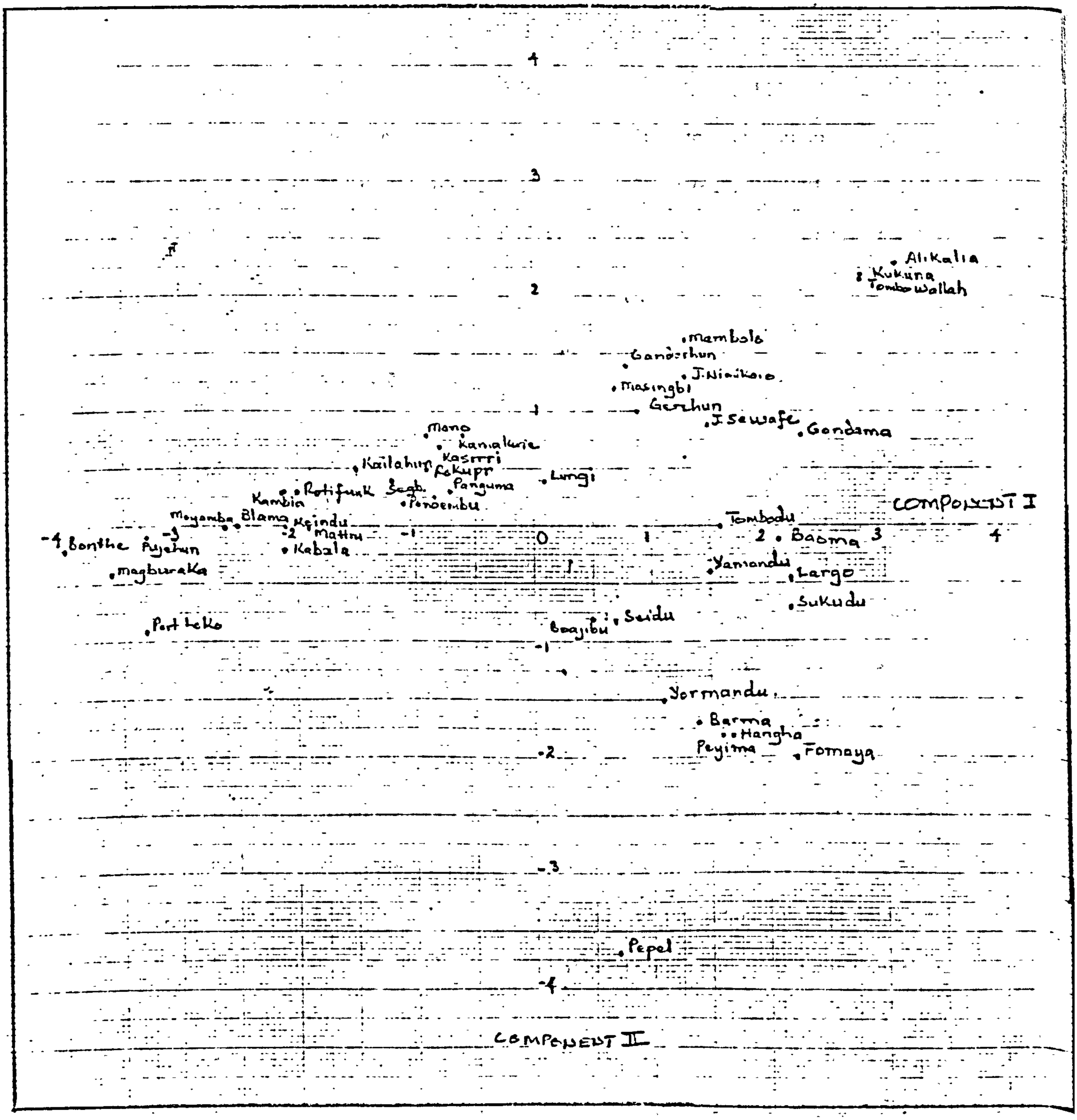
3. Barma, Boajibu, Kassirri, Koindu Mano and Pendembu.

4. Baoma, Fonnaya, Gondama, Hangha, Jaiama Sewafe, Largo, Pepel, Peyima Sedu, Sukudu, Tombodu, Yamandu and Yormandu.

5. Alikalia, Gonderhun, Gerehun, Jaiama Nimikoro, Kukuna, Lungi, Mambolo, Masingbi, Pauguma and Tombo Wallah.

There is very little separating the first two groups but this is difficult to identify from the data. The third group has a comparatively low agricultural sector but does not match the first two in services and they are more dependent on commerce. The fourth group is essentially made up of centres with a high level of dependence on mining and the fifth group consists of centres more dependent on

FIGURE 4.1 PRINCIPAL COMPONENTS



agriculture.with below the mean figures for services. The first two groups the author would suggest are 'urban' in character, differences between the two is a question of degree.

Compared to Mitchell's (1972) classification, the third, fourth and fifth groups in our analysis seem to coincide with Mitchell's rural centres, mining villages, agricultural or expanded villages. Our first two groups could be likened to his centres of local importance 1. (See Table 4.1).

4.9 DOMESTIC INDUSTRY

An examination of the functions of small urban centres would be incomplete without a profile of the domestic industry especially small-scale industry, because, both in terms of employment and gross domestic product its contribution is very significant. A project in 1974[11] discovered that the small-scale industrial sector was much more extensive than had been originally recognized. Their distribution by location and size is given in table 4.2. The figures reveal that in Sierra Leone in 1974, there was a total of approximately 50,000 small-scale industrial establishments employing about 88,000 people, whereas large-scale establishments were about 28 and employed only 4,000 people. So that in terms of numbers and total employment small-scale industrial establishments dominated the industrial sector. Small-scale as defined in the survey included all those establishments employing less than fifty persons. This therefore means that small

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(11) Liedholm, C. and Chuta, E. (1976) The Economics of Rural and Urban small-scale industries in Sierra Leone. African Rural Economy paper no.14.

TABLE 4.1 *Urban and non-urban settlements with 2,000 or more inhabitants* (1963) (1)

Order	Settlement category	Description	No of settlements	Size range of settlements	Total population of such settlements		
					Absolute numbers	Proportion of national population	
						%	Accumulated %
	URBAN						
1st	City	Metropolitan primate city	1	160,099	160,099	7.3	....
2nd	Major towns	Centres, clearly urban, with more than local significance	4	12,304 26,613	67,645	3.1	10.4
3rd	Other towns	Centres of local importance : 1	7	5,073 12,132	48,060	2.2	12.7
4th	MARGINALLY URBAN						
	Centres	Centres of local importance : 2	4	3,700—7,313	21,366	1.0	13.6
	Mining 'towns'	Mining centres with some central place functions	4	4,334—6,064	21,147	1.0	14.6
5th / 6th	NON-URBAN						
	Rural centres	Underdeveloped central places	8	2,118—4,151	24,833	1.1	15.7
	Mining villages	Concentrated mining populations	12	2,507—5,073	37,252	1.7	17.4
	Expanded villages[1]	Large rural settlements : 1	12	2,034—3,616	32,111	1.4	18.9
7th	Agricultural villages	Large rural settlements : 2	3	2,038—2,837	6,993	0.3	19.2
	All settlements with 2,000 or more inhabitants		55	2,034—160,099	419,506	19.2	19.2

(1) Includes Yonibana.

(40) HARVEY, " Bonthe : a geographical study of a moribund port and its environs ", *The Bulletin — The Journal of the Sierra Leone Geographical Association*, No. 10 (1966), 66-75.

Source. Mitchell, P.K. (1972) "Settlement hierarchy and urban definition in Sierra Leone" An Empirical Essay. La Croissance Urbanie en Afrique Noire et a Madagascar No.539.. Colloques Internationaux du C.N.R.S. Paris. Table IV.

TABLE 4.2 SIERRA LEONE: DISTRIBUTION OF INDUSTRIAL ESTABLISHMENTS BY LOCATION AND SIZE: 1974

LOCATION AND FIRM SIZE	NUMBER OF ESTABLISHMENTS	PERCENT	EMPLOYMENT	PERCENT
A. Small-Scale Industry.				
1. Localities with population less than 2,000	45,000	89.7	73,000	78.8
2. Localities with population from 2,000-4,999	1,704	3.4	4,164	4.5
3. Localities with population from 5,000-20,000	834	1.7	1,995	2.2
4. Localities with population from 20,000-100,000 (Bo, Kenema, Koidu, Makeni)	1,189	2.3	4,368	4.7
5. Localities with population over 100,000 (Freetown)	1,408	2.8	5,039	5.4
TOTAL SMALL-SCALE	50,135	99.9	88,566	95.6
B. Large-Scale Industry.				
Total large-scale	28	.1	4,111	4.4
Total large-and small-scale industry	50,163	100.0	92,677	100.0

Source: Liedholm, C. and Chuta, E. (1976) The Economics of Rural and Urban Small-scale Industries in Sierra Leone, African Rural Economy Paper no. 14 table 1.

scale industry accounted for over 95 percent of the employment in the entire industrial sector.

The average size of the industrial establishment is very small. The 'average' industrial firm for example, employed 1.8 workers. Indeed, 98.9 percent of the firms employed less than 5 individuals, 0.7 percent employed 5 to 9 individuals, 0.3 percent employed from 10 to 49 individuals and only 0.1 percent employed over 50 individuals.(12) So that in terms of employment alone, the greater majority of Sierra Leone's firms are concentrated in the lower segment of the small-scale industrial size continuum. Small urban centres (2000-20,000 people) had 5.1 percent share of the industrial establishments employing 6.7 percent, compared to higher centres which had 5.1 percent of the establishments and employed 10.1 percent of people. The majority of the establishments and employment occured in centres of less than 2000 people.

Another useful indicator of the relative importance of the small-scale industrial sector is the "value added" given in table 4.3.

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(12) Ibid. p.10-11.

TABLE 4.3 ESTIMATES OF VALUE ADDED BY LARGE AND SMALL-SCALE INDUSTRY

	GOVERNMENT ESTIMATE		1974 SURVEY ESTIMATE	
	1970/71	Percent G.D.P.	1974/1975 Leones millions	Percent G.D.P.
A. Small-scale Industry	11.1	2.9	13.2	2.9
B. Large-scale Industry	8.5	2.3	17.4	3.9
TOTAL INDUSTRY	19.6	5.2	30.6	6.9
Gross Domestic Product	375.3		450.4	

Source: Liedholm, C. and Chuta, E. (1976) The Economic of Rural and Urban Small Scale Industries in Sierra Leone. African Rural Economy Paper, No.14. Tables 2.

From the table, small-scale industry accounted for Le 13.2 millions or 2.9 percent of the country's gross domestic product. Compared to large-scale industry (Le 17.4 millions or 3.9 percent of the gross domestic product) the small-scale establishments contribute approximately 43 percent of the country's industrial sector's value added. Although the value added percentage of small-scale industry (43 percent) is much lower than the percentage employed (95 percent) relative to large-scale undustry, it reveals that small-scale establishments are a significant component of the industrial sector.

When compared to other developing countries, Sierra Leone's small-scale industrial component is relatively large. For instance,

TABLE 4.4 DISTRIBUTION OF SMALL-SCALE ESTABLISHMENTS AND EMPLOYMENT BY INDUSTRIAL CATAGORIES AND SIZE OF LOCATION, 1974

TYPE OF ACTIVITY	LOCALITIES LESS THAN 2,000 INHABITANTS		LOCALITIES 2,000 - 5,000		LOCALITIES 5,000 - 20,000		LOCALITIES 20,000 - 100,000		LOCALITIES OVER 100,000		TOTAL		PERCENT OF TOTAL	
	EST.	EMPL.	EST.	EMPL.	EST.	EMPL.	EST.	EMPL.	EST.	EMPL.	EST.	EMPL.	EST.	EMPL
FOOD														
Baking	1500	3500	104	206	40	119	17	120	11	164	1672	4109	3.3	4.6
TEXTILES AND WEARING APPAREL														
Spinning & Weaving	4000	6000	86	126	15	26	2	2	0	0	4103	6154	8.2	6.9
Gara Dying	c	c	180	760	50	114	110	610	20	160	360	1644	0.7	1.9
Mat Making	9000	10,000	0	0	0	0	0	0	0	0	9000	10,000	17.9	11.2
Tailoring	14000	21,000	782	1508	457	973	656	1839	816	2380	16711	27,700	33.4	31.3
Shoemaking & Repair	1000	1,000	16	18	21	34	24	37	81	131	1142	1,220	2.3	1.4

TABLE 4.4 (Continued)

DISTRIBUTION OF SMALL-SCALE ESTABLISHMENTS AND EMPLOYMENT BY INDUSTRIAL CATAGORIES AND SIZE OF LOCATION, 1974

TYPE OF ACTIVITY	LOCALITIES LESS THAN 2,000 INHABITANTS		LOCALITIES 2,000 - 5,000		LOCALITIES 5,000 - 20,000		LOCALITIES 20,000 - 100,000		LOCALITIES OVER 100,000		TOTAL		PERCENT OF TOTAL	
	EST.	EMPL.	EST.	EMPL.	EST.	EMPL.	EST.	EMPL.	EST.	EMPL.	EST.	EMPL.	EST.	EMP
WOOD														
Carving	500	1500	24	76	4	14	4	23	3	4	535	1617	1.1	1.8
Carpentry	5500	12500	226	666	117	391	135	628	75	345	6053	14530	12.1	16.4
METAL														
Goldsmithing	1500	2500	22	32	14	43	17	47	20	54	1573	2676	3.1	3.0
Black-smithing	6000	13000	74	180	28	63	14	46	12	37	6128	13326	12.2	15.1
Welding & Fitting	0	0	6	20	3	7	9	50	19	86	37	163	0.1	0.2

TABLE 4.4 DISTRIBUTION OF SMALL-SCALE ESTABLISHMENTS AND EMPLOYMENT BY INDUSTRIAL CATAGORIES

(Continued) AND SIZE OF LOCATION, 1974

TYPE OF ACTIVITY	LOCALITIES LESS THAN 2,000 INHABITANTS		LOCALITIES 2,000 - 5,000		LOCALITIES 5,000 - 20,000		LOCALITIES 20,000 - 100,000		LOCALITIES OVER 100,000		TOTAL		PERCENT OF TOTAL	
	EST.	EMPL.	EST.	EMPL.	EST.	EMPL.	EST.	EMPL.	EST.	EMPL.	EST.	EMPL.	EST.	EMP
REPAIR SERVICES														
Radio	c	c	10	12	7	14	19	44	20	61	56	131	0.1	0.2
Vehicle	c	c	20	98	26	102	54	609	66	578	166	1387	0.3	1.6
Watch	c	c	10	16	15	22	28	40	56	76	109	154	0.2	0.2
Others	2000	2000	144	446	37	73	100	273	209	963	2490	3755	5.0	4.2
TOTAL	45000	73000	1704	4164	834	1995	1189	4368	1408	5039	50135	88566	100.0	100.0

Source: Liedholm, C. and Chuta, E (1976) The Economics of Rural and Urban Small-scale Industries in Sierra Leone. African Rural Economy Paper No. 14. Table 3.

c - included in others.

TABLE 4.5 SIERRA LEONE:- VALUE ADDED BY SMALL-SCALE INDUSTRIAL CATAGORIES BY LOCATION

1974/1975 (LEONES)

INDUSTRY	VILLAGES LESS THAN 2,000 PEOPLE	LOCALITIES 2,000 - 20,000	LOCALITIES 20,000 - 100,000	LOCALITIES OVER 100,000	TOTAL	PERCENT
TAILORING	2,836,000	534,000	571,000	982,000	4,923,000	37
BLACKSMITHING	1,427,000	77,000	11,000	9,000	1,524,000	12
CARPENTRY	385,000	558,000	219,000	122,000	1,284,000	10
BAKING	a	259,000	175,000	264,000	698,000	5
GARA DYING	a	345,000	165,000	30,000	540,000	4
OTHER	3,062,000	480,000	257,000	477,000	4,276,000	32
TOTAL	7,710,000 (58%)	2,253,000 (17%)	1,398,000 (11%)	1,884,000 (14%)	13,245,000	100

a -- included with "other" industries

Source: Liedholm, C and Chuta, E (1976). The economics of Rural and Urban Small-scale Industries in Sierria. African Rural Economy Paper No.14 Table 4.

in Nigeria small-scale industry accounted for 70 percent of the employment (Alŭko 1973), 71 percent in Tunisia (I.B.R.D. 1974) and 79 percent in the Philipines (I.L.O. 1974), and 69 percent in Colombia (Berry 1972). The small size of the industrial establishments is the result of the small size of the domestic market.

The distribution of industries by category and size as well as the value added by location are given in tables 4.4 and 4.5.

One of the salient features portrayed in the tables is the dominance of tailoring which accounted for 31 percent of the employment, 33 percent of the establishments and 37 percent of the value added within the small-scale industrial sector. Next to tailoring was blacksmithing and carpentry.

The composition of the industries varied with the size and location of settlements. The more traditional crafts such as blacksmithing, weaving and mat making are more important in the small towns while the more modern activities such as tailoring, vehicle repair and metal welding become more important the larger the centre. From table 4.7 we also know that 17 percent and 58 percent of the value added by small-scale industries is generated in small urban areas and the rural sector respectively. The results reveal the importance of rural industries in the industrial sector of the country.

The 1974 survey also revealed that there were major seasonal variations in the industrial activity, which was found to be larger in small centres than larger centres. Tailoring, for instance, was found to be most active when harvesting activities were occuring coinciding

with the major festivities, whereas blacksmithing had its peak during the period of land clearing for farming.

The relative importance of purchased material was also found to vary by industry but small-scale industry imported a much smaller share of their material input than large-scale industries. Thus the former require less foreign exchange which is an advantage considering the limited capital available.

Finally, small-scale industries generally make little use of purchased service inputs, like electricity. Thus they possess more locational flexibility.

Because of the various discussions which have been highlighted in the section, there is a strong case for the encouragement of the small-scale industrial sector.

4.10 STRUCTURE

Several scholars (McMaster 1968; Harvey, M.E. 1966; Jackson 1974) have all researched the internal structures of small urban centres. Much of the sociological and anthropological work is concerned with the patterns of adjustment to new forms of social relations which arise from the growth of new types of political systems and the nucleation of social and economic activity. Geographers have been more concerned with the internal pattern of economic activities and the spatial structure of housing and utilities.

Studies of these small urban centres elsewhere in the Third World have often claimed that they lack well developed features and fail to display areas of specialized land use. An examination of structural elements during field work on these centres has revealed that certain aspects stand out distinctively. Firstly, the same structural elements occur within these towns varying only in detail and pattern of arrangements. Secondly, the patterns appear to be the result of conscious action as these elements could, to a very remarkable degree, be compared from town to town. Thirdly, the differences in the structural elements depend on the level of the centres.

With hardly any modern industries, the most important structural elements are those related to commerce, administration, residence and to a lesser degree, services, e.g. education, medicines, like in McMaster's (1968) study of a district towns in Uganda, where he found that their morphology was distinctive, reflecting the imposed socio-economy of the area. In the district towns in Sierra Leone the

administrative "boma" is separated from the commercial "bazaar". The colonial administrative set-up is physically separated from the remainder of the town and normally located on top of a hill overlooking the rest of the town on whom planning and other types of legislation are gradually introduced to. Grouped near the District Commissioners Office are the various departments, manifestations of central government authority. This administrative complex contains the most impressive buildings and apart from private residence, makes the largest single demand for space in the towns.

The residences of the administrative service are physically separated from the rest of the town. Socially and economically, people living and working within this complex, are to a very marked extent, different from the ordinary townsfolk. They comprise of the "English educated" who have been absorbed into the various social, educational, technical and professional services engaged in servicing the needs of the towns. It should be pointed out that these divisions of 'boma' and 'bazaar' in these centres is restricted to districts and provincial headquarters because it is only at this level that services are consistently provided by the central government.

The commercial 'bazaar' falls into four main categories:- the Houseshop Core Area; the daily market, hawkers and the isolated all-purpose shop. It is the central area of the town in terms of population density and economic activities. It contains almost all the retail and service activities. When such activities occur outside the 'bazaar', they are ussually situated along main transportation lines.

The 'houseshop' varies in size, the more prosperous entrepreneurs usually Syrian/Lebanese have bigger shops which are found in a more central location. Construction of houses vary from "mud with sticks" to cement blocks with zinc sloping roofs and from single flats to two-storeyed houses. The latter belonging to foreigners or very prosperous Africans. The houseshop usually has a frontage of about 6 feet providing space for tailors, cobblers and hawkers. The rear portion of the single flat houseshop is used for residential purposes, with the two-storey houseshop, the rear is used as a store whilst upstairs is for residence. There is a profusion of small businesses in this area.

In the town which are the subject of investigation, the daily market is usually controlled by the native administration. Studies of markets in Africa are abundant in the literature and have already been mentioned in the chapter on the study area. The 'pan-roofed' structure is often open-sided and contains benches and tables. There are market collectors employed by the native administration who impose levies which vary depending on whether a seller has a table in the market building on the grounds around the market, or hawking around the market and other parts of the town. Selling begins at about 6 a.m. and continues until about 5 to 6 p.m. although by mid-afternoon when it is extremely hot most sellers and buyers are gone.

Dorjahn (1962 observed in Magburaka that

> "the first sellers in the market building each morning select their own positions since there is no tenure of registration of selling tables. Latecomers must sell seated on the ground outside of the structure, for there is insufficient space inside. There is no agreed standard price

> on any article and many who wish to move goods especially perishable goods cut down prices." (13)

The range of goods for sale is not large. Some items are produced in Magburaka and in the villages around, others are imported goods.

The 'isolated' shops are usually situated along transportation lines. They are mostly owned by African traders and less stocked than shops in the main commercial area. Most articles can be bought in smaller quantities and almost any time of the day until late into the night.

Private residential buildings in the town are found along either side of the streets at markedly higher densities than in the 'boma'. Outside the government service there are very few salaried occupations and economic status is reflected in the quality of housing. The more affluent, the better the quality of housing. There is a wide variety of these.

Two other distinct features are places of 'worship' and 'burial'. Churches are found on the edges of the houseshop core area, mosques tend to be situated closer to their adherents. Data on the structural elements of two centres, one a district town and the other a chiefdom town was collected during the fieldwork and presented in Figures 4.1 and 4.2. All the centres in this study belong to one or both groups and it is hoped that this presentation is a fair representation.

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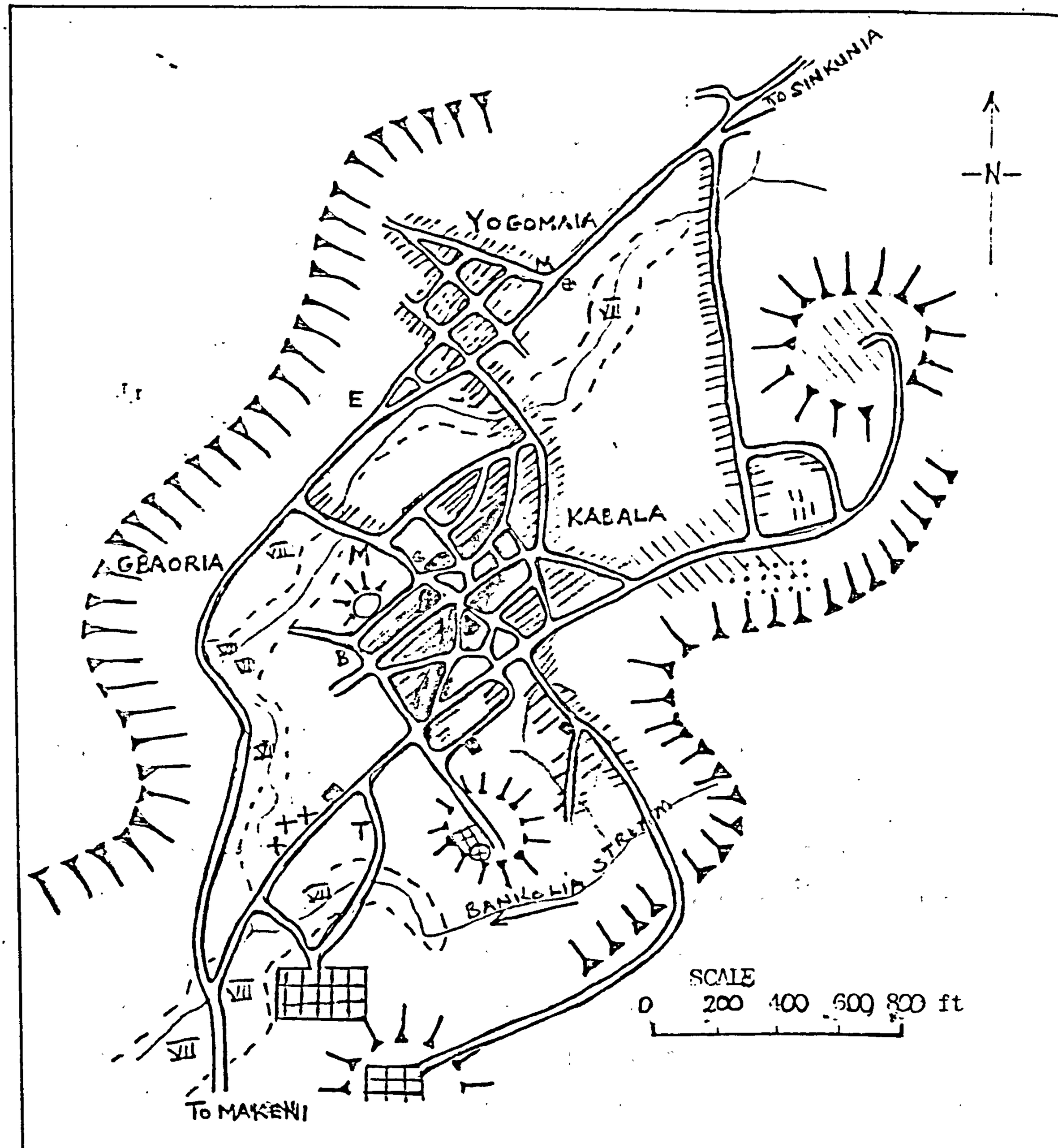
(13) Dorjahn, V.R. (1962) "African traders in Central Sierra Leone" Markets in Africa (Bohannan P and Dalton G (Eds)). North Western University Press. p.65.

FIGURE 4.2 ELEMENTS IN TF STRUCTURE OF KABALA (AFTER HAFTY)



KEY

- Commercial
- Educational
- Religious
- M Market
- E Electricity
- Cemetry
- Medical
- Residential (Government)
- Residential (Private)
- B Bank
- T Transport
- Steep slope
- VII Swamps
- Recreation

4.11 KABALA

Kabala with a population of 10,350 (pop) (1974) is the chiefdom headquarters of Wara Wara Yagala and district headquarters of Koinadugu. The nearest other large centre, Makeni, 76 miles away, is joined to it by a rugged road, unmotorable during the rainy season and at present under construction with an E.E.C. loan. Here, as in other district towns there is a clear distinction between the equivalent of the 'boma' (i.e administrative section) and the 'bazaar' (the commercial section). Harvey observed that

> "The most important features of the urban landscape are commerce, residence and administration. Besides these, medicine, education and recreation are also present. As in most large towns in the country, commerce in Kabala falls into three main groups: the Central Business District (CBD), the isolated all purpose shop, and the daily market." (14)

The business centre of Kabala starlike in shape occupies a central location (Fig. 4.2) and it is bounded by streams, breaks of slope, swamps, churches and schools. In terms of the functions within this business district, the author would suggest that instead of calling the business area the central business district, a more proper name would be 'Houseshop Core Area'. because the shops serve both as a business and a residential dwelling. There are no European commercial 'firms' and trade is concenentrated in the hands of the Lebanese/Syrians and Africans who generally occupy a central location within the 'Houseshop Core Area'. The main entrepreneurs are the Lebanese/Syrians who occupy a more central location isolated the only African trader (Foday Kamara) in their midst. Harvey (1967) noted that

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(14) Harvey, M.E.E. "Kabala - The Northern Frontier Town, p.70. Sierra Leone Studies (1967)

> "Specialization in commerce if very uncommon, for as in Yonibana, most shops sell goods ranging from provisions to fairly expensive, ready-to-wear clothes. The association between the shops and tailors observed in other towns of the country is also true of Kabala." (15)

Unlike Moyamba the petty traders in Kabala tend to congregate around the daily market perhaps a reflection of the town's compactness. A few of these petty traders are found along transportation routes rather lanes usually displaying their goods in wooden trays.

