

AN INVESTIGATION OF URBAN SPRAWL  
WITHIN KAMPALA-ENTEBBE CORRIDOR

BY

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A B S T R A C T

Urban sprawl is a common phenomenon associated with most towns in many parts of the world. Thus, Ugandan towns are not unique in this respect. The thesis therefore sets out to investigate the existence and extent of urban sprawl and the resulting problems from this nature of development within Kampala-Etebbe corridor. The study also goes further to identify any other types of development which contribute to the explanation of the present mixed pattern of development within the corridor. Having analysed the various types of development, the study comes out with planning proposals for the whole study area. The study area is 93.5 sq miles, (239 sq km) with a total population of 42276 people (1969 Uganda Population Census).

The major source of information in writing the thesis was that obtained through field surveys carried out in the study area. Surveys involved interviewing people using a designed questionnaire. Informal interviews were also conducted. More information was obtained from government offices in both Uganda and Kenya.

In treating the issue of urban sprawl, the general problems associated with it, are examined. The study further examines how Uganda has attempted to tackle the issue of urban sprawl, and the problems which have come up as a result of the measures adopted to curb the negative effects of this nature of development.

The study stresses that in dealing with urban sprawl areas, consideration has to be given to the towns where this sprawl is originating. ....iii/

In the case of the study area, any attempts to deal with urban sprawl, have to consider the future development of both Kampala and Entebbe. It is noted that presently, Entebbe has little land for further urban development. As a result, this development is overflowing on the northern fringes of this town, but outside the town boundaries within the corridor. Such areas need physical planning guidance and are recommended to be incorporated within Entebbe town boundaries. In the case of Kampala, there is still a lot of undeveloped land since the city's boundaries were extended from 8 to 75 sq miles in 1968. The study therefore stresses that at this stage more urban development should be encouraged within Kampala. This is also geared at avoiding aggravating the current planning problems Kampala is facing. Such problems include lack of sufficient funds; lack of sufficient services and urban infrastructure; and lack of sufficient skilled manpower to effect planning control in both old and new town areas. This is to state but a few of the problems.

Similarly, the issue of urban sprawl is viewed in relation with the urgency of planning for this corridor zone. While the study aims at discouraging urban development within the corridor at this stage, it is felt that the area could be put to some alternative use as agricultural development that is market oriented. This is specifically aimed at producing foodcrops to meet the two towns and the study area's trading centre's foodsupply requirements. ....iv/

In the long-run some of the agricultural production would also be oriented to export market.

In identifying urban sprawl areas the following selected indicators are used: population growth rates and densities; commuter patterns; places of work; Employment types in the corridor, occurrence of urban settlements and intensity of use of electricity. The study reveals that urban sprawl influence from Kampala exists in the first four parishes immediately adjacent to the city. Likewise urban sprawl influence is identified in the first two parishes nearest to Entebbe.

The study further reveals that besides urban sprawl there exists other types of development in the corridor. It is also pointed out that even within the identified urban sprawl areas there exists other types of development. Other types of development identified include: urban settlements generated within; urban overspill and agricultural activities. The problems accruing from each type of development are put forward.

Having identified the various types of development and the accompanying problems, the study puts forward planning proposals geared at the corridor's guided development. The proposals are based on two policy approaches. One is on urban development and the other on agricultural development.

The approach on urban development spells out two alternatives which could be adopted. One is that no further extension of Kampala boundaries should be encouraged at this stage.

Thus more urban development is recommended for being encouraged within the city itself. To achieve this, among the alternatives suggested are: introduction of site and service schemes; enhancing tenant hire purchase housing; the city council looking into the issue of urban rates and see how best they can be adjusted to keep more development within the city. Alternatively, the urban development likely to take place outside Kampala should be re-directed to up-country towns. The government has to provide incentives in such towns so that investors are attracted there. Similarly the government is recommended to invest in these towns through its agencies. In the case of areas receiving urban overspill development as the adjacent areas to Entebbe, they have to be guided in their development. At the same time such areas are recommended for being included within the Entebbe town boundaries.

It is further proposed that instead of having the whole corridor under urban development, a few centres with growth potentials should be selected and have all future urban development concentrated in them. Therefore these centres have to be planned. The proposed centres are: Namasuba, Kajansi and Abaita' Babiri. Most of the services will have to be provided by residents of these centres aided by the various government departments.

The policy approach on agricultural development is geared at using agriculture as a means of checking urban development in the study area. ....vi/

In addition it is aimed at utilizing this area, which is one of the most fertile parts of Uganda with high potentials for agriculture. This is an attempt at maximizing benefits on this land resource. Thus horticultural crops for sale in the two towns and the trading centres in the study area are proposed. It is proposed that in the long-run those horticultural crops for export which need air freight should be introduced. This is to take advantage of the area's close proximity to Entebbe International airport. The measure has both monetary and social benefits not only to the individuals but to the country also. Kenya, which is currently involved in an intensive programme of horticultural crop production for domestic and export markets serves as the best example. This is a field that Uganda can exploit too. The project will entail people's willingness to work hard and the government to show interest by providing aid in various required forms.

The study recognises the fact that the approaches suggested will have setbacks. Setbacks should however act as a feedback, leading to re-modeling the course of action, initially adopted in the implementation.

However the approaches put forward if adopted are expected to contribute to the study area's future development requirements. The study has also recognized the need for including aspects which it could not competently tackle

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## CHAPTER ONE

1.0

### INTRODUCTION

1.1

#### Urban Sprawl

Increasingly becoming one of the major problems to the concern of physical planners, is the sprawling of urban areas into the neighbouring countryside. This sprawling of urban areas goes on and on, particularly following transportation lines (roads) radiating from towns to the countryside. Thus, this is a form of urban expansion that extends beyond the legal municipal boundaries into the rural areas, and is a common phenomenon with most towns all over the world.


However, urban sprawl is looked at as being problematic in itself because it is a result of settlement areas outside the legal town boundaries which are unplanned, unserviced and increase journey to work. Jean Gottman notes that, "urban sprawl makes the city too big, spatially and socially. On the other hand, it devours so much area that a long and unpleasant trip is now needed to reach the countryside from the heart of the city."<sup>1</sup> In connection with Jean Gottman's statement, it has to be noted that while towns become too big through sprawling, the same urban sprawl encroaches on agricultural land making it less valuable in terms of agricultural use. Urban sprawl causes land speculation through the encouragement of the subdivision of agricultural plots, and as a result, agricultural land is abandoned in favour of urban landuse.





LOCATION OF THE STUDY AREA  
IN THE NATIONAL CONTEXT

LEGEND

 Study Area (Kampala-Entebbe Corridor)



Map 1

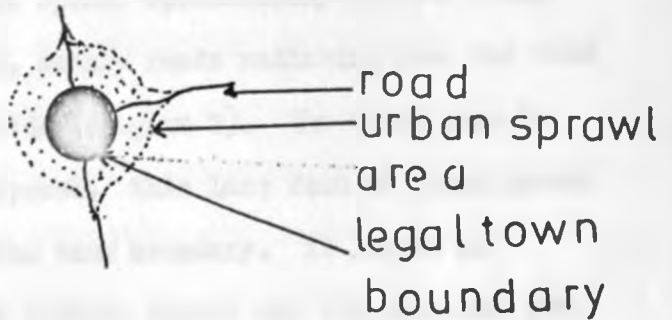
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# TYPES OF URBAN SPRAWL

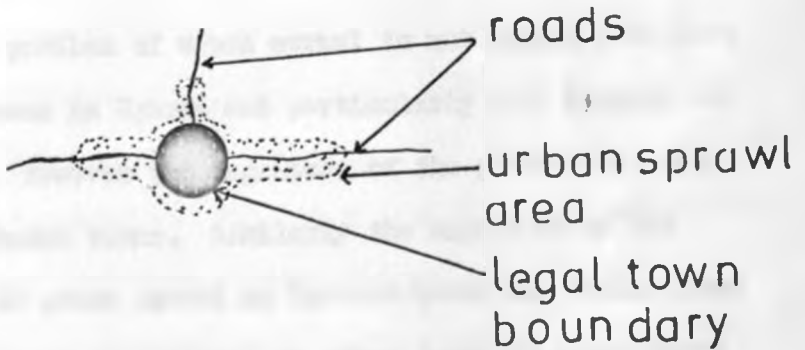
## Diagram 1

1<sup>st</sup> Type: Low density continuous urban sprawl development



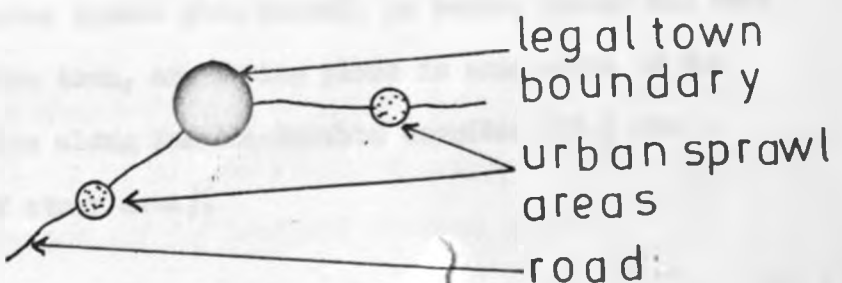
## Diagram 2

2<sup>nd</sup> Type: Ribbon urban sprawl development



## Diagram 3

3<sup>rd</sup> Type: Leap Frog urban sprawl development



The land that is often encroached on by urban sprawl could alternatively have been utilised in production of foodcrops to meet part of the town's foodsupply requirements, taking advantage of its close proximity to the towns.

Urban sprawl itself takes place in three forms. The first one is the continuous low density urban sprawl. This type tends to surround the town area in a concentric form (diagram 1). The second type is ribbon development. This form of urban sprawl specifically follows lines of communications, mainly roads radiating from the town into the countryside (diagram 2). The third type is Leap-frog urban sprawl. This last form of urban sprawl takes place off the town boundary. It leaves an interstitial zone between itself and the gazetted town area (diagram 3). However which forms of urban sprawl are taking place in the study area, are identified in Chapter III.

The problem of urban sprawl is not unique with most of the towns in Uganda and particularly with Kampala and Entebbe. However the magnitude of the problem may vary among Ugandan towns. Similarly the magnitude of the problem of urban sprawl in Ugandan towns may differ from what is being experienced in other towns in other parts of the world.

Part of Kampala's urban sprawl (there are other areas where urban sprawl from Kampala is taking place) and that of Entebbe town, are taking place in some parts of the 15.5 miles along Kampala-Entebbe corridor (15.5 mls - limit of study area).

Two factors could be held responsible as providing part of the explanation why this urban expansion is taking place outside the municipal boundaries. One is that an urban area could be having little room for further urban development. As a result any further urban development takes place outside the town. This is particularly so with Entebbe town which has hardly any more land for development. Thus most of the current urban development mainly commercial and residential has been taking place outside the town in adjacent areas on its northern boarder. Such areas can be rightly considered as part of an urban area. Given such situation, such areas need immediate plans that would prepare them in advance for an orderly guided urban development. It can be certain that these areas could be incorporated within the town boundaries at a future date.

The second factor is that inspite of there being room for further urban development within a town, like the case of Kampala, urban expansion still takes place outside the town boundaries. This is a result of town regulations and control practices whereby things like a code of building regulations according to specified areas in town; the enforcement of lay-out and density standards; segregation use of zoning, just to mention but a few, have acted as centrifugal forces to some urban development locating outside the town.<sup>2</sup>

Attempts have been made to modify some of the town regulations particularly on housing standards so as to fit these in the framework of the people's economic status.

However, people's desire to have their own piece of land outside the town where they can put up their own structures while commuting daily to town for work, has contributed to this town's expansion beyond its legal boundaries.

In this case where there is still a lot of land for urban development, extension of the town cannot be encouraged at this stage. The issue could involve re-examining the existing town policies in an attempt to encourage more intensive urban development within the town (Kampala). Meanwhile the area suspected of being under invasion of urban development as is the case with Kampala-Entebbe corridor, can be put to some alternative landuse.

Agricultural production oriented to meeting food supply requirements for the two towns of Kampala and Entebbe, and some of the growing trading centres within the study area, is an alternative landuse.

#### Measures adopted to minimize negative effects of urban sprawl

Uganda has attempted to tackle the problem of urban expansion by having a revision of boundaries of most of her towns put up during pre-independence years. After independence it was realised that the early gasetted town areas were too small and catered for European administrators and Asian commercialists.<sup>3</sup>

As the functional importance of most towns increased and with movement of more Africans into towns most urban expansion took place outside the gazetted town boundaries. Therefore to cater for rapid urban development town boundaries have been enlarged covering also urban settlements that initially existed outside the municipal boundaries, Kampala city, for instance had its boundaries enlarged from 8 square

miles to 75 square miles in February 1968.<sup>4</sup> Though former urban settlements outside the gazetted town boundary have been incorporated within the city, other problems have come up. One of them is the unnecessary enlargement of the urban areas. Thus due to lack of sufficient funds most town authorities have not been able to provide adequate urban services and infrastructure to most of the new areas. Similarly it has been difficult to have effective planning control in most parts of the new town areas. This has been more specifically so where land is privately owned and controlled. In addition most towns experience shortage of skilled staff to effect administrative control. These are but a few of the problems which have come up in connection with the enlargement of town boundaries that similarly cover former urban settlement outside the town boundaries.

.3 Significance of the problem

Realizing that towns grow beyond the municipal boundaries, so that the former distinction between 'Urban' and 'rural' is much less significant than previously, any plans to be adopted for areas near urban centres have to take into account of the existing situation in the towns first. An attempt has to be made in finding out if the existing towns have no more land for future urban development, so that this necessitates incorporating parts of the surrounding area. At the same time where an urban area has still land for further urban development, more development should be encouraged within the town. This needs re-examining the existing urban policies. .../6

Therefore meanwhile the area where urban expansion is expected to be more intensive can be put to alternative use under a formulated policy. Agricultural development oriented to serving town food requirements can be fostered as one of the alternative uses.

Further more the significance of the problem has to be viewed in perspective of future planning of Kampala and Entebbe towns. At present, Kampala has a lot of land still undeveloped. This was a result of extension of boundaries from 8 to 75 square miles in 1968. In the 'Kampala Development Plan 1972' it is forecasted that most of the undeveloped land will not be fully utilized until Kampala has passed a population mark of 1.6 million people by late 1980's and 1990's. At the same time many parts of Kampala city are still not adequately served with urban infrastructure besides having no effective planning control. To this end, no further expansion of Kampala boundaries should be encouraged. Expansion at this stage would similarly increase the magnitude of the existing problems.

In the case of Entebbe town, as earlier noted there is quite little room for further urban development. That part of the corridor adjacent to Entebbe is the only available land that can accommodate more urban development which cannot find room within Entebbe. Thus this area needs planning guidance to prepare it for further urban development. At a future date plans should be put forward to incorporate such areas experiencing urban growth, into Entebbe new boundaries.

A place like Abaita'Babiri (Map 3 b.) has become a residential area for part of Entebbe's low and middle income group, working population. Initially a low income group area had been planned in Entebbe town. This area was known as Kitoro-Kiwafu.<sup>6</sup> Due to population congestion in this particular area, the population overspilled to Abaita'Babiri and the environs. Abaita'Babiri also later started accommodating some of the middle income group working population together with commercial activities. Urban expansion in this aspect is regarded as a necessity.