The daily market consists of two 'pan roofed' buildings, one of which is used as a store. The other is stocked with benches which are provided by the native administration. Every morning, the market collector is usually first in to open the store and start collecting levies from traders for which he issues them with tickets permitting them to trade in and around the market and valid for that day only. The levy varies between 10 to 20 cents daily.

The range of goods sold in the daily market is given below:

Meat:-- beef, chickens.

Mirros, palm oil, rice, Kola nits, fish (frozen, dried or smoked), oranges, potatoes, cabbages, radishes, firewood, cigarettes, matches, candles, peppers (red and green) cassava, coco-yam, onions, garden eggs, potato leaves, cassava leaves, Krain, Krain uncooked fou-fou, milk (locally produced and imported) Shea butter, sorrel, cow butter (locally manufactured).

Price bargaining is the common practice as there are no fixed prices and social relations are very important in these transactions.

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(15) Ibid, p.71.

There are very few 'all purpose shops' found along Makeni road. Trade in these shops is restricted to drinks, both locally brewed and imported and a few other assorted articles which can be bought in very small quantities.

There are four distinct residential sections namely:- Kabala proper, Yogomaia, Gbaoria and the administrative reservation.

Kabala proper is the cosmopolitan section, the seat of commerce dominated by Lebanese/Syrians. Gbaoria is predominantly Limba at the very foot of the wara-wara mountains, Yogomaia is occupied by the Kurarko and Fula but dominated by the latter. The administrative (boma) reservation occupied by senior civil servants is situated on top of a hill in the north-east section overlooking the town. The physical separation and elevation of this section could be interpreted in terms of the dominance it exerts over the whole area. Houses are comparatively large, surrounded by well trimmed hedges. Restrictions to access in these parts of the town are strongly guarded by the presence of day and night 'watchmen'. Kabala proper is dominated by the 'Houseshop' type of building which can either be a single or two-storey building. In the former, the front is used as a shop and the rear as a dwelling and store and in the latter, the lower section is used as a shop and store and the top as a dwelling. There is a densely compact built-up area where the backyards of houses are separated by fences made up of either sticks or corrugated iron sheets. Sanitary services are comparatively higher than those in the indigenously occupied area of the town but lower compared to those in the 'reservation'. Houses are built of either concrete mixture or cement 'blocks'. In Yogomaia and Gbaoria, there is a mixture of

houses, ranging from 'mud with sticks' to cement blocks. It is only in Yogomaia that the traditional 'round hut' with thatched roofs still exists. The backyards are very small where cooking is mostly in the open and the manufacture of 'gara' and 'wax' clothing and skin tanning take place.

The educational facilities are mainly concentrated in Kabala proper where population is greater than the other three residential districts. There are now six primary and three secondary schools. One of each is situated in Yogomaia and the rest in Kabala. Most of these educational facilities are provided by either Christian or Muslim missionaries with the contribution of the public authorities restricted to the District Council primary school.

The population includes both Christians and Muslims although the latter out-number the former. There are two mosques, one between Kabala and Gboaria and the other in Yogomaia. There are also two slaughter houses distributed in the same manner, a reflection of the influence of political factors in urban landuse patterns; as Kabala and Gbaoria are in the wara-wara yagala chiefdom and Yogomaia in the Sengbe chiefdom. With the only hospital in the district, Kabala is the most important medical centre.

Besides the infrequent dances at the community centre, and Kabala Secondary School hall, the only other recreational facilities are football, lawn tennis (mostly used by the senior civil servants as one has to belong to the Tennis Club to qualify to play) Stando cinema and drinking in local bars.

... The around Kabala is suitable for vegetable production but the greatest set-back if the problem of accessibility which it is hoped would be solved when the new road is completed. As Harvey (1967) noted Kabala has many functions which it performs for the whole district but in some cases - as in educationa end medicinal - these functions are quite inadequate. Consequently, it is itself dependent on towns like Magburaka and Makeni.

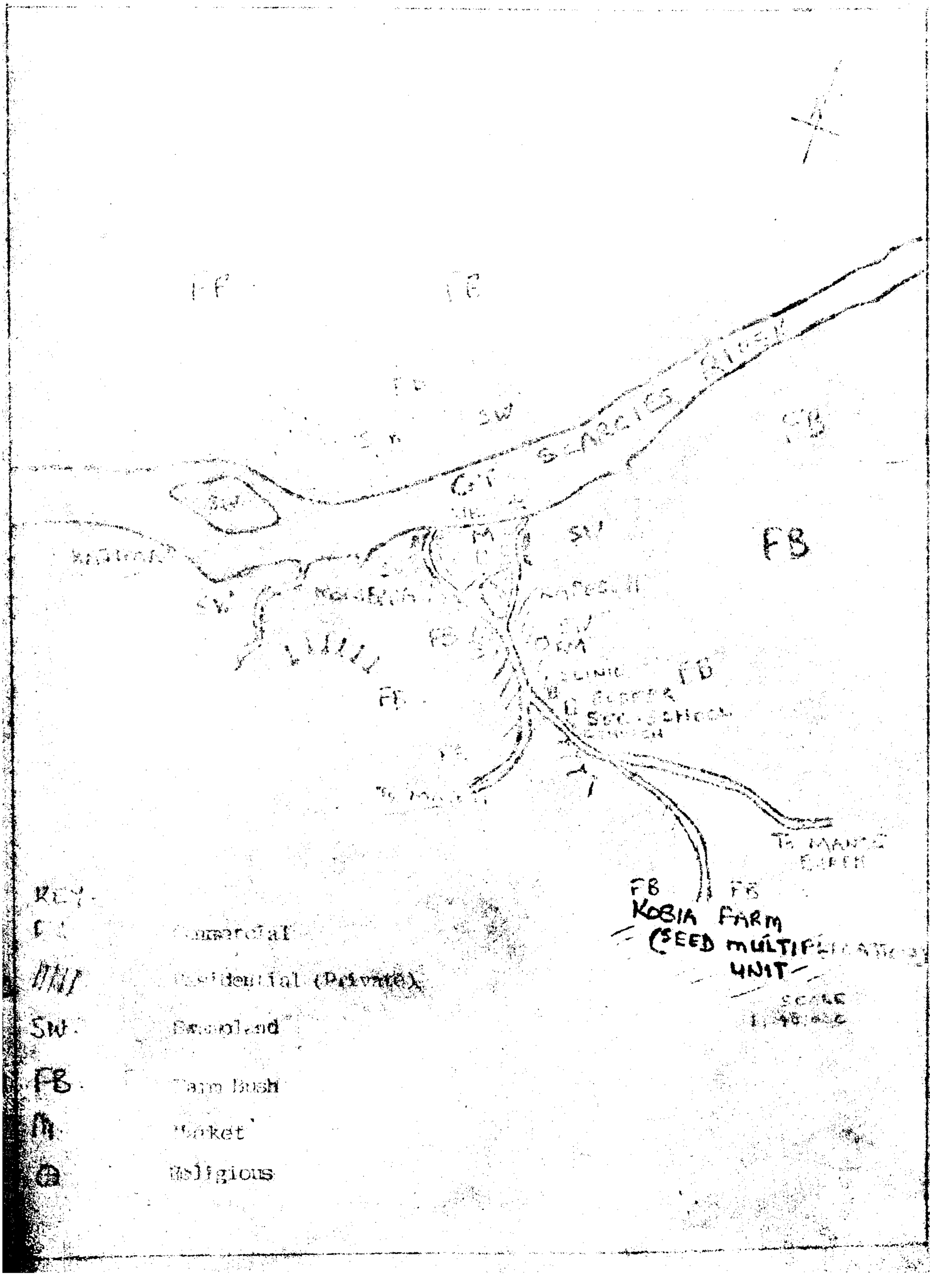
Kabala is nevertheless an important commercial and administrative frontier town, whose potential has unfortunately neither been appreciated during the colonial period nor since independence. Sadly it is true now as it was then.

4.12 MAMBOLO

Unlike Kabala, Mambolo, 3900 (pop) (1974) is the chiefdom headquarters of Mambolo chiefdom in the Kambia district. Situated on the banks of the Great Scarcies (Fig. 4.3) it relies on rice cultivation in the mangrove swamps, arguably the most productive lands in the country. It is also a collecting and distribution centre for the prosperous fishing trade centred at Yeliboya. Unlike Kabala, it has both road and river transport using outboard boats (EMPAMPA (temne)) to run a passenger and goods service between Mambolo, Rokupr, Lungo and Freetown.

There is no known work on Mambolo, so whatever observation made here is part of the data collected during the field enquiry.

The most important structural elements are commerce, residence,


KEY
C Commercial
RM Residential (Private)
SW Swamp land
FB Farm Bush
M Market
R Religious
FB
KOBIA FARM
(SEED MULTIPLICATION
UNIT
SCALE
1:48,000

education and to a very much lesser degree, administration.

Commerce is divided into the 'Houseshop core area' or the 'bazaar', the isolated all purpose shop, the daily market. The 'Houseshop Core Area' is situated near the wharf, the point at which road and river transport intersect. Trade within this area is dominated by a few Lebanese/Syrians. Most African traders in this area have very small shops, less well stocked and madeout of corrugated iron sheets, compared to the one or two-storey shops of tbe more prosperous Lebanese/Syrian traders. They sell from household provisions to ready to wear clothes. Again, like Kabala, these houses are separated by fences of sticks or corrugated iron sheets.

The isolated all-purpose shop is a very uncommon feature here and only one is situated on the road to Mange Bure. Thus the isolated all-purpose shop which is an important feature in less compact towns is not a viable commercial proposition here.

The 'daily market' is made of a 'pan-roofed' structure which again is right on the edge of the wharf which gives it easy access for handling the heavy baskets in which the fish are packed. The goods sold in the market are:

meat, chicken, fish (dried, smoked and fresh), salt (locally manufactured), potatoes, cassava, cocoal-yams, rice, tomatoes (locally grown and imported), matches, cigarettes.

Most of the sellers are women. Like Kabala prices are not fixed and people spend quite a lot of time on bargaining. Here again, the native administration supervises the running of the market with

tickets provided for all sellers. The market opens at about 6.30 a.m. but by 4-5 p.m., all sellers and buyers are gone.

Mambolo, it must be recalled, is a chiefdom headquarter, and at this level, there is no provision of hospital, and important administrative structures except the native administrative court barri and a small office restricted to a chiefdom clerk and chiefdom police. The major residential pattern is characterized by owner-occupied houses varying from sticks with mud houses and a very few 'cement block' houses restricted to Lebanese/Syrians and a few prosperous Africans.

It is a Muslim dominated town with its first 'western' Secondary school opened in 1968 by the German Baptist Church. Medical facilities are restricted to a 'sick bay' designed to serve the needs of the school. There is no electricity but there is a government rice mill and many small salt manufacturing concerns.

Mambolo is heavily dependent on Port Loko, Kambia and Freetown for certain commercial, medical and educational facilities.

These structures observed in Kabala and Mambolo display sufficient similarities and differences to warrant a model which could be used as a format for describing the structural elements of small urban centres in Sierra Leone.

4.13 CONCLUSION.

In the earlier sections of this chapter, the origins of the pre-urban settlements were referred to briefly. Thr penetration

of this pattern by capitalist modes of production and the European colonial system changed the geography of this pattern. European colonization established a series of hierarchically organized administrative centres in which there evolved economic and geographical structures geared towards the extraction of a cash surplus from the rural economy. These changes were not only carved out by the European colonial administration but were aided by Lebanese/Syrian and African traders, and Missionaries who provided schools and hospitals in some of these centres. The spatial structures that evolved from these external pressures are a reflection of the functions performed by the centres.

In some parts of Africa, for instance Yorubaland and Baganda, the colonial administration barely reinforced a pattern which was already in existence. In Sierra Leone, like in other parts of East Africa (O'Connor 1968) most of these smll urban centres are administrative, containing trading and small light manufacturing activities.

As much of the internal functioning of these small urban centres depends on the facilities provided as a result of the administrative function, we noted the consequences of the reorganization of administration similar to Ocititis' (1966) observation in Kitgum where growth and decline are related to the changing pattern of administrative organization.

As these centres were a product of an alien administrative system, it is not surprising that the functions and therefore structures reflect the domination of their evolution. In the smaller centres, i.e. chiefdom towns, the same 'imposed' structure is found

usually at a lower level.

Through the examination of the hypothesis, it has been possible to trace the origins, functions and structures of small urban centres. It has also been possible to develop a picture of how these origins have influenced their functions and thereby structures. The evidence on this hypothesis is conclusive.

C H A P T E R V

SPATIAL DISTRIBUTION AND SETTLEMENT CENTRALITY

5.1 INTRODUCTION

In the previous chapter the origins of small urban centres and the resultant functions and the structures that evolved as a result of these origins were examined. This chapter is devoted to an examination of the spatial distribution and relative centrality of these centres with the aim of testing two of the hypotheses in this thesis. The chapter is divided into two sections; the first examines the spatial distribution and the second section, the relative centrality of these centres.

The data for the analysis is derived from the point patterns of the centres from the 1:500,000 maps of Sierra Leone, the chiefdom level population totals from the 1974 census and the Directory of Business and Industry for Northern, Southern and Eastern provinces for single and multi-firm units.

We start with the hypothesis that large parts of rural Sierra Leone are unlikely to be served by small urban centres which are few and are poorly distributed.

The description of spatial distributions is a fundamental operation in geographic research. The analysis involves the description of the density and pattern of either points, lines or areas which represent a distribution. Davey (1968) noted that

> "in interpreting such patterns, there is a temptation to dismiss analysis with the statement that the distribution is irregular or possibly to say that it is a random distribution. To say that a distribution is irregular neither effectively describes it nor suggests cause. To say that a distribution is random in a nontechnical sense, is to say that the pattern has no discernible order and that cause is undeterminable." (1)

In mathematical statistics however, the terms random, clustered and regular have precise meanings. As it is highly unlikely that geographical distributions, especially locational patterns involving human decisions are the result of equally probable events, it is expected that most map patterns reflect some system or order. It is for this reason that patterns on maps are examined for evidence of a spatial process.

One of a variety of statistical techniques used in understanding the mathematical proporties of observed point patterns is Quadrat Analysis. This analysis serves two functions: firstly, it describes a pattern and secondly one can deduce from such a description the type of probabilistic process that controlled the evolution of the emergent pattern.

The first step in such an analysis involves a comparison between the observed and theoretical frequency distributions, as predicted by either the negative binomial or poission distributions. The second

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(1) Davey, M.F. (1968) "Modified poission probability law for point pattern more regular than random" Spatial Analysis - A reader in Statistical Geography. (Ed. B.J.L. Berry and D.F. Marble) p.172.

step is to decide the degree of correspondence between the observed and theoretical frequency distributions. If the degree of correspondence is poor, one can use the theoretical properties of the poisson distribution to decide whether the observed frequency is clustered or uniform.

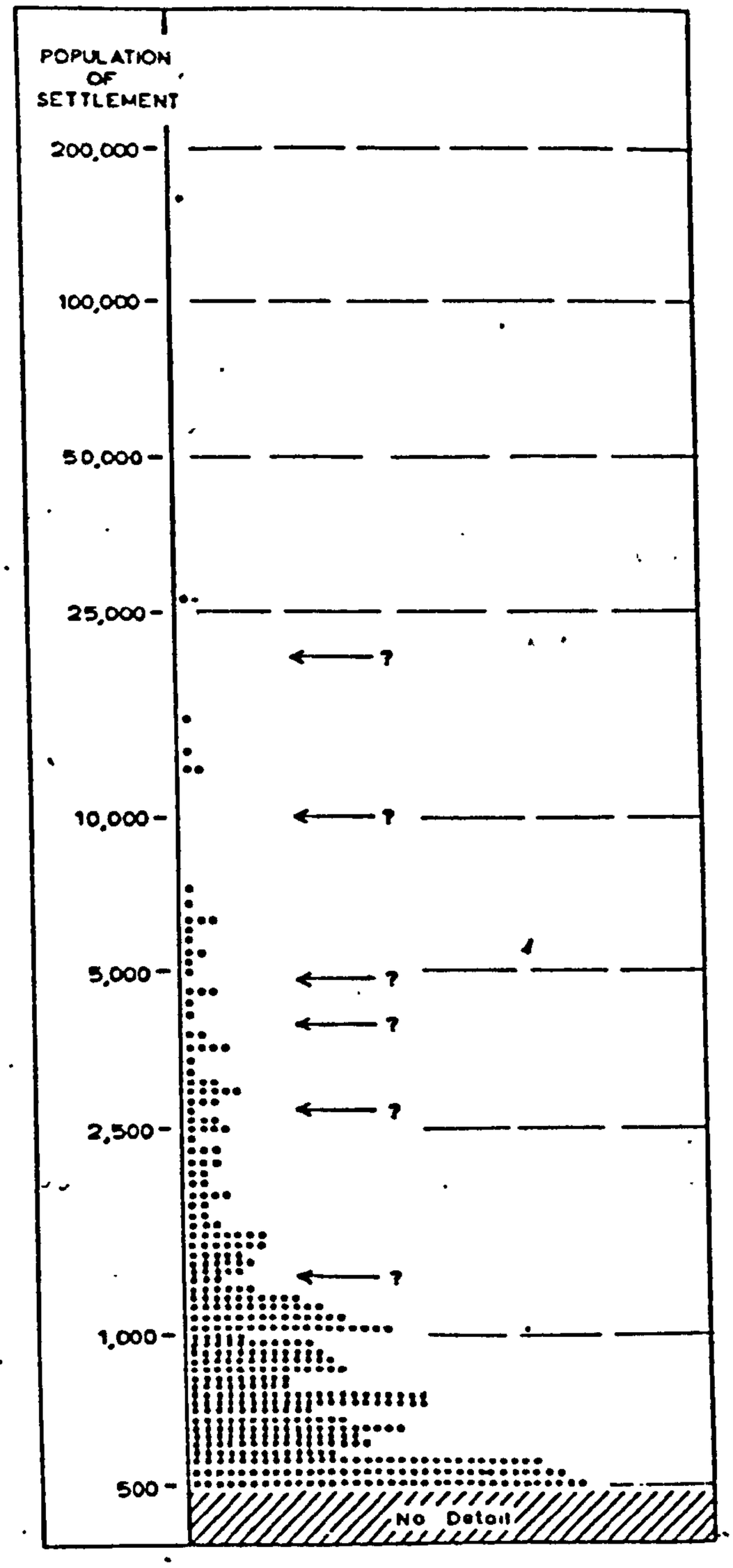
5.2 DATA ANALYSIS

The frequency plots of settlements by population size for 1963 and 1974 are represented in Figures 5.1 and 5.2. In both cases Primacy is evident and the striking feature is the dearth of medium-sized towns. In 1963 apart from the primate city (Freetown), there was only one other town (Bo) with a population of over 25,000 inhabitants. By 1974 the position had slightly altered with Koidu/Sefadu, Kenema and Makeni joining Bo and Freetown with populations of over 20,000 people. Consequently, in terms of rural and regional policy and the potential for decentralization the existing structure consists of many centres ranging between 2,000 and 20,000.

A closer look at the spatial distribution of these centres would enable us to assess their present and potential values in the delivery of goods and services to a dispersed population.

Using the 1:500,000 map of Sierra Leone, the location of each of the small urban centres was recorded on an X and Y coordinate system and the results were computed for a point pattern analysis. The results are given in Tables 5.1 and 5.2. It should be pointed out that point pattern analysis describes the distribution of the settlements without regard to size.

FIGURE 5.1 SIERRA LEONE 1963: FREQUENCY PLOT OF SETTLEMENTS BY BY POPULATION SIZE



Source: P.K. Mitchell (1972) "Settlement hierarchy and urban definition in Sierra Leone" An Empirical Essay. La Coissance urbaine en Afrique Noire et a Madagascar. No.539. Colloques Internationaux du C.N.R.S. Paris. Fig. 1.

FIG 5.2

SIERRA LEONE 1974

FREQUENCY PLOT OF SETTLEMENTS BY POPULATION S

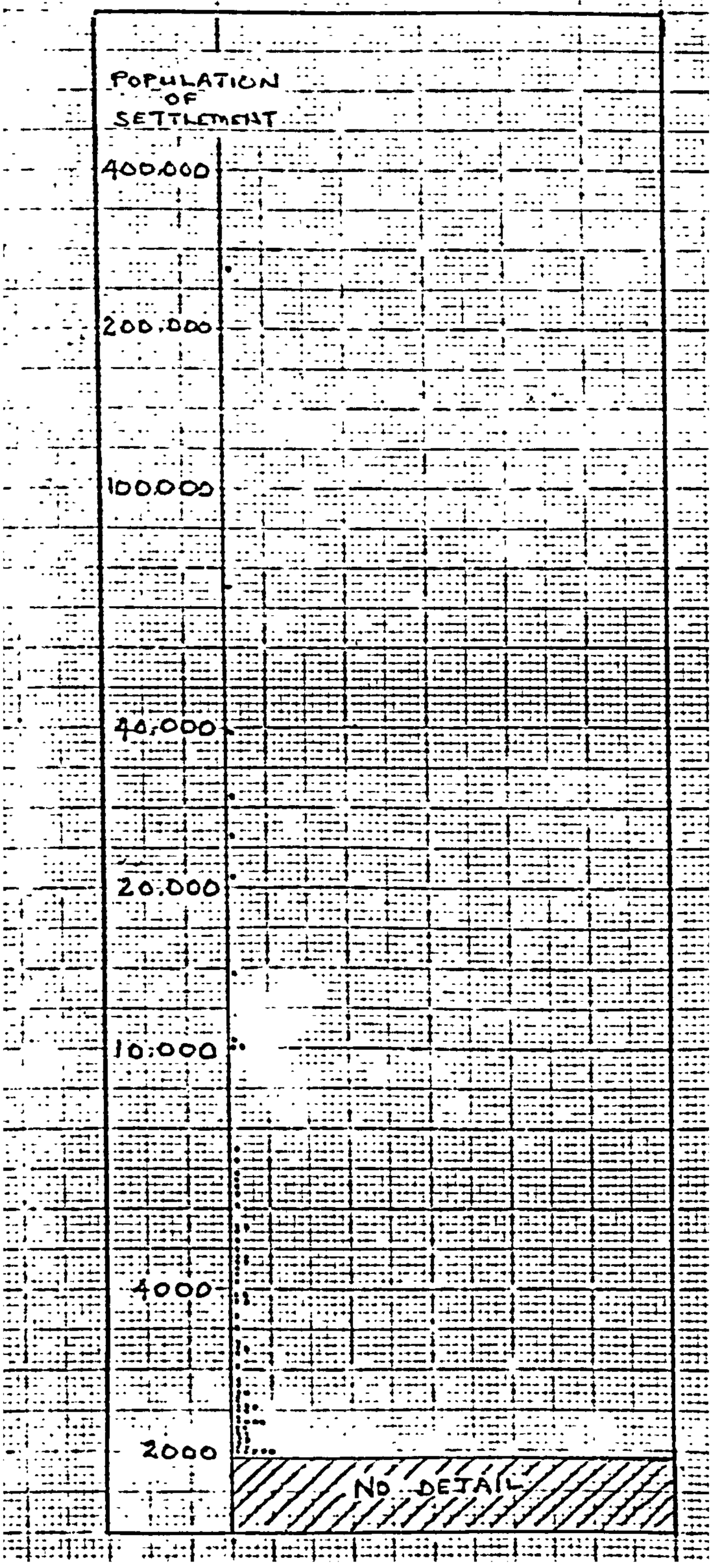


TABLE 5.1 NEGATIVE BINOMIAL PROBABILITY DISTRIBUTION

CLASS	EXPECTED FREQUENCY	OBSERVED FREQUENCY	CHI-SQUARED
0	62.3146	62	0.0016
1	20.6078	21	0.0075
2	8.9121	10	0.1328
3	4.1564	4	
4	2.0090	2	
5	0.9914	0	
6	0.4960	0	
7	0.2506	0	
8	0.1275	0	
9	0.652	0	
10	0.0335	1	0.1570
TOTALS	99.9641	100	0.2988

Table 5.2 Output from Nearest Neighbour Analysis.

Expected Nearest Neighbour: 10.709

Observed Nearest Neighbour -7.699

Nearest Neighbour statistic: -0.719

Standard error of mean distance: -0.705

Statistic C (Randomness) Z -4.268

The chi-square of 0.2988 in the negative binomial probability distribution is not significantly different from zero, which is a good fit and therefore describes the data very well. In the nearest neighbour analysis, the Z score of -4.268 is highly significant statistically and signifies a clustering in the point patterns. The statistical evidence thus suggests an uneven distribution of the point pattern with clustering occuring in what Harvey (1972) called

the "Kono subgraph".

Measurements of spatial accessibility are designed to find out if certain parts of a territory are unserved or what percentage of the population is unserved by urban centres. In this exercise the proportion of the population not served by any centre was calculated using chiefdom level population data and the 1:500,000 maps of chiefdom boundaries in Sierra Leone. The proportion of the population outside distant bands of three, six and nine miles was calculated for all the urban centres in the country and the results were as follows:

1. 86.3 percent of the rural population is outside a three mile radius of any urban centre.

2. 66.3 percent of the rural population is outside a six mile radius of any urban centre.

3. 43.2 percent of the rural population is outside a nine mile radius of any urban centre.

The same procedure was adopted to calculate the variation in the proportion of population not served by any urban centre within the three distance bands of the three economic regions and the results are given in table 5.3.

The figures in Table 5.3 could be related to the relative proportion of the regions and the number of urban centres in each region and the distribution of these centres in the regions.

TABLE 5.3 POPULATION NOT SERVED BY ANY URBAN CENTRE, BY REGION

REGION	3 Miles	6 Miles	9 Miles
Least developed	89.17%	67.26%	45.57%
Less developed	85.94%	76.45%	50.91%
More developed	81.09%	49.71%	25.74%

In order to verify whether there is a significant difference in the proportion of the population not served by urban centres in the three regions, the raw data was subjected to a chi-square test. A null hypothesis that there is no significant difference in the proportion of the population served by urban centres in the three regions was set up. The alternative hypothesis is that the difference is related to the numbers and the distribution of these centres in the regions. The level of significance decided upon was 0.01. At this level with four degrees of freedom the critical value of x^2 is 13.28.. The calculated value of x^2 is 6879.8 which is far greater than the critical value and thus the evidence suggests a rejection of the null hypothesis and acceptance of its alternative.

From the author's experience in the study area, twelve miles is thought to be the maximum day's walk. On this basis about 50 percent of the entire population in the study area is outside any urban centre. This varies from about 49. 71 percent in the more developed region to 67.26 percent in the least developed region. The number of these small urban centres is represented in Table 5.4.

TABLE 5.4 URBAN CENTRES BY REGION

LEAST DEVELOPED	LESS DEVELOPED	MORE DEVELOPED
29	9	33

If about 50 percent of the population have to travel six miles to and frò to obtain goods and services from an urban centre, then clearly this is no mean task, especially as, it has been pointed out that facilities and services are only consistently provided at district and provincial levels. Even if one assumes the availability at lower order centres, the distance-decay function points to the fact that these centres provide for a limited proportion of the surrounding area and the variations by regions have already been noted.

5.3 CONCLUSION

The problems of access to urban centres are better appreciated when the realities of the situation in rural Sierra Leone are fully understood. Firstly, there is a gross inadequacy of motorable roads (about 5,000 miles in a country of approximately 28,000 square miles) of which only 600 miles are paved.

The most recent agricultural survey (1970/71) in Sierra Leone reported the use of various transportation facilities by 38 percent of all farmers who sold their products by conveying them to the market personally. The results of that survey are presented in Table 5.5. For over half of those interviewed headloading is the usual means of transport which does not seem to vary in the regions. About 30 percent use lorries, more so in the Eastern province than the other two regions. There are two major reasons why transport has been highlighted here. Firstly, scholars like Hodder (1975) see transport as "the sine quo non of colonisation and also vital in the extension of settlement in a region."(2)

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(2) Hodder, B.W. (1975) Economic development in the tropics. Methuen and Co. Ltd. p.191.

TABLE 5.5 PERCENTAGE DISTRIBUTION OF HOLDERS CONVEYING PRODUCTS TO THE MARKET BY MEANS OF TRANSPORT

PROVINCE	HEAD LOADS ON FOOT	LORRY	BOTH LORRY AND FOOT	OTHER
1. Southern	16%	9%	7%	1%
2. Eastern	.5%	.5%	3%	-
3. Northern	18%	5%	6%	1%
4. Western Area	2%	-	1%	-
Sierra Leone	51%	30%	17%	2%

Source: Central Statistics Office, Freetown. (1970/71 Agriculture Survey).

Secondly, improved and extended transport facilities are necessary for the widening and fusion of the markets in already settled areas and in stimulating further production for internal or external trade in a country and so in encouraging the growth of a modern exchange economy. Futhermore transport allows for exchange of goods between urban and rural areas, and it also encourages and facilitates geographical specialization of agricultural production.

An important point to remember about rural Sierra Leone is that there is limited private and public vehicle ownership. It may, according to Hodder (1975)[3] be useless to "try to encourage the use of manures or cultivated fodder on fields where the farmer or his

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(3) Ibid, p.192.

wife has no means of transporting it other than by head porterage." This form of transport has been said to be some nine to ten times as expensive as other forms of transport and the consequences on the sale of produce is such that it only has to be carried a limited distance before most of its value, from the point of view of net returns from the sale, has gone. Part of the reason for this is because of the frequency of repetitive movements required and only limited amounts can be carried at any one time while at the same time distances covered are severely limited. According to Gorou (1966) the mean distance covered on any one day is limited to 30 miles at an average headload of 88 lbs. The distance may be an exaggeration.

A study carried out in the study area by Blair (1978) assessed the impact of a highway constructed between Freetown and Koidu/Sefadu. The range of evidence collected in his survey suggests that the effect of the road on prices of agricultural produce is positive but that it manufactured little positive developmental impact laying stress on the temptations the new highway presents to young abled men to rush to towns thus depleting rural agricultural labour and adding to the problems of the towns.

We have in the preceding pages examined the numbers and distribution of urban centres in the study area, emphasizing the problem of accessibility to these centres. The problems presented here relate to the lack of these centres and their distribution. Because of this a greater percentage of the population has to travel long distances to secure goods and services and to sell their produce. The fact that these distances are to be covered on foot imposes

limitations on both the frequency of visits and the amount of produce that can be sold at any given time. This also limits their incomes and therefore their purchasing power which in turn limits the provision of such goods and services.

The consequence is that all these handicaps impose limitations on the positive role which these centres can play in improving the welfare of the rural people.

The second part of this chapter examines the levels of centrality of these centres with the aim of assessing their present roles in rural development. The pre-supposed relationship between an urban centre and its complementary region leads the author to conclude that development within these centres affects their complementary regions positively. The hypothesis which provides the framework for this analysis is:- that small urban centres are inadequately developed and are thereby likely to inhibit rural development.

5.4 SETTLEMENT CENTRALITY

The current concern with regional development and emphasis on the role of small urban centres necessitates a ranking of these centres in an objective manner so that the results obtained by one worker can be duplicated if the need arises whether these areas are in the same country or different parts of the world. Such results could also be used as a basis for the provision of services at different levels.

Usually, techniques have been designed for use in one country

and cannot therefore be used in other parts of the world. Criticisms of various technique used in different parts of the world are adequately dealt with by Davies (1966) and there is no need to repeat them here.

Centrality, it should be recalled, is a process of compounding. Davies (1966) observed that

> "attempts that have been made to pin the idea down to a single empirical observation that will stand for the concept have been unsuccessful. However, if the concept is to possess any contemporary operational relevance, a set of rather vigorous criteria should be conformed with, namely:
>
> 1. The technique used to measure centrality should be completely objective and capable of being tested.
> 2. The index should not be based on any particular data that possess limited application or relevance. comparability is a critical feature. It should be possible to directly compare the results obtained in any area with the results obtained elsewhere.
> 3. The measure should incorporate all the central functions of a place and since the concept is a compound one, the final index should be capable of being subdivided into its component parts." (4)

Through the years, there has been considerable work on the development of central place theory and recent publications by Beavon (1977). Marshall (1969) and Parr (1977) illustrate that less emphasis is placed on the problems involved in empirical central place studies. One of these problems concerns the measurement of settlement centrality.

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(4) Davies, W.K.D. (1966) "The Ranking of Service Centres - A Critical Review. Transactions of the Institute of British Geographers, No.4 p.59

There have been as many ways of measuring centrality as there are central place studies. In one of these studies of service centres in Wales, Davies (1967) devised a functional index based on the location coefficient used in studies of industrial location. The first step in deriving the functional index is to calculate the location coefficient of a single outlet of a given function. This could be done by the use of the formula below:-

$$C = \frac{t}{T} \cdot 100$$

where C = the location coefficient of function t,

T = total number of outlets of function t in the system.

The second step is a multiplication of the relevant location coeffficient by the number of outlets of each functional type in a settlement to give the centrality values. Addition of these centrality values in each settlement gives the functional index of a settlement. One major advantage of this method is that because the location coefficient reduces all functions to a common base, it is thought that the degree of focality of each functional type is comparable in an objective manner.

Despite this, doubts have been expressed as to whether the functional index actually measures the centrality of settlements. If it is accepted that centrality is the relative importance of a place with regard to the region surrounding it, Bennison (1978) suspects that "the functional index does not actually measure centrality as it is defined here. Rather it measures nodality, the aggregate importance of a settlement."(5

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(5) Bennison, D.J. (1978) "The measurement of settlement centrality" Professional Geographer XXX (4) p. 371.

and as Preston (1971) noted 'we know little or nothing about how well such nodality indexes identify centrality." (6) The question then arises as to how centrality can then be measured.

Firstly centrality can be measured in either absolute or relative terms. The latter may be indicated by surpluses or deficits of sales, population or functional outlets. Measures of absolute centrality can give a distorted picture of a settlement system because although places may differ in size and functional equipment, they can have similar centrality values. More meaningful tests therefore would be measures of relative centrality. In order to overcome the problems inherent in Davies's (1966) functional index, Bennison (1978) proposed the calculation of centrality ratios for each function in each settlement of a region.

He claims that his modification of Davies' (1967) functional index

> "retains all the advantages of Davies' index and the only additional data needed are the populations of the settlement. Similarly, the assumptions implicit in the functional index are retained, in particular that the region being studied is functionally closed, that there are no spatial variations in per capita consumption within the region, and that all outlets (or their equivalents) of a given function are of equal economic significance." (7)

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(6) Preston, R.E. (1971) "Towards verification of a classical Centrality model" Tijdschift Voor Economische en Sociale Geografie, 62.p

(7) Bennison, D.J. (1978) op. cit. p.372.

5.5 DATA ANALYSIS

It is on the basis of these observations that it was decided to use centrality ratios to measure settlement centrality in rural Sierra Leone. The data for the calculation of the centrality ratios is derived from the Directories of Business and Industry and the 1974 census figures. The functional outlets chosen for nineteen settlements for which data are available are presented in Table 5.6. From this table the centrality ratios for each functional outlet in each settlement was calculated from this formula and these are given in Table 5.7.

Formula:

$$CR_{is} = \frac{F_{is}}{P_{st}}$$

where:

CR_{is} = Centrality ratio$_i$ in settlements.

F_{is} = Number of functional units of function i in settlement s as a percentage of the total number of functional units of i in region r.

P_{st} = population of settlement s as a percentage of the total population of region T(8)

If the centrality ratio of any function in a region is greater than 1.0, this is an indication that there are functional units of the function which are surplus to the demand for that function by the population in the settlement. It is therefore implied that this surplus is supported by demand originating outside the settlement. If the centrality ratio is equal to 1.0, it is indicative that the supply and demand for that function are in equilibrium. If the centrality ratio is

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(8) ibid, p.372.

TABLE 5.6 FUNCTIONAL OUTLETS

CENTRE	Retail trade Provisions	Retail trade Dry goods	General Merchandise	Carpentry	Retail trade Variety store	Bookseller	Photography	Tailoring	Baking	Produce dealers	Shoe Repairs	Barbing	Bar and Provisions	Handicraft	Watch Repairs	Gara making	Black/Goldsmith	Lumbering	Groceries	Cotton & textiles	Rice milling	Motor Repairs	Filling Station	Banking	Elec.trains	Sea Produce
1. Moyamba	75	5	4	3	5	1	2	9	3	2	3	2	2	2	2	2	3	1	2	3	2	3	4	1	1	1
2. Kabala	48	-	11	1	6	-	1	3	2	-	3	1	3	1	2	10	4	-	13	2	1	1	3	1	1	1
3. Yengema	26	3	3	-	-	3	1	7	4	-	3	2	4	-	1	6	1	1	-	1	1	1	3	-	1	1
4. Magburaka	19	14	11	1	-	-	1	3	1	-	-	-	2	2	2	2	1	-	-	6	2	2	5	1	1	1
5. Segbwema	26	8	-	-	-	-	-	10	4	3	1	-	2	-	2	2	1	-	-	3	1	1	3	2	1	2
6. Port Loko	54	8	8	-	-	-	-	3	2	-	-	-	2	2	1	1	1	-	-	3	2	2	4	1	1	1
7. Oanguma	5	-	3	3	-	-	-	2	1	2	-	-	1	1	1	-	-	2	-	-	-	-	1	-	-	-
8. Bonthe	22	1	1	-	15	1	-	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-
9. Kailahun	17	1	-	1	-	-	-	13	-	-	-	1	-	1	-	2	1	-	-	-	-	-	-	-	1	-
10. Mambolo	2	-	5	2	-	-	-	1	1	-	-	-	1	1	-	-	-	-	-	3	2	-	-	-	-	-
11. Pujehun	9	-	-	-	-	1	1	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	1	-
12. Kambia	35	2	1	-	-	-	-	3	1	-	-	-	1	-	1	-	-	-	-	1	2	1	2	-	1	1
13. Kamakwie	30	12	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	2	-	-	-	-	-	-
14. Mano	4	-	2	-	-	-	-	1	1	2	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-
15. Daru	2	8	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16. Serabu	2	-	1	1	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17. Barma	12	4	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18. Mokamji	16	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19. Gerihun	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 5.7 CENTRALITY RATIOS

CENTRE	POPULATION	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Moyamba	6400	3.0	1.39	1.37	3.96	3.18	2.86	4.90	2.57	2.45	3.43	5.15	17.18	5.72
2. Kabala	10350	1.2	0	2.33	0.81	2.35	-	1.51	0.53	1.01	0	3.18	0	1.76
3. Yengema	14650	0.46	0.33	0.45	0	0	5.32	1.07	0.87	1.42	0	2.25	0	2.50
4. Magburaka	10375	0.47	2.17	2.33	0.81	0	0	1.51	0.52	0.50	0	0	0	0
5. Segbwema	6900	1.0	1.87	0	0	0	0	0	2.65	3.03	4.7	1.59	0	0
6. Port Loko	10500	1.35	1.23	1.67	0	0	0	0	0.52	1.49	0	0	0	0
7. Panguma	4500	0.29	0	1.46	5.64	0	0	0	0.81	1.16	4.88	0	0	0
8. Bonthe	695o	0.83	0.23	0.31	0	8.78	2.63	0	0.26	0.75	1.58	0	0	0
9. Kailahun	7200	0.61	0.22	0	1.21	0	0	0	3.30	0	0	0	0	2.54
0. Mambolo	3900	0.13	0	2.81	4.33	0	0	0	0.46	1.34	0	0	0	0
1. Pujehun	2800	0.84	0	0	0	0	6.55	5.62	0.65	0	0	0	0	0
2. Kambia	5700	1.61	0.56	0.38	0	0	0	0	0.96	0.91	0	0	0	0
3. Kamakwie	4750	1.65	4.07	0	1.78	0	0	0	0	0	0	0	0	0
4. Mano	2350	0.42	0	1.87	0	0	0	0	0.77	2.23	9.38	0	0	0
5. Daru	2650	0.19	4.87	0	0	0	0	0	0.68	0	0	0	0	0
6. Serabu	2000	0.25	0	1.09	4.22	0	0	0	1.81	0	0	0	0	0
7. Barma	2550	1.23	2.53	0	0	1.59	0	0	0	0	0	0	0	0
8. Mokanji	3200	1.31	1.01	0	0	0	0	0	0	0	0	0	0	0
9. Gerihun	2100	1.74	0	0	0	0	0	0	0	0	0	0	0	0

CENTRE	POPULATION	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
1. Moyamba	6400	5.72	1.63	3.43	2.86	1.37	4.29	3.43	2.29	2.06	2.64	4.68	2.54	2.86	1.71	2.14
2. Kabala	10350	1.76	1.51	1.06	1.76	4.24	3.53	0	9.19	0.84	0.81	0.96	1.o7	1.76	1.06	1.32
3. Yengema	14650	2.50	1.42	0	0.62	1.80	0.62	1.5	0	0.30	0.57	0.68	0.83	0	0.75	0.93
4. Magburaka	10375	0	1.00	2.11	1.76	0.84	0.88	0	0	2.54	1.62	1.92	o.96	1.76	1.05	1.32
5. Segbwema	6900	0	1.51	0	2.65	1.27	1.32	0	0	1.91	1.22	1.44	1.76	5.30	1.59	3.98
6. Port Loko	10500	0	0.99	2.09	0.87	0.41	0.87	0	0	1.25	1.60	1.90	1.46	1.74	1.04	1.30
7. Panguma	4500	0	1.16	2.44	2.03	0	0	9.77	0	0	0	0	0.90	0	0	0
8. Bonthe	695o	0	0	0	0	0	0	0	0	0	0	0	0.58	0	1.58	0
9. Kailahun	7200	2.54	0	1.52	0	1.22	1.27	0	0	0	0	0	0	0	1.52	0
10. Mambolo	3900	0	1.34	2.81	0	0	0	0	0	3.38	4.33	0	0	0	0	0
11. Pujehun	2800	0	0	0	0	0	0	0	0	1.57	0	0	1.45	0	3.93	0
12. Kambia	5700	0	0.91	1.92	1.60	0	0	0	0	0.77	2.96	1.75	1.42	0	1.92	2.40
13. Kamakwie	4750	0	1.10	2.31	0	0	0	4.62	0	1.85	0	0	0	0	0	0
14. Mano	2350	0	4.34	9.38	0	0	0	0	0	0	0	0	0	0	0	0
15. Daru	2650	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16. Serabu	2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17. Barma	2550	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18. Mokanji	3200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19. Gerihun	2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

less than 1.0, then the demand for that function in the settlement is not fully met by the functional units (if any) in the settlement. Thus by the use of this formula, it is possible to know in what functional units in the settlement and which settlements are inadequately developed. The percentage of settlements which are inadequately provided for in each of the functional units was thus calculated and presented in Table 5.8. In only one functional outlet does the percentage of centres with surplus demand exceed 50 percent. In the rest of the functional outlets the great majority of centres have centrality ratios less than 1.0 indicating that such centres are inadequately provided for. Also the functions in the settlements which have the highest centrality ratios are related to trading and the percentage of centres with centrality ratios less than 1.0 in services is very high. This is not surprising as we are dealing with small towns and as has often been pointed out in various sections of this thesis, only at district and provincial levels are services consistently provided by government.

Such an interpretation must be viewed against the demand generated for the goods and services. Supply of goods and services in a central place can only come about if the minimum thresholds exist within these centres. This is especially significant in the provision of high order goods.

5.6 CONCLUSION

In the first section of this chapter, the distribution of these centres in Sierra Leone was examined and the latter section measured the relative centrality of these settlements.

TABLE 5.8 PERCENTAGE LEVELS OF INADEQUACY BY FUNCTIONAL UNITS

FUNCTIONAL ESTABLISHMENT	PERCENTAGE OF SETTLEMENTS WITH CENTRALITY RATIOS GREATER THAN 1.0	PERCENTAGE OF SETTLEMENTS WITH CENTRALITY RATIOS EQUAL TO 1.0	PERCENTAGE OF SETTLEMENTS WITH CENTRALITY RATIO LESS THAN 1.0
1. Retail Trade Provisions	42.10	5.26	62.63
2. Retail Trade Dry Goods	42.10	0	57.89
3. General Merchandise	42.10	0	57.89
4. Carpentry	31.57	0	68.42
5. Retail Trade Variety Stores	21.05	0	78.94
6. Bookseller	21.05	0	78.94
7. Photography	26.31	0	73.68
8. Tailoring	21.05	0	78.94
9. Baking	42.10	0	57.89
10. Produce dealer	26.31	0	73.68
11. Shoe Repairs	21.05	0	78.94
12. Barbing	21.05	0	78.94
13. Bar and Provisions	42.10	5.26	53.63
14. Handicraft	52.63	0	47.36
15. Watch Repairs	31.57	0	68.42
16. Gara making	26.31	0	73.68
17. Black/goldsmith	21.05	0	78.94
18. Lumbering	21.05	0	78.94
19. Groceries	10.52	0	89.47
20. Cotton and Textiles	36.84	0	63.15
21. Rice milling	31.57	0	68.42
22. Motor repairs	26.31	0	73.68
23. Filling station	36.84	0	63.15
24. Banking	26.31	0	73.68
25. Electricity Transmission	47.36	0	52.63
26. Sea products	31.57	0	68.42

The poor distribution and lack of these centres raises important questions about using the present framework of centres for the provision of services and facilities. We have already noted the percentage of the population that can be served by these centres, and the fact that the majority of the people have to travel on foot poses the question of whether, there would be concentration of facilities/services in places rather than for people, if it is for the latter, then the present pattern leaves much to be desired and imposes limitations on the present roles of these centres in rural development.

Equally important is the present level of provision of facilities/services in the present pattern of centres. The evidence suggests that the majority of the centres are inadequately developed, implying that as presently constituted these centres cannot play a positive role in stimulating the rural economy.

The limitations imposed both by their distribution, numbers, and levels of service/facility provision may therefore make it impossible for these centres to cater adequately for the demands of the rural population.

C H A P T E R V I

SMALL URBAN CENTRES AND THEIR RURAL HINTERLANDS

6.1 INTRODUCTION

In this chapter the relationships of small urban centres with their immediate rural hinterland will be examined with the aim of testing the hypothesis that these relationships are likely to vary with the nature and levels of development. Although there are many types of relationships and they are all related, they are dealt with separately for purposes of clarity.

In an area dominated by agricultural exchange, the pattern of commercial activities plays a vital role in structuring the space economy. The services and goods offered can therefore act as an important incentive for stimulating change.

6.2 DATA ANALYSIS

The data for this analysis is derived from the patterns of consumer movement from the rural area using distance bands of three, six and nine miles around the eight centres. Using maps of 1:50,000 of these centres, a ten percent stratified random sample of villages was chosen. The number of villages selected from these maps varies from five to eight and these are given in Appendix D.

Because of the unavailability of data on the numbers of households and the population of villages, it was impossible to

decide on a sample size until after a preliminary survey. This survey revealed that the smallest village comprised nine households. As the sizes of the villages are thought unlikely to vary considerably, it was decided to interview the same number of respondents in each village and as nine was the maximum number of households in the smallest villages, it was used as a sample size for all the other villages. The respondents in the villages are also a stratified random sample. In cases where there was only one path in a village, the houses were numbered and the numbers picked from a bag. In others, where there was more than one lane, the lanes were randomly chosen and the households were chosen using the same method.

A total of fifty-four villages with 486 households emerged from the sample. Half this number came from the least developed region, with the other half almost equally shared between the less developed and more developed regions.

As a prelude to the analysis, a description of each of these centres and their surrounding villages is necessary.

6.3 SMALL URBAN CENTRES AND THEIR VILLAGES

The availability in the sampled centres of certain service/functions considered in the analysis is represented in Table 6.1.

The supply of services and goods is usually dependent on the profit motive. However, where such goods and services are provided by public authorities, there are criteria considered in determining which centres are allocated specific kinds of services in Sierra Leone.

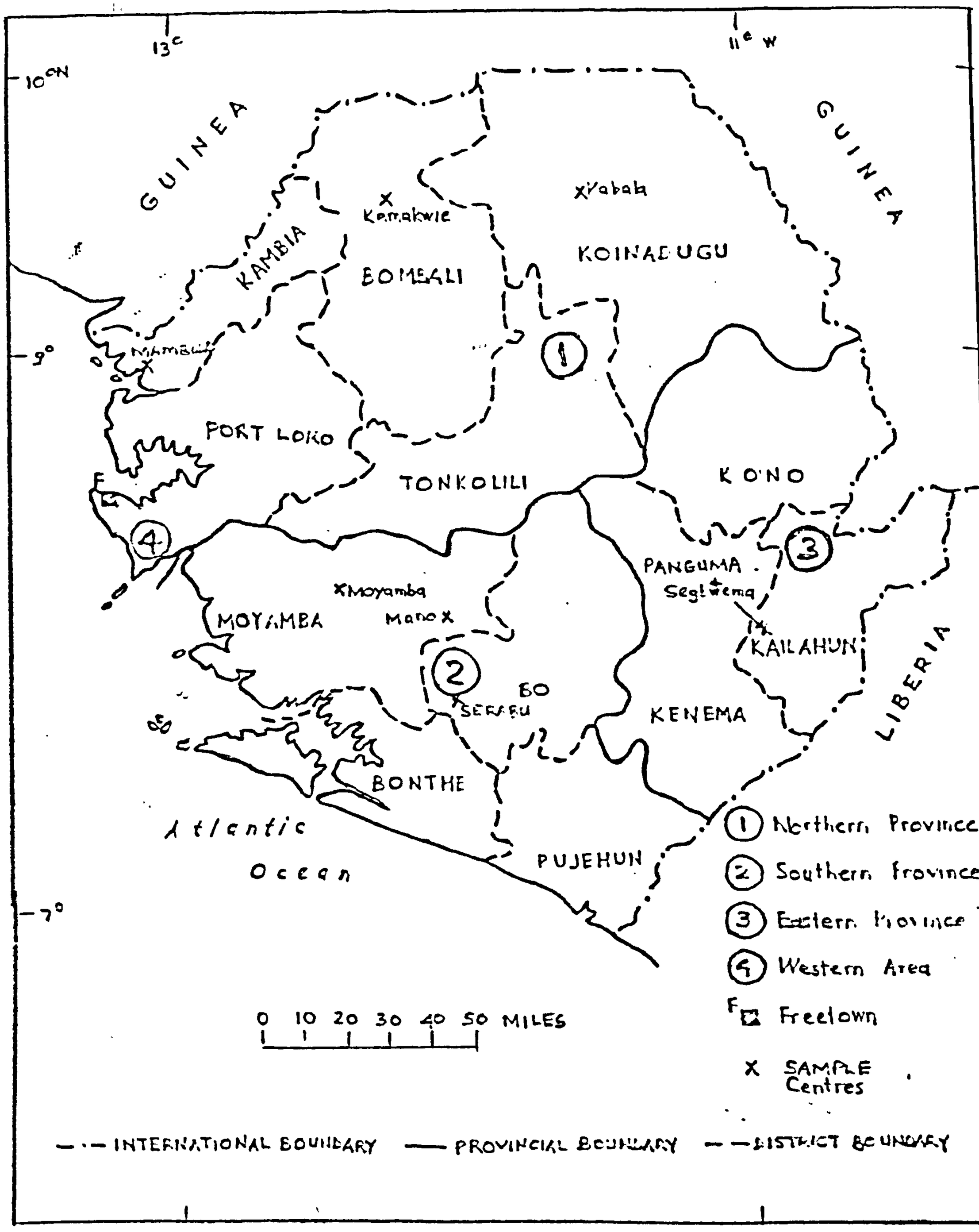
TABLE 6.1 SERVICE/FACILITIES IN SAMPLED CENTRES

CENTRES	Population 1974	Hospital	Commercial Bank	Post Office	Police Station	District Commissioner	Public Transport	Electricity	Water Supply	Government Treasury	Rice Mill	Produce Buying Agent	Magistrate Court	Secondary School	Market	Blacksmith
1. Moyamba	6400	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
2. Mano	2350			✓					✓			✓		✓	✓	✓
3. Segbwema	6900	✓+	✓	✓	✓			✓	✓			✓		✓	✓	✓
4. Panguma	4500											✓			✓	✓
5. Kamakwie	4750	✓+							✓			✓		✓+	✓	✓
6. Mambolo	3900									✓				✓	✓	✓
7. Serabu	2000	✓+													✓	✓
8. Kabala	10350	✓	✓	✓	✓	✓		✓	✓	✓	✓		✓	✓	✓	✓

Source: Author's Field Trip 1980-81

✓ = Service/Facility available. ✓+ = Service/Facility solely provided by body other than Government.

FIGURE 6.1 STUDY AREA SHOWING PROVINCES, DISTRICTS AND CENTRES



It has been pointed out in Chapter V that the most important criteria in the provision of services are associated with administration. In some cases, however, missionaries fill in the gaps which are unserved by either state or other private commercial institutions. Such provision is restricted to schools and hospitals. There are cases where missionaries allocate such services alongside those provided by State and other private institutions. These observations are borne out in Table 6.1 where the district headquarters have a wider range of services and facilities. From this general picture the centres and their villages are now dealt with separately.

6.4 THE LEAST DEVELOPED REGION

Kabala, Mambolo, Segbwema and Kamakwie are found in the least developed region. Although there are large known mineral reserves, current mining activities are concentrated in lunsar and the spread effects of this activity seem to be limited to a jetty at Pepel. It is the area least served by roads, and has the highest excess of females by chiefdom.

6.5 KAMAKWIE AND ITS SURROUNDING VILLAGES

Kamakwie (4,750 population) is the chiefdom headquarters of Sella Limba chiefdom in the Bombali district (Figure 6.1). It is connected to Makeni, the Northern provincial headquarters by a fifty-five mile dirt road studded with dangerous bridges. The town is divided into three sections. There are about four primary schools, one secondary school and a hospital run by the Sierra Leone Wesleyan mission. There are about six Lebanese/Syrian run shops and a few foulahs

selling in trays on the varandahs of their houses and Lebanese/Syrian shops. Electricity is privately operated and supply is restricted to the school and hospital, and one house has a private generator.

The commercial heart of the town is situated in Kamakwie too, where the daily market is also found. The only other towns to which it is joined by road are Kambia and Madina dula. These towns are connected by dirt roads and ferries. During the field trip both ferries were closed undergoing major repairs. The town draws its water supply from Kabba Ferry where it is processed in a small plant established under the degremont water supply scheme. Supply is intermittent and has been known to be non-existent for weeks due to shortage of gasoline, spare parts and chemicals.

The three sections of the town are separated by small streams which provide swamp land for rice and millet cultivations. The major cash crops are groundnuts, maize, chilli and ginger. A subsidiary of the Sierra Leone Produce Marketing Board was set up two years ago, working in conjunction with the Ministry of Agriculture and Forestry. NAPCO (National Produce Company) as it is called is at present engaged in the seed multiplication stage, although it also buys groundnuts. Another major cash crop is cassava, for which traders come all the way from Freetown. Lorries are few and most leave Kamakwie in the early hours of the morning with goods and shoppers for Makeni, returning late in the evening. There is no demand for banking in all the villages and will therefore not be mentioned henceforth. From the consumer potential movements to secure goods and services from the villages, a table (6.2) of spatial preferences was compiled. From this table it can be seen that there is no demand for banking and postal services.