In addition, the significance of the problem has to be looked at in relation with the urgency of planning a guided development for the study area. The corridor's climate and soil as indicated, in chapter two, make the area one of the most fertile parts of Uganda. The area therefore is well endowed with agricultural potentiality and can be utilized in producing food crops for Kampala and Entebbe markets. At the same time certain horticultural export crops could be introduced in the area to take advantage of the area's close proximity to Entebbe International airport. The two steps have monetary and social benefits. People in the area would get more cash income and have more employment opportunities. Thus more revenue generated in the area would foster rural development which contributes to people's contentment. There is therefore a need to formulate a land use policy for the whole corridor zone so as to protect this rich potential agricultural land from urban invasion. This is so especially when the situation in Kampala has not exploded.



This will be an attempt at maximizing returns on this available land resource. At the same time in planning for the corridor zone a solution has to be found on how to deal with the existing urban development within the corridor itself.

Urban sprawl is a common feature with most Ugandan towns. It is hoped that tackling a problem of this nature, the approaches used could serve as a guideline in dealing with a problem of similar nature in any part of Uganda. Similarly the approaches used in the study area if successful, could be adopted as part of the National approach towards the issue of urban sprawl in Uganda.

1.4

#### Objectives

In very brief terms therefore, the study aims at investigating the existence and extent of urban sprawl, and the resulting problems from this nature of development within Kampala-Entebbe corridor. The study does not stop here but goes further to identify any other types of development which offer an explanation to the present pattern of development. Having analysed these types of development, the study aims at coming out with a comprehensive planning framework for the development of the whole corridor zone.

1.5

#### The Scope of the study

The thesis is divided in five chapters. The first one introduces the problem and its significance and the objectives of the study. In the same section the research methodology used is stated.

In addition, research work done on the subject is discussed in this chapter. Attempts are made to identify similarities and differences between the present study and the past ones.

Chapter two deals with background to the corridor. The historical, physical and economic aspects are analysed in an attempt to find out what factors have influenced the existing nature of development.

Chapter three part one, concentrates on identification of areas under influence of urban sprawl. This is identified using selected indicators. Part two deals with identification of other types of development within the corridor. Problems arising from the identified types of developments are also analysed.

Chapter four deals with policy recommendations for the study area. The recommendations are based on findings in chapter three and the objectives of the study. In drawing up recommendations consideration is given to some aspects of National Planning policy. Lastly chapter five makes conclusions on the study. The problem is re-stated and how the study set out to examine it. The main findings and recommendation are stated last.

#### Reasons for choosing Kampala-Entebbe corridor as an area of study

The Department of Town and Regional Planning in Uganda has been trying to find a more rational approach to the development of the Kampala-Entebbe Corridor. A number of studies have been carried out by the Department in an attempt to tackle the problems of the study area.

Similarly, discussions within the Department have been carried on in connection with the nature of development within the corridor. Also a United Nations team, known as 'Kampala-Mengo Regional Planning Mission (1964-1966)', included the study area in their definition of the 'Kampala Metropolitan Region'. The work of the team, its findings and recommendations are fully explained in section 1.8 (1). Briefly however, Kampala Metropolitan region was defined as that area within a radius of 30 miles from Kampala. The parameters used to delimit the region are stated in section 1.8 (1). Kampala-Entebbe corridor was viewed as one of the area within the region with high potentials for urban growth. Thus the corridor was proposed for urban development in a linear form. This would later link Entebbe and Kampala. The short comings of the proposal would be that a big proportion of expenditure on National urban development would have to be diverted to this particular corridor if an orderly urban development had to be achieved. This would mean that up country towns would be allocated less funds which in turn would affect their development. At the same time encouragement of urban development along the whole corridor would have met problems associated with lack of adequate urban services and infrastructure. Kampala is already experiencing such problems. In addition, agricultural land in the study area would have to be abandoned in favour of urban landuse. The effect is that in the long-run the population in the study area would have to obtain their food supplies outside the corridor.

The author of the research felt that so far, non of the

studies has come up with a rational approach towards the development requirements of the area. Thus the researcher looks further at the problem whereby the proposal to minimize urban growth within the corridor by encouraging more of this development within existing towns is put forward. In addition few selected centres within the corridor are proposed for urban development instead of the whole corridor zone. At the same time, the rest of the corridor where suitable is recommended for agricultural development oriented to production of food crops for cash.

Secondly the area is familiar to the author, having had the secondary education in the area. In addition, the author had his university education at Makerere University which is in close proximity to the study area. So the author felt he could easily conduct the surveys. At the same time the area being close to Kampala, it was felt movement to the study area from Kampala, would be easier as compared to the far off areas.

#### 1.7 Definitions of Important terms

A further task involves the definition of the terms used in the text. One of the many definitions of 'Urban Sprawl' is given by Monkhouse (1970).<sup>7</sup> He defines it as "an unplanned sporadic spread of building often the result of outward expansion of a town and coalescence of adjoining units". In the shorter Oxford Dictionary Volume II, Third Edition (1944)<sup>8</sup> the term is defined as "of things to spread out, extend etc. in a straggling manner."

R.O. Harvey and W.A. Clark defined it as "merely the extension of the urban fringe i.e. the general expansion of the city for example."<sup>9</sup> Many more definitions could be given, however, all these give the view which can be generally accepted and is used in the context of this paper that 'urban sprawl' implies "extension of an urban area (expansion) beyond the legal municipal boundaries into the surrounding countryside."

Similarly the term 'Urban' in Uganda's National Overview, Planning Analysis Phase II, is defined as "where the vast majority of the population in a place makes its living in non-agricultural secondary and tertiary activities as opposed to 90 per cent or more of the population involved in agriculture (subsistence and commercial) which is categorized as 'rural'."<sup>10</sup> This definition is adopted for use in the text.

'Corridor' is defined as a passage between rooms; outside passage connecting parts of building; passage connecting two places. In this context the term 'corridor' is used to imply that area between the two towns of Kampala, through which the main Kampala-Entebbe road runs. The area is composed of 11 administrative parishes.

'Overspill' is defined by Monkhouse (1970) as "surplus population from a densely crowded urban area, which can no longer be effectively housed and maintained there, and so is compelled to move. This may be a result of the actual growth of the population; or of slum clearance and better housing which can accommodate fewer people. ..."

Overspill may result in expanding suburbs or in the creation of 'new towns' as in the case of London."<sup>11</sup>

In the concise Oxford Dictionary, Fifth Edition (1974) the term is defined as "what is spilt, surplus population."<sup>12</sup> The two definitions which virtually mean the same thing are adopted in the text.

.8 Review of related literature

1. Kampala-Mengo Regional Planning study

The study was carried out between September 1964 and September 1966 by the Kampala-Mengo Regional Planning Mission. This was a team of U.N. experts.

The objective of the study was to explore the possibility of uniting Kampala city and Mengo town, then the headquarters of the defunct Buganda Kingdom. This was aimed at having a greater defined area for the future growth of Kampala as a whole. On completion of the study a series of reports containing proposals were produced. Among the most important was the proposal put forward to unite Mengo and Kampala to form one Kampala Metropolitan area. In addition, small towns hips of Kawempe and Nakawa were suggested to be included in the metropolitan area, so as to accommodate the expected increasing population within the city.





Similarly a region for the metropolitan area was defined. This was to be within a radius of 30 miles from Kampala. The region was delimited by use of population totals, population density, and frequency of central places.



SOURCE: KAMPALA MENO REGIONAL PLANNING STUDIES

## KAMPALA MENO METROPOLITAN AREA AND IDENTIFIED REGION


### LEGEND

-  Boundary of Kampala Mengo Region.
-  Main Roads
-  Railway
-  Lake

N



Map 2

Scale  Kilometres

It was proposed that within this region urban growth should be concentrated. Even within this region areas with high potential for urbanisation were identified and were recommended to be given urgent attention. A linear form of urban development was proposed for the identified areas. Thus the three proposed areas for linear urban developments were; that area between Kampala and Entebbe; the area from Kampala towards Jinja, and then the area from Kampala towards Masaka (Map 2). The difference between the two studies is that while the U.N. Mission treated Mengo-Kampala metropolitan area and its region, the present study concentrates on Kampala-Entebbe corridor one of the areas identified by the mission, as potential for urban growth.

Alternatively, the present study takes a different approach. The present research enhances the view that urban expansion should be encouraged in that part of the corridor near Entebbe. This is suggested so because at present Entebbe has little land for development, and already some of this development is overflowing into this part of the corridor. At the same time the present study highly discourages expansion of Kampala not only within the corridor but even the other peripheral areas. This is done taking into account that Kampala already has its own planning problems. Besides much of Kampala's land area is still unused, and rather than expand outward more development should be encouraged within the city. The present research puts forward an agricultural policy for this corridor zone to have this land best utilized for



production of food crops for the two town markets and possible export crops.

The present study recognises the fact that inspite of attempts to minimise urban growth in this area, this may not be feasible. Therefore it suggests that instead of having the whole corridor under urban development, a few centres with potential for urban growth should be selected and be planned. The idea differs from that of the U.N. Mission's study of having the whole corridor under urban development.

ii. Planning Policies for the Melbourne Metropolitan Region. November 1971 (AUSTRALIA)

The study was undertaken by the Melbourne and Metropolitan Board of Works.

Melbourne city which is the capital of Victoria State, Australia had a population of 2,394,117 people by 1974, as compared to Victoria state's population of 3,502,351 people. Viewing that Melbourne Metropolitan City was growing very fast and that it could not be contained within the municipal boundaries, and that expansion was rapidly taking place outside the city, the Melbourne and Metropolitan Board of Works set out to carry a study. The study aimed at drawing up planning policies whereby some of Melbourne's growth could be directed in identified potential areas of urban growth or development, within the city region.

At state level it was felt that major cities like Melbourne were growing too large at the expense of the rural areas and up country towns. Thus in an attempt to achieve balanced development, a policy of new towns was

persued.

In identifying potential areas of urban growth within Melbourne Metropolitan Region the following indicators were used: population growth rates; age structure; population projections; population flow associated places; use of electricity; gas and telephone.

After data analysis potential areas for urban development were identified. These areas had to some level had urban development with places of work. These areas tended to follow transportation network radiating out of Melbourne. These areas were defined as corridors of future urban development. Therefore any future growth of Melbourne was proposed to be directed within these identified corridors, which were in the north and west of the city.

The Board proposed that simultaneous expansion in all the urban growth corridors should go hand in hand with maintaining the C.B.D. as the most dominant centre in the Metropolitan region. Secondly, that there should be encouragement of selective corridor growth in which one or two of the corridors would be selected for specific treatment and would receive a concentrated share of public resources. However, while all future outward development was to be contained within these corridors it was felt that development should not necessarily occupy the whole corridor at any one point in time. It was proposed that the Amending Scheme should define areas for urban development within the corridor for at least the next twenty years.

The Board further proposed that more investigations be undertaken in determining more areas within these corridors where further future development should occur, its nature, and intensity. Further considerations were to be undertaken whether there had to be satellite town development in one or more of the corridors as an alternative to continuous urban development.

The study on Melbourne has a very much urban bias, while the study on Kampala-Entebbe corridor explores possibilities of both urban and rural development.

There is similarity between the two studies, whereby both studies aim at balanced development. The study on Melbourne attempts to redirect further urban growth to smaller towns within the city's region. The present study in its approach on urbanization, recommends that further urban growth of Kampala should be redirected to upcountry towns through directing investments in these towns. This is aimed at minimizing the rate at which Kampala is growing, at the expense of the rural areas and the upcountry towns.

The two studies have further similarity in that they advocate the selection of a few centres within the corridors for concentration of urban development as an alternative to allowing urban development to spread in the whole of the corridor zone.

## 1.9 Research Methodology

### 1.9.1 Method used and Time Survey conducted

Various research methods were used in collecting data.

One of the most important was a field survey conducted in the study area. The survey was conducted during the months of August and September 1975, and during a short break in December, the same year. More information was obtained during the first week of April 1976 and the month of August 1976.

Interviewing people was carried on during the day commencing at 9.00 a.m. to 12.00 p.m., then resuming from 3.00 p.m. and stopping at 6.00 p.m. The time was extended to late hours of the day, that is 6.00 p.m. so as to get many people who commute to Kampala and Entebbe and to the trading centres within the corridor, for work. Thus, by 6.00 p.m. the people who commute to work were expected to be at home. Since there was no guarantee that some of these people who commute to work would be at home by 6.00 p.m., the days of interview were extended to Saturdays morning (9.00 a.m. - 12.00 p.m.). Where people needed were not found at home, the questionnaire sheets were left behind and later collected from the local chiefs of areas of interview. The method of distributing these questionnaires is clarified later in this section of the thesis.

A questionnaire was designed in English which was used in obtaining the required information. So the interviewer had to interpret the information to the local chiefs. In case of the questionnaires left behind, they had to be rewritten (by hand) in Luganda, the language spoken in the area, so as to make sure the people would understand what they were required to answer.

1.9.2

Sample Chosen

a. Type of people interviewed.

The category of people interviewed were taxpayers (poll tax payers). This category of people was adopted since it was the most reliable and most recently recorded figure of people, according to the information obtained from the study area's district headquarters at Mpigi. Poll tax payers are normally recorded in the early months of each new year (January to March). The study area's total population was not adopted from which a sample could have been picked, because the last census took place in 1969 and since then there has been population change.

In the case of tax payers, this includes all males from 18 years old and above, eligible to paying poll tax. In Uganda any male above 18 years is supposed to pay poll tax, whether employed or not. So all males in each parish above 18 years who are unemployed or employed in primary, secondary and tertiary activities were included on the tax lists. The lists also contained the names of the retired people but who had not had the exemption from paying poll tax. Exemption is usually granted at the age of 60 years. Furthermore the tax lists included only those females above 18 years employed as skilled labour force.

b. Sample adopted

Sampling itself was stratified such that interviews were carried out by parishes. This was geared at having an even spread of interviewees over the study area. ....20/

However since the number of taxpayers varied with each parish, different samples for each parish were adopted. The total number of taxpayers in each parish, the sample chosen and the people interviewed are shown in Table 1.