TABLE 6.2 SPATIAL PREFERENCES

SERVICE/GOODS	3 miles	6 miles	9 miles	Other Centres	
MAMBOLO VILLAGES				(Mambolo)	
1.Banking	-	-	-	-	-
2. Post Office	-	-	-	-	-
3. Hospital	7	4	3	-	14
4. New Clothing	20	21	12	53	12
5. Foodstuffs	18	15	13	46	26
6. Produce Selling	17	14	11	30	12
KAMAKWIE VILLAGES				(Kamakwie)	
1. Banking	-	-	-	-	-
2. Post Office	-	-	-	-	-
3. Hospital	18	6	2	18	-
4. New Clothing	30	20	7	57	15
5. Foodstuffs	25	18	2	45	27
6. Produce Selling	15	10	4	21	8
KABALA VILLAGES				(Kabala)	
1. Banking	-	-	-	-	-
2. Post Office	2	1	1	5	-
3. Hospital	9	5	2	16	-
4. New Clothing	15	16	13	44	10
5. Foodstuffs	13	15	10	38	16
6. Produce Selling	7	5	9	9	12

TABLE 6.2 SPATIAL PREFERENCES

SERVICE/GOODS	3 miles	6 miles	9 miles		Other Centres
SEGBWEMA VILLAGES				(Segbwema)	
1. Banking	-	-	-	-	-
2. Post Office	3	2	-	5	-
3. Hospital	11	6	4	20	-
4. New Clothing	10	14	5	29	16
5. Foodstuffs	12	13	6	31	14
6. Produce Selling	13	11	3	27	7
MOYAMBA VILLAGES				(Moyamba)	
1. Banking	-	-	-	-	-
2. Post Office	4	2	1	7	-
3. Hospital	10	12	7	29	-
4. New Clothing	16	14	30	60	12
5. Foodstuffs	13	16	29	58	14
6. Produce Selling	7	5	16	20	8
MANO VILLAGES				(Mano)	
1. Banking	-	-	-	-	-
2. Post Office	5	1	1	7	-
3. Hospital	6	3	1	-	10
4. New Clothing	11	17	6	34	20
5. Foodstuffs	10	11	5	31	23
6. Produce Selling	4	3	4	7	4

TABLE 6.2 SPATIAL PREFERENCES

SERVICE/GOODS	3 miles	6 miles	9 miles	Other Centres	
SERABU VILLAGES				(Serabu)	
1. Banking	-	-	-	-	-
2. Post Office	-	-	-	-	-
3. Hospital	6	13	10	29	-
4. New Clothing	7	20	21	48	15
5. Foodstuffs	6	18	19	44	19
6. Produce Selling	3	4	2	5	4
PANGUMA VILLAGES				(Panguma)	
1. Banking	-	-	-	-	-
2. Post Office	6	9	2	-	17
3. Hospital	5	7	4	-	16
4. New Clothing	7	13	9	29	45
5. Foodstuffs	6	14	8	28	46
6. Produce Selling	4	3	2	2	7

The reasons are mainly connected with the low levels of incomes and the fact that these services are not provided at this level. Most of those interviewed preferred their nearest centre for securing goods and services. Only about a quarter of people in the villages use hospital services, the rest either don't or rely on traditional methods. The highest levels of participation occur in the lower order good, for instance 79.1 percent and 62.5 percent of the villagers show preference for Kamakwie in new clothing and foodstuffs respectively. Movement to far-off larger centres to secure these goods is associated with ceremonial occasions which are a handful. Produce selling (mainly groundnuts, cassava and oranges) may be divided into two. Those who sell daily to raise what is needed for buying foodstuffs and other immediately needed things and those who sell in larger quantities. The former sell in trays either in the villages or in Kamakwie. These form the bulk of the sellers. The latter have either to transport their goods to Kamakwie or wait for traders to buy from them in the villages and these form a small number as indicated in Table 6.2. Usually, the relationships between buyer and seller have long been established and although bargaining is a long process, there is always compromise in the end. The prices charged often depend on the perishability of the produce, and where it is bought. Where there is high perishability the seller is often keener to dispose of them and may thereby lose.

6.6 KABALA AND ITS SURROUNDING VILLAGES

Kabala (10,350 pop.) is a chiefdom headquarter of Wara-Wara Yagala and district headquarters of Koinadugu. At this level, the central government and some commercial institutions provide certain

services (Table 6.1). It is the only town of its size in the area and the only other centre with comparable services is 76 miles away at Makeni. Because of its remoteness, it appears to be cut off from the rest of the country especially during the rainy season when its only road becomes muddy and is closed to traffic.

With no alternative centres with such services, villages are presented with very few outlets. Demand for postal and hospital service is low. A high percentage of villagers show preference for Kabala in new clothing and foodstuffs.

Because of the comparatively cool climate, the area is suitable for the production of fruits and vegetables and it is the country's chief cattle producing area. Small quantities of these are brought daily to the market, whereas larger producers transport them to Freetown and other larger centres. Again, we note that for higher order services like postal and hospital, patronage is low but preference is shown for Kabala.

6.7 SEGBWEMA AND IT SURROUNDING VILLAGES

Segbwema (6,900 pop.) is the chief town of Jaluahun in Kailahun district. Although it is not a district headquarter, it has the trappings of one. It has a commercial bank, post office, police station, treated water supply, electricity, Rice Corporation and Sierra Leone Produce Marketing Board buying agents. The provision of these facilities is the product of a combination of the presence of the then railway line passing through it and opening up the country's richest cocoa and coffee areas.

Before their withdrawal from up-country, there were many European produce buying firms. Now trade is left in the hands of many Lebanese/Syrian traders who not only sell manufactured goods but are also engaged in the produce trade and because of the credit facilities they offer to the local farmers, they remain favourites to buy their produce. Situated along the major roads, and on the verandah of the shops are tailors, shoe repairers, watch repairers and many petty traders. In a few backyards of the residential areas people weave country cloths.

Not all the coffee and cocoa produced is sold, some of it is reserved for home consumption. The former railway station has now been converted into a market, where traders maintain wooden stalls covered with zinc. Some traders have built themselves shanty-houses which are divided into a shop and sleeping quarters. The closure of the railway must have had its effect on the trade of the town but the stationing of a battalion of the military forces closeby at Daru and the opening of the gateway to Liberia has, from observations, helped to maintain its present position.

Farmers engage in cash cropping, mainly coffee and cocoa. Again, like in the other small centres, patronage for banking and post office and to some extent hospitals are low. Patronage for new clothing, foodstuffs and produce selling is mainly directed to Segbwema. Kenema and other centres are nearby and taxis and lorries are frequent on the roads. Long distance buying is related to the pattern of traders,,and the volumes of purchases. If traders purchases are high, they always prefer going to larger centres which offer lower prices and greater variety and better quality of articles.

6.8 MAMBOLO AND ITS SURROUNDING VILLAGES

Mambolo (3,900 pop.) is headquarters of Mambolo Chiefdom in the Kambia district. Twenty-eight miles from Port Loko by dirt road it is situated along the banks of the Great Scarcies. It has 2 primary schools and one secondary school. There is no post office, electricity supply, nor a hospital; treated water supply is limited and intermittent. There are two rice mills, one privately owned and the other government operated.

Trade is carried on by Lebanese/Syrians and a few Africans who are concentrated in the wharf area, and along the main road to Mange Burèh. The major occupation of the inhabitants is farming, mainly rice cultivation in the mangrove swamps. There are two types here, firstly, fresh water mangrove swamps (E-YEMP) and salt water mangroves (EMOK). Fishing is also practiced as a secondary occupation. Mambolo is also a collecting point for the local fishing industry centred around Yeliboya.

From Table 6.2 it is noted that for banking and postal services, there is no participation on the part of the villagers. For hospital services, villagers could either travel to Port Loko (30 miles from Mambolo), Kambia (30 miles) or Freetown, shorter by sea (107 miles by road). Indeed it has been stressed in other parts of this chapter that quite a substantial proportion of the population especially in the rural areas rely on traditional medicine.

Of the seventy-two heads of households interviewed only 19.4 percent use the modern medical services. For clothing, 53 of the 72 heads of households representing 73.6 percent satisfy their demands in Mambolo. 8.3 percent rely on visiting relations who send them new

clothing and, the rest go to other centres. 63.8 percent of the villages come to Mambolo for foodstuffs mainly manufactured goods which are bought in smaller quantities. In the case of food shortage, some travel to Kambia, Tombo-Wallah and Port Loko. Some also obtain their foodstuffs from other villages. Almost every household in the villages sells some produce, mostly rice and in lesser quantities wood and fresh fruits and vegetables. They trek to town every day and with what can be raised from these sales, food, soap and sometimes clothes are bought. Those who sell in larger quantities travel to larger centres, either Port Loko or Freetown. Incomes from sales is a closely guarded secret and can therefore not be included in the analysis.

6.9 THE LESS DEVELOPED REGION

Moyamba and Mano are found in the less developed region. It is a less difficult agricultural area, which is the origin of two very important cash crops - oil palm and piassava and now tobacco. Compared to the least developed region, it has a better road network. Although with an excess of females by chiefdom, it is much smaller than in the least developed region. It has a truncation of age-sex pyramids on the male and female side. Out-migration is on a much lesser scale than in the least developed region.

6.10 MOYAMBA AND ITS SURROUNDING VILLAGES

Moyamba (6,400 pop.) is the chiefdom town of Kainyamba and district headquarters of Moyamba. Situated along the main former railway line, about 25 miles from the junction of the Mile 91 - Bo road, it is a very lively trading centre. It has a district office, electricity, treated

water supply, a commercial bank, post office, government hospital, petrol stations which are usually used as local bars and restaurants. There are also an agriculture department, a police station, prisons, elections office and a rural water supply scheme. There are a number of primary and secondary schools.

Like all district towns, the administrative section is distinct from the commercial section. Trade is mainly in the hands of the Lebanese/Syrians and a few Africans. The former have larger shops and sell almost everything. There is a town market where foodstuffs, locally manufactured and imported, are sold in small quantities. Another area which has been converted into a market, is the main commercial square opposite Barclay's Bank. Most sellers in this main square are petty foulah traders who either sell in small wooden trays or have built themselves shanty-houses. This is a feature which is now common in most district or larger towns.

Around the outskirts of the town, tobacco growing is very important and the Moyamba Agricultural Development Company, a Dutch concern, is promoting the growth and buys from local farmers. Also ginger is grown. House gardens provide supplementary supplies of foodstuffs for home consumption and a small surplus for selling which is often by children.

In the evenings those who can afford, relax in the local bars. The town has a lot more facilities than other towns of comparable status and size.

Reference to Table 6.2, reveals no participation from the

villages for banking and low figures for postal and hospital services, though the latter is higher than for most other towns. The table also brings out higher participation in new clothing, foodstuffs and produce selling. The privileged position of Moyamba in terms of services and facilities is mainly due to the fact that it is the adopted home of the President.

6.11: MANO AND ITS SURROUNDING VILLAGES

Mano (2,350 pop.) is the chiefdom headquarters of Dasse in the Moyamba district. About 25 miles from the new highway joining Freetown and Bo, it was once a thriving trading centre on the main railway line. It has a post office with telephone lines connected to other parts of the country, a relic from the railway era. There are three primary and one farm secondary school housed in an abandoned Lebanese houseshop near the former railway station. There is treated water supply but no electricity.

Because of the closure of the railway and the diversion of the trunk road from Freetown to Bo through Taiama, Mano is cut off from the main traffic lines and has therefore experienced an exodus of traders and people to either Njala or Taiama junction. There are only seven Lebanese/Syrian shops and very few African traders. The market is usually empty as most traders prefer Njala which is just seven miles off.

Farmers concentrate on coffee plantation. There is no hospital. There are very few tailors. Everywhere in the town there are traces of what must have been a prosperous trading centre which has now declined.

From Table 6.2, it is noted that there is no participation in the banking service and for hospital service villagers have to use other centres because the service is not available at Mano. For the other services and goods, consumers in the villages appear to be equally divided between using Mano and other centres. This is an indication of the levels of provision of these goods and services in the centre and the fact that there are alternative centres nearby providing a greater variety and better quality.

6.12 THE MORE DEVELOPED REGION

Panguma and Serabu are found in the more developed region which is dominated by mining and is also agriculturally favourable. The region produces four major cash crops - oil palm, cocoa, coffee and ginger. It is also the country's diamond and timber production centre. It has a comparatively better road network and has an excess of males especially between 25 and 30 years (1963 census). It is one of the two major regions of in-migration the other being Freetown which is outside the scope of this study.

6.13 SERABU AND ITS SURROUNDING VILLAGES

Serabu (2,000 pop.) is a small town, 37 miles from Bo. It is a section town under the jurisdiction of the chief at Bumpe. There are no Lebanese/Syrian traders. There is no post office and no secondary school. The only electricity and treated water supply is restricted to the hospital which is provided by the Roman Catholic missionaries. Shops are small, few and mainly stocked with everyday provisions. There are no transport facilities and few

tailors. There is a co-operative agent in charge of buying and marketing coffee which is the main cash crop in this area. Other crops produced include rice, cassava and groundnuts. Palm oil is extracted from the Gambia-Mattru oil palm plantation run by the Sierra Leone Produce Marketing Board, although villages and towns-people alike produce in small quantities for home consumption and selling to buy other necessities. Like the other small towns there is non-participation in the banking and postal service, a reflection of the non-presence of these services and economic status of the inhabitants.

Reference to Table 6.2 shows that about half of those interviewed in the villages came to Serabu for hospital treatment. Again, for new clothing and foodstuffs a higher percentage of the heads of households in the villages use Serabu not because they are assured of a larger variety and better prices but because the alternatives are far off. Most who prefer to shop outside Serabu have to go to Bo (37 miles off), and because of this distance and the infrequency of transport, most are content to use the facilities available at Serabu.

6.14 PANGUMA AND ITS SURROUNDING VILLAGES

Panguma (4,500 pop.), forty four miles from Bo and twenty five miles from Kenema, the town is found in the forest region of Bambara chiefdom in Kenema district. There are no hospitals, no banks, only five primary and one secondary school, no electricity, water supply, post office and police station. The most important industry in the town is the timber industry, for here is the home of the Panguma sawmills which produce the timber used in Sierra Leone's forest industries.

Apart from this, there is also illicit diamond mining in the swamps around, and coffee and cocoa plantations.

Trade, concentrated in the centre of the town is conducted by a few Lebanese/Syrians and a few Africans. There are a few tailors around the main trading square. There is a central market and a court barri situated in the main commercial section of the town. Around this area also is the office of the Sierra Leone Produce Marketing Board agent.

For post office and hospital services, participation is to other centres because of the unavailability of these services. For new clothing, foodstuffs and produce selling, there is greater participation in other centres (Kenema, Tongofield) which are larger and nearby and with frequent taxi service, present the consumers with greater opportunities in variety and quantities.

6.15 CONCLUSION

There are salient features on the spatial interactions between small urban centres and their surrounding villages. Firstly, there is no spatial interaction for banking service in the whole study area which is a reflection of the absence of wage employment and low incomes from private enterprises. With an average per capita Gross National Product of $210 and very large extended families to be fed and clothed, there is hardly any surplus left for saving.

Secondly, it is noted that for certain services like post office, hospital, there are some centres which are not provided for, so

consumers use other alternative centres with such services.

Thirdly, spatial interaction is high in higher order centres, low order centres with no near alternatives and lower in small centres which have higher order centres close by.

In these analyses, the spatial interactions have been considered in relation to the nature of development of these centres in the study area.

6.16 SPATIAL INTERACTIONS

A useful starting point for discussion would be an analysis of the levels of participation in the selected services and to note if there is any variations which could be related to the different economic regional levels. The levels of participation in banking, hospital and postal services in the different economic regions in the rural areas are represented in Table 6.3. In order to determine if there are any variations in levels of participation related to the nature and levels of development, the raw data was subjected to

TABLE 6.3 PERCENTAGE LEVELS OF PARTICIPATION IN SERVICES

(% Households in rural areas)

SERVICE	STUDY AREA	LEAST DEVELOPED REGION	LESS DEVELOPED REGION	MORE DEVELOPED REGION
1. Banking	0%	0%	0%	0%
2. Post Office	8.43%	4.11%	11.11%	14.52%
3. Hospital	31.27%	27.98%	30.95%	38.46%

a chi-square test. The null hypothesis set up for this is that the levels of participation for services is not related to the nature and levels of development. The alternative hypothesis is that the levels of interaction in the selected services is related to the nature and levels of development. The rejection level is declared at 0.01. For hospital and postal services, a x^2 of 9.24 and 12.13 were obtained respectively. With 9.21 as the critical value at 0.01 level of significance with two degrees of freedom, H_o is rejected and the alternative hypothesis accepted. We have already noted in various sections of these analyses that it is only at certain levels that services are consistently provided. Since small urban centres are at different levels, the lower order centres find themselves not provided with these services.

6.17 TRANSPORT

Another important relationship concerns transport. The modes of transport and communication used by a population directly conditions their interactions. As there is very little data on interpersonal communications, our attention is therefore focussed on transport. Table 6.4 respresents the modes of transport to obtain goods and services.

The dominant mode of transport in the study area is on foot. Few people have access to motorized transport even in areas where there are dirt roads. Also freight rates are high but generally depend on the bargaining power of driver and passenger, van type and size of load and the distance and destination. In many cases, the cost of transport both on foot and by lorry or taxi could be in the

TABLE 6.4 MODES OF TRANSPORT TO SMALL URBAN CENTRES FOR GOODS AND SERVICES

TRANSPORT	STUDY AREA	LEAST DEVELOPED REGION	LESS DEVELOPED REGION	MORE DEVELOPED REGION
1. Foot	77.57%	79.83%	71.42%	68.08%
2. Bicycle/ Honda	16.46%	12.34%	19.04%	21.07%
3. Lorry/Taxi	5.32%	6.99%	9.52%	10.06%
4. Boat	0.82%	0.82%	0%	0%

range of 15 to 20 percent of the final price of the goods sold. Nearer the main roads, the lorries provide a useful and faster service and because of the petrol shortage, transport is becoming very expensive. The honda and bicycle are beginning to achieve some importance in transport especially in Kabala and its surrounding areas where it is used as a taxi service.

There have been many studies which have examined the controversial questions concerning rural transport especially the benefit likely to arise from improved feeder roads. McKay, Ronecne and Goshi (1971) noted the high development effects resulting from reduced transport costs and easy access to things like fertilizers, insecticides etc. Where lorry transport is common, the improvement of roads would reduce the wear and tear.

Blair (1978) in a survey carried out in Central Sierra Leone found out that although mixed feelings were expressed about the

Tonkolili - Kono high road, a greater percentage of the headmen accepted that it provided opportunities for trade and easier access. For some centres however, change in the road pattern may not always be beneficial. A road may by-pass a centre and this may lead to decline e.g. Mano.

The data on the modes of transport was subjected to a chi-square test. The null hypothesis for this test is that there is no variation in the modes of transport used in the study area. The alternative hypothesis is that the modes of transport are related to the nature and levels of development. The rejection level is declared at 0.01. The x^2 test revealed a value of 6.58; and with four degrees of freedom the critical value is 13.28. On the basis of the data, there is insufficient evidence to reject the null hypothesis.

6.18 FREQUENCY OF VISITS

Structuring questions on levelsof frequency is very difficult. It was found convenient to divide goods and services into high, medium and low orders. In the case of the low order goods like foodstuffs, since they are frequently bought, the most appropriate form of relationship which is analyzed relates to distance. Data on frequency of visits for foodstuffs is represented in Table 6.5.

The data indicates that the levels of interaction becomes less frequent as one moves further away from the centres into the interior. It is therefore probable that if the frequency of visits is low, goods and services concentrated in these centres and meant for a greater proportion of the rural population will have less chance of success.

TABLE 6.5 FREQUENCY OF VISITS TO SMALL URBAN CENTRES FOR FOODSTUFFS

FREQUENCY	3 miles	6 miles	9 miles
Daily	42.48%	21.16%	13.98%
2-3 times weekly	23.52%	28.04%	28.47%
Once weekly	19.60%	43.91%	43.05%
Once every 2 weeks	8.94%	-	4.10%
Never	5.11%	6.87%	10.41%

In order to meet the demands of the rural populations for certain goods and services, it is important to maintain many outlets.

As middle and higher order goods are not frequently bought, the analysis was based on the number of visits rather than the distance in the study area and subdivided into the three economic regions. The services and the frequency of visits for acquiring them are represented in Tables 6.6, 6.7 and 6.8.

TABLE 6.6 FREQUENCY OF VISITS FOR NEW CLOTHING

FREQUENCY	STUDY AREA	LEAST DEVELOPED AREA	LESS DEVELOPED AREA	MORE DEVELOPED AREA
Once yearly	10.49%	11.52%	11.90%	6.83%
2-6 times yearly	73.86%	73.25%	71.42%	77.77%
7-12 times yearly	6.17%	5.76%	7.14%	5.98%
None	9.25%	9.46%	9.52%	8.54%
TOTALS	99.77%	99.99%	99.98%	99.12%

TABLE 6.7 FREQUENCY OF VISITS FOR HOSPITAL SERVICE

FREQUENCY	STUDY AREA	LEAST DEVELOPED REGION	LESS DEVELOPED REGION	MORE DEVELOPED REGION
Once yearly	1.64%	1.23%	1.58%	4.27%
2-6 times yearly	6.17%	6.17%	7.93%	4.27%
7-12 times yearly	22.83%	20.57%	20.63%	29.91%
None	68.72%	72.01%	69.04%	61.53%
TOTALS	99.36%	99.98%	99.18%	99.98%

TABLE 6.8 FREQUENCY OF VISITS FOR POSTAL SERVICE

FREQUENCY	STUDY AREA	LEAST DEVELOPED REGION	LESS DEVELOPED REGION	MORE DEVELOPED REGION
Once yearly	0.87%	0.41%	1.58%	0.85%
2-6 times yearly	1.85%	2.46%	1.58%	0.85%
7-12 times yearly	5.76%	1.23%	7.93%	12.83%
None	91.56%	95.88%	88.88%	85.47%
TOTALS	99.99%	99.98%	99.97%	99.99%

The raw data was aggregated and subjected to a x^2 test. The null hypothesis set up for this test is that there is no regional variation in the frequency of visits from the rural hinterlands to small urban centres for new clothing, hospital and postal services. The alternative hypothesis is that the frequency of visits is related to the nature and levels of development. The rejection level is declared at $\alpha 0.01$. With the critical value at 9 degrees of freedom as 21.67 and the x^2 tests revealing figures of 2.72, 9.68 and 20.93 for new clothing, hospital and postal services, our evidence is insufficient to reject the null hypothesis.

6.19 CONCLUSION

The relationships between a centre and its surrounding hinterland lie at the crux of the strategies designed to use these centres as catalysts for rural and regional development. In various sections of this chapter some relationships between the centres and their rural hinterlands have been analyzed. While it has been argued that the provision of goods and services in these centres constitute a stimulant for socio-economic change, their potential value in the diffusion of impulses of innovation should not be taken for granted. It was noted that for certain services (like banking and post office) their presence or absence in a centre does not induce any participation from the villages.

One may, therefore, conclude that it is not only the provision of any type of service that will induce participation. Such provision should be related to the needs of the inhabitants and go hand in hand with other things like education and transport facilities. The analysis has raised as many questions as it has tried to answer.

C H A P T E R V I I

FUNCTIONAL RELATIONSHIPS OF SMALL URBAN CENTRES

7.1 INTRODUCTION

The relationships between small urban centres and their rural hinterlands were examined in the previous chapter. Attention in this chapter is focussed on the functional relationships of these centres with the aim of testing the hypothesis that these relationships are hierarchically structured.

Up to the mid 1960's geographers' use of models derived from Central Place Theory were descriptive rather than explanatory. There have been various models used in research on spatial interactions. The majority of these models may be classified under two major headings: firstly, there are gravity type models which according to Timmermans (1980) rely

> "heavily upon areal aggregation and calibration methods, directly relating aggregate spatial choice patterns to a preselected set of environmental patterns." (1)

Such models have been criticized on the grounds that no attention is paid to the individual decision making processes which give rise to the aggregate patterns. It is on the strength of such criticism that the second approach was born.

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(1) Timmermans, H. (1980) "Unidimensional conjoint measurement models and consumer decision making" Area, Vol. 12, No.4, p.121.

This relatively new approach, Rushton (1969) noted is

> "a synthetic framework starting with the individual decision maker viewed as a function of the environmental situation. In contrast to the deterministic location theory framework which makes a set of assumptions that factors out the processes of human decision making, the cognitive-behavioural approach specifically focuses upon the nature of the decision-making process and the factors which determine its outcome." (2)

There are broadly two ways of identifying rules of spatial choices; firstly through multi-dimensional scaling of pavi-wise similarities data (Golledge, Briggs and Deniko 1969; Deniko and Briggs 1971) and secondly through revealed preference approach where the rules of spatial choice are recovered by examining individuals overt behaviour. The volume of spatial choice behaviour studies in the developed world are abundant in the literature but such studies are rare in Africa. In fact the only known study of this type in West Africa is that of Abiodun (1971) in the Nigerian Cocoa Belt.

In considering the relationships of central places, the relevance of central place theory is recognized in two main aspects, namely:- the vertical and horizontal arrangements. Vertically, centres are divided into distinctive classes, each providing a distinct set of goods and services, whose number increases with their sizes. Centres of the same class would have the same number and type of functions. Also centres of a higher order would also have goods of the centres below them. Horizontally the higher the centres, the fewer they are and the more widely spaced. The guiding principles of Christaller's

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(2) Downs R.M. (1970) "The cognitive structure of an urban shopping centre" Environment and Behaviour 2(1) p.20.

model are only too well known to be repeated here. From his model certain implications could be derived. Firstly, consumers have to go to higher order centres for goods and services which they cannot obtain in lower order centres. Secondly, longer distances are covered for higher order goods.

In contrast to Christaller, Lösch's (1954) theory implies that larger centres need not have all the functions of smaller centres and since the transportation pattern is not rigid in his construct as that of Christaller's but determined by the specialization of different centres, consumers do not necessarily have to go to higher order centres for certain goods and services.

One view of central place hierarchy is that of the interaction of two sets of factors related to the supply and demand of goods and services. On the supply side, the scale of goods and services varies and on the demand side consumers travel different distances with varying frequency to obtain goods and services they require.

Analysis of consumer travel behaviour has often been investigated under what Murdie (1965) referred to as the rubic of the 'range of a good' within the general framework of central place theory. According to Murdie (1965) Christaller hypothesized that there are four main factors which influence consumer travel;

1. The size and importance of a central place.
2. The 'price willingness' of a purchaser.
3. Subjective economic distance.
4. The type, quality and price of a good.

Since Christaller's study, several other scholars (Lösch 1954; Isard 1956 and Berry and Garrison 1958) have examined, clarified and expanded the theoretical basis of the concept of the range of a good. Our interest in these studies is focussed on Isard's (1956) concept of space preference. Murdie (1965) defined the concept as

> "the nature of an individual, either inherent or acquired to assume particular levels of spatial interaction. Obviously different individuals and different groups exhibit diverse needs for interaction with other groups and as a result, display varying levels of space preference." (3)

Murdie's (1965) study in Canada revealed that the size of a centre, generally considered the most important factor influencing consumer travel had very little effect on the shopping patterns of the Mennonites.

Most studies of consumer differentiation focus on socio-economic variations, especially income and social status and other associated variables such as personal mobility. This chapter is concerned with aspects of disaggregating consumers with the aim of finding out whether their patterns of travel for goods and services follow the hierarchical structure of centres as envisaged in Central Place Theory. It also affords is an explanation why consumers travel to obtain goods and services from certain centres.

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(3) Murdie, R.A. (1965) "Cultural Differences in Consumer Travel" Economic Geography, 41, p.212.

7.2 DATA ANALYSIS

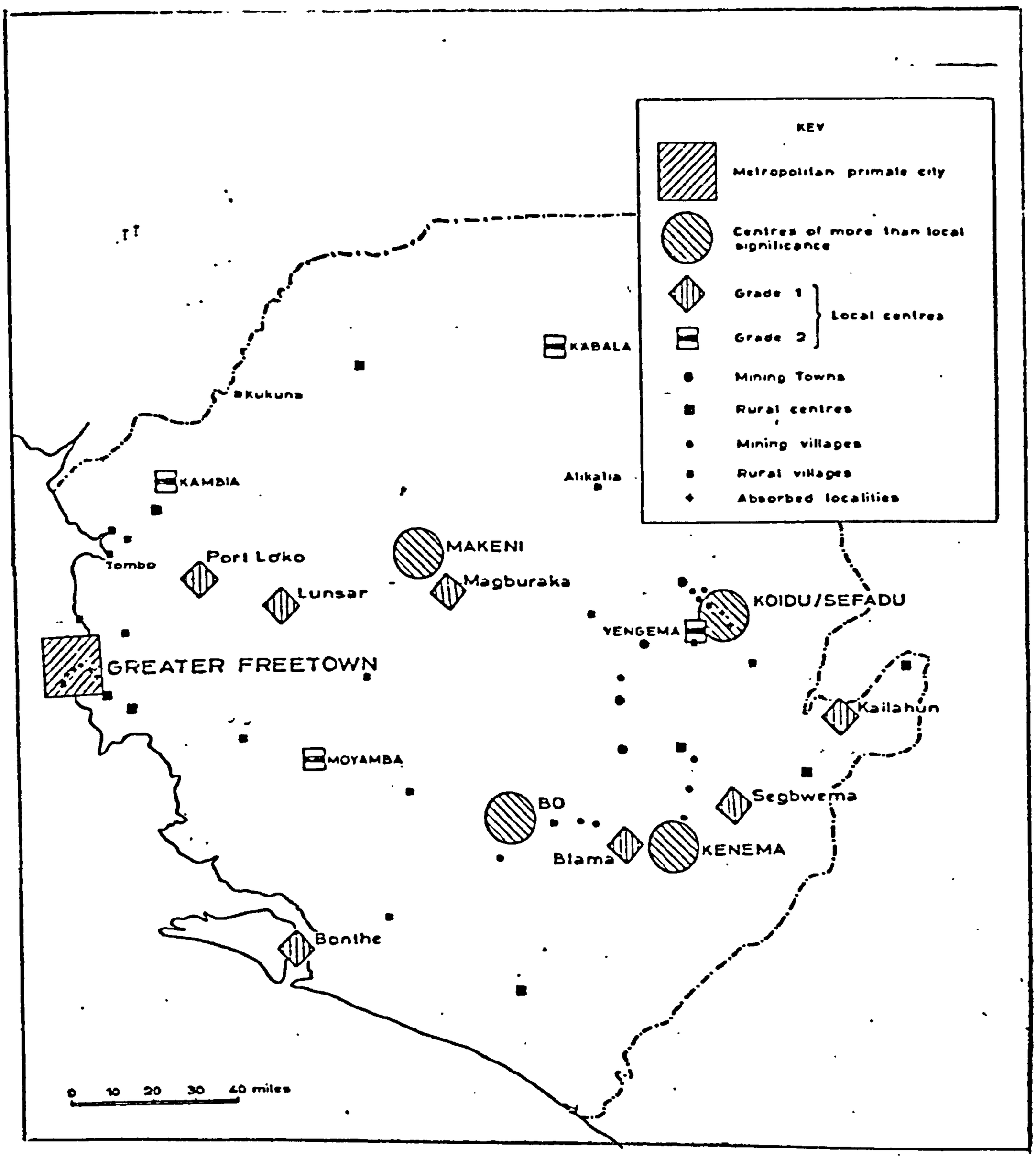
The data for this analysis is derived from consumer travel patterns for certain goods and services. 573 heads of householders and 162 traders were interviewed in the eight centres. The former is a ten percent stratified sample whose choice was based on the same procedure as that described in Chapter VI. As many businessmen as possible were interviewed. The location of the centres studies is represented in Figure 6.1. Although they are all grouped as small urban centres, they occupy different levels within the national urban hierarchy (Figure 7.1). As the centres are theoretically structured so are the goods and services. The gradation of goods and services in Table 7.1 is partly based on the author's knowledge of the area and the relative frequency to obtain them.

TABLE 7.1 ORDER OF GOODS AND SERVICES

1. High:- Banking, Hospital, Post Office, Wholesale.
2. Medium:- New clothing, Retail Store, Dispensary.
3. Low:- Foodstuffs, Health Centre.

The less frequently the goods and services are obtained, the higher their order. At times, this division is made easier by the spatial distribution of these goods and services in different levels of towns, for example (Hospital, dispensary and health centres; Post office with telephone, post office without telephone and postal agency).

FIGURE 7.1 FUNCTIONAL HIERARCHIC CLASSIFICATION OF LARGER LOCALITIES (1963)



Source: P.K. Mitchell (1972) "Settlement hierarchy and urban definition in Sierra Leone - An Empirical Essay" La croissance urbaine en Afrique Noires et a Madagascar - No.539. Colloques Internationaux du C.N.R.S. Paris. Fig. 5

7.3 COMMERCIAL STRUCTURE

Introduction:

Any analysis of consumer travel patterns without a background of the commercial structure of the area where the consumers operate will not be fully meaningful. This section will therefore provide that information before proceeding to the analysis.

The approach adopted involves a description of the individuals involved in trade, the economic activities in which they participate and their spatial distribution.

There are four types of individuals involved namely: European traders, Lebanese/Syrian traders, African traders and the National Corporations.

7.4 THE TRADERS:

European participation in trade may be viewed under three periods:

1. 1895 - 1930: Expansion.
2. 1930 - 1950: Stagnation.
3. 1950 - Present: Redeployment.(4)

The first period witnessed European expansion which was mainly due to the declaration in the interior of a protectorate and the construction of the railway. Van der laan (1975) noted that

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(4) Van der Laan, H.L. (1975) "The Lebanese traders in Sierra Leone" Monton, The Hague, Paris.

> "the expansion was in the first place a geographical advance: some European traders established branches in the interior in the most promising railway towns." (5)

Then there was the expansion of both capital and personnel to meet the requirements of the new branches up-country. Up to 1910 independent European traders were still in the majority and after that the 'company' or 'firm' became the typical form of European trade. Some of these companies were small, others were big, with headquarters in Europe and operating in other West African countries.

The companies were C.F.A.O. (Compaignie Francaise d'Afrique occidentale), S.C.O.A. (Societe Commerciale de L'ouest Africain), P.Z. (Paterson, Zochonis and Company), G.B.O. (G.B. Ollivant and Company) and the African and Eastern Trade Corporation. These companies were involved in 'produce' and wholesale trades. Produce trading involved transactions in palm kernels, palm oil, cocoa, ginger, piassava, groundnuts, beniseed, kola nuts and rice. The first eight of these were exported to Europe and only Kola nuts and rice to other West African countries. Van der Laan (1975) further notes that

> "Around 1900 the European began to sell more on the retail level; before that time they had been primarily wholesalers. Again, this indicates a more ambitious approach. When the branches along the railway had been completed, the branches in the Sherbro area (the former factories) were modernized and tied more closely to Bonthe. European enterprise during this first period should be described as expanding optimistic, vigorous and tending towards large-scale, well-run organizations." (6)

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(5) Ibid, p.19.

(6) Ibid, p.20.

Then followed a period of depression in which the companies made no advance further in the interior. There was a reorganization and many branches were closed, while amalgamations and 'gentlemen' agreements eliminated geographical duplication.

The third period should be viewed as the period of withdrawal, it was both a geographical and systematic withdrawal. Branches in the villages or small towns in the interior saw a closure and movement back to the ports. In the interior, the companies during the withdrawal phase were restricted to Bo, Kenema, Koidu, Makeni, Blama, Segbwema and Pendembu. Systematic withdrawal occured in the retail trade and eventually in produce. This withdrawal enhanced the opportunities of Lebanese/Syrians and African traders, more so as all these companies are either closed or restricted to activities in and around Freetown.

TABLE 7.2 ECONOMIC ACTIVITIES OF THE LEBANESE BY PERIODS

	1895-1930	1930-1950	1950-present
Produce trade	xx	xx	xx
Kola trade	xx	xx	x
Rice trade	xx	xx	xx
General merchandise trade	xx	xx	xx
Lorry transport	xx	xx	xx
Launch transport	x	x	x
Gold mining	-	xx	x
Diamond mining	-	-	x
Diamond trade	-	-	xx
Services	-	x	xx
Manufacturing	-	-	x
Construction	-	x	x
Agriculture	-	x	x

xx = significant participation x = minor participation

Source: Van der Laan, H.L.(1975) The Lebanese Traders in Sierra Leone Morton, The Hague, Paris. Table III.

The Lebanese/Syrians have had a long history with Sierra Leone. The majority of them came with very little money but worked hard selling cheap imported goods first in the streets of Freetown which earned them the name of "Corals" from their participation in the sale of coral beads made from celluloid. It was also used as a contemptible expression for the unscrupulous sellers. As table 7.2 shows, they are involved in almost every type of trade and are found in every part of the country. Today, one can safely say that the commercial life of the country is in the hands of the Lebanese/Syrians and to a little extent Asians. They are importers, exporters, wholesalers retailers and hawkers. Despite successive efforts to restrict the trading activities of the Lebanese/Syrians, and Indian traders, they have always succeeded in exploiting the weaknesses of the society to enhance their position. A former District Commissioner in 1925 is quoted by Addison (1925) to have said:

> "I have seen the Syrian trading in all kinds of out of the way places where neither European nor African trading. He thought something might be done in the way of business, so he rented a house and set to work to see what could be made of it. If the venture was not successful, he moved on elsewhere, taking trade with him, buying the produce of the people and selling to them his merchandise." (4)

It is true today, as it was then.

Their position in the country at the present time is delicately balanced, but one should not underestimate their capacity to survive even under the most adverse conditions.

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(4) Addison, W. (1925) "The Syrian in British West Africa" 27th June (Supplement) The African World, p.5.

In his study of Lebanese traders in Sierra Leone, Van der Laan (1975) divided African traders into two major groups, namely, Coastal Africans and Interior Africans. Before 1895, the Coastal Africans were ahead of the Interior Africans in trade, they were importers, exporters and 'middlemen' with their shops and stores. The opening up of the interior with the construction of the railway and the expansion of the Colonial Administration greatly benefitted the Coastal Africans - the Creoles. Apart from trading, they benefitted from appointments as storekeepers in the branches of the European companies in the interior. Many of those who worked for the companies lost their jobs and returned to Freetown in the years of the depression, 1930-1950.

After 1950, these Coastal African were absorbed into the civil service which they dominated until a few years ago.

7.5 TRANSPORT:

Trade cannot go on without transport facilities and it will be interesting to see how it affected the organization and pattern of commerce. The type of transport dictated the amount of cargo that could be carried at any one time. Before 1895 commercial enterprises were small. Trade was along the coastal creeks and transport limited to bullom boats which could carry no more than ten tonnes, and the large-scale transporting systems were restricted to Freetown and Bonthe and Europe. Because of the small nature of businesses, there were opportunities for many traders which made the system competitive.

The establishment of the railway network turned the tables in favour of large-scale enterprise. This network was supplemented with

a telegraph system which enabled companies to keep in touch with their branches up-country. Van der Laan (1975) observed that

> "the railway needed the patronage of the companies as a major item of revenue, and the companies needed the railway to preserve the pattern of their operations." (7)

By the 1950's however, there was a shift from rail to road transport.

The flexibility of this form of transport coupled with the slowness of the train meant a diversion to this transportation sytem especially for traders who were not within the reach of the railway. The companies foresaw this and gradually withdrew from some stations selling their compounds to independent traders. This was considerable loss to the railway which continued until it was finally phased out in the early 1970's.

One could therefore conclude that the transport system in Sierra Leone before 1895 favoured the Coastal African, between 1895-1950, the European enterprises and after 1950 the Lebanese/Syrian and African traders. This also affected their spatial distribution as well, because it is only in and around Freetown do we see European and other expatriate firms still in operation; whereas the Lebanese/Syrian and Interior Africans are widespread in the country.

7.6 THE NATIONAL CORPORATIONS (The S.L.P.M.B. and N.T.C.)

The Sierra Leone Produce Marketing Board was established in 1949 as a public corporation in line with other West African state boards.

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(7) Van der Laan, H.L. (1975) op. cit. p.25.

The objective in setting up the board was to benefit the farmer by ensuring a fair price for his produce. Whether it has been successful in this, is a matter of contention and outside the scope of this study.

When it began its operations in 1949, the board chose five companies as 'buying agents', U.A.C. (United Africa Company), C.F.A.O. (Compaigne Francaise L'Ouest Africain), P.Z. (Paterson Zochonis and Company) G.B.O. (G.B. Ollivant and Company) and S.C.O.A. (Societe Commerciale de L'Ouest Africain). These companies were already experienced in the produce trade and with their stores and branches in the produce areas, were better equipped than independent traders. The ordinance regulating the operations of the board lists products which are under the control of the board, among which are Palm Kernels, Cocoa, ground-nuts, palm oil, beniseed, kola nits, rice, piassava, coffee, ginger, maize, Guinea corn and pigeon peas. Some of these products have always been scheduled, others partly and still others only recently. Scheduling means that only the board is allowed to export those products which are scheduled. After the withdrawal of European firms the buying agencies were transfered to Lebanese/Syrian and African traders.

Since 1978 the board has implemented an agricultural investment programme with the establishment of the Sierra Leone Agricultural Production Company, National Produce Company and Agricultural Extension Services. Another new development which took place in 1979 involves the staple food crop. Formerly the Rice Corporation was responsible for the importation, distribution and marketing of rice within the country but these functions through the Rice Corporation (Repeal Act) 1979 wew transfered to the Board.

Although there were many importers of foodstuffs, the government in an attempt to cut down shortages and the escalation of food prices decided in 1971 to set up the National Trading Company. Apart from rice importation, it is in charge of importing other imported foodstuffs. It only has its headquarters in Freetown and no branches up-country, so that in these areas, the Lebanese/Syrian and African traders remain the most important distributors for goods. The Rice Corporation remains an important distribution channel for rice.

7.7 SPATIAL DISTRIBUTION AND NATURE OF TRADE

Wholesaling is dominant only in Freetown and the other major commercial centres:- Koidu/Sofadu, Bo, Kenema and Makeni. In the minor centres retail stock dominate. At times it is difficult to make a clear distinction between wholesaler and retailer, for a trader can be both at the same time.

Because the companies operated in the big commercial centres, a class of traders emerged to take over the retail trade. They were either Lebanese/Syrians or Africans. These could be divided into two groups:- those who trade in buildings and those without buildings. The former are referred to as shopkeepers and the latter hawkers or petty traders. This is an important distinction to make because it has economic implications. It is not only based on the size of the stocks held, the continuity of operations and relations with customers but even the area of operations. This gradation of traders can be compared to the gradation of centres.

It has already been pointed out in the earlier sections that Expatriate companies are restricted to Freetown, whereas the Indians, Lebanese/Syrians are found in the provincial, district and larger chiefdom headquarters. The only operators in the villages are African traders.

Van der Laan (1975) distinguished three categories of African traders according to their operations namely: the village shopkeeper, the urban African shopkeeper and the hawker or petty traders.

Where there are shops in the villages, they are usually small and articles sold consist mainly of provisions, patent medicines, a few drinks, soap, matches, and other articles which may be required urgently. The urban African shopkeepers operate in towns in competition with the Lebanese/Syrians. The operations in the towns are restricted to the residential areas where their customers are drawn. There are very few of them in the main shopping centres. Whereas the Lebanese/Syrians open their shops between 9 a.m, and 5 p.m. , the African traders open till late at night to cater for their clients. Although many have invested their own capital in these shops, they equally operate a credit system with the Lebanese/Syrians who pay commissions on the goods or articles sold for them. The third category of African traders are the petty traders. In this category two broad groups could be distinguished. Firstly there are women street traders, who sell local products and a number of imported foodstuffs e.g. onions, potatoes, tomato paste, rice etc. The male street traders sell things like combs, ball-points, sandals, cosmetics, socks etc. mostly imported. Male street sellers are a comparatively recent feature of trade. Van der Laan (1975) observed that

> "Their emergence must be seen as a result of urbanization and unemployment for young men and boys dominate. Their numbers increase at times of high unemployment, and many drop their trading as soon as they can get a job, so they are a floating population of traders. The shopkeepers do not like them, because they operate in their largest numbers precisely at times that trade is slack. A few successful street sellers become shopkeepers after some time, because street selling is too strenuous and too uncertain to be desirable as a career. It is done as a temporary occupation or as a stepping stone." (8)

One type of African trader apart from shopkeepers who should be mentioned in connection with village trading is the hawkers. They are usually men who leave the towns to trade in the surrounding villages returning at the end of the day. Almost all travel is on foot and they carry their goods in a tray by head porterage. Because of these factors, the bulk of goods that can be carried and areas covered in any one day are limited. Their trade is restricted to imported articles like combs, vaseline, toothpaste, thread, needles and locally sewn clothes. They thrive far better during the harvest season when villagers could afford to buy from the incomes obtained from the sales of harvested crops. In the rainy season, some still trade in the villages, giving credit to farmers who pay back in the harvest season with rice. Because of this credit system, the farmer usually pays a higher price, some kind of crude interest. It is through the avenues which have been outlined in the preceding pages that goods reach consumers.

7.8 CONSUMERS

Consumers could be broadly divided into two groups, there are

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(8) Van der Laan, (1975) op. cit. p.121.

rural consumers and urban consumers whose preferences for goods are crucial for the fortunes of the traders. It was observed during the field trip that rural consumers spend very little in the village and prefer to postpone purchasing if necessary until they can get to the nearest town to buy an article. This should not be taken to mean that the village shopkeeper is not appreciated but his position is now precarious and the demand generated in the villages can no longer support Lebanese/Syrian traders.

The small numbers of non-Africans in Sierra Leone means that in general, urban consumers are also Africans, the former are too few to influence the assortment of general merchandise. There have always been two views about the African consumer (Van der Laan 1975). Firstly, there is a widely held view that he is ignorant and gullible and therefore can easily be a victim of unscrupulous traders. Secondly, it is also thought that he is a discriminating buyer spending a lot of time moving around shops examining goods and comparing prices.

It is important to note that much as these views cannot be easily dismissed, they must be viewed against the background of the situation of the consumers. He is usually having money and seeing a variety of goods for the first time. He also has very little to spend (Appendix E) and must find the cheapest of alternative goods. The sellers recognize this and offer a variety of goods which can be bought in small quantities. Appendix E shows the distribution of expenditure by various income classes. The manner of expenditure for obtaining different goods and services is related to the amount of money available. It can be observed that as incomes increase households spend more on education, medical facilities and better housing.

Appendix F displays the household expenditure patterns by location. All households in the rural areas had an average monthly income of Le 24.37 of which Le 11.51, the largest single expenditure representing 34.2 percent was for food, beverages and tobacco products. Clothing and shoes account for 20.8 percent, transportation 8.2 percent, personal and medical care 7.6 percent. The comparable figures are also given for each of the regions. Expenditure on food varies from 44.0 percent in the least developed region to 34.2 in the more developed region which is in line with theoretical expectations.

The account so far has provided the background of the commercial structure of the study area with the nature and incomes of the consumers. It is within this scope that the functional relationships of small urban centres are examined.

7.9 BUSINESSMEN

A good starting point is an analysis of businessmen. The difficulty in extracting information from this group has already been pointed out in the introduction so that only a relatively small number could be interviewed. Since they are the middlemen between wholesaler and the consumer, their movement to buy and sell goods and the frequency of such visits and the towns visited, will be indicative of the interactions of these centres with other members in the urban hierarchy.

162 Businessmen were interviewed in the eight small urban centres. Information extracted from these interviews included among other things travel patterns and frequency of purchase and these are represented in

Table 7.3. Those interviewed included Lebanese/Syrian, African traders both shopowners and hawkers, who are all engaged in the general merchandise trade. In general in Sierra Leone general merchandise is taken to refer to imported products such as textiles, metal goods machinery and also foodstuffs which have been prepared and preserved in factories.

On the basis of the data collected on the field trip, we could broadly divide the traders interviewed into the following groups; Lebanese/Syrians, who generally own big shops and trade in almost everything; African traders with shops who deal mostly in provisions; African traders without shops who sell provisions, cosmetics etc. and who may be agents of the Lebanese/Syrian or sell for themselves, and market traders who sell foodstuffs.

Table (7.3) shows the dominance of Freetown and the provincial headquarters and that the good majority of traders buy their goods monthly related to the pattern of wage payments. Apart from the Lebanese/Syrians who employ 'shop boys' enterprises run by Africans are either family or one man businesses. Information on turn-over is a closely guarded secret. Traders who buy daily are usually engaged in the preparation of foodstuffs like 'cooked' rice, roast meat, fresh fruit and vegetables and other articles which are sold in smaller quantities. As the relationships as displayed in the table show traders go to higher urban centres to secure goods. This is in conformity with theoretical expectations and as has been related in the section on commercial structure, it is the higher order centres which can offer the greatest variety, and better quality of goods at lower prices. Multi-purpose shopping trips also make these larger urban centres more attractive.

TABLE 7.3 TRAVEL AND FREQUENCY PATTERS OF BUSINESSMEN

FROM	TO								FREQUENCIES				
	WITHIN SAME CENTRE	FREETOWN	KOIDU/ SEFABU	KENEMA	BO	MAKENI	PORT LOKO	TOTALS	ONCE MONTHLY	5-12 TIMES YEARLY	ONCE DAILY	ONCE WEEKLY	TOTALS
CENTRE													
MAMBOLO	1	10					2	13	10	1	2	-	13
KABALA	4	16				8		28	18	6	2	2	28
SEGBWEMA	5	4	12	13				34	24	7	3		34
KAMAKWIE	3	8				14		25	15	9		1	25
MOYAMBA	4	10		2	6			22	13	9			22
MANO	1	3			11			15	9	4		2	15
PANGUMA	2	2	1	8				13	9	2	1	1	13
SERABO	1				11			12	6	3		3	12
TOTALS	21	53	13	23	28	22	2	162	104	41	8	9	162

7.10 CONSUMER TRAVEL PATTERNS

TABLE 7.4 INTENSITY OF CONNECTION GENERATED BY FUNCTIONS

FUNCTION	SAMPLED CENTRES	LEAST DEVELOPED REGION	LESS DEVELOPED REGION	MORE DEVELOPED REGION
1. Post Office	5.41%	1.20%	-	29.03%
2. Commercial Banks	3.49%	1.50%	0.72%	15.05%
3. Hospital,	24.60%	18.97%	15.94%	32.25%
4. New Clothing	58.28%	62.65%	42.02%	73.11%
5. Foodstuffs	19.89%	16.86%	17.39%	36.55%

From the table (7.4), the function that generates the greatest intensity of connection between centres is new clothing, followed by hospital service, foodstuffs, postal and lastly banking services. In the case of new clothing 58.28 percent of those interviewed preferred other urban centres and the reasons for this outside participation have already been dealt in various sections of this chapter. The low patronage in other centres is understandable as these are self-sufficient in food supplies. The low patronage both in and out of these centres for postal and banking services are related to the low levels of income (Appendices E and F). Participation in hospital service should not only be viewed in terms of incomes and spatial distribution of this service but also the competition it faces with traditional medicine. This is a point which is treated in greater depth in the analysis on hospital service.

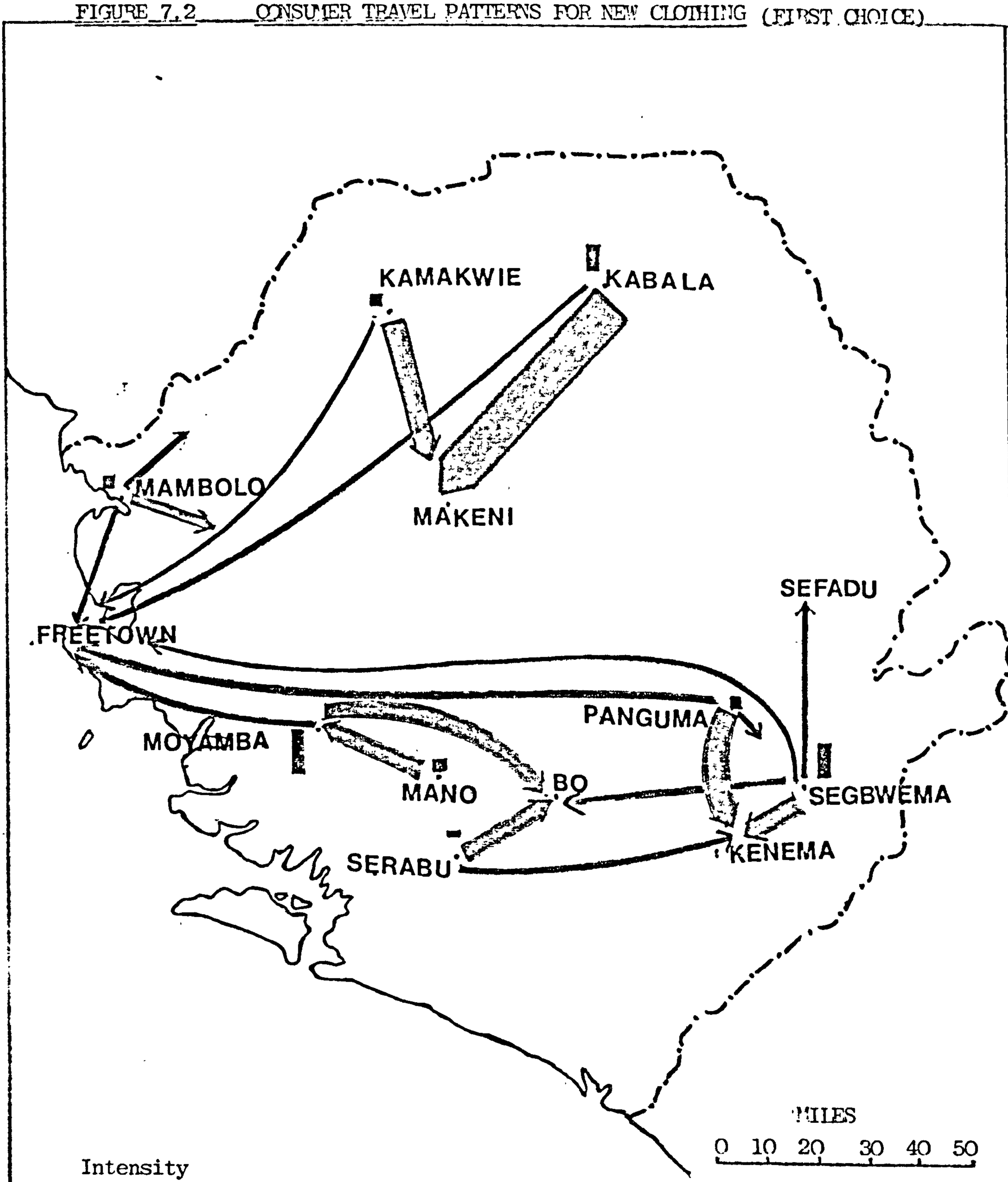
In order to find out whether variations exist in the intensity of connection generated by these functions, the data was aggregated on a regional basis and subjected to a chi-square test. The null hypothesis step up is that there are no differences in intensity of connection generated by these functions in the three regions. The alternative hypothesis is that there is a difference in the intensity generated by these functions in various regions. A significance level of 0.01 was decided upon. At this level with six degrees of freedom, the critical value of x^2 is 16.81. Since the calculated value of x^2 is 132.29, the null hypothesis is rejected and the alternative accepted.

The difference in intensity cannot be easily explained in terms of levels of development. They must be viewed against the orders of different centres in which the interviews took place, the spatial distribution of the services and the income levels in different regions. These patterns are adequately dealt with in the relevant parts of the subsequent sections.