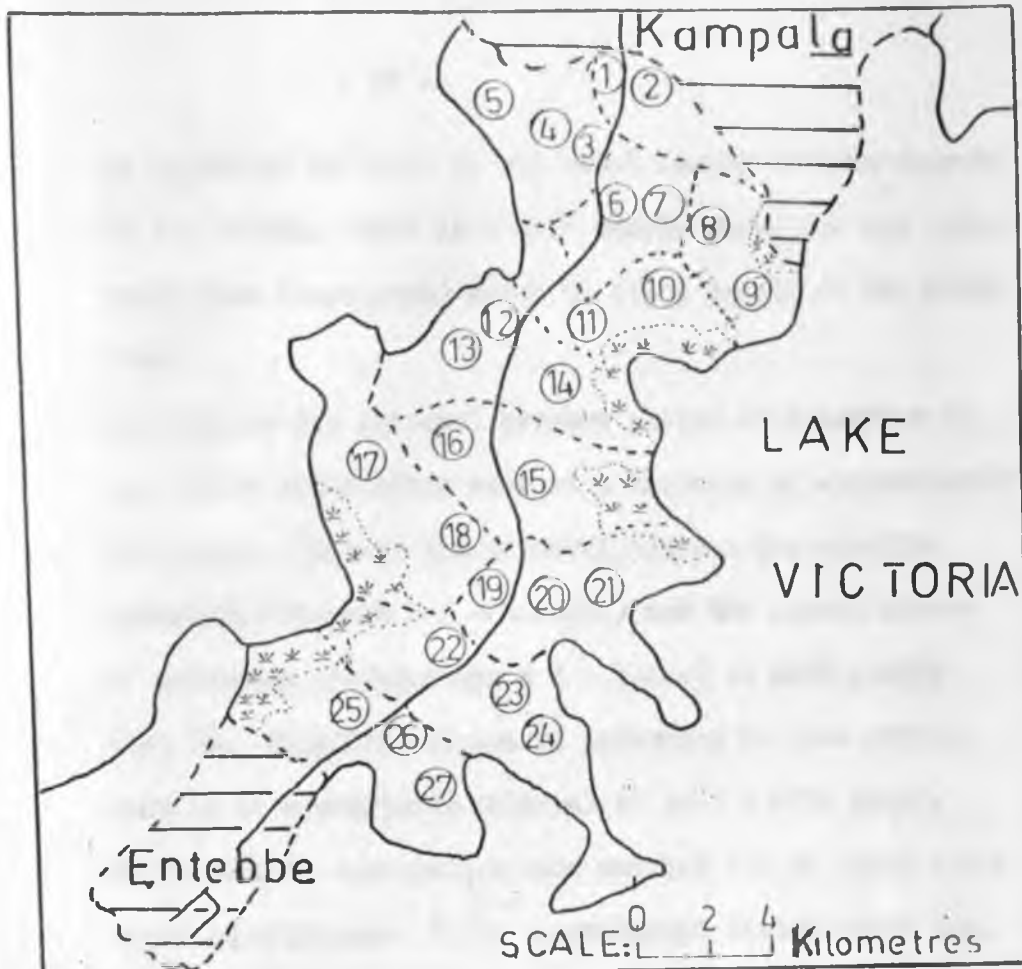
Table 1 Taxpayers and sample chosen by Parishes

Parish	Total no. of Taxpayers	Sample chosen	No. of Interviewees
Sabaddu	1537	5.0	81
Sabagabo	1344	3.0	52
Mumyuka	1074	5.0	55
Mutuba II	840	5.0	45
Mutuba III	1654	3.0	54
Mutuba I	1426	3.0	51
Musale	683	5.0	36
Sabawali	736	4.5	33
Sabagabo	1009	4.0	42
Mumyuka	1252	5.0	63
Sabaddu	2032	5.0	109
Total	14687	4.2	621

Source: Author's Field Survey, January and August 1976.

The samples therefore ranged between 3% and 5%.

Having big samples was aimed at having a big number of interviewees in each parish. The larger the sample, this reduces the probability of unrepresentativeness. It can be tested statistically that the samples for each parish being high are therefore significant.



**KAMPALA ENTEBBE: PLACES OF INTERVIEW BY PARISHES**

**LEGEND**

- |              |              |
|--------------|--------------|
| 1 NAMASUBA   | 14 KIRONGO   |
| 2 MASAJJA    | 15 NAMULANDA |
| 3 BUNAMWAYA  | 16 SEKIWUNGA |
| 4 NGOBE      | 17 SPSA      |
| 5 MAYANJA    | 18 WAMALA    |
| 6 MASAJJA    | 19 KAKINDU   |
| 7 NDEJE      | 20 KIKUSA    |
| 8 KYETUNGIRO | 21 BWERENGA  |
| 9 ZIRANUMBU  | 22 KITALA    |
| 10 NAZIBA    | 23 NALUGALA  |
| 11 LWEZA     | 24 BUGABO    |
| 12 KAJANSI   | 25 NKUMBA    |
| 13 MANDWA    | 26 NKUMBA    |
|              | 27 NKUMBA    |



map 3a

— MAIN KAMPALA ENTEBBE ROAD  
 ♣ ♣ PERMANENT SWAMPS

As indicated in table 1, the total number of interviewees is 621 people. This is a 4.2% sample survey of the total population (taxpayers) which is 14687 people of the study area.

Furthermore the interval between places of interview in one parish and another were at a distance of approximately two miles. However the interval between the starting places (1-Namasuba & 2 - Masajja) and the second places of interview (3-Bunamwaya & 4 - Ngobe) is half a mile (map 3). Similarly places of interview in each parish were at an approximate interval of half a mile apart. Interviews in each parish were carried out by place names known as villages. Using a settlement distribution map, place names in each parish were picked. These were the villages (places) where interviews were to be conducted. In each parish, chiefs were asked to produce a list of taxpayers staying in the selected villages where interviews were to be conducted. From the tax lists, the names of people to be interviewed were picked randomly with no bias whatsoever. However to ensure that people at the bottom of each list had a chance of being picked much as those at the top, the method of picking names was to get the total number of people paying tax in each area, divide that by the number to be interviewed. This gave the interval at which names were picked.

### 1.9.3

#### Evaluation of Survey and Data

1. The total figures of taxpayers for each parish as indicated by the tax lists may not exactly represent the total number of people who should be paying polltax. ....22/



In reality the figures appearing on the tax lists could be less. This is so because of tax defaulters.

2. There is some bias with places of interview which influence the data collected such that most places of interview have tended to be near the main Kampala-Kitebba road. Thus information which could be obtained two and a half miles away in some parishes would be slightly different.

3. In case of the people not found at home, the information received from people left at home may not have been accurate. Similarly with the questionnaires left behind the answers given may have had some deficiencies depending on how the respondents understood the questions.

9.4

#### Other methods used.

Besides the use of the questionnaire there were informal interviews carried out. This included information collected from government ministries and Departments; discussion with old people in the area on the historical development of the corridor. Other discussions were held with business men in the commercial enterprise and people involved in agricultural production.

More information was obtained from written literature.

1.9.5

#### Problems

Various problems were encountered during the research which greatly affected the way the survey was carried on, hence an influence on the results obtained.

Due to serious transport problems prevailing, it was quite difficult in commuting to places of interviews in the long-run.

This therefore was a constraint to reaching the larger sections of the study area. Similarly there were no outside financial sources, thus during the research work all the costs have had to be met from the researcher's own cash of his little monthly allowance.

Idkewise the researcher's area of study is 400 miles away from the present academic institution. Thus whenever the author was lacking information it has not been quite easy to move to and fro the study area due to high cost of transport. A return ticket by bus (Akamba Bus Service Co) is 168/= shillings, while by air (EAA) is 1200/= shillings, though with student concession is 590 shillings (airport tax and transport to airport inclusive). This affects the amount of information that could have been obtained, though not all information can be obtained at ago.

Some information was just not available. This was the case with the aerial photographs for the study area, which could have given a clear picture of the intensity of development in the area. Only survey maps for some trading centres within the study area were obtained from the Department of Lands and Survey, Entebbe.

During the interview, while a small percentage did not respond, however, the interviewees themselves gave a picture of being suspicious that the researcher was a government informer. The reasons are beyond the scope of this thesis to discuss.

Thus with the noted problems, there were difficiencies in the way the research was carried out.

The data therefore is not taken as 100 per cent exact. Nevertheless much new light has been thrown on the problems and policy requirements for the study area and the subject of study in general and it is considered that the study has achieved its objectives of making a further contribution to the search for satisfactory solutions to the development problems of the area and so should form a good guide to any future research on the subject in general or on policies for urban development in Uganda.

34. Study 2. Housing Problems in Uganda, 1978  
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37. Study 3.1. Aspects of Development in  
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Department, U.S.A.  
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38. Study 3.2. A Statement of Research  
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CHAPTER TWO

2.0 BACKGROUND TO THE STUDY AREA

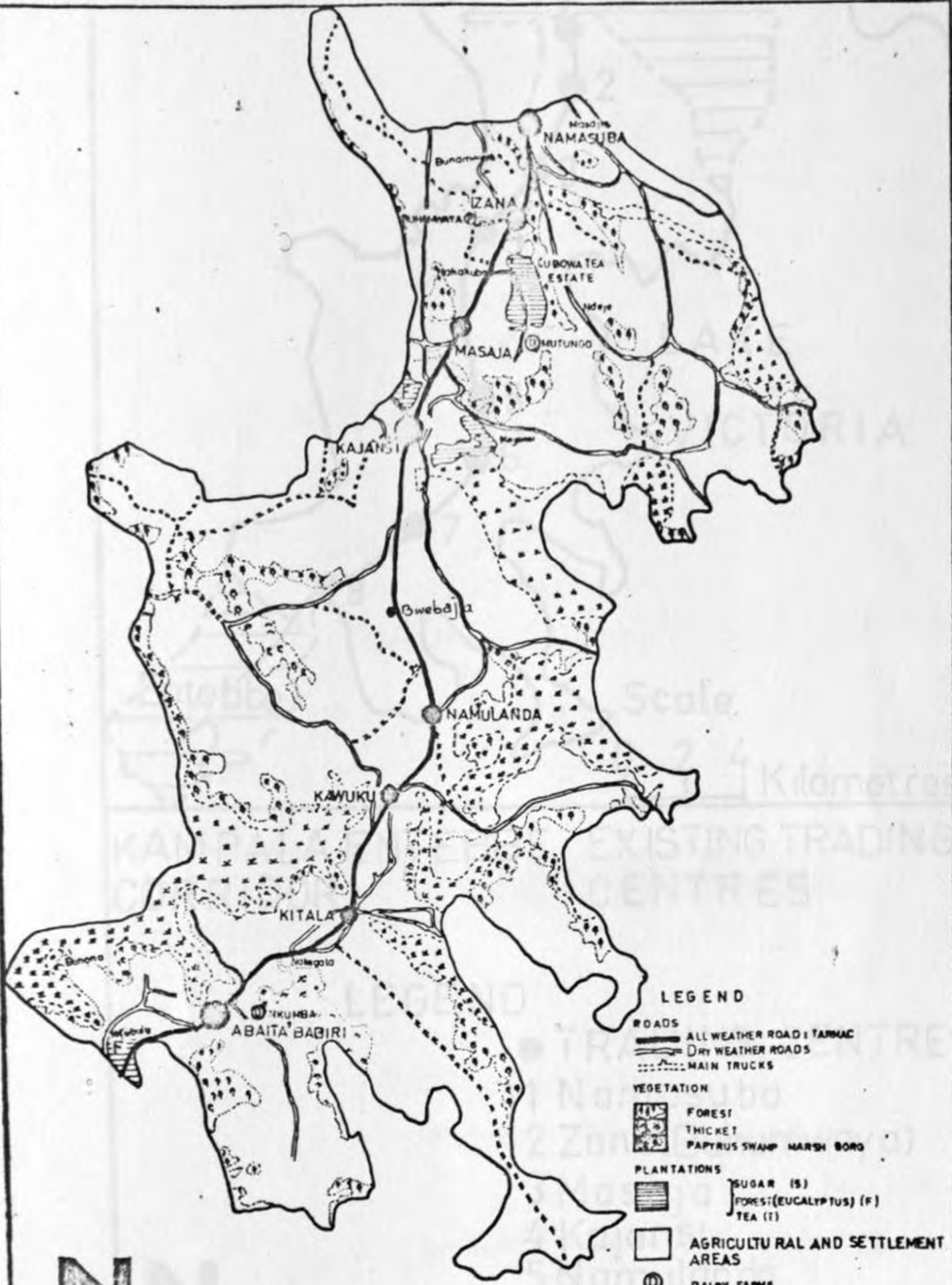
2.1 Historical Background

The study area lies between Kampala and Entebbe towns (Map 1), and covers an area of 93.5 sq. miles (239.4 sq. km). Thus in looking into the issue of urban sprawl influence and other types of development within this particular area, an analysis of its historical development is essential. This would reveal the factors which gave rise to the existing pattern of development within the corridor.

The study area's development overtime is closely associated with the development of the present Kampala-Entebbe main road which runs through it. It may be generally accepted that, the existence of a ground transport network of which a road is an aspect, influences the flow of goods, services, and information in and out of an area. Along this channel, trade with neighbouring areas can be established. Similarly, a flow of innovation takes place for social, economic and political development.

Following the given argument, more came to be known about the corridor when the first cart-road was constructed running through the area. This road linked Kampala with Entebbe. Kampala, which was established in 1890, was then the headquarters of the 'Imperial British East African Company.' However the headquarters of the stated company were later shifted to Entebbe in 1893.<sup>1</sup> No information is available on the precise date to indicate when the road was constructed.

KAMPALA-ENTEBBE CORRIDOR  
LANDUSE MAP



LEGEND

- ROADS**
- ALL WEATHER ROAD / TARMAC
  - - - DRY WEATHER ROADS
  - ..... MAIN TRUCKS
- VEGETATION**
- [Stippled pattern] FOREST
  - [Cross-hatched pattern] THICKET
  - [Wavy pattern] PAPYRUS SWAMP / MARSH BORD
- PLANTATIONS**
- [Horizontal lines] SUGAR (S)
  - [Vertical lines] FOREST (EUCALYPTUS) (F)
  - [Diagonal lines] TEA (T)
- AGRICULTURAL AND SETTLEMENT AREAS**
- [Square symbol] AGRICULTURAL AND SETTLEMENT AREAS
  - [Circle with dot] DAIRY FARMS
  - [Circle with cross] POULTRY FARM
  - [Circle with star] MAIN TRADING CENTRES



MAP 3b SCALE: 0 1 2 KILOMETRES

SOURCE: DEPARTMENT OF LANDS AND SURVEY, ENTEBBE, UGANDA



KAMPALA ENTEBBE EXISTING TRADING  
CORRIDOR CENTRES

LEGEND

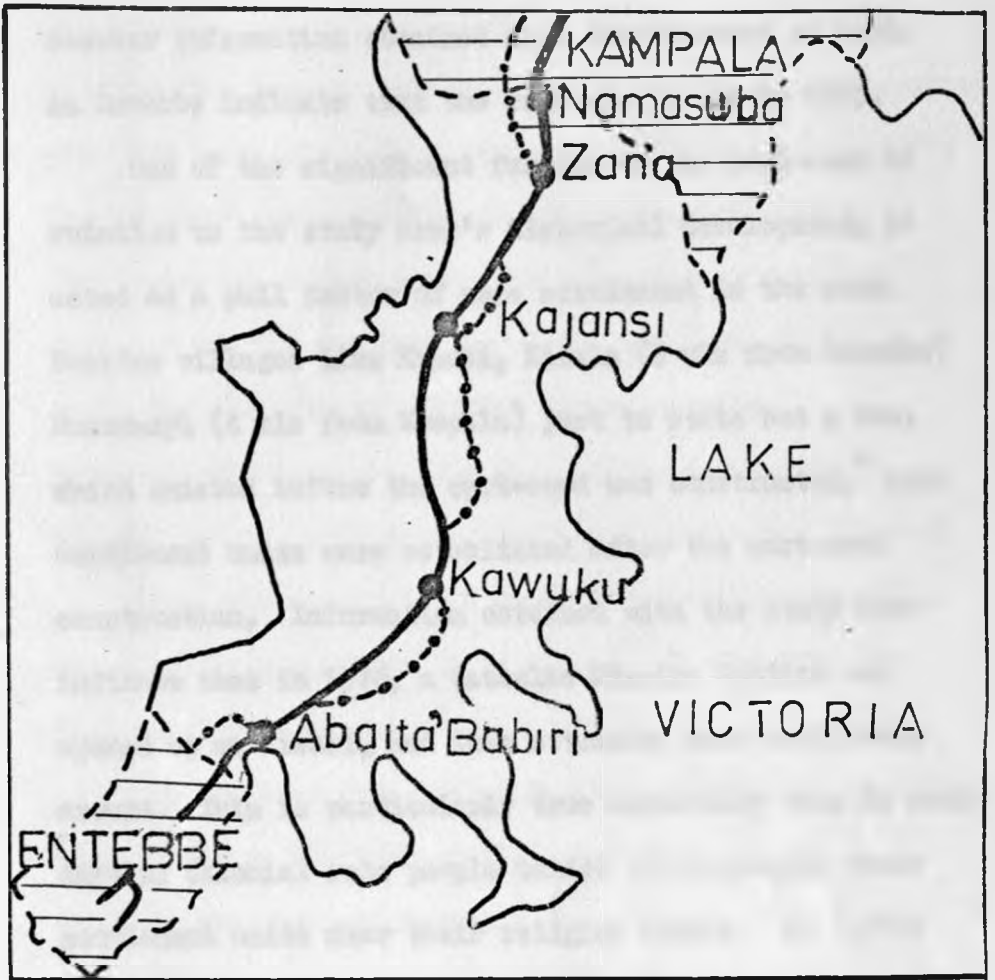
● TRADING CENTRES

- 1 Namasuba
- 2 Zana (Bunamwaya)
- 3 Masaja
- 4 Kajansi
- 5 Namulanda
- 6 Kawuku
- 7 Kitala
- 8 Abaita/Babiri



Map 3 c





KAMPALA-ENTEBBE EVOLUTION OF  
CORRIDOR KAMPALA ENTEBBE  
MAIN ROAD

LEGEND

- Kampala-Entebbe Road Before 1948 (murrum)
- Present Kampala-Entebbe Main Road Constructed in 1948 (Tarmacked)



Map 4 Scale 0 2 4 Kilometres

However information obtained from the Ministry of Works in Entebbe indicate that the road was in use by 1910.