7.11 NEW CLOTHING

The consumer travel patterns for new clothing are represented in Table 7.5 and in Figure 7.2. Of the 573 heads of households in the eight sampled centres, 42.6 percent expressed preference for their own centres for new clothing. We also note that there is a convergence for new clothing in the provincial headquarters (Makeni - northern province; Bo - southern province and Kenema - eastern province). This is in direct response to the greater variety both in quantity and quality of clothing available, coupled with the fact that most trips are multi-purpose.

FIGURE 7.2 CONSUMER TRAVEL PATTERNS FOR NEW CLOTHING (FIRST CHOICE)



Intensity

0 - 9	=	1mm
10 - 19	=	2mm
20 - 29	=	3mm
30 - 39	=	4mm
40 - 49	=	5mm
50 - 59	=	6mm
60 - 69	=	7mm
70 - 79	=	8mm
80 - 89	=	9mm
90 - 99	=	10mm

TABLE 7.5 FUNCTIONAL RELATIONSHIPS OF SMALL URBAN CENTRES (NEW CLOTHING) % PATRONAGE

FROM CENTRE	ORDER	TO (CENTRE ORDER)							
		1st	2nd	3rd	4th	5th	6th	7th	TOTAL
1. SEGBWEMA	THIRD GRADE I	3.8	48.8						52.6
2. KABALA	THIRD GRADE II	4.6	62.0						66.6
3. MOYAMBA	THIRD GRADE II	3.5	26.0						29.5
4. KAMAKWIE	FIFTH	3.5	66.0						69.5
5. MAMBOLO	SEVENTH	22.7		31.8	4.0				58.5
6. PANGUMA	FIFTH	11.6	53.3				1.6		66.5
7. MANO	SEVENTH				70.0				70.0
8. SERABU	SEVENTH		72.7						72.7

In Kabala, 62 percent showed preference for Makeni and 4.6 percent for Freetown; in Kamakwie 66.0 percent preferred Makeni and only 3.5 percent Freetown; whereas in Mambolo 22.7 percent preferred Freetown, 31.8 percent Port Loko and only 4.0 percent Kambia. The further away from Freetown, the less the patronage to that city, so that patronage of Freetown is related to distance. Also the relationship from the sampled centres is geared towards higher order centres.

In Mano, 70 percent of those interviewed showed preference for Moyamba, whereas in the latter 26.0 percent preferred Bo and only 3.5 percent Freetown. Here again, distance is a telling factor and the nearest higher order centre is patronized.

In Serabu, 66.6 percent preferred Bo and 6.0 percent Kenema; whereas in Panguna 53.3 percent preferred Kenema, 8.3 percent Tongofield and 11.6 percent Freetown. Segbwema has 37.0 percent preferring Kenema, 4.8 percent Freetown, 3.8 percent Kondu/Sefadu and 8.6 percent Bo.

In all these relationships, we note the pull of higher order centres especially the provincial headquarters and also note the limitation of distance in obtaining new clothing from Freetown. We also note that shopping is mostly directed to the nearest higher order centres. Long distance travelling for this good is related to major social events like Christmas, Ramadan, Republican day celebrations etc.

It is theoretically expected that the higher the order of the centre, the more can it provide for its consumers in terms of quantity and quality and therefore the less would they travel to other centres to obtain goods. The levels of inadequacy have been worked out in Chapter V and we noted that the majority of these centres are inadequately provided for in most things. It is therefore not surprising that most people ahve to travel to other centres to obtain new clothing.

Table 7.5 shows a high level of patronage in higher order centres from lower order to centres, and the higher the centre the less consumers travel to other centres to satisfy their demands. With the exception of deviation to the smuggling centres, the patterns of consumer travel are hierarchically structured.

7.12 FOODSTUFFS

Sierra Leone's staple food is rice, supplemented with sorghum, millet, maize, cassava, sweet potatoes and other minor crops. Before analyzing the consumer travel patterns for foodstuffs, we need to examine consumer's food preferences in the study area. In a survey carried out in 1973,(9) it was discovered that from about 800 households interviewed and from 2.1 meals per household per day, 1.4 are meals with rice. Fifty-six percent of all the households surveyed would also like to introduce rice for the other meals if they could afford it.

The total consumable production of milled rice in 1973 amounted to 270,000 tons and the percentage distribution of the area under rice

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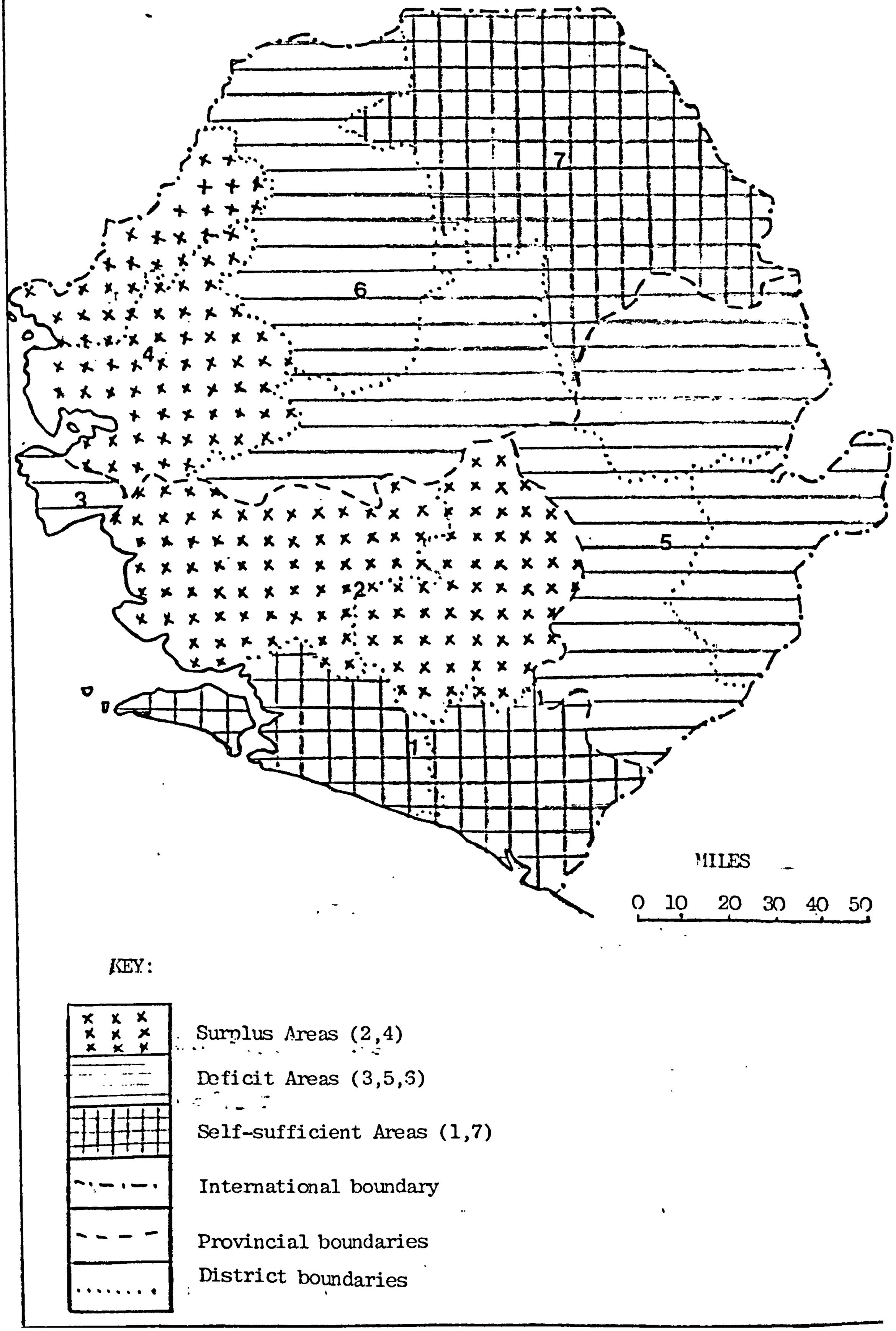
(9) Rice Milling and Marketing Study Sierra Leone, AGRAR-UND HYDROTECHNIK GMBH, Essen, Germany 1973.

FIGURE 7.3 RICE PRODUCING AREAS OF SURPLUS AND DEFICIT



cultivation and total production is given in Table 7.6 and Figure 7.3 represents the surplus and deficit areas. In 1973 the calculated rice supply deficit was 51,000 tons representing the highest volume of imports ever required in Sierra Leone. The origin of this deficit is mainly in two areas; the western area and the eastern provinces as shown in Table 7.6.

At the district level, the areas of surplus production are Moyamba, Port Loko, Bo and Kambia. Bonthe - Sherbro, Pujehun and Koinadugu are almost self-sufficient, whereas the western area, Kono, Bombali, Kenema and Kailahun are deficient areas. There appears to be no significant difference in the demand for rice in both rural and urban areas. Also there is no significant difference in expenditure for foodstuffs in various income groups (Appendix E).

The rice economy of Sierra Leone is organized through private and public sectors. In 1965 an act of Parliament established the Rice Corporation for the planting, cultivation, harvesting, import, export, purchase, transportation, milling, sale and dsitribution of rice. This role of selling and distributing has since 1982 (Rice Corporation Repeal Act 1982) been transfered to the Sierra Leone Produce Marketing Board. It has its headquarters in Freetown and branches in the provincial headquarters up-country. In the private sector farmers, wholesalers, traders, millers, retail dealers, all participate before rice reaches the consumer.

It was estimated in 1970[10] that there were 232,000 rice

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(10) Cox-George, N.A. (1970) Report on the future of the rice corporation (mimeographed) Freetown.

TABLE 7.6 DISTRIBUTION OF THE RICE PRODUCING AREAS AND TOTAL PRODUCTION

	AREA UNDER RICE CULTIVATION %	TOTAL PRODUCTION %
SOUTHERN PROVINCE	34.4	33.2
Bo	13.55	13.2
Bonthe-Sherbro	4.4	4.2
Moyamba	11.8	11.5
Pujehun	4.65	4.3
EASTERN PROVINCE	21.7	22.4
Kailahun	6.55	6.7
Kenema	9.95	9.7
Kono	5.2	6.0
NOTHERN PROVINCE	43.6	44.1
Bombali	7.65	6.8
Kambia	7.8	7.7
Koinadugu	5.8	6.5
Port Loko	13.3	15.2
Tonkolili	9.05	7.9
WESTERN AREA	0.3	0.3
TOTAL	100.0	100.0

Source: Rice Milling and Marketing Study - Sierra Leone, I.D.A. Final Report 1973, Table 1.1.

growing farm families in Sierra Leone. Most farmers process a large quantity of their harvest. Normally sales of this crop from growers is low, 18.1 percent. In 1973, it was estimated that there were 216 small mechanical mills in the country run by traders, farmers and other private persons. Both farmers and millers conduct sales of rice.

There are several types of wholesalers among whom are

1. Village merchants, often being farmers at the same time.
2. Itinerant dealers in most cases acting as buying agents for other big merchants or for the Rice Corporation.
3. Wholesale merchants, some of whom are also operating at the retail level.

The number of licensed rice dealers in Sierra Leone is given in Table 7.7.

TABLE 7.7 NUMBER OF LICENCED RICE DEALERS IN SIERRA LEONE 1968-1972

YEAR	WESTERN AREA	EASTERN PROVINCE	SOUTHERN PROVINCE	NORTHERN PROVINCE	TOTAL
1968	-	-	62	96	158
1969	-	16	63	104	183
1970	454	56	66	114	690
1971	310	54	69	125	558
1972	162	54	73	175	464

Source: Principal Inspector of Produce, Freetown, Sierra Leone.

These figures may not be accurate as there are many more rice dealers encountered during the author's field trip who claimed to have

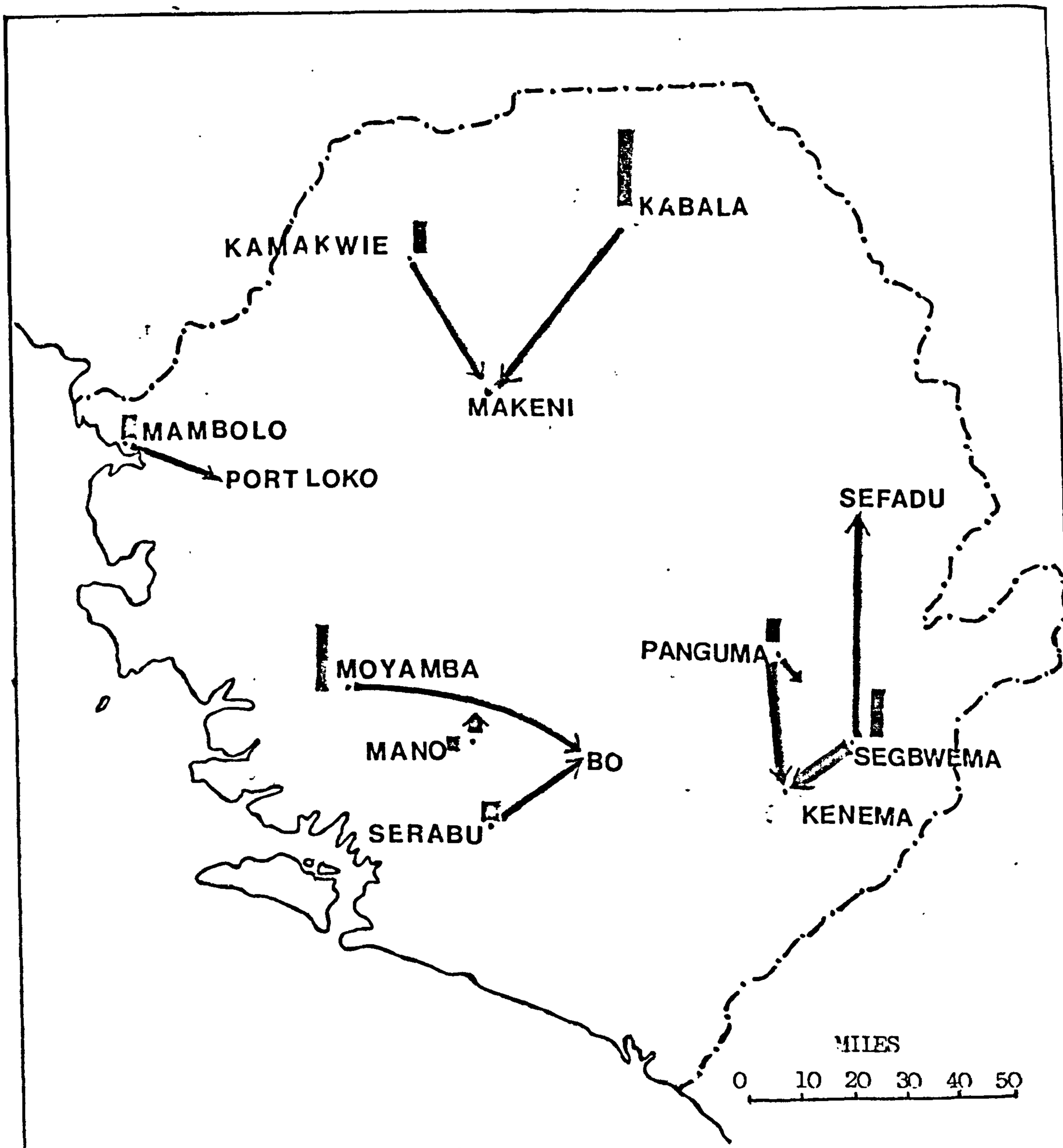
operated for years without a licence. The table shows a decrease in the number of licenced dealers from the peak period of 1970. Apart from the western area which is the main attractive market for every produce, the area with the greatest production has also the largest number of dealers.

Most retail dealers are market women who sell domestic or imported rice and in different measures like cups, pans or tins. The volume and direction of the rice trade depends upon the interaction between farmers production and sales, the private sector's anticipations and expectations and the interference of government in terms of imports and price regulations. This briefly gives an adequate background of the rice economy. How consumers operate within the economy is discussed in section that follows.

The consumer travel patterns for foodstuffs are represented in Table 7.8 and Figure 7.4. The level of self-sufficiency for foodstuffs ranges from 56.7 percent in Panguma to 94.5 percent in Kabala. This is not surprising as we are dealing with agro-based settlements. It is to be noted that for the few years there have been serious shortages which culminated into riots which in many occasions have been ruthlessly surpressed.

In Kabala for instance only 5.4 percent of those interviewed travelled to Makeni for foodstuffs. This is to be expected as Kabala is found in the area which is self-sufficient in rice production. Kamakwie and Segbwema on the other hand with 19.6 percent and 28.2 percent respectively satisfying their demand outside their centre are found in the deficient areas. Moyamba, Mano, Serabu and Mambolo

FIGURE 7.4 CONSUMER TRAVEL PATTERNS FOR FOODSTUFFS (FIRST CHOICE)



Intensity

0 - 9 = 1mm
10 - 19 = 2mm
20 - 29 = 3mm
30 - 39 = 4mm
40 - 49 = 5mm
50 - 59 = 6mm

TABLE 7.8 FUNCTIONAL RELATIONSHIPS OF SMALL URBAN CENTRES (FOODSTUFFS) % PATRONAGE

FROM CENTRE	ORDER	TO (CENTRE ORDER)						
		1st	2nd	3rd	4th	5th	6th	7th
1. SEGBWEMA	THIRD GRADE I		28.2					
2. KABALA	THIRD GRADE II		5.4					
3. MOYAMBA	THIRD GRADE II		8.8					
4. KAMAKWIE	FIFTH		19.6					
5. MAMBOLO	SEVENTH			3.2				
6. PANGUMA	FIFTH		30.0					
7. MANO	SEVENTH							41.2
8. SERABU	SEVENTH		9.0					15.2

are found in suplus areas. We note however that in the case of Mano and Serabu, there is a relatively high patronage to Bo. Although in a surplus area, this high patronage may be explained in terms of the timing of the interviews (during the rainy season - hungry season) and people even in surplus areas run short of foodstuffs.

Generally, however, the patterns are geared towards the provincial and district headquarters which usually house the Rice Corporation distribution stores.

7.13 HOSPITAL SERVICE

Existing facilities and personnel in this service are inadequate. In 1966, there was only one doctor for every 14,500 people; one trained midwife for every 22,600 and one dentist for every 218,400.(11) In 1980 the doctors population ratio was 1:12,658, nurses 1:2768, dispensers 1:10,798.(12) Even though these figures may be seen as meager advances in developed countries, they represent a big leap forward in tropical Africa. The World Health Organization noted for instance that "it (Sierra Leone) has about the best specialist: population rato in (black) Africa."(13)

Before the analysis, a distinction between the modern and traditional medical service is important.

The spatial distribution of the traditional medical service is widespread and though there are no statistics available, it is known

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(11) Clarke, J.I. (1966) Sierra Leone in Maps (London, University of London Press,) p.66.

(12) Sierra Leone Country Profile (Health) W.H.O. 1980, p.24

(13) Ibid. p.6.

to thrive more in rural areas, where educational standards and incomes are low and where there is hardly any modern medical facility available. It must be emphasized, however, that its practice is not restricted to the uneducated and poor.

The modern medical services, on the other hand, can be subdivided into two; the public service (Government provided) and the private sector (missionary and mining company provided). Whereas the private sector services are mostly found in small towns and mining centres, the areal distribution of the public medical services are effectively, a three tier system; Hospital, dispensary, and Health Centre following the administrative hierarchy. Outside this system and outside Freetown, private practice is restricted to the provincial and a few larger mining centres like Kenema, Yengema and Sefadu.

As far as the public hospitals are concerned, they are found in high order centres. Of the eight small urban centres studied, three are without any medical service (Mambolo, Mano and Panguma). In the remaining five, three have missionary hospitals (Kamakwie, Segbwema and Serabu) and only two (Kabala and Moyamba) are government owned. With regard to health facilities utilization the Sierra Leone country profile on health observed that

> "it has recently been estimated that only 30 percent of the population avail themselves of medical care, leaving the rest to their own devices and undoubtedly leaving some still unattended." (14)

In the eight centres and out of 573 heads of households interviewed 53.9 percent use this service both within and outside their centres.

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(14) Ibid, p.15.

Of those who use this service 54.4 percent travel to other centres. It should be noted that consumer travel patterns for this service is carefully considered by the individual consumer and in many cases, the qaulity of services outweighs proximity. From Table 7.9 & Fig.7.5 it is observed that the general trend is towards higher order centres but there is also diversion to lower order centres where missionaries and mining companies have established some of the best equipped hospitals in the country in terms of facilities and personnel.

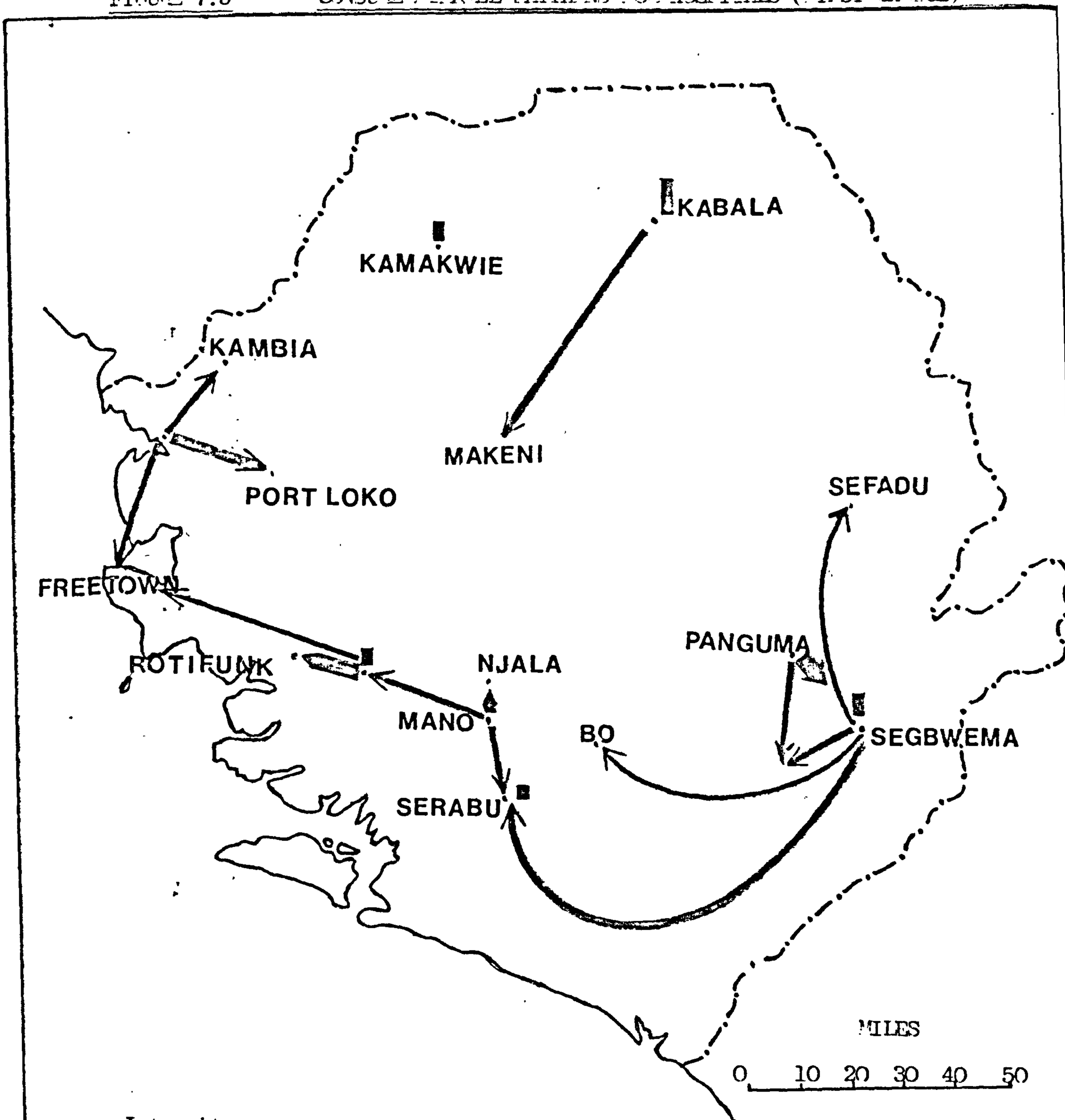
The trends from the analysis areas follows:-

1. The distribution of this service (modern public service) is closely related to the administrative hierarchy.

2.. In the private sector, the logic behind the missionary distribution of this service is difficult to pinpoint, apart from the general observation that they are found in small towns which are not served by government hospitals.

3. In terms of the hierarchical structuring of this service, there are two major trends: Firstly, there is a movement from lower order centres (Mambolo, Kabala, Moyamba, Mano, Segbwema and Panguma) to higher order centres (Freetown, Kambia, Port Loko, Bo, Kenema and Sefadu/Koidu). The second trend is a movement from higher order centres to lower order centres (Segbwema to Serabu, Moyamba to Rotifunk) contrary to central place expectations. It is expected that the higher the centre, the less the patronage, to other centres for goods and services. But this may not always be the case as observed in this analysis. Consumers take into consideration the quality of service, transport and cost of medicines and in this case the best are provided in private hospitals run by missionaries and mining

FIGURE 7.5 CONSUMER TRAVEL PATTERNS FOR HOSPITALS (FIRST CHOICE)



Intensity

0 - 9 = 1mm
10 - 19 = 2mm
20 - 29 = 3mm
30 - 39 = 4mm
40 - 49 = 5mm
50 - 59 = 6mm
60 - 69 = 7mm
70 - 79 = 8mm

TABLE 7.9 FUNCTIONAL RELATIONSHIPS OF SMALL URBAN CENTRES (HOSPITALS) % PATRONAGE

FROM CENTRES	ORDER	TO (CENTRE ORDER)						
		1st	2nd	3rd	4th	5th	6th	7th
1. SEGBWEMA	THIRD GRADE I		19.4					14.6
2. KABALA	THIRD GRADE II		6.2					
3. MOYAMBA	THIRD GRADE II	0.8						22.8
4. KAMAKWIE	FIFTH							
5. MAMBOLO	SEVENTH	9.0		36.4				
6. PANGUMA	FIFTH		10.0					40.0
7. MANO	SEVENTH			11.8				50.0
8. SERABU	SEVENTH							

companies and these are situated in some small towns.

7.14 BANKING

Commercial banking in Sierra Leone is a high order function occuring only in the most important centres and where opportunities exist for relatively high monthly incomes and there has been the development of modern commercial transactions.

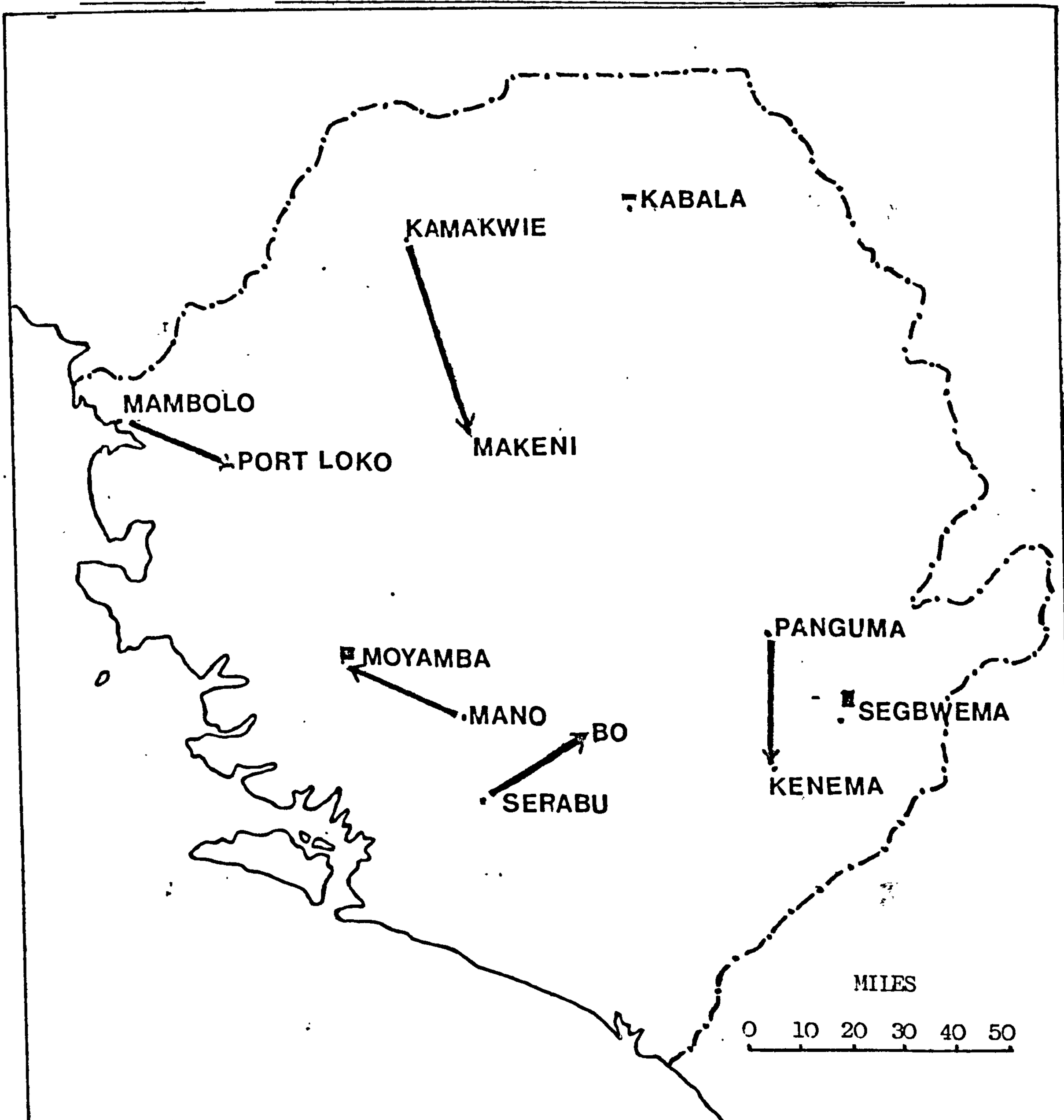
Of the eight sampled centres, five have no commercial banks (Kamakwie, Mambolo, Mano, Serabu and Panguma). Provision of banking is in the hands of the commercial banks:- Barclays Bank, Standard Bank of Sierra Leone Limited, and the Sierra Leone Commercial Bank (partly public and private investment and operating only in Freetown), Bank of Sierra Leone (operating in Freetown and Kenema).

The traditional nature of the Sierra Leone economy has restricted and localized banking facilities because apart from the low incomes, the saving and lending facilities in the rural areas have been taken over by the thrift and credit co-operative societies. This has been so because in the case of the co operative societies it is easier to secure loans.

The present spatial distribution of commercial banks reflects the spread of cash values away from the former rail lines, the boom economies of the mining areas and the network of administrative centres and larger trading towns.

Of the 573 heads of households interviewed only 12.4 percent

FIGURE 7.6 CONSUMER TRAVEL PATTERNS FOR BANKING (FIRST CHOICE)



Intensity

0 - 9 = 1mm
10 - 19 = 2mm
20 - 29 = 3mm
30 - 39 = 4,,

TABLE 7.10 FUNCTIONAL RELATIONSHIPS OF SMALL URBAN CENTRES (BANKING) % PATRONAGE

FROM CENTRES	ORDER	TO (CENTRE ORDER)						
		1st	2nd	3rd	4th	5th	6th	7th
1. SEGBWEMA	THIRD GRADE I							
2. KABALA	THIRD GRADE II							
3. MOYAMBA	THIRD GRADE II							
4. KAMAKWIE	FIFTH		3.6					
5. MAMBOLO	SEVENTH			6.8				
6. PANGUMA	FIFTH		11.7					
7. MANO	SEVENTH			2.9				
8. SERABU	SEVENTH		21.2					

use this facility, a figure which the author believes is related to the low incomes of the population. Figure 7.6 and Table 7.10 show movements from centres where there are no banking facilities to the nearest higher order centres and is closely related to the collection of salaries for central government employees in the centres where the movements originate. The level of participation in the three centres where the service is offered (Kabala 6.2; Segbwema 46.6 and Moyamba 12.3) can be related to the levels of the centres and the development of commercial activites where these centres operate.

The general trends about banking are as follows:-

1. There are centres where there are no banking facilities.

2. That their distribution is closely related to the administrative hierarchy.

3. The movement of consumers to obtain this service is towards the nearest higher order centres.

4. From these movements the evidence presented is that the relationships for this service are hierarchically structured.

7.15 POSTAL SERVICE

Postal services in Sierra Leone date back to 1808 and for a long time were restricted only to Freetown. As political control extended into the interior, so the need arose to maintain a system of constant and efficient internal communications. These were provided by a network of post offices and related factors. The spatial distribution of this service reflects trading relations in the interior, the rail-line until 1950 when factors determining the pattern changed (the road system). More areas of the country were covered partly

because of the road extension, increased indigenous use of mails, expansion of co-operative marketing and the spread of education and a monetized economy. However, Riddell (1970) observed that

> "the present-day pattern of postal facilities continues to reflect the influence of the past. The north-south differential is apparent and marks differences in literary and commercial involvement as well as the influence of the railway on the provision of services in the south." (15)

Of the eight centres, three are without the service (Mambolo, Panguma and Kamakwie), and only 3.5 percent of the 573 people interviewed travel to other centres for this service, usually the nearest centre. This is no long distance travel and even the few who travel, only use this service on multi-purpose trips. The level of patronage in the centres is 42.3 percent. The pattern of consumer usage is from low to higher order centres, a reflection of the spatial distribution of this service.(Figure 7.7 and Table 7.11)

Levels of patronage in the centres is as follows:

Serabu 48.5 percent, Kabala 46.5 percent; Mano 60.6 percent; Segbwema 49.5 percent, Moyamba 53.5 percent. There are no post offices in Kamakwie, Mambolo and Panguma. It was observed during the field trip that a substantial amount of mail is sent through lorry drivers especially to relations situated along the major roads. It is difficult to estimate the percentage of mail that is transmitted this way because of the lack of statistics. It would be interesting to know how this affects the turnover of the post office.

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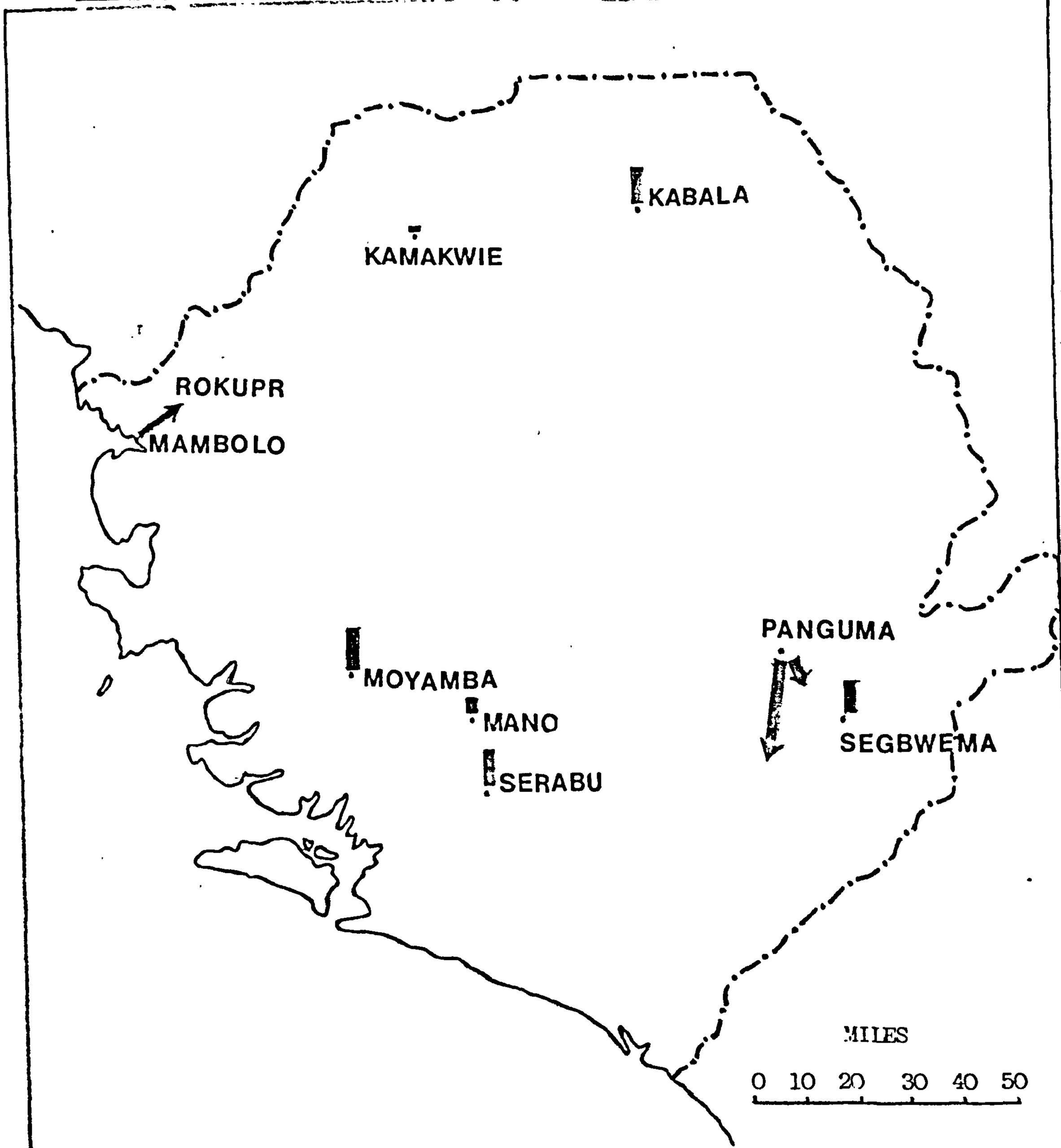
(15) Riddle, J.B. (1970) The Spatial Dynamics of Modernization in Sierra Leone. Northwestern University Press. p.82.

FIGURE 7.7 CONSUMER TRAVEL PATTERNS FOR POSTAL SERVICES (FIRST CHOICE)



Intensity

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10 - 19 = 2mm
20 - 29 = 3mm
30 - 39 = 4mm
40 - 49 = 5mm
50 - 59 = 6mm
60 - 69 = 7mm
70 - 79 = 8mm

TABLE 7.11 FUNCTIONAL RELATIONSHIPS OF SMALL URBAN CENTRES (POST OFFICE) % PATRONAGE

FROM CENTRES	ORDER	TO (CENTRE ORDER)						
		1st	2nd	3rd	4th	5th	6th	7th
1. SEGBWEMA	THIRD GRADE I							
2. KABALA	THIRD GRADE II							
3. MOYAMBA	THIRD GRADE II							
4. KAMAKWIE	FIFTH							
5. MAMBOLO	SEVENTH			9.0				
6. PANGUMA	FIFTH		25.0					18.3
7. MANO	SEVENTH							
8. SERABU	SEVENTH							

As far as this service is concerned, the relationship depicted assumes a hierarchical structure (Table 7.11 and Figure 7.6).

7.16 THE OVERALL PICTURE

The level of participation and the mean travel distances for goods and services have been analyzed in the preceding sections of this chapter. These are represented by region in Table 7.12. The levels of satisfaction in foodstuffs within these centres varies from 72.7 percent in the most developed region to 81.6 percent in the least developed region and reliance on other centres varies from 18.3 percent in the least developed region to 27.2 percent in the most developed region. This is to be expected because the more functionally complex a centre is the more it relies on other centres for its food supplies. The level of satisfaction for new clothing in these centres however is not consistent with the regional variations as envisaged by Forde (1967). This may be explained in terms of the levels of centres where the interviews were conducted especially in the case of Moyamba which is now a booming trading centre occupying a priviledged position being the adopted home of the President. The high level of reliance in other centres in the most developed region is partly the result of the fall in the diamond trade assocaited with a fall in other trading activities and the closure of shops.

In the analysis of services, there are three major trends; there are those consumers who satisfy their needs in their centres; others satisfy their needs outside their centres and a third group who either don't participate in those services but satisfy their needs through their traditional systems. The latter are considered by the author as being out of the urban system.

TABLE 7.12 LEVELS OF PARTICIPATION IN THE URBAN SYSTEM--

REGIONAL VARIATION

REGION		% SATISFIED WITHIN SMALL URBAN CENTRES	% SATISFIED IN OTHER CENTRES	% OUT OF THE SYSTEM
FOODSTUFFS	Region I	81.6	18.3	-
	Region II	74.3	25.7	-
	Region III	72.7	27.2	-
NEW CLOTHING	Region I	31.8	68.2	-
	Region II	60.8	39.2	-
	Region III	45.6	54.5	-
POST OFFICE	Region I	32.3	10.7	67.5
	Region II	54.7	-	45.3
	Region III	49.3	-	58.0
BANKING	Region I	2.8	4.2	93.0
	Region II	9.5	0.7	89.9
	Region III	21.3	5.1	73.5
HOSPITAL	Region I	26.6	20.0	53.3
	Region II	15.5	32.4	52.0
	Region III	50.0	25.7	24.3

In two of three services considered, the percentage of those considered, the percentage of those out of the urban system (i.e. for Banking and Hospital service) varies with the levels of regional development as postulated by Forde (1967). The variations in the postal service may be explained by their spatial distribution, the closure of the railway and the levels of education in the regions.

The mean distances travelled to obtain goods and services are given in Table 7.13. As Parr (1970) noted that

> "the individual producer's market area is really hexagonal in shape, the real range will not be equal in all directions. However it may be convenient to regard the real range as half the distance between two competing producers. What Christaller called the upper limit on the range of a good thus corresponds to either ideal range or the real range depending on the existence of effective spatial competition." (16)

This may be true where the competing producers are of the same importance. In reality this is hardly the case, so that the real range should reflect distance between two competing producers and their relative importance. We noted in chapter five the spatial distribution of the centres and the relative centrality.

With the exception of Banking in Region II, the higher the level of development, the lower the mean distances travelled to obtain goods and services. Worthy of note is that for all the goods and services considered, the mean travel distances in Region I (least developed) are above the national averages.

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(16) Parr, J.B. (1970) "Theoretical Problems in Central Place Analysis" Economic Geography 46 (October) p.570.

TABLE 7.13 MEAN TRAVEL DISTANCES FOR GOODS/SERVICES BY REGION (MILES)

GOODS/SERVICES	COUNTRY	REGION I	REGION II	REGION III
1. New Clothing	61.8	65.7	39.9	28.3
2. Foodstuffs	34.9	68.7	31.2	20.7
3. Hospital	42.5	61.3	16.6	10.6
4. Banking	32.6	40.0	50.0	25.0
5. Post Office	21.8	28.6	-	26.8

7.17 CONCLUSION

In the preceding sections of this chapter, the functional relationships of small urban centres have been examined. Implied in the hypothesis is that theoretically, centres interact with either those at the same level or higher up the hierarchy. However, under the test of reality consumer travel patterns for some of the goods and services considered (Hospital, New Clothing, Post Office), do not always follow the hierarchic order of central places. Interaction between centres is related to the presence of a service/good, their relative quality and qunatity, price and the distance to be travelled.

It was also noted that the distribution of these services does not always follow the hierarchic pattern of settlements and instances where movement from higher to lower order centres occur have been pointed out in the relevant sections of the chapter. Interaction between centres of the same order is minimal. The evidence from the analysis strongly suggests that in some cases where the provision of a service/good is by public and commercial authorities, their distribution is hierarchically structured but for those provided by missionaries, the logic behind their distribution is difficult to discern.

Much as it is important as most scholars think, to emphazise Christaller's hierarchical concepts, as a normative model of settlement patterns, evidence on detailed overt spatial behaviour of consumers does not seem to confirm this for every good/service.

C H A P T E R V I I I

CONCLUSION

The two preceding decades have witnessed various attempts by governments in a number of African countries to drastically alter the income levels as well as the standard and quality of life of their rural populations. At first the emphasis was on increasing agricultural production, which has now been shifted to agricultural production only within the context of a comprehensive strategy. Despite these steps, the current rural scenario in Africa raises distressing prospects. Mabogunje (1981) notes that these aspects

> "emphasize not only declining productivity but also deteriorating social and environmental conditions, poor infrastructural development, relatively grossly inadequate facilities and amenities and a general malaise which have had the effect of pushing out millions of young men to seek uncertain alternative opportunities in the cities. The resulting labour shortage further aggravates the situation, making agriculture an increasing drag on the growth of the gross domestic production of most African countries." (1)

Despite the apparent failure of many rural development projects, current programmes directed at the rural population continue to be structured along the old familiar lines, and these follow the now inevitable pattern of initial marginal success, then failure and disinterest.

It has been argued in this thesis that for African countries to

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(1) Mabogunje, A.L. (1981) "Geography and the dilemma of rural development in Africa" Geografiska Annaler 63B. 2, p.73.

launch out on a path of self-sustained growth and development in their rural areas, more emphasis should be paid to a spatial orientation unlike the present agro-technical basis. Dissatisfaction with the results of past and current rural development projects has blended with the hope that new strategies might narrow the widening gap between the relatively small urban elites and a massive rural population subsisting in abject poverty. The dissapointing results from the first development decade of the 1960's in making acceptable progress towards distributing the benefits of development have influenced policy changes in the 1970's.

Reacting to what may be described as outright failure, developing countries are trying to shift the focus from rapid industrialization to more balanced growth with social equity. This new concern has added a new dimension of spreading the benefits of development to the majority of the people. Since this majority live in the rural areas, the spatial focus has also shifted. This new emphasis is becoming more of a political necessity as it is an economic strategy. It is this new focus which has prompted interest in this study of small urban centres in Sierra Leone.

The evolution of these centres in many parts of the Third World has been debated by many scholars. There are those who contend that they are wholly the product of the colonial administrative system, while others insist that they long existed before the colonial era. Evidence in this study strongly supports that they are a product of the colonial administration either directly by the establishment of effective political control in the interior of the country or indirectly by the pacification of the interior tribesmen making the environment condusive for trade

which in turn contributed to the establishment of larger settlements which eventually developed urban functions. The historical and geographic evolution of these centres leads to a consideration of the views of the two schools of thought on the role of these centres in the development process. The views held by Johnson (1970) and others emphasize the positive role of these centres. In contrast Frank (1971) and many marxist social scientists see these centres as outposts of a system of extraction which suck up the wealth of the rural inhabitants without putting in anything back. These two contrasting views on the role of small urban centres have far-reaching implications for the design of rural development policies. The spatial structure that evolved as a result of alien domination led to little chance of interregional trading relations and reorientation towards exports. This persistent situation can only lead to few of these centres playing any positive role in the development of their rural hinterlands.

Despite the reflection in their internal structures of the domination of alien interests, this study has also revealed that the centres perform important administrative, economic and social functions for their populations. The imposed structure reflects the image of the alien planner rather than an indigenous pattern. There is a distinctive spatial separation of the various functions; more so in the district towns than chiefdom headquarters. This legacy has been kept to this day. It is therefore not surprising that their internal structures and the functions have been controlled from their initial development.

The need for harmonising the needs of national economic growth and regional welfare and keeping in view the regional situation in Sierra Leone, the principal objectives of regional development under the

National Development Plan 1974/75 - 1978/79 were as follows:-

1. reduction of regional and social disparities, in particular the disparities between the Western Area and the Provinces.

2. ensuring through appropriate development policies and programmes of natural and human resource development that each region (and sub-region and local area within it) is enabled to attain its full development potential;

3. Co-ordination of development activites in different regions;

4. effective integration of the regional and local economies with the national economy and

5. reducing migration to Freetown and the diamond areas which has resulted in creation of difficult economic and social problems in these areas besides creating a growing inbalance between the demand and supply of food.(2)

Within these objectives the strategies designed have the following major components:-

1. Significantly raising the levels of productivity and incomes through agricultural development programmes.

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(2) National Development Plan 1974/75 - 1978/79. Freetown, Sierra Leone, p.98.

2. Progressive expansion of economic and social facilities and physical infrastructure in order to increase the development potential of the rural areas.

3. Development of a number of carefully selected towns and villages as growth centres to servce as focal points or nuclei of regional development.

4. Formulation of plans for provinces, districts and towns within the framework of the national development plan.

5. Establishment of viable local government institutions.

Despite the important functions performed by small urban centres, their lack of adequate numbers and their uneven distribution means that these functions are provided for only a limited proportion of the rural population. We noted in the analysis that the distance decay rates can be sharp and this is more so as a good majority of the rural population have to travel on foot. If planners intend using the present framework of small urban centres for service/good provision, the chances are that only a limited proportion of the population will be served. To serve a greater proportion of the rural population would require spatial reconstruction. A new towns development programme will be beyond the fiscal capabilities of the country at the moment. To pursue villagization as in the case of Tanzania presents a very attractive prospect, but this too has its problems. A policy based upon group together villages and households is obviously important for the economic provision of facilities. The process of moving people to larger centres could take a considerable time as the Tanzania experience has

confirmed. If the facilities/services are concentrated in these centres then such a policy may increase the real incomes of those who already reside in them but not reaching the remaining rural population. Results from the Tanzanian experiment are fragmentary but there are indications of dissatisfaction expressed by those moved. Any judgement passed on its present results may be premature. The choice therefore is either to group people into larger settlements which can be provided for or use the present framework whose limitations have already been noted. Either way is now becoming an urgent problem if we are to cope with the problems of underdevelopment. We noted also that the social structures of these centres are dominated by administrators and traders and more or less constitute an elite in relation to the rest of the inhabitants. Bringing households together as in the Ujamaa situation may not only provide an efficient use of limited resources but may provide a device for social or communal institutions. The spatial structures described in Cahpter IV are as pointed out allocations to specific groups in the population.

As at present constituted, small urban centres are inadequately provided for in terms of goods and services. If they remain so, their role in enhancing the well-being of their rural populations may be seriously limited. If they are to be used as a framework for rural development, any serious chance they would have in effecting change through innovations and information would not only depend on their numbers and spatial distribution but also on the provision of facilities within these centres.

Existing studies of small urban centres usually end up at establishing a hierarchical structure (Mitchell 1972; Abiodun 1967),

where the notion of growth centres has been used for rural development, the tendency has been to concentrate on the upper levels of the hierarchy without establishing whether positive links exist between these centres and their rural hinterland. The analysis confirms that a hierarchy exists but the detailed consumer travel patterns do not always follow the hierarchical structures. Care must therefore be taken in establishing growth centres in some of these centres. If no positive links exist between centres and their rural hinterlands, the chances are that according to Funnell (1976)

> "the growth centre is likely to be unsuccessful. Indeed, there is a grave danger that they merely act as a focus for government investment to service centres which themselves serve only a limited region. In this respect the centres would be more 'parasitic' than 'generative' reinforcing a pattern some commentators consider typically colonial." (3)

Stressing the 'generative' role of small urban centres pressupposes decentralization and deconcentration. The present administrative system in Sierra Leone is highly centralized although the strategies for rural development stress the development of viable local government institutions.

Studies of rural and regional development have been stressing the need to consider the role which can be played by small urban centres. Through expediency most planners are tempted to use the present spatial framework for service provision. In terms of efficiency, we have noted the limitations imposed by the numbers, modes of transport, spatial distribution, relative centrality and linkages between small urban centres and their rural hinterlands. Much as they present a more favourable

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(3) Funnell, D.C. (1976) "The role of small service centres in Regional and Rural Development: with special reference to Eastern Africa" in Development Planning and Spatial Structure. J. Wiley and Sons. Chichester, New York, Brisbane, Toronto. p.107.

choice under present circumstances, care must be taken not to lay too much emphasis on concentration on places. If development is for people, then the present spatial structure is inadequate. Consideration must be given to people rather than places; neglect of the former may lead to long term unfortunate circumstances, and the small urban centres which may be designed to improve the real income and well-being of the rural population may result in reinforcing a sitaution which is already unacceptable and continues to widen.

As far as Sierra Leone is concerned, this thesis has raised as many questions as it has tried to answer and it is hoped that it has also contributed however small into a better understanding of the geography of small urban centres.