One of the significant factors of the cart-road in relation to the study area's historical development, it acted as a pull factor of more settlement in the area. Besides villages like Kisubi, Kitala (6 mls from Entebbe) Bumamwaya (4 mls from Kampala) just to state but a few, which existed before the cart-road was constructed,<sup>\*</sup> more settlement units were established after the cart-road construction. Information obtained with the study area indicate that in 1916, a Catholic Mission Station was opened up at Kisubi, and this attracted more settlement around. This is particularly true especially when in early days of colonial rule people tended to congregate their settlement units near their religious centre. In 1942 Abaita'Babiri (Map 36) was founded. This started as a service centre with two shops, later attracting more settlement around it. In 1945 Kajansi trading centre came up with establishment of a brick making plant initially run by a Catholic Missionary sector of the white Fathers, settlement was also attracted around this centre.

In 1947 the present Kampala-Entebbe main road was constructed and bituminized in 1948.<sup>2</sup> The new road did not exactly follow the old road except in a few sections (Map 4).

....29/

\*Information obtained by conducting oral interviews in the study area.

The present road was necessary to accommodate increasing traffic flow between Entebbe, then an administrative centre with the only country's international airport and Kampala, the country's main commercial and industrial centre.

The impact of the new road within the corridor is that more new service centres grew along the side of this road.

Among the new centres include: Kawuku, Kitala.

Namulanda and Namasuba (Map 3b). Those centres which existed before had their functional importance increased.

Since the new road was constructed settlement within the corridor has generally increased. Figures for the 1948 population census are not recorded at parish level, so as to indicate the population which existed in the area then. However the 1959 population census figures indicate the population totals by parishes. More significant are the latest census figures of 1969 which indicate a significant increase of population within the corridor. The 1969 population census figures indicate a tendency of high population totals to be in parishes near to each of the towns (Table 2).

TABLE 2 POPULATION TOTALS 1959-1969

KAMPALA-ENTEBBE CORRIDOR

SUB COUNTY	KAMPALA	POPULATION 1959	POPULATION 1969
		146,539	331,889
	Sabagabo	2,323	4,891
Sabagabo	Munyuka	2,071	3,719
	Sabaddu	2,943	5,419

SUB COUNTY	KAMPALA	POPULATION 1959 146,539	Population 1969 331,889
SABAGABO	Mutuba II	1,971	3,001
	Mutuba III	2,756	3,696
MUSALE	Mutuba I	2,913	5,363
	Sabawali	2,037	2,620
	Musale	894	2,456
SABADDU	Sabagabo	2,005	2,887
	Mumyuka	1,165	4,277
	Sabaddu	3,244	7,278
	<u>ENTEBBE</u>	12,229	21,176

Source: 1959 and 1969 Uganda Population Census.

Due to accessibility provided by the Kampala-Entebbe road within the corridor, some cash crops were introduced. These include coffee which was intercropped with Bananas. The importance of coffee has significantly fallen since the fall of robusta coffee prices in early 1960s. Tea and Sugar were also introduced in the area in early fifties. Tea was grown in an estate known as Lubowa Tea Estate (Map 3b). A sugar estate was established near Kajansi. This was mainly to produce Jaggary used in making local brew (Waragi).

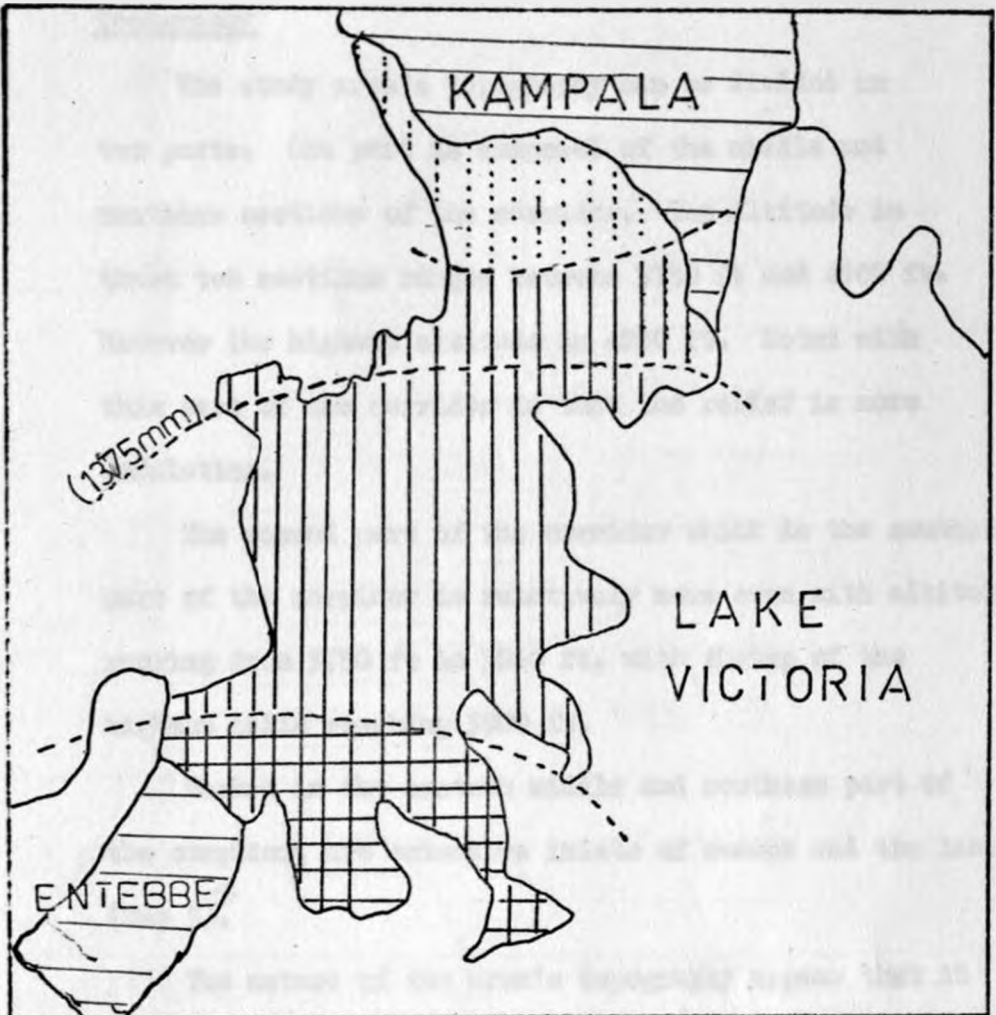
The issue that therefore remains to be examined is whether people are attracted in the study area due to its close proximity to the two centres which provide market for labour.

Thus people come to the area buy land where they can put up homes; grow foodcrops for family sustenance while they rely on the towns for employment. It would appear therefore that this area falls in the urban shadow of the two major towns which might be an indication of some urban sprawl influence. At the same time it has to be examined if people move into the study area where they buy land, put up homes and grow foodcrops, while derive their cash income from involvement in secondary and tertiary activities found in the existing service centres within the corridor. This would indicate some urban development being generated within the area. Similarly it has to be examined if other people within the corridor depend on agriculture alone for their cash income or supplement agriculture with other activities. Much of this required information forms the main part of chapter 'Three'.

## 2.2

### Physical Background

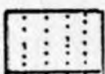

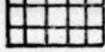
Consideration of the area's physical base as soil types and their productivity ratings, topography and climate, provides an insight as to whether the area has any potentials for agricultural production. The physical base further provides information on what crops could be recommended for growing in the area. This is essential especially if an agricultural policy has to be drawn up as part of the area's plan that would guide development.



KAMPALA ENTEBBE CORRIDOR MEAN ANNUAL RAINFALL

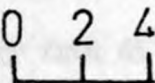
LEGEND

ISOPLETH INTERVAL 125mm

-  1000mm (40 ins)
-  1250mm (50 ins)
-  1500mm (60 ins)



Map 6

Scale  Kilometres

2.2.1

Topography

The study area's topography can be divided in two parts. One part is composed of the middle and northern sections of the corridor. The altitude in these two sections ranges between 3750 ft and 4100 ft. However the highest altitude is 4250 ft. Noted with this part of the corridor is that the relief is more undulating.

The second part of the corridor which is the southern part of the corridor is relatively more even with altitude ranging from 3750 ft to 3850 ft, with the top of the highest hills reaching 3900 ft.

Marked in the eastern middle and southern part of the corridor, are extensive inlets of swamps and the lake. (Map 5)\*

The nature of the area's topography appear that it would not be a constraint to any agricultural activity that would have to be carried on in the study area. However before any conclusions are made, topography has to be considered along with other factors.

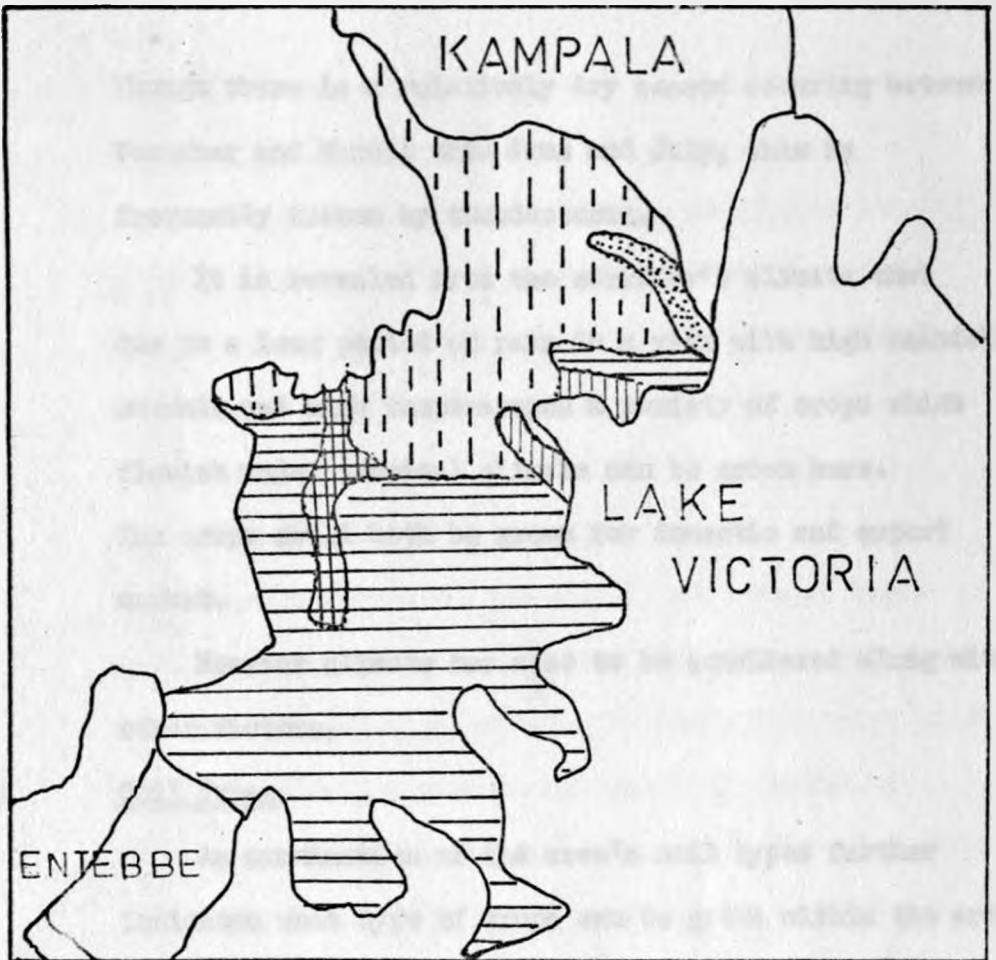
2.2.2

Climate

The corridor, according to the 'Atlas of Uganda' belongs to 'Zone 1: Lake Victoria Zone.'<sup>3</sup> This zone is featured by high rainfall. The amounts range from 50 to 60 inches and occurring at an average of 160 to 170 days each year (Map 6). The temperatures vary from 65°F to 70°F with diurnal variation equalling 13°F. This therefore indicates a comparatively small seasonal variation of temperature; humidity and wind throughout the year. ....33/






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\* Map 5 is at the back of the Thesis



KAMPALA ENTEBBE SOIL TYPES  
CORRIDOR

LEGEND

TYPE	PRODUCTIVITY RATING
 Grey Humose Sands	LOW TO NIL
 Yellow Red Loems	MEDIUM
 Grey Coarse Sands	LOW TO NIL
 Grey Humose Sands	NIL TO LOW
 Red Clay Loems	HIGH



Map 7

Scale 0 2 4 Kilometres



Though there is a relatively dry season occurring between December and March; then June and July, this is frequently broken by thundestorms.

It is revealed from the corridor's climate that due to a long period of rain in a year with high rainfall amounts and high temperatures a variety of crops which flourish under tropical climate can be grown here.

The crops could both be grown for domestic and export market.

However climate has also to be considered along with other factors.

2.2.3

#### Soil Types

An examination of the area's soil types further indicates what type of crops can be grown within the area. It is indicated on Map 7 that the southern half of the corridor has yellow red loams with medium productivity rating. The northern part of the corridor has red clay soils with a high productivity rating.<sup>4</sup> There are also pockets with grey humose clays; grey coarse sands and grey humose sands with a productivity rating of low to nil (Analysis contained in the 'Atlas of Uganda').

From the brief analysis of the area's physical base, it is evidently clear that a variety of cash crops for export and domestic market could be grown in the area. Although tea and sugar are being grown in the area, these are grown on small estates. Coffee initially grown on small holdings has long been declining. However factors contributing to low production of cash income agricultural produce within the corridor are examined later under ....34 /

'Economic Development.'

2.3

Economic Development

Economic development within the study area is analysed by examining agricultural, industrial and commercial activities. Furthermore an examination of employment and transportation pattern within the study area is carried on.

2.3.1

Agricultural activity

Crops grown within the study area include those specifically for cash income, and those for subsistence. However the selling of surplus of some subsistence crops has been on the increase. The issue of surplus of subsistence crops (foodcrops) being exposed to the market for sale is discussed in the later course of this section.

Crops grown for cash include tea, coffee and sugar.

2.3.1.1

Tea at present is grown on a 260 acres estate. This is known as 'Lubowa Tea Estate' (Map 3b). This estate was initially owned by non citizen Europeans. In 1972 the estate was taken over by Ugandan citizen Africans.

In terms of employment, 150 people are employed on the estate (1976). Most of these employees come from within a radius of 1 to 2.5 miles from the estate.

Other than at Lubowa Tea Estate, tea is not grown elsewhere within the study area. One of the factors which hindered tea growing in other parts of the corridor is lack of capital. Tea is one of the crops which need to be grown on estates or plantations if they have to have a high return in revenue in the long-run. ....35/

It should be noted that the long term nature of the crop before it yields (after 4 years), the costs of establishing it, specialized techniques of cultivation, and the need for processing within a short time of picking, all favour plantation rather than peasant production. An efficient processing factory requires an annual intake of 2 million lbs., obtainable from 500 acres and should be supplied from the immediate vicinity as the green leaf is easily damaged.<sup>5</sup>

Thus due to costly planting and maintaining of the crop, large initial capital is needed. Capital was only then available to European and Asian farmers. As a result no Africans established any tea estates. Since 1959 Africans were encouraged to participate in outgrower schemes which had to be under close supervision around an estate. People in the corridor who lived near the estate never picked up the innovation. One reason is that the embarrassment received from the decline of coffee boom in late 1950s and early 1960s still existed in the minds of the people. Thus they were reluctant to pick up another crop.

Another factor contributing to little growing of tea within the corridor is the Government policy. The Government has played a big role in directing certain cash crops to specific areas of the country. This is also true with Tea Growing.

Tea has been grown in Uganda since 1920s and until 1961 the whole production came from three groups of estates,

two in Buganda Region (corridor in this region) and one in Toro. However since then tea was extended to West Ankole, south Kigezi and Bunyoro districts, and farms around estates. The Ministry of Agriculture, Entebbe indicated that with what was spelled in the Second Five Year Development Plan 1964/65 - 1969/71, Tea was to be encouraged in the West and Southern parts of the country. The aim was to provide income for the poorer parts of the country. Thus no further tea growing was encouraged in the study area, which is located within Buganda region.

2.3.1.2

Sugar is grown on an estate near Kajansi Trading Centre (Map 3b). This is grown purposely for producing Jaggery used in making a local brew known as Waragi. The estate covers approximately 150 acres, and is owned by Ugandan Africans.

The estate provides employment for a hundred persons. This number is not static as some employees keep on leaving while others come in. The estate management indicated, that the majority of workers come from within a radius of 1 mile.

Lack of capital equally constrained wide spread growing of tea within the study area. Sugar cane growing for high returns favours being produced on plantation. For economic operation the mill has to have a large and regular supply of cane and processed in 48 hours of harvest. It has to be grown near a factory as it is bulky to transport, thus needing lorries or rail system within the estate.

In addition most sugar cane benefits from irrigation and producers have to invest in costly equipment. It is therefore revealed that this type of business running requires large amounts of capital. Thus Africans in the study area could not undertake such costly business.

Although peasant farmers can grow sugar cane without difficulty, yet it can be milled into white sugar on a large scale.

Similarly, the government has not taken initiative to encourage sugar cane growing in this area. During the second Five Year Development Plan 1964/65 - 1969/71, new sugar estates were established at Sango Bay in Buddu district (South Buganda Province) and Kinyara in North Bunyoro district (Western Province).

2.3.1.3

Coffee is generally grown on shambas along with subsistence crops. Information obtained from the Ministry of Agriculture, Entebbe, indicates that production of this crop within the corridor has declined since mid 1960s. This has also tended to be the general case in the whole country particularly so with robusta coffee.

The depressed prices of coffee under the International coffee agreement of 1962', is responsible for the decline of coffee output. Prices were reduced, because the supply of coffee in the market, far exceeded the demand. However the type of coffee specifically affected by the fall in price was Robusta Coffee. As a result of this most farmers abandoned coffee growing.

The corridor is one of those areas where people responded to the fall in prices.

Recognizing the fact that robusta coffee was now fetching less revenue than before 1962, the Uganda government took steps to limit the production of coffee (robusta) and carried on a vigorous campaign for the encouragement of the production of alternative forms of export crops. Thus coffee growers were advised not to extend the acreage under coffee.<sup>6</sup>

2.3.1.3

The practice of growing subsistence crops of which the surplus is exposed to the market for sale has been on the increase. The surplus of subsistence crops is sold by the roadside to passing motorists between Entebbe and Kampala. Similarly, part of this surplus is sold in markets in trading centres within the corridor, and in Entebbe. The number of people involved in this type of activity has not as yet been quantified by the Ministry of Agriculture in Entebbe. However most of this surplus foodcrops (subsistence) comes from areas between parishes Mutuba III and Sabagabo (parish near Entebbe).

The crops grown include: sweet potatoes, cassava, sweet bananas, oranges, pineapples beans and peas. Observation in the field indicated that some people have specialized in the growing of these crops as their sole source of income.

2.3.1.4

Another aspect of agriculture carried on in the study area is dairying. This type of activity is carried out on small scale.

The heads of cattle on each farm do not exceed 40 in number. The animals are a mixture of local and exotic cattle. Milk production from these farms is consumed in the surrounding areas. These farms are located at Mutungo, 6 miles from Kampala, Sisa, 14 miles from Kampala and Nkumba 2 miles from Entebbe.

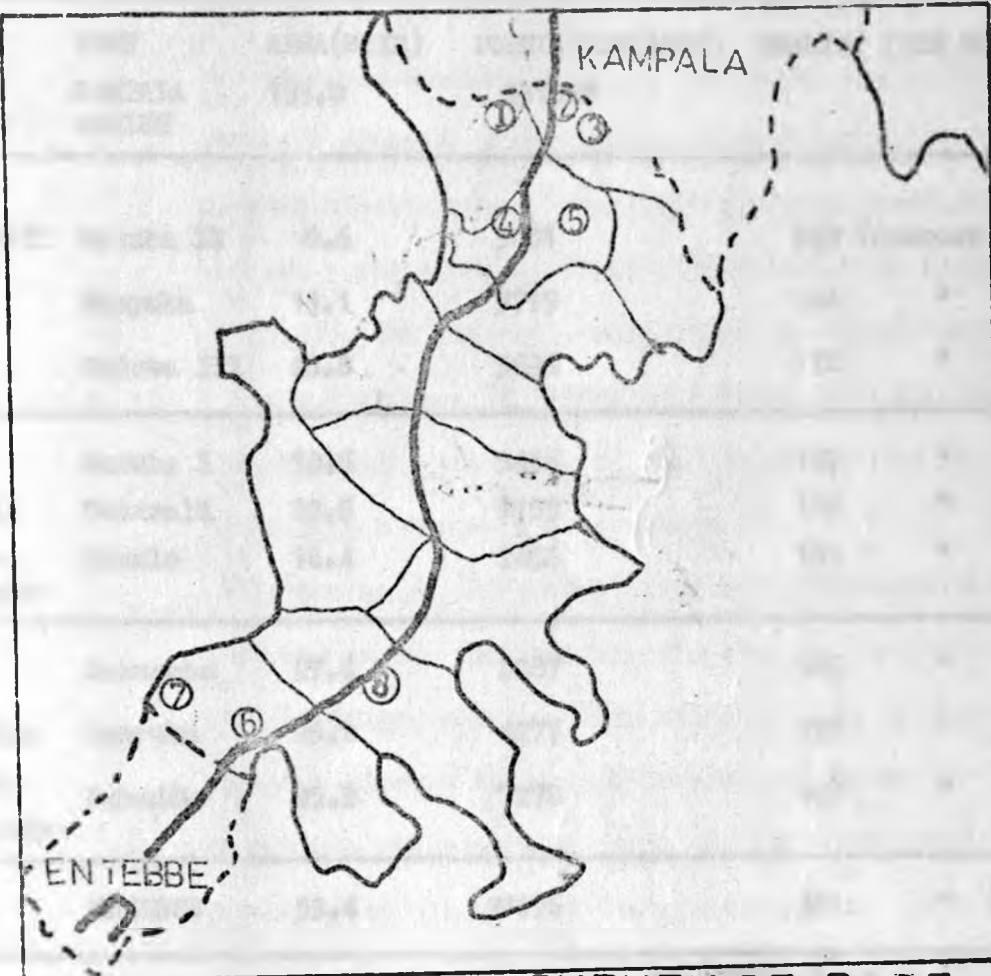
2.3.1.5

To this end, it has to be noted that agricultural production for cash income has further been constrained by size of land holding and population density. The size of a piece of land one owns influences the type of activity that will be carried on it. In case of agriculture, the owner will find out if it is economic to establish agricultural cash crop farming. If this is not so a substitute that promises better returns in terms of economic rent is adopted.

Observation made in the field (study area) indicates that the size of land holding is influenced by population density. This as a result influences the types of activity being carried on. Table 3 shows population densities by parishes within Kampala-Entebbe corridor. The densities tend to decline in parishes farther away from each of the towns. Thus with higher densities, the size of land holding are smaller.

TABLE: 3 - POPULATION DENSITIES BY PARISHES WITHIN KAMPALA-ENTEbbe CORRIDOR.

SUB-COUNTY	TOWN	AREA(SqKM)	POPULATION(1969)	DENSITY (PER SqKM)
	KAMPALA	195.0	331889	
	PARISH			
	Sabagabo	8.1	3557	439 (nearest Unit)
Sabagabo	Sabaddu	15.1	5419	359 "



KAMPALA ENTEBBE  
CORRIDOR

**SURVEY OF PLOT  
SIZE, AREAS**

LEGEND

- ① BUNAMWAYA
- ② NAMASUBA
- ③ MASAJJA
- ④ NAKAKUBA
- ⑤ NDEJE
- ⑥ KITUBULU
- ⑦ BUNONA
- ⑧ NALUGALA
- KAMPALA ENTEBBE MAIN ROAD



Map 9

Scale 0 2 4  
Kilometres



SUB-COUNTY	TOWN	AREA(SQKM)	POPULATION(1969)	DENSITY (PER SQKM)
	KAMPALA PARISH	195.0	331889	
SUB-COUNTY	Mutuba II	8.6	3001	349 (nearest Unit)
	Munyuka	15.1	3719	244 "
	Mutuba III	20.8	3696	178 "
	Mutuba I	18.5	3466	187 "
Musale	Sabawali	22.6	1159	116 "
Sub-County	Musale	16.4	2456	150 "
	Sabagabo	27.6	2887	105 "
Sabaddu	Munyuka	25.2	4277	170 "
Sub-County	Sabaddu	25.2	7278	289 "
	ENTEBBE	55.4	21176	381 "

Source: 1969 Uganda Population census Report.

A sample survey was carried out in the first three parishes from Kampala, and the first two parishes nearest to Entebbe. Plot size survey areas in the mentioned parishes are indicated on Map 9.

Results indicate that around Namasuba, on Kampala's southern periphery, plot sizes range between  $\frac{1}{8}$  and  $\frac{1}{2}$  acre. Away from the main Kampala-Entebbe road, about half a mile in places: Masajja and Bunamwaya, land holdings vary between  $\frac{1}{4}$  and 2 acres. Then, 2.5 miles away from Kampala boarder, along the main Kampala-Entebbe road at Nakakuba, land holdings average between 2 and 4 acres. At the same distance from Kampala's boarder but  $\frac{3}{4}$  of a mile from the road, at Ndeje, land holdings range

BETWEEN 2.5 and 4.5 acres.

Towards Entebbe- town, Kitubulu was one of the areas of survey. This place is near the main Kampala-Entebbe road. The size of land holdings vary between  $\frac{1}{2}$  and  $\frac{1}{3}$  acres. Half a mile away from Kitubulu at Bunono, the size of landholdings range between 1 and 3.5 acres. At Nalugala (2 miles from Entebbe Town boundary), the size of land holdings were noted as ranging between 2 and 4 acres.

Results of the survey complement, the agreement that the higher the density, the smaller the size of land holdings. Smaller land holdings tend to occur in parishes closest to each of the towns. These are the same areas where agricultural activity is carried on purposely to meet family food requirements. In such parishes no cash crops have been adopted as would prove uneconomic.

#### 2.3.1.6

Land tenure system in the area has equally affected the type of crops being grown. The corridor is situated in Buganda region (North, South and Central Buganda provinces) where a 'Mailo' land tenure system existed until 1st June 1975, By 1st of June 1975, a land Reform Decree was signed by Uganda's President, which made all land Government property.

In the past, rights in Buganda were held by the clan, but as power of the Kabaka increased these rights diminished, and were finally destroyed by the British in the 1900 Buganda Agreement, by which 9003 sq miles of freehold

land known as 'mailo' were conferred on about 3700 chiefs. This left only 900 sq miles as public land including forests and swamps. Subsequent mailo land has been much subdivided either by sale, inheritance or gifts, so that it was estimated in 1952 to be petitioned among 58000 land owners. Subdivision has continued.

Tenants on 'mailo' land are subject to the 'Busulu' and 'Envujo' law of 1927 which guarantees the tenants the right to the use of land, provided a rent of 10 shillings per annum plus further dues for cash crops are paid to the landlord.<sup>7</sup> Failure to pay, means eviction of the tenant. In most cases the 1927 Agreement had always been violated. Some of the more enlightened landowners had always been successful in buying out their tenants.<sup>8</sup> This was also observed in the field where tenants were evicted. These cases were sited in parishes Sabaddu and Muziyuka in Sabaddu Sub-county and in Mutuba I in Musale sub-county. Thus due to fear of being bought off some tenants were always reluctant to grow perennial cash crops. This factor contributed to less initiative by tenants within the corridor to engage in any cash crop production.

#### 2.3.1.7

In discussing agricultural activity within the corridor, and the factors which have contributed to low cash crop production, consideration has to be given to the corridor's residents perception on agriculture as a source of income.

Some people could be viewing agriculture as a low paying activity in terms of cash. As a result they involve in tertiary and secondary activities within the study area. Other people as the results of the survey indicate (chapter three) come to settle in the area while commute to either of the towns for work. To this category of people, agriculture is merely practiced to meet the family foodcrop requirements.

Inspite of the fact that there are some hinderences to cash crop production, the study area's climate and soils still make it one of the most rich potential agricultural areas in the country. There is room under a put-forward-landuse-policy to tap the agricultural potential existing in the area.

### 2.3.2

#### Industrial development

Industrial production within the corridor is at a low level. Commodities being produced are building materials which include sand and gravel from a number of marram pits and quarries.

Employment being generated by this activity is small. Persons employed in this activity does not exceed 20 people. This activity takes place at Mutungo (Map 3b).

More significant in the industrial sector is the production of bricks and tiles at Kajansi Trading Centre (Map 3b), by Uganda Clays. In 1971 the plant had a production capacity of 20000 tons of bricks. There were 100 people employed with the plant.

Concerning production, Uganda Clays had the target of achieving a capacity of 40000 tons of bricks by 1976.<sup>9</sup> Information obtained from the factory management (April 1976) indicates that 34000 tons were achieved. The number of employees had also gone up to 190 persons. Low production was due to shortage of machinery required for the plant. At the same time production was lessened due to low demand for bricks.

Low demand was a result of problems occurring in the construction industry. Such include: scarcity of metal window frames and window glasses. There is also scarcity of water pipes. This is to state but a few of the problems.

Near Kajansi Brick Factory there is a plant producing cement blocks. The plant is privately owned and registered under the name of 'Katambwa Cement Block Factory'. This is located at Katambwa (Map 3b). No precise figure of the plant's output is given, since this is highly determined by demand for the cement blocks. The management gave a rough average figure of 200-300 cement blocks per week. This plant employs 20 people.

Other small scale industrial activities in the study area include enterprises established to repair bicycles and manufacture furniture and footwear. Such activities are located in some of the trading centres.

Regarding expansion of industrial activity within the corridor there are more potentials still to be exploited with the brick and tile factory at Kajansi. The brick factory at Kajansi has a locational advantage in a way ....45/

that it is situated between two important towns of Entebbe and Kampala. The increasing demand for building material in these two towns, particularly Kampala should boost up the factory's output. Similarly the factory can take advantage of demand for building material from the trading centres within the study area. So there appears to be many prospects for this particular industry to expand. Similarly the cement block factory has all the potentials for being expanded. The demand for cement blocks exists in the two towns much as within the study area. Otherwise the type of industries that could be introduced within the corridor are service industries oriented exclusively to the local market.

### 2.3.3 Commercial Development

Within the corridor there are several trading centres which are large enough to be considered as urban phenomena in themselves. It is in these centres that most commercial activity within the study area is carried out. However a commercial activity like the sale of some certain foodcrops is operated at various sites along the main Kampala-Entebbe road.

Activities carried out in most trading centres include: shop, bars, restaurants, night clubs, and foodstuff market activities.

Within some of these centres there are services which are traffic development oriented. Although such services are utilized by the local population around the centres, most of the time they are utilized by commuters between Kampala and Entebbe, much as commuters between ....46/

the study area and either of the two towns. Such services include: petrol filling stations; foodstuff markets; bars and night clubs.

There are eight trading centres, all located along the main Kampala-Entebbe road. These provide a clear example of 'ribbon development'. The centres include: Namasuba, Zana, Masaja, Kajansi, Namulanda, Kawuku, Kitala and Abaita'Babiri (Map 3b).

As population increases within the corridor, the commercial activity is expected to increase due to demand generated within. Similarly most trading centres may expand areally as the functional importance increase. Possibly more centres may also come up.

#### 2.3.4 Employment

Employment within the study area is mainly provided by agricultural, industrial and commercial, Health and Educational institutions offer some small employment too.

2.3.4.1 On the side of agriculture, it has earlier been noted (see 2.3.1) that a small number of people is employed on sugar and tea estates. There are people who specialize in growing foodcrops which they sell to the town markets of Kampala and Entebbe as well as in the trading centres within the corridor. This is an observation made in the field. However the Ministry of Agriculture, Entebbe has no official recorded people involved in this type of agricultural activity.

In addition there are people who work either in Entebbe, Kampala or study area while at the same time get involved in growing crops for sale, just to supplement their income.

Employment in the agricultural sector can be increased especially when a variety of cash crops are innovated in the study area. As earlier stated there are potentials for intensive cash crop growing within the corridor.

2.3.4.2 The industrial sector within the corridor employs a small proportion of the corridor's residents. Figures employed in the Brick and Tile Factory at Kajansi and the Cement Block Plant at Katambwa have been given (see 2.3.2). The number involved in repair of bicycles, manufacturing of furniture and foot wear is given by the area's Trade Officer (April 1976) as not exceeding 50 persons. The figure is tentative because some people take up this type of activity, as well as some abandon it.

2.3.4.3 The commercial sector similarly employs some people within the corridor. Employment in this sector is specifically concentrated in the trading centres where most activities take place. The field survey results as analysed in chapter three indicate that there is a significant percentage of people working in the trading centres (see table 8). Information obtained from the Trade Officer in the study area (December 1975) indicates that about 2000 people were involved in the commercial activities within the corridor.



Some commercial activity is carried on by the roadside (Main Kampala-Entebbe road). This specifically involves the sale of foodcrops. The number of people involved in this type of commercial activity were 40 people (by time of field survey December 1975). This is taken as an average figure since the number changes overtime.

Employment in the commercial sector may be expected to increase as centres continue to grow and increase their functional importance.

Employment provided by the educational institutions and the hospital at Kisubi totals about 400 people. The figure may increase with expansion of the stated institutions.

### 2.3.5 Transport

The only mode of transport within the corridor is the road. Three types of roads are identified within the corridor. The first type is all weather road. This is tarmac road. The main Kampala-Entebbe road is the only road of this nature within the corridor. The second type are the dry weather roads. These roads are spread over the corridor. Most of the dry weather roads radiate from the main Kampala-Entebbe road and penetrate deep in the study area. The density of the dry weather roads is higher in areas adjacent to Kampala (Map 3b). The third type of roads are 'main trucks'. These are trucks which are motorable particularly during the dry seasons.

Most people of the corridor have easy access to the main Kampala-Entebbe road, which links the study area with Entebbe and Kampala (Map 3b). Thus an improvement particularly on all weather roads and the main trucks could encourage agriculture oriented to both domestic and export markets. Growing of food crops to feed the two town markets and the trading centres is one of the possibilities which could be encouraged. Crops needing airfreight as horticultural crops for export market could be grown in the area and moved easily to Entebbe airport and flown fresh.

## 2.4 Social Background

### 2.4.1 Population

Table 4 Kampala-Entebbe corridor

#### POPULATION TOTALS AND GROWTH RATES 1959-1969

		POPULATION	POPULATION	% ANNUAL INCREASE
		1959	1969	1959- 1969
KAMPALA		146536	331 889	8.2
SUB-COUNTY	PARISH			
	Sabagabo	2323	4891	7.73
Sabagabo	Sabaddu	2943	5419	6.29
	Mutuba II	1971	3001	4.2
	Munyuka	2071	3719	5.8
	Mutuba III	2756	3696	2.9
	Mutuba I	2913	5363	6.1
Musale	Sabawali	2037	2620	2.5
	Musale	894	2456	10.1

		POPULATION 1959	POPULATION 1969	% ANNUAL INCREASE 1959-1969
SUB-COUNTY	PARISH			
	Sabagabo	2005	2887	3.6
Sabaddu	Munyuka	1165	4277	13.0
	Sabaddu	3244	7278	8.1
TOTAL		24322	45607	
	Entebbe	12229	21178	5.2

Source: Uganda Census Population, 1959 & 1969

- N.B.1. 1969 Population for Sabagabo Parish (Sabagabo Sub-County) includes population for Namasuba Trading Centre
2. 1969 Population for Mutuba I Parish (Musale Sub-County) includes population for Kajansi Trading Centre.

The study area's total population in 1969, was 45,607 people (Table 4). This is almost twice the area's total population recorded in 1959. The 1959 figure is given as 24322 people (Table 4). A comparison of the 1959 and 1969 population census figures at parish level indicates that each parish had an increase of population between 1959 and 1969. However, a significant increase of population is found in those parishes immediately adjacent to the two towns or which are situated directly on the existing highway (the main Kampala-Entebbe road). This is also clearly indicated by population growth rates (Table 4). Parishes immediately adjacent to the two towns with high growth rates include: Sabagabo, Sabaddu, Mutuba II, and Munyuka in Sabagabo Sub-County,

then Muryuka and Sabaddu in Sabaddu Sub-County (Table 4). The former parishes are adjacent to Kampala, while the latter are adjacent to Entebbe. Similarly, parishes directly situated on the high way with high growth rates include: Muryuka in Sabagabo Sub-County, then Mutuba I and Musale in Musale Sub-County. It has to be noted that there are parishes situated on the main highway but which have had small growth rates. These are Sabagabo in Sabaddu Sub-County, and Mutuba III in Sabagabo Sub-County.

The general observed trend is that population growth rates tend to be highest in parishes closest to the towns. Evidence shows that growth here is high due to the proximity of the towns; land availability where urban commuters can put up their own houses and grow foodcrops for family sustenance and certain lack of control on development. It is expected that growth in these areas will continue increasing as more urban workers seek permanent residence here, and the establishment of more commercial activities in these areas attract more people.

Similarly as accessibility from the study area to the two towns which are important employment centres, go on improving the rest of the parishes are expected to have their rates increased in the long-run. This is expected to be so because some urban workers who would like to set up permanent homes within the study area would look to those parishes currently with few people where land could be available. ....52/

Similarly those people wishing to practice some form of market gardening would be attracted to parishes with fewer people and large pieces of land.

Generally however, the corridor's total population is expected to increase. The recorded growth rate for the corridor in 1969 is 4.2%. This exceeds the National growth rate which is 3.9%.

Regarding population distribution within the corridor this is dispersed. However population concentration occurs in trading centres and places where there are educational institutions, Missionary centre, and hospital. Such is the case, with Kisubi. As population increases, more concentration is expected in areas immediately adjacent to the towns and in the existing trading centres.

#### 2.4.2

##### Settlement patterns

Within the study area two types of settlement patterns may be identified. The first one is the nucleated settlement pattern. This is featured by clustering of buildings in one place. In the case of the study area, this type of settlement pattern is specifically associated with trading centres which occur at various sites along the roadside of the main Kampala-Entebbe road. Outside the trading centres one large nucleated settlement is found at Kisubi, which is 5 miles from Entebbe (situated near the main Kampala-Entebbe road). At Kisubi there is a big secondary school, three primary schools, a catholic mission station, a hospital and a printing press.

The second type of settlement pattern is 'dispersed' settlement. This second type of settlement pattern is identified in the rest part of the corridor. Although this second type signifies the scattering of settlements, yet it has to be noted that most of the settlement units tend to be firstly in areas near the main Kampala-Entebbe road, and secondly near the access roads within the study area (Map 8)\*. These settlement units have tended to be in areas near the roads, because the roads provide easy access to both Entebbe and Kampala towns, where a proportion of the study area's residents commute for work, shopping and leisure, as the sample survey results indicate (see Tables in Appendix). Further more it should be noted that in parishes closest to the two towns, although settlement units are dispersed at the same time they tend to be more widely spread. This does not appear to be the case in parishes far away from either of the two towns. Thus settlement units are more widely spread in parish Sabaddu, which is closest to Entebbe town (Map 8). This same feature is identified in parishes Sabaddu, Sabagabo and Mutuba II, which are closest to Kampala City. Part of the explanation to the even spreading out of settlement units in parishes close to the towns is the fact of their close proximity to these towns. As a result of this, settlement units are not necessarily concentrated in areas near Kampala-Entebbe road or the major access roads as is the case with parishes far away from the towns (Map 8).

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\* Map 8 is at the back of the Thesis

Land tenure system within the corridor has to some extent influenced the type of settlement. Earlier it was pointed out that the land tenure system within the corridor was 'Mailo' land, before the 1st of June 1975 'Land Reform Decree' which made all land Government property (see 2.3.1.6). In areas near the towns due to land speculation Mailo Land was subdivided and sold to individuals. This same thing happened in areas around the trading centres. Thus in areas near town, settlements, have tended to cover much of the area, while trading centres it has tended to concentrate. In the rest of the parishes away from towns and the trading centres, most landlords have not been eager to subdivide their land so much and sell it. This has resulted in a more dispersed settlement pattern in such parishes.

To this end, it has to be noted that vegetation in the study area has had an impact on the pattern of settlement. Where forests and swamps occur settlement has tended to avoid such areas. Thus in such cases settlement tends to concentrate in areas close to both Kampala-Entebbe main road and the access roads (Maps 3b and 8).

2.5

#### Conclusion

It has been noted that the early development of the corridor is closely associated with the development of the present Kampala-Entebbe road. This road links two important employment centres of Kampala and Entebbe.

Thus this road opened the corridor for more settlement.

Following the construction of the road, was establishment of agricultural activity (tea & sugar estates), industrial (Kajansi Brick Factory) and trading centres. It has been noted that these stated sectors provide employment.

To this end three features may be identified within the study area. The first one is the agricultural development. It has been noted that agricultural cash cropping is very low due earlier stated factors. These were considered but a few, which offered an explanation. However the growing of surplus foodcrops for sale in the town markets, trading centres and <sup>to</sup> passing motorists along Kampala-Etebbe road is on the increase. This is identified in mid-parishes within the corridor. This reflects the potentials which exist in the area for cash crop farming.

The second feature is the spreading influence of the two towns. This seems to be taking place in areas immediately adjacent to the towns. In these parishes agriculture is more practiced to meet the daily family food requirements. Thus most people appear to be deriving their income from working in towns.

Those who do not commute to towns for work, do work in the trading centres in the same parishes. This is later indicated in the analysis chapter.



The third feature is urban development which is being generated from within the study area. This urban development is associated with the growth of several trading centres which are located alongside the Kampala-Entebbe main road. These centres provide some employment to a small section of the corridor's residents. It has also been noted that the only industry in the area which provides some employment is located in one of these centres (Kajansi). This is a brick and Tile factory. Other small scale industrial enterprises are located in most trading centres. As population within the corridor increases overtime, these centres are expected to grow larger at the same time increasing their functional importance.

Summing up therefore it can be said that there exists potentials for promotion of agricultural cash crop farming. This is particularly so in parishes in the middle part of the corridor. The trading centres which are viewed as urban settlements are expected to grow. As a result some of these centres may need some guided development particularly as some have been identified as nucleations of both population and settlements. The areas which appear to be experiencing urban influence have to be given attention also. This would therefore call for a formulated policy to guide the corridor's development. This issue is dealt with in the later chapters of the thesis.

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CHAPTER THREE

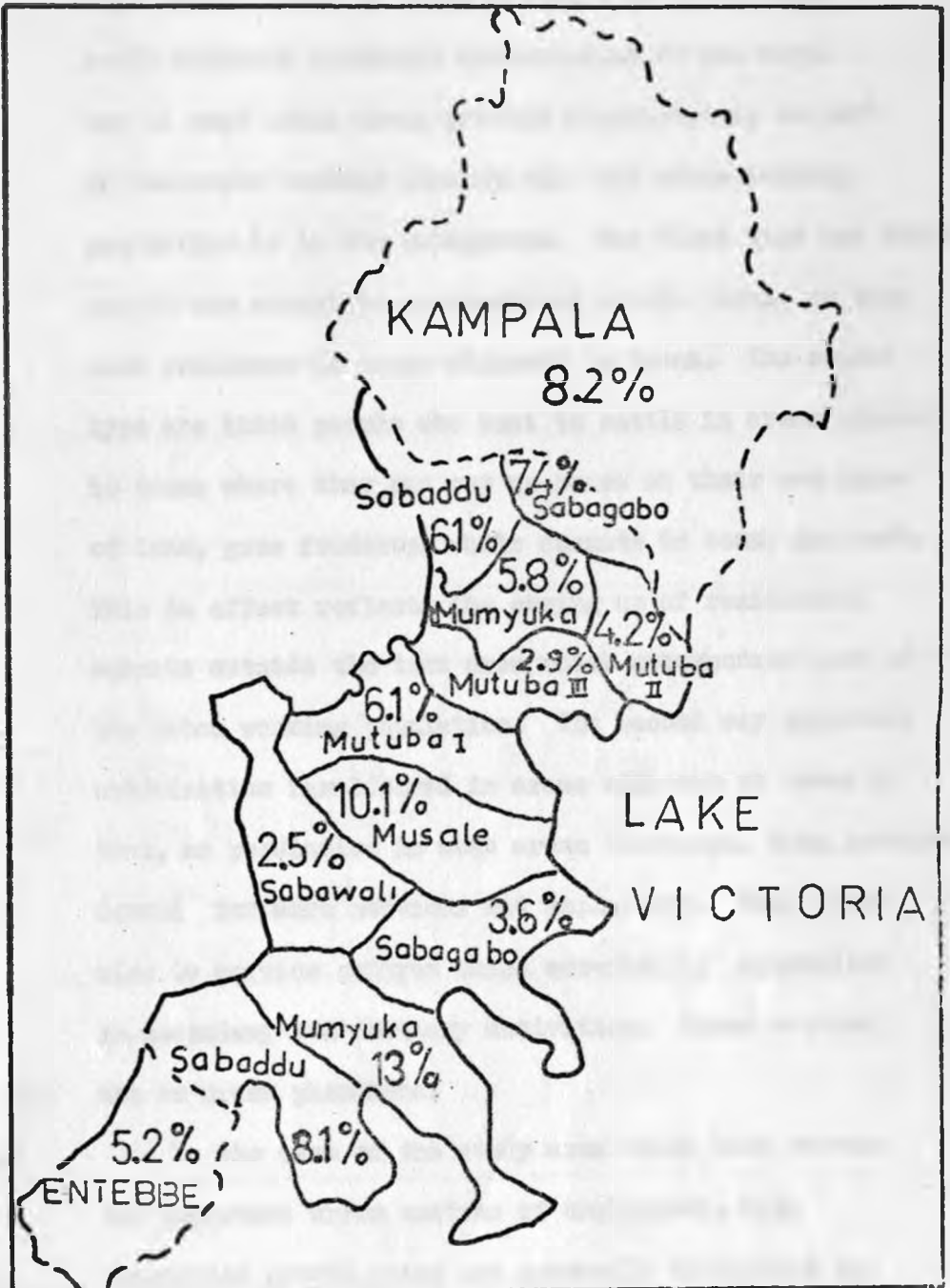
3.0 PART ONE: EXTENT OF URBAN SPRAWL IN THE CORRIDOR

3.1 Indicators used

Several selected indicators are used in identifying urban sprawl influence within the corridor. These include: population growth rates and densities; commuter patterns to Kampala and Entebbe; places of work; use of electricity; and occurrence of urban settlements, and types of employment. Worth noting here is that the only available data on population growth rates and densities is that recorded for the 1969 census. Since 1969 no other census population has taken place.

3.1.1 Population growth rate

High population growth rates are normally marked with urban centres. This is due to significant rural-urban migrations. The pull factor to urban immigrants is the availability of social amenities and employment opportunities in urban areas.<sup>1</sup> However if migrants cannot find accommodation in urban areas they may settle in areas adjacent to towns as long as they can have access to urban employment and other services. Other people may wish to settle in areas adjacent to towns where they can put up homes and grow their own <sup>foodcrops</sup> while commute to urban areas for work or for other services. Thus immigration in area's adjacent to towns contributes to such area's rise of population growth rates overtime. ....59/



KAMPALA-ENTE BBE POPULATION GROWTH RATES BY PARISHES and also those of KAMPALA and ENTEBBE



Map 10

Scale 0 2 4 Kilometres

High growth rates in areas adjacent to urban areas could indicate potential urbanization in two ways. One is that these areas provide accommodation to part of the urban working population. The urban working population is in two categories. The first type are those people who cannot be accommodated within towns, so they seek residence in areas adjacent to towns. The second type are those people who want to settle in areas closest to towns where they can put up homes on their own piece of land, grow foodcrops while commute to towns for work. This in effect reflects the coming up of residential suburbs outside the town area which accommodate part of the urban working population. The second way potential urbanization is reflected in areas adjacent to towns is that, as population in such areas increases, this generates demand for more services and employment. This gives rise to service centres which essentially specialise in secondary and tertiary activities. These centres are an urban phenomena.

3.1.1.1

In the case of the study area which lies between two important urban centres of employment, high population growth rates are generally identified in parishes closest to either of the two towns (Kampala & Entebbe) (Map 10). Parishes closest to Entebbe with high growth rates are: Sabaddu (8.1%) and Mumyuka (13%) in Sabaddu sub-county. Those close to Kampala are: Sabaddu (6.1%), Sabagabo (7.4%), Mutuba II (4.2%) and Mumyuka (5.8%) in Sabagabo sub-county (Map 10).

Exception do occur with two parishes in the middle part of the corridor. These are Musale and Mutuba I which have growth rates of 10% and 6.1%, respectively (Table 5).

TABLE 5 - KAMPALA-ENTEBBE CORRIDOR POPULATION GROWTH RATES 1959-1969

	TOWN	POPULATION 1959	POPULATION 1969	% ANNUAL INCREASE 1959-1969
	Kampala	146536	331889	8.2
	Entebbe	12229	21176	5.2
<hr/>				
	PARISH			
	Sabagabo	2323	4891	7.73
Sabagabo	Sabaddu	2943	5419	6.29
Sub-County	Mutuba II	1971	3001	4.2
	Mmyuka	2071	3719	5.8
	Mutuba III	2756	3696	2.9
<hr/>				
Musale	Mutuba I	2913	5363	6.1
Sub-county	Sabawali	2037	2620	2.5
	Musale	894	2456	10.1
<hr/>				
	Sabagabo	2005	2887	3.6
Sabaddu	Mmyuka	1165	4277	13.0
Sub-County	Sabaddu	3244	7278	8.1

Source: Uganda census population; 1959 and 1969.

High growth rate in Musale is due to the fact that by 1959 there were few people in the parish. Since 1959 there has been rush for land. ....61/

As earlier noted this is one of the parishes where the growing of surplus foodcrops for sale is intensive. In the case of Mutuba I, there has been significant immigration into the parish since 1959. While part of the immigrants were attracted by availability of land for settlement, yet another part was attracted in the trading centre (Kajansi) by its increasing functional importance. More people moved to the centre to establish commercial business. Similarly the existence of two brick factories in the centre pulled some people in search of employment. Kajansi's population in 1969 was 1897 people, while the rest of the parish had 3466 people. All these factors contributed to a high growth rate for the parish.

3.1.1.2

It can be noted that parishes immediately adjacent to Entebbe have a higher population growth rate than Entebbe itself (Map 10). As earlier noted, Entebbe town has little room for any rural-urban immigrants as well as any further urban developments. Resulting from this most people have settled in these two parishes closest to town from where they commute to Entebbe for work. The survey results show that between 46.6% and 50.0% of the total working population in parishes Mumyuka and Sabaddu work in Entebbe. Similarly people who could not find room to set up commercial business have done it in these parishes.

Besides, as the survey results later show, there has been a significant percentage of people moving from Entebbe to these two parishes of Sabaddu and Mumyuka (see Tables in Appendix). These two factors have contributed to the parishes's growth rates being higher than Entebbe's.

In the case of Parishes close to Kampala, their growth rates are fairly close to that of Kampala (Map 10). High growth rates in these parishes indicate their attractiveness to immigrants due to their close proximity to Kampala, a very important employment centre. Results of the survey indicate that between 37% and 57% of the total working population from parishes Sabagabo, Sabaddu Mumyuka and Mutuba II work in Kampala.

Further more information obtained from the 1959 and 1969 census reports indicate that most parishes within the corridor have growth rates above the national one which is 3.9%. The only parishes whose growth rates are lower than the national are Mutuba III (Sabagabo sub-county), Sabawali (Musale sub-county) and Sabagabo (Sabaddu sub-county). The rest of the parishes can expect higher growth rates in the long-run. Similarly the census report (1959-1969) show that the two parishes immediately adjacent to Entebbe (Sabaddu and Mumyuka parishes) and the first parish closest to Kampala (Sabagabo parish) (Map 10) have higher growth rates than the 'National Urban' growth rate which is 7.1%. The exceptional case is Musale lying in the middle part of the corridor with 10.1% .

.....63/



This parish's case has been explained.

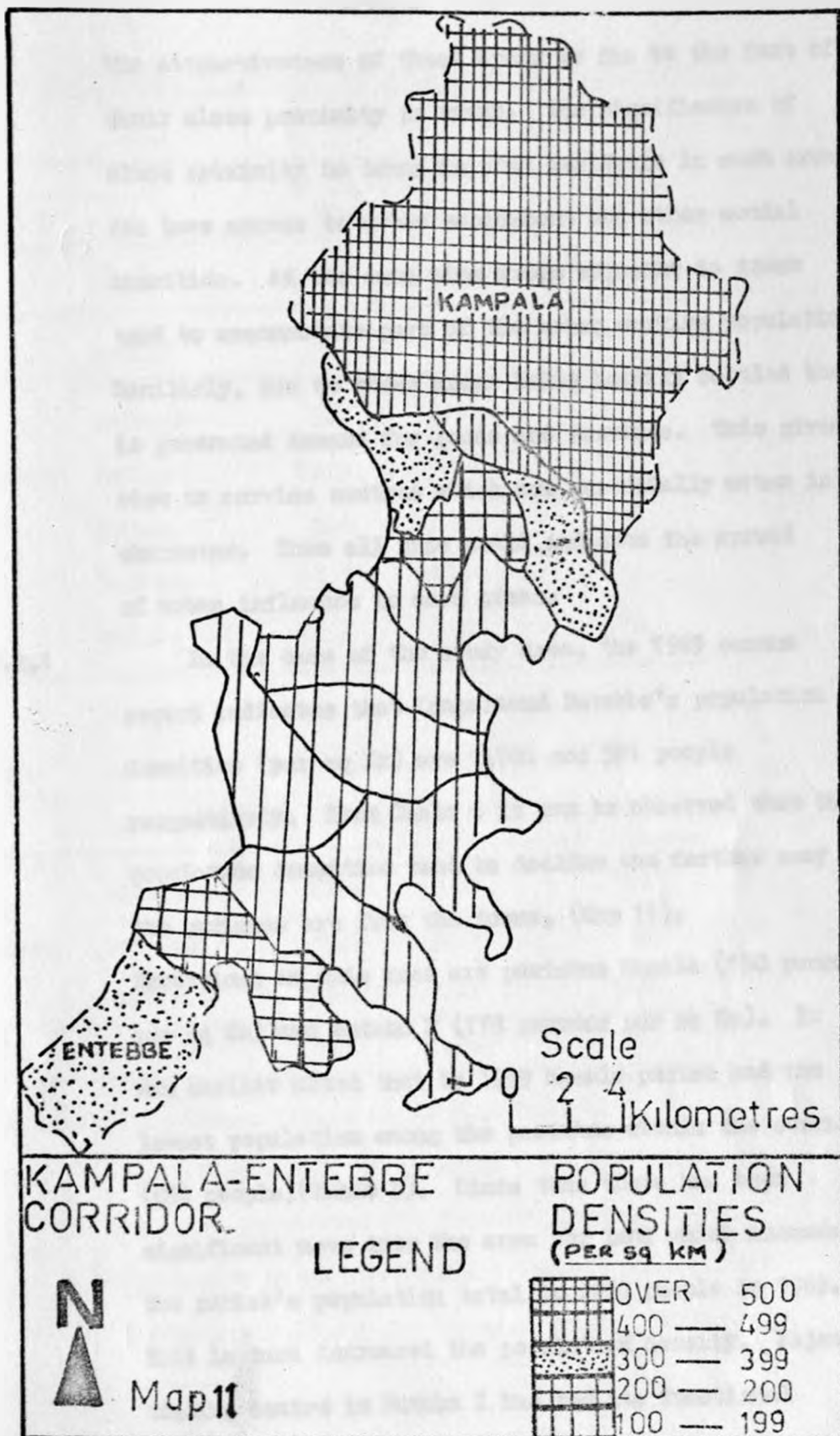
3.1.1.3

Therefore it is indicated that high population growth rates occur in parishes adjacent to the towns (exceptional cases are Musale and Mutuba I whose case have been put forward). The high population growth rates in these parishes indicate attractiveness of people into such areas. The pull factor to immigrants in these parishes is their close proximity to the two urban employment centres. Earlier on it was noted that there is a significant percentage of people in these parishes who commute to towns for work. Thus the existence of high growth rates supplemented by significant percentage of urban workers in parishes immediately adjacent to towns, indicates such areas being in the urban shadow. The identified parishes are: Sabaddu, Sabagabo, Mutuba II and Mumyuka which are closest to Kampala, then Sabaddu and Mumyuka which are closest to Entebbe. If these parishes are in the urban shadow this may reflect the existence of urban sprawl influence. To justify further the existence of urban sprawl in these parishes other indicators have to be equally taken into account.

3.1.2

Population density

Population density is among several other essential indicators that can be used to justify the existence of urban sprawl in an area. This is particularly so with areas close to towns. An observed trend where by densities increase more in areas adjacent to towns would indicate such areas attractiveness to immigrants. ....64✓



The attractiveness of these areas is due to the fact of their close proximity to towns. The significance of close proximity to towns is that residents in such areas can have access to urban employment and other social amenities. At the same time areas adjacent to towns tend to accommodate part of the urban working population. Similarly, due to these areas being heavily settled there is generated demand for goods and services. This gives rise to service centres which are essentially urban in character. Thus all this could indicate the spread of urban influence in such areas.

3.1.2.1

In the case of the study area, the 1969 census report indicates that Kampala and Entebbe's population densities (per sq Km) are 1,702 and 381 people respectively. From Table 6 it can be observed that the population densities tend to decline the farther away the parishes are from the towns, (Map 11).

Exceptions in this case are parishes Musale (150 persons per sq Km) and Mutuba I (178 persons per sq Km). It was earlier noted that by 1959 Musale parish had the lowest population among the parishes within the corridor (894 people)(Table 5). Since then there has been significant move into the area for land which increased the parish's population total to 2620 people in 1969. This in turn increased the population density. Kajansi trading centre in Mutuba I has had its functional importance increased commercially. As a result between 1959 and 1969 it attracted a substantial population. ...65

TABLE 6 Population Densities Along Kampala-Entebbe Corridor.

SUB COUNTY	AREA IN Sq. KM	POPULATION 1969	DENSITY Sq. KM
KAMPALA	195.0	331889	1,702
PARISH			
Sabagabo	8.1	4891	604
Sabagabo Sabaddu	15.1	5419	359
Mutuba II	8.6	3001	349
Mumyuka	15.1	3719	244
Mutuba III	20.8	3696	178
Mutuba I	18.5	5363	290
Musale Sabawali	22.6	2620	116
Musale	16.4	2456	150
Sabagabo	27.6	2887	105
Sabaddu Mumyuka	25.2	4277	170
Sabaddu	25.2	7278	289
Entebbe	55.4	21,097	381

Source: 1969 Uganda Census population Report.

N.B. 1 - Population total for Sabagabo (Sabagabo Sub-County)

includes population for Namasuba Trading Centre.

2 - Population total for Mutuba I (Musale Sub-county)

includes population for Kajansi Trading Centre.

Thus besides immigrants who moved into Mutuba I the rest part of Mutuba I parish, a significant number of immigrants into Kajjansi trading centre (see 3.1.1.1) all contributed to a higher population density in this parish.

### 3.1.2.2

The analysis thus indicates that parishes adjacent to the towns have higher densities than those far away. The identified parishes closest to Kampala with high population densities are: Sabagabo (439 people), Sabaddu (359 people), Mutuba II (349 people) and Mumyuka<sup>KH</sup> (244 people) (Table 6). Similarly parishes closest to Entebbe, with high population densities are: Sabaddu (289 people) and Mumyuka (170 people). These parishes closest to the towns have earlier been identified with high population growth rates (Table 5) which in turn has contributed to these areas high population densities. It similarly <sup>has</sup> been noted that there is a significant percentage of urban workers from these parishes, as the results of the survey later indicate. Thus high densities in the parishes adjacent to the towns which reflect their attractiveness to immigrants because of the factor of their close proximity supplemented by a significant percentage of people who work in urban areas may appear to indicate the sprawling of the town's influence in such parishes.

However, the use of population densities alone in identifying urban sprawl is not sufficient. ....67

This has to be supplemented by use of more indicators.

### 3.1.3

#### Commuter patterns

Commuting from rural to urban areas indicates the influence of urban areas on the surrounding countryside. This influence can be measured by the volume of commuter flow and the frequency of commuting.

In using commuting patterns to identify areas where urban sprawl may be existing, attention is paid to the fact that the commuter zone is not equivalent to the area of urban sprawl. Therefore since the commuter flow itself displays a decline in the volume of movement with increasing distance from urban centres, in identifying areas where urban sprawl may be existing, the 'intensity' of the volume of commuters is the one taken into consideration. Thus, those areas which indicate some of the highest percentages of the volume of commuters to urban areas, supplemented by the evidence derived from other indicators could show areas experiencing urban sprawl influence.

#### 3.1.3.1

When dealing with commuter patterns to identify areas within the study area where urban sprawl may exist, consideration is given to the purpose and frequency of travel. Purpose includes whether people commute to the towns to shop, work or for leisure, while frequency reflects if people commuting to the towns daily, weekly and monthly.

3.1.3.2

Frequency. The sample survey results (see Tables in Appendix) indicate that in parishes: Sabaddu, Sabagabo, Mumyuka and Mutuba II (Sabagabo Sub-county) the percentage of commuters to Kampala daily ranges between 45.5% and 61.7%. This is within a distance of between 3.5 and 4 miles from Kampala. This percentage drops to 18.5% in parish Mutuba III (7 miles from Kampala). Then in the rest of parishes the percentage of daily commuters to Kampala, ranges between 22.2% and 39.7%. The lowest recorded percentage of daily commuters to Kampala is 12.1% in Sabawali parish (Musale sub-county. 14 miles from Kampala).

Similarly, the sample survey indicates that the percentage of daily commuters to Entebbe is highest in parishes: Sabaddu and Mumyuka with percentages of 62.4% and 64.5% respectively. These are the two parishes closest to Entebbe (Map 10). The percentage drops to 48% and 24.2% in parishes Sabawali and Sabagabo respectively. These are 7 miles from Entebbe. Then between parishes Musale (Musale sub-county) and Mutuba III (Sabagabo Sub-county) i.e. between 9 and 14 miles from Entebbe. The percentage ranges between 33.3% and 7.4%. There are no daily commuters to Entebbe from parishes Mumyuka, Mutuba II, Sabagabo and Sabaddu (between 15 and 17.5 miles from Entebbe).

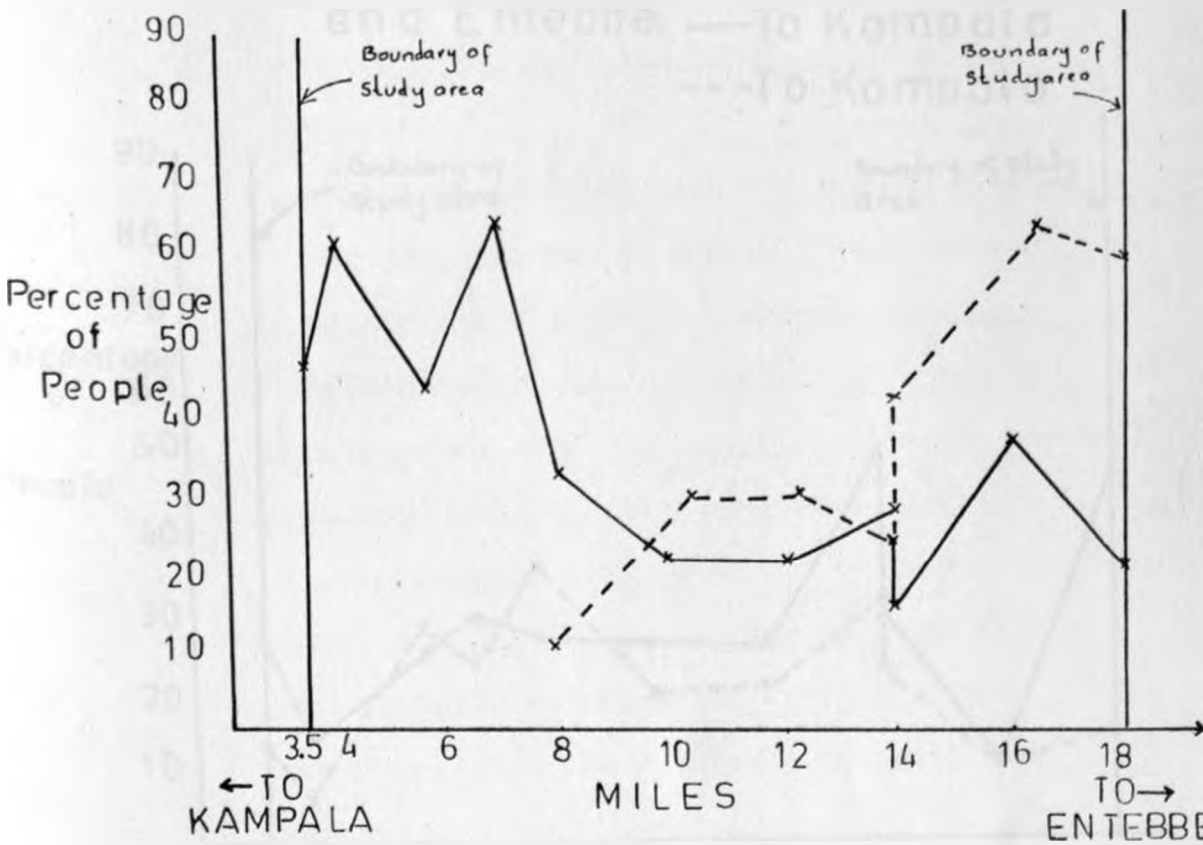
The results show that the percentage of volume of commuters is highest in parishes closest to the towns.

Graph 1

Daily commuting to Kampala and Entebbe

—— To Kampala

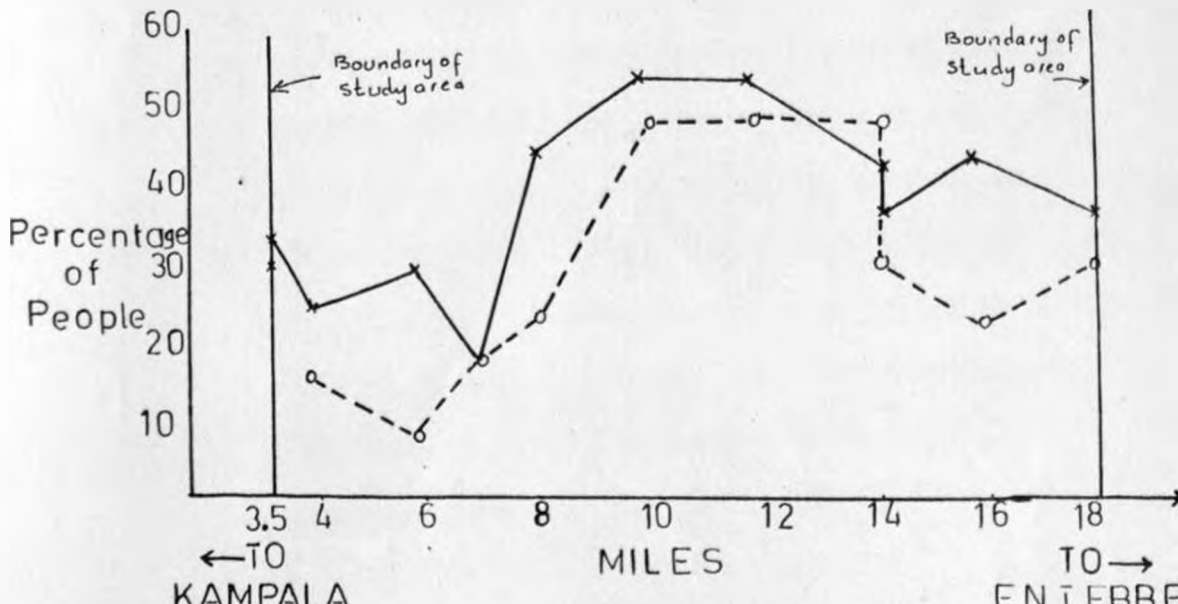
---- To Entebbe



Graph 2 Weekly commuting to Kampala and Entebbe

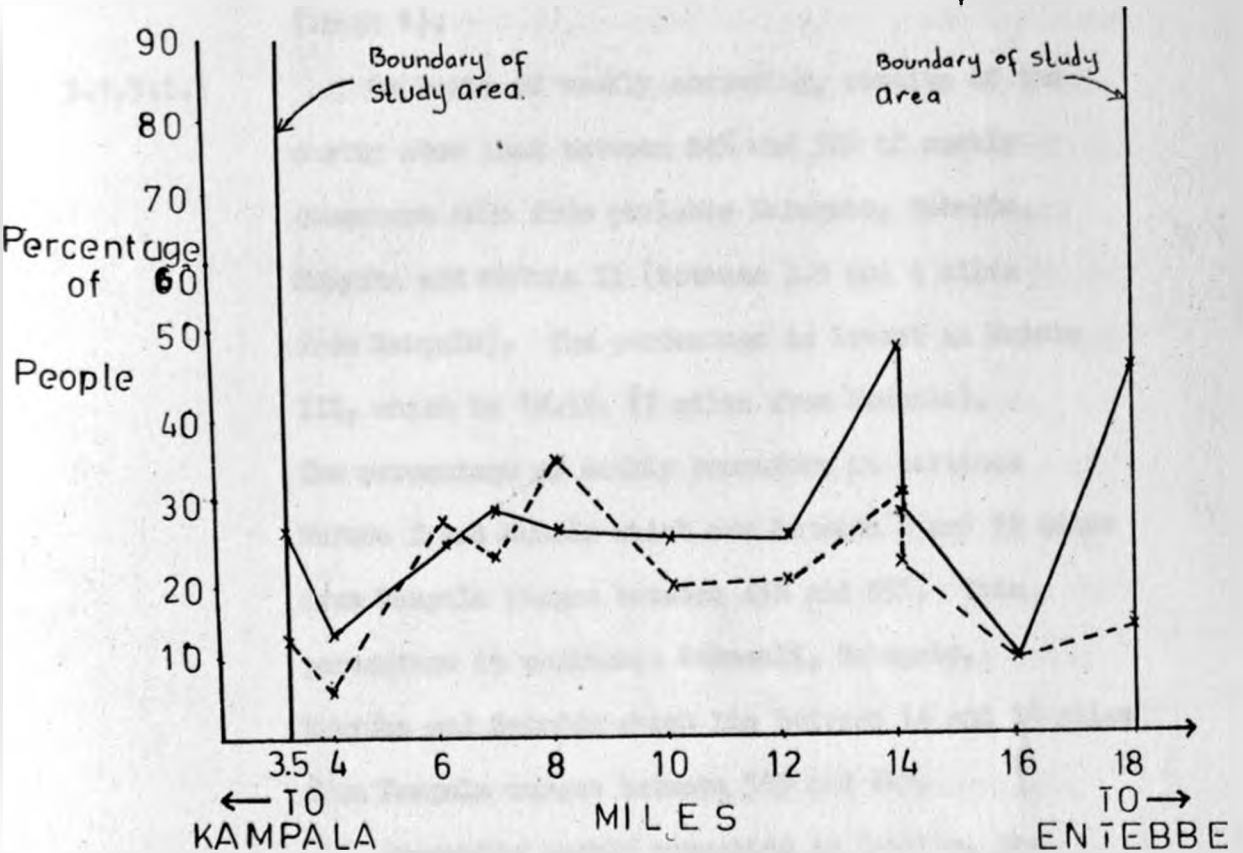
—— To Kampala

---- To Entebbe





Graph 3 Monthly commuting to Kampala and Entebbe. — To Kampala  
 --- To Entebbe



Similarly the percentage of daily commuters decline with increasing distance from the urban centres (Graph 1).

### 3.1.3.2.1

On basis of weekly commuting, results of the survey show that between 24% and 30% of weekly commuters come from parishes Sabagabo, Sabaddu, Mmyuka and Mutuba II (between 3.5 and 4 miles from Kampala). The percentage is lowest in Mutuba III, which is 18.5% (7 miles from Kampala). The percentage of weekly commuters in parishes Mutuba I and Musale which are between 8 and 12 miles from Kampala ranges between 43% and 55%. This percentage in parishes: Sabawali, Sabagabo, Mmyuka and Sabaddu which lie between 14 and 18 miles from Kampala ranges between 36% and 46%.

Regarding weekly commuting to Entebbe, the percentage of commuters ranges between 23.8% and 27.5%. This is in parishes Mmyuka and Sabaddu, which lie within a distance of between 2 and 5 miles from Entebbe. In parishes: Sabagabo, Sabawali and Musale which lie between 7 and 9 miles from Entebbe, the percentage of commuters is between 30.9% and 50%. The percentage of weekly commuters is lowest in parishes Mutuba I, Mutuba III, Mutuba II, Mmyuka and Sabaddu. These parishes lie at a distance of between 13 and 17.5 miles from Entebbe. The percentages range between 2.5% and 23%. (See tables in appendix). .....

There are no weekly commuters to Entebbe from Sabagabo parish which is 17.5 miles from Entebbe.

Results thus show that the percentage of weekly commuters to the two towns is lowest in firstly parishes adjacent to them, and secondly in those parishes which are farthest. Thus the percentage of weekly commuters to the towns is highest in parishes