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APPENDIX A

EMPLOYMENT STATUS

			Agriculture	For, Hu. & Fish	Mining & Gu	Manufacturing	Construction	Elec. Gas & w.	Commerce	T.Stor & Com.	Services
1.	Alikalia	556	94.7	0.2	0.9	0.2	-	2.5	0.2	1.2
2.	Baoma	1201	47.5	33.5	3.6	0.6	-	9.9	1.4	3.5
3.	Barma	3545	16.5	53.4	6.9	0.9	-	17.7	1.6	2.7
4.	Blama	1559	20.9	1.9	16.5	2.1	0.2	38.1	9.0	11.0
5.	Boajibu	2015	26.4	34.0	10.8	1.0	-	18.6	3.1	6.0
6.	Bointhe	1522	16.0	0.1	12.7	3.1	2.5	33.3	12.4	19.4
7.	Fomaya	2229	17.6	65.2	4.7	0.3	0.4	16.3	0.2	1.3
8.	Gandorhun	740	67.4	0.8	8.8	1.6	0.3	12.2	3.2	5.9
9.	Gerehun	1051	62.6	7.0	8.8	1.1	0.7	13.4	2.5	3.9
10.	Gondama	1735	37.1	45.4	4.6	1.0	-	10.1	0.6	1.2
11.	Hangha	1457	15.8	60.0	7.3	0.7	-	11.9	2.3	2.3
12.	J.Nunikoro	1244	66.8	6.9	7.2	0.6	0.3	9.3	2.7	6.0
13.	J. Sewafe	2732	30.7	42.5	7.2	0.9	0.1	12.7	1.5	4.4
14.	Kabala	1460	33.5	-	16.4	4.6	1.3	22.0	7.2	14.6
15.	Kailahun	1638	41.0	0.2	16.4	3.2	1.2	19.2	5.5	13.1
16.	Kamakwie	1015	47.0	0.1	10.4	1.4	0.2	25.2	6.2	9.4
17.	Kambia	932	33.3	0.2	14.5	2.8	1.5	24.0	5.8	17.9
18.	Kassiri	730	44.8	-	15.2	1.0	-	26.6	5.9	6.4
19.	Koindu	725	26.3	0.1	15.9	3.9	0.3	39.2	7.6	6.6
20.	Kukuna	975	91.1	0.1	2.0	0.4	-	3.7	1.2	1.2
21.	Largo	1254	42.3	40.8	7.3	0.2	-	6.7	1.2	1.5
22.	Lungi	582	56.9	-	7.7	13.0	0.5	11.3	6.7	3.8

APPENDIX A
(Continued)

EMPLOYMENT STATUS

	Agriculture	For, Hu. & Fish	Mining & Gu	Manufacturing	Construction	Elec. Gas & w.	Commerce	T.Stor & Comm.	Services
23. Magburaka	1443	17.7	0.3	12.4	5.7	3.0	30.3	7.1	23.5
24. Mambolo	1074	73.7	-	12.3	1.4	-	7.3	1.1	4.2
25. Mano	676	45.7	-	4.4	1.9	1.3	24.3	7.7	7.0
26. Masingbi	643	62.2	1.5	9.0	0.7	-	16.8	3.0	6.7
27. Mattmu	557	29.3	-	12.6	5.4	0.4	26.6	6.3	19.4
28. Moyamba	1039	28.6	-	11.4	2.8	2.7	27.5	4.3	22.6
29. Panguma	1056	41.3	11.9	17.0	3.1	0.3	12.8	8.5	5.0
30 Pendembu	1007	42.0	-	14.9	8.7	0.6	21.0	7.2	5.5
31. Pepel	1223	5.7	44.1	2.8	32.8	0.8	8.4	3.6	2.4
32. Peyjima	2464	15.9	56.4	8.5	1.3	-	14.1	1.3	2.4
33. Port Loko	1479	20.0	0.5	14.3	14.1	3.4	25.1	6.7	15.8
34. Pujehun	462	20.7	0.6	17.0	3.9	2.8	20.1	3.9	30.7
35. Rokupr	1186	45.2	-	9.2	5.1	1.3	19.0	4.5	14.6
36. Rotifunk	576	32.1	-	13.7	2.6	0.5	28.0	8.0	15.1
37. Sedu	1214	26.9	36.6	11.4	0.9	-	15.7	3.0	5.4
38. Segbwema	2052	38.7	1.2	15.5	2.2	0.5	24.0	4.5	13.4
39. Sukudu	1621	38.4	44.2	7.5	0.6	-	7.5	0.6	1.8
40. T.Wallah	1162	90.7	-	2.3	0.2	-	4.3	0.6	0.7
41. Tombudu	1399	45.0	29.2	8.0	0.6	-	10.8	1.0	5.4
42. Yamandu	1277	38.5	32,5	7.6	1.0	-	14.8	1.0	4.4
43. Yormandu	2935	19.1	48.1	9.8	1.0	0.1	17.4	1.6	2.7
MEAN		39.9	16.3	9.9	3.3	0.6	17.5	4.0	8.2

APPENDIX B PRINCIPAL COMPONENTS FROM EMPLOYMENT FIGURES BY TOWN

(1963 Census)

		1.	2.
1.	Alikalia	3.1388	2.3527
2.	Bacma	2.1961	-0.1361
3.	Barma	1.4979	-1.7585
4.	Blama	-2.5963	-0.0655
5.	Boajibu	0.5528	-0.8131
6.	Bonthe	-4.0687	-0.2096
7.	Fomaya	2.3422	-2.0514
8.	Gondarhun	0.8693	1.4323
9.	Gerehun	0.9111	1.0744
10.	Gondama	2.3918	-0.8673
11.	Hangha	1.7511	-1.8991
12.	J. Nimikoro	1.3026	1.3059
13.	J. Sewafe	1.5848	-0.9483
14.	Kabala	-2.1906	0.2687
15.	Kailahun	-1.5636	0.5609
16.	Kamakwie	-0.6956	0.8406
17.	Kambia	-2.1359	0.3194
18.	Kasirri	-0.8890	0.7962
19.	Koindu	-2.1780	-0.0303
20.	Kukuna	2.8024	2.2549
21.	Largo	2.2276	-0.4677
22.	Lungi	0.1540	0.4856
23.	Magburaka	-3.6048	-0.4241
24.	Mambolo	1.3743	1.6794

APPENDIX B (Continued)

		1.	2.
25.	Mano	-0.9355	0.8158
26.	Masingbi	0.7100	1.2955
27.	Mattru	-1.9165	0.0953
28.	Moyamba	-2.6397	0.0686
29.	Panguma	-0.7304	0.3448
30.	Pendembu	-1.1878	0.2623
31.	Pepel	0.7097	-37179
32.	Peyima	1.6158	-1.8640
33.	P/Loko	-3.3525	-0.9108
34.	Pujehun	-3,3508	-0.1492
35.	Rokupr	-0.9547	0.5425
36.	Rotifunk	-2.0080	0.3556
37.	Seidu	0.7297	-0.8507
38.	Segbwema	-1.2832	0.4991
39.	Sukudu	2.2368	-0.7304
40.	T. Wallah	2.8663	2.2638
41.	Tombudu	1.6352	-0.0713
42.	Yamandu	1.5060	-0.4334
43.	Yormandu	1.1756	-1.5156

APPENDIX C TWO PRINCIPAL COMPONENTS BY OCCUPATIONAL STRUCTURES

		1.	2.
1.	AGRIC: FOR: HTG: FISHING	1.2234	0.7017
2.	MINING & QUARRYING	0.2910	-0.6187
3.	MANUFACTURING	-0.3939	0.0257
4.	CONSTRUCTION	-0.1324	-0.3324
5.	ELECT. GAS & WATER	-0.3782	-0.0515
6.	COMMERCE	-0.4281	-0.0545
7.	TRANSPORT, STORAGE & COMM.	-0.4260	0.0707
8.	SERVICES	-0.4301	0.0543

APPENDIX D SAMPLED VILLAGES AROUND SAMPLED SMALL URBAN CENTRES SHOWING DISTANCE FROM AND MODE OF LINK WITH CENTRES.

A. LEAST DEVELOPED REGION

	CENTRE	VILLAGES	DISTANCE (klms)	MODE OF LINK WITH CENTRE
1.	Kamakwie	Kadada	3	Road (unpaved)
		Gbonko	3	Footpath
		Maron	3	Footpath
		Robat	6	Footpath
		Kadigidigi	3	Feeder Road
		Kagborie	6	Road (unpaved)
		Kamenthe	6	Road (unpaved)
		Kabba Ferry	9	Road (unpaved)
2.	Mambolo	Wolaw	3	Footpath
		Katima	3	River
		Kalenke	6	Feeder Road and River
		Robis	9	Footpath
		Mando	9	Footpath
		Bosmya	6	Feeder Road
		Malambey	6	Footpath
		Mahera	3	Feeder Road
3.	Kabala	Heremakono	9	Road (unpaved)
		Yisimaia	3	Road (unpaved)
		Yagala	3	Road (unpaved
		Benikoro	9	Footpath
		Kasasi	6	Feeder Road
		Senekedugu	6	Feeder Road

APPENDIX D (Continued)

	CENTRE	VILLAGES	DISTANCE (Klms)	MODE OF LINK WITH CENTRE
4.	Segbwema	Baoma	6	Footpath
		Fola	3	Footpath
		Kpubu	9	Road (unpaved)
		Giema	6	Footpath
		Fayama	3	Footpath
B.	LESS DEVELOPED REGION			
5.	Mano	Laponga	3	Feeder Road
		Kerebu	6	Footpath
		Mokobi	6	Footpath
		Motehun	6	Footpath
		Magbamu	3	Footpath
		Follywamu	9	Road (unpaved)
6.	Moyamba	Gondema	3	Footpath
		Mokente	6	Footpath
		Periwahun	9	Road (unpaved)
		Falaba	6	Road (unpaved)
		Towubu	9	Footpath
		Mokende	9	Footpath
		Mayogba	3	Road (unpaved)
		Kwellu	9	Road (unpaved)

APPENDIX D (Continued)

C. MORE DEVELOPED REGION

	CENTRE	VILLAGES	DISTANCE (Klms)	MODE OF LINK WITH CENTRE
7.	Serabu	Tokpombu	6	Footpath
		Yengema	6	Footpath
		Yaama	3	Footpath
		Taninahun	9	Road (unpaved)
		Petebu	6	Footpath
		Kanga	9	Footpath
		Jagbwema	9	Footpath
8.	Panguma	Bandajuma	3	Footpath
		Gandorhun	9	Footpath
		Dandabu	6	Footpath
		Mamboma	6	Footpath
		Jagbwoma	9	Road (unpaved)
		Levuma	6	Footpath

Source: Fieldtrip.

APPENDIX E AVERAGE MONTHLY EXPENDITURE OF HOUSEHOLDS IN ALL RURAL AREAS UP COUNTRY BY INCOME CLASS - 1969

ITEMS	ALL HOUSEHOLDS	HOUSEHOLDS WITH INCOME			ALL HOUSEHOLDS	PERCENT OF TOTAL		
		less than Le 40	Le 40-99.99	Le 100 and over		less than Le 40	Le 40-99.99	Le 100 an over
1. FOOD, DRINKS AND TOBACCO	11.51	8.55	9.18	11.88	34.2	33.2	30.3	32.1
Rice, Cereals & Bread	1.62	1.68	2.00	2.86	4.8	6.5	6.6	7.7
Vegetables	0.83	0.28	0.13	0.68	2.5	1.0	0.4	1.8
Fruits	0.65	0.12	0.48	0.38	1.9	0.5	1.6	1.0
Oils and Fats	0.91	0.34	0.16	0.80	2.7	1.3	0.5	2.2
Milk Products	0.42	0.41	0.64	0.54	1.3	1.6	2.1	1.5
Beverages, Non-Alcoholic	0.61	0.22	0.77	0.91	1.8	0.9	2.6	2.5
Meats	0.99	1.54	1.43	1.18	2.9	6.0	4.7	3.2
Poultry	0.45	0.52	0.43	0.81	1.3	2.0	1.4	2.2
Eggs	0.24	0.21	0.16	0.53	0.7	0.8	0.5	1.4
Fish Fresh	0.78	0.12	0.12	0.68	2.3	0.5	0.4	1.8
Fish dried and other	0.87	0.15	0.15	0.61	2.6	0.6	0.5	1.6
Sugar, Salt & condiments	0.52	0.59	0.75	0.62	1.6	2.3	2.5	1.7
Other Foods	0.43	0.54	0.56	0.57	1.3	2.1	1.9	1.5
Restaurant Meals	0.18	0.34	0.16	0.21	0.5	1.3	0.5	0.6
2. ALCOHOLIC DRINKS	1.14	0.68	0.57	0.28	3.4	2.6	1.9	0.8

APPENDIX E AVERAGE MONTHLY EXPENDITURE OF HOUSEHOLDS IN ALL RURAL AREAS UP COUNTRY BY INCOME CLASS - 1969

ITEMS	ALL HOUSEHOLDS	HOUSEHOLDS WITH INCOME			ALL HOUSEHOLDS	PERCENT OF TOTAL		
		less than Le 40	Le 40-99.99	Le 100 and over		less than Le 40	Le 40-99.99	Le 100 an over
3. TOBACCO AND KOLANUT	0.87	0.81	0.67	0.22	2.6	3.2	2.2	0.6
4. TRANSPORTATION	2.74	2.83	2.01	1.51	8.2	11.0	6.6	4.0
Local Fares	1.95	1.20	0.95	0.46	5.8	4.7	3.1	1.2
Vehicle Operation	0.32	-	-	-	1.0	-	-	-
Other transportation	0.47	1.63	1.06	1.05	1.4	6.3	3.5	2.8
5. FUEL AND LIGHT	1.98	1.79	1.65	1.38	5.8	7.0	5.5	3.7
Wood and charcoal	0.47	0.76	0.34	0.55	1.4	3.0	1.1	1.5
Kerosene	0.58	0.36	0.83	0.68	1.7	1.4	2.8	1.8
Electricity	0.58	0.15	0.37	0.08	1.7	0.6	1.2	0.2
Candles and matches	0.35	0.52	0.11	0.07	1.0	2.0	0.4	0.2
6. MEDICAL AND PERSONAL CARE	2.55	2.09	3.01	3.79	7.6	8.2	10.0	10.3
Personal care items	0.58	0.09	0.49	0.74	1.7	0.4	1.6	2.0
Barber & hairdressers	0.17	0.12	0.72	0.39	0.5	0.5	2.4	1.1
Drugs & medicines	0.73	0.98	0.57	1.04	2.2	3.8	1.9	2.8
Medical Service	1.07	0.90	1.23	1.62	3.2	3.5	4.1	4.4

APPENDIX E AVERAGE MONTHLY EXPENDITURE OF HOUSEHOLDS IN ALL RURAL AREAS UP COUNTRY BY INCOME CLASS - 1969

ITEMS	ALL HOUSEHOLDS	HOUSEHOLDS WITH INCOME			ALL HOUSEHOLDS	PERCENT OF TOTAL		
		less than Le 40	Le 40-99.99	Le 100 and over		less than Le 40	Le 40-99.99	Le 100 an over
7. CLOTHING AND SHOES	7.01	4.68	5.85	6.00	20.8	18.3	19.6	16.2
Men's and Boy's clothing	1.07	0.94	1.41	2.22	3.2	3.7	4.7	6.0
Women's & girl's clothing	0.92	0.52	0.74	0.50	2.7	2.0	2.5	1.4
Children's clothing	0.17	0.52	0.16	0.77	0.5	2.0	0.5	2.1
Cloth	2.02	0.90	1.86	0.75	6.0	3.5	6.2	2.0
Tailoring	0.54	0.66	0.80	0.68	1.6	2.6	2.7	1.8
Accessories	1.20	0.74	0.53	0.60	3.6	2.9	1.8	1.6
Shoes and slippers	1.09	0.40	0.35	0.48	3.2	1.6	1.2	1.3
8. HOUSING	3.62	2.19	4.40	5.87	10.7	8.4	14.5	15.9
Rents and Rates	0.79	0.34	2.97	0.52	2.3	1.3	9.8	1.4
Repairs	0.36	0.56	0.18	1.42	1.1	2.2	0.6	3.8
Furniture & Houshold goods	1.95	1.05	1.00	2.61	5.8	4.0	3.3	7.1
Laundry & cleaning supplies	0.52	0.24	0.25	1.32	1.5	0.9	0.8	3.6

APPENDIX E AVERAGE MONTHLY EXPENDITURE OF HOUSEHOLDS IN ALL RURAL AREAS UP COUNTRY BY INCOME CLASS - 1969

ITEMS	ALL HOUSEHOLDS	HOUSEHOLDS WITH INCOME			ALL HOUSEHOLDS	PERCENT OF TOTAL		
		less than Le 40	Le 40-99.99	Le 100 and over		less than Le 40	Le 40-99.99	Le 100 an over
9. MISCELLANEOUS EXPENSE	4.34	3.56	4.06	6.54	12.7	13.9	13.4	17.7
Education and Reading	1.65	0.24	0.55	2.07	4.9	0.9	1.8	5.6
Radio and Recreation	0.75	0.93	0.16	1.09	2.2	3.6	0.5	2.9
Lottery and pool tickets	0.36	0.58	0.21	0.70	1.1	2.3	0.7	1.9
Money for support of relatives and friends	0.58	0.15	0.93	0.98	1.7	0.6	3.1	2.7
Contributions to Church and charities	0.28	0.53	1.10	0.58	0.8	2.1	3.6	1.8
TOTAL EXPENDITURE	33.75	25.69	30.16	36.197	100.0	100.0	100.0	100.0
HOUSEHOLD SIZE	6.7	5.0	6.5	8.4				
Renters as percentage of all households	5.7%	35%	20.7%	43.2%				

Source: Household Survey of the Rural Areas of the Provinces July 1969-January 1970. Central Statistics Office - Freetown, Table 3.

APPENDIX F AVERAGE MONTHLY EXPENDITURE AND INCOME OF HOUSEHOLDS IN THE RURAL AREAS BY LOCATION - UP COUNTRY 1969

ITEMS	AVERAGE EXPENDITURES LEONES				PERCENT OF TOTAL			
	NORTHERN PROVINCE	SOUTHERN PROVINCE	EASTERN PROVINCE	ALL RURAL AREAS	NORTHERN PROVINCE	SOUTHERN PROVINCE	EASTERN PROVINCE	ALL RURAL AREAS
1. FOOD & BEVERAGES	9.65	13.64	11.29	11.51	44.0	43.6	34.2	34.2
Rice, Cereals & Bread	1.72	2.32	0.81	1.62	7.9	7.4	2.5	4.8
Vegetables	0.79	0.82	0.88	0.83	3.6	2.6	2.7	2.5
Fruits	0.57	1.15	0.24	0.65	2.6	3.7	0.7	1.9
Oils and fats	0.88	0.95	0.90	0.91	4.0	3.0	2.7	2.7
Milk products	0.31	0.64	0.32	0.42	1.4	2.1	1.0	1.3
Beverages, Non Alcoholic	0.40	0.54	0.89	0.61	1.8	1.7	2.7	1.8
Meat	0.75	1.10	1.13	0.99	3.4	3.5	3.4	2.9
Poultry	0.40	0.57	0.38	0.45	1.8	1.8	1.2	1.3
Eggs	0.07	0.47	0.19	0.24	0.3	1.5	0.6	0.7
Fish fresh	0.88	0.69	0.77	0.78	4.0	2.2	2.3	2.3
Fish, dried and others	0.80	0.74	1.07	0.87	3.6	2.4	3.2	2.6
Sugar, salt & condiments	0.31	0.78	0.47	0.52	1.4	2.5	1.4	1.6
Other foods	0.43	0.42	0.45	0.43	2.0	1.3	1.4	1.3
Restaurant Meals	0.17	0.19	0.19	0.18	0.8	0.6	0.6	0.5
2. ALCOHOLIC DRINKS	0.56	1.42	1.43	1.14	2.6	4.6	4.3	3.4

APPENDIX F AVERAGE MONTHLY EXPENDITURE AND INCOME OF HOUSEHOLDS IN THE RURAL AREAS BY LOCATION - UP COUNTRY 1969

ITEMS	AVERAGE EXPENDITURES LEONES.				PERCENT OF TOTAL			
	NORTHERN PROVINCE	SOUTHERN PROVINCE	EASTERN PROVINCE	ALL RURAL AREAS	NORTHERN PROVINCE	SOUTHERN PROVINCE	EASTERN PROVINCE	ALL RURAL AREAS
3. TOBACCO AND KOLANUT	0.61	0.84	1.17	0.87	2.8	2.7	3.5	2.6
4. TRANSPORTATION	1.72	1.35	5.14	2.74	7.9	4.4	15.5	8.2
Local fares	0.70	-	-	1.95	3.2	-	-	5.8
Vehicle operation	0.45	0.52	-	6.32	2.1	1.7	-	1.0
Other transportation	0.57	0.83	5.14	0.47	2.6	2.7	15.5	1.4
5. FUEL AND LIGHT	0.78	1.26	3.89	1.98	3.5	4.1	11.8	5.8
Wood and charcoal	0.11	0.55	0.75	0.47	0.5	1.8	2.3	1.4
Kerosene	0.13	0.58	1.04	0.58	0.6	1.9	3.1	1.7
Electricity	0.14	0.07	0.58	0.58	0.6	0.2	1.8	1.7
Candle and matches	0.40	0.06	1.52	0.35	1.8	0.2	4.6	1.0
6. MEDICAL AND PERSONAL CARE	1.72	1.95	3.95	2.55	7.8	6.3	12.1	7.6
Personal care items	0.24	1.31	0.18	0.58	1.1	4.2	0.6	1.7
Barber and Hairdressers	0.07	0.24	0.19	0.17	0.3	0.8	0.6	0.5
Drugs and medicines	1.30	0.37	0.51	0.73	5.9	1.2	1.6	2.2
Medical Services	0.11	0.03	3.07	1.07	0.5	0.1	9.3	3.2

APPENDIX F AVERAGE MONTHLY EXPENDITURE AND INCOME OF HOUSEHOLDS IN THE RURAL AREAS BY LOCATION - UP COUNTRY 1969

ITEMS	AVERAGE EXPENDITURES LEONES				PERCENT OF TOTAL			
	NORTHERN PROVINCE	SOUTHERN PROVINCE	EASTERN PROVINCE	ALL RURAL AREAS	NORTHERN PROVINCE	SOUTHERN PROVINCE	EASTERN PROVINCE	ALL RURAL AREAS
7. CLOTHING AND SHOES	1.73	6.26	3.04	7.01	7.9	20.1	9.1	20.8
Men's & Boy's clothing	0.36	2.08	0.13	1.07	1.6	6.7	0.4	3.2
Women's & girl's clothing	0.13	0.76	0.31	0.92	0.6	2.4	0.9	2.7
Children's clothing	0.02	0.21	0.28	0.17	0.1	0.7	0.8	0.5
Cloth	0.59	1.64	0.64	2.02	2.7	5.3	1.9	6.0
Tailoring	0.50	0.35	0.76	0.54	2.3	1.1	2.3	1.6
Accessories	0.10	0.24	0.54	1.20	0.5	0.8	1.6	3.6
Shoes and slippers	0.03	0.98	0.38	1.09	0.1	3.1	1.2	3.2
8. HOUSING	2.54	4.40	3.92	3.62	11.4	14.1	11.9	10.7
Rents and Rates	1.00	0.78	0.60	0.79	4.5	2.5	1.8	2.3
Repairs	0.01	0.31	0.76	0.36	-	1.0	2.3	1.1
Furniture & household goods	1.50	2.44	1.90	1.95	6.8	7.8	5.8	5.8
Laundry & cleaning supplies	0.03	0.87	0.66	0.52	0.1	2.8	2.0	1.5

APPENDIX F AVERAGE MONTHLY EXPENDITURE AND INCOME OF HOUSEHOLDS IN THE RURAL AREAS BY LOCATION - UP COUNTRY 1969

ITEMS	AVERAGE EXPENDITURES LEONES				PERCENT OF TOTAL			
	NORTHERN PROVINCE	SOUTHERN PROVINCE	EASTERN PROVINCE	ALL RURAL AREAS	NORTHERN PROVINCE	SOUTHERN PROVINCE	EASTERN PROVINCE	ALL RURAL AREAS
9. MISCELLANEOUS	3.81	2.34	1.83	4.34	17.4	7.4	5.4	12.7
Education & Reading	1.21	0.76	0.50	1.65	5.5	2.4	1.5	4.9
Radio and Recreation	0.40	0.41	0.24	0.75	1.8	1.3	0.7	2.2
Lottery and pool tickets	0.02	0.25	0.14	0.36	0.1	0.8	0.4	1.1
Money for Friends and Relatives	0.64	0.89	0.21	0.58	2.9	2.8	0.6	1.7
Contribution to church funerals etc.	0.55	-	0.30	0.28	2.5	-	0.4	1.3
Other expenses	0.50	0.03	0.30	0.28	2.3	0.1	0.9	0.7
TOTAL EXPENDITURE	21.95	31.20	33.06	33.75	100.0	100.0	100.0	100.0
TOTAL INCOME	22.75	24.17	26.56	24.37	100.0	100.0	100.0	100.0

Source: Household Survey of the Rural Areas of the Provinces. July 1969 - January -970½ Central Statistics Office, Freetown. Table 1.

APPENDIX G QUESTIONNAIRE - BUSINESSMEN Urban/Areas

1. Name:

2. Age:

3. Sex:

4. Address of Respondent:

5. Number of permanent residents in household:

6. How long have you lived here?

(a) (b) (c) (d)

7. Where did you live before?

(a) (b) (c) (d)

8. What did you do before you became a businessman?

(a) (b) (c) (d)

(e) (f)

9. What do you trade in?

(a) (b) (c) (d)

(e) (f) (g) (h)

10. Where do you sell your goods?

(a) (b) (c) (d)

(e)

11. How often do you purchase store goods?

(a) (b) (c) (d)

(e) (f) (g) (h)

12. Where (town) do you get your goods from?

(a) (b) (c) (d)

(e) (f)

13. From whom do you get your stores?

(a) Wholesaler (b) Retailer (c) Co-operative

(d) Hawker

14. How do you get there?

(a) Lorry (b) Bicycle (c) Boat (d) Foot

15. How much does it cost you per return trip?

(a) (b) (c) (d)

16. What people do you employ?

(a) Family workers (b) Employees

17. How many people do you employ?

(a) (b) (c) (d)

18. What is your annual turnover? Direct observation.

(a) (b) (c) (d)

APPENDIX H QUESTIONNAIRE RURAL/URBAN AREAS

1. Name

2. Age:- 3. Sex:-

4. Address of Respondent:-

5. Number of permanent residents in household:-

6. How long have you lived here?

a) Less than 2 yrs. b) 2 - 5 yrs. c) 5-10 yrs.

d) All your life.

7. Do you have any children?

a) Yes b) No

8. Do/did they go to school?

a) Yes b) No.

9. How many go to school?

a) b) c) d)

10. Which school do/did they go to?

a) Kuranic b) English c) both.

11. Where (town) is the school?

a) b) c) d)

12. How do/does they/he/her get there?

a) Lorry b) Bicycle d) Boat e) Foot

13. What is your major occupation?

a) Farmer b) Craftsman c) Traders d) Any other. (State)

14. Where fo you practice your major occupation?

a) In this village b) Any other (Specify)

15. How do you get to your main work place?

a) Lorry b) Bicycle c) Boat d) Foot

16. How long does it take you to get there?

a) Less than 1 hr. b) 1 - 3 hrs. c) More than 3 hrs.

17. What occupation is your most important?

a) b) c) d) e)

18. Where do you practice your secondary activities?

a)

b)

c)

d)

e)

19. How do you get there?

1) Lorry 2) Bicycle 3) Boat 4) Foot

a)

b)

c)

d)

e)

20. How long does it take you to get there?

1) less than 1 hr. 2) 1 - 3 hrs. 3) More than 3 hrs.

a)

b)

c)

d)

e)

RURAL/URBAN LINKS

21. Which town do you go to?

a) b) c) d)

e)

22. How many times do you go to town?

a) b) c) d) e)

Once per year

1 - 4 times per yr.

4 - 12 times per yr.

Every other week

Weekly

2 - 3 times per week

Daily

23. What purpose do you got to town for?

Work Hospital Entertainment Any Other (Specify)

a)

b)

c)

d)

e)

24. How much does it cost you by return trip?

a)

b)

c)

d)

e)

25. Do you buy any foodstuffs?

a) Yes b) No

26 What type of foodstuffs do you buy?

a) Locally grown b) Locally manufactured c) Imported

27. Where do you get them from?

a)

b)

c)

28. Whom do you buy them from?

	Wholesaler	Retailer	Market	Hawker	Co-operative
a)					
b)					
c)					
d)					

29. What type of goods do you buy?)Specify)

a) Consumer b) Producer c) Both

30. Where do you buy them from?

	a)	b)	c)	d)
1)	Consumer			
2)	Producer			

31. How often do you buy your consumer goods?

a) Daily b) 2-3 times per week c) Monthly

d) Every other week e) Once per yr. f) 1 - 4 times per yr.

g) 4-12 times per yr.

32. Whom do you buy your goods from?

	Wholesaler	Retailer	Market	Hawker	Co-operative
a) Consumer					
b) Producer					

33. How often do you buy producer goods?

a) Daily b) 2-3 times per week c) Monthly d) Every other week

e) Once per yr. f) 1-4 times per yr g) 4-12 times per y.

34. Do you sell anything?

a) Yes b) No.

35. What do you sell?

a) Agricultural produce b) Consumer goods

c) Producer goods d) Other primary produce.

36. How much do you sell?

	Daily	Weekly	Montly	Yearly (Estimate)
a)				
b)				
c)				
d)				

37. Where do you sell?

a) Daily market b) Periodic market c) Any other (Specify)

38. How do you get there?

	Lorry	Bicycle	Boat	Foot
a)				
b)				
c)				

39. Where is the market (Town)

	(1)	(2)	(3)	(4)	(5)
a)					
b)					
c)					

40. How long does it takeyou to get there?

	Less than 1 hr.	1-2 hrs.	2-3 hrs.	Over 3 hrs.
a)				
b)				
c)				

41. Did/do you go to school?

a) Yes b) No.

42. Which school did/do you go to?

a) English b) Kuranic c) Both

43. Where is it? (Town) (Specify)

	(1)	(2)	(3)	(4)	(5)
a)					
b)					

44. How long did/does it take you to get there?

a) under 1 hr. b) 1 - 3 hrs. c) over 3 hrs.

45. How much does/did it cost you on a return trip?

a) Nothing b) c) d)

46. How did/do you get there?

a) Lorry B) Bicycle c) Boat d) Foot

47. Do you use the Post Office/Agency?

a) Yes b) No

48. What purpose do you use it?

a) Post letters b) Savings Bank c) Any other (specify)

49. Where is it?

a) b) c) d)

50. How do you get there?

a) Lorry b) Bicycle c) Boat d) Ferry

51. How long does it take you?

a) Under 1 hr. b) 1-3 hrs. c) over 3 hrd.

52. How often do you use the Post Office/Postal Agency?

a) Daily b) 2-3 times per wk. c) Every other week

d) Monthly e) 4-12 times per yr. f) 1-4 times per yr.

g) Once per yr.

53. Do you engage in any entertainments?

a) Yes b) No.

54. What entertainment do you engage in?

(State in order of importance)

a) d)

b) e)

c) f)

55. Where do you go for these?

a) d)

b) e)

c) f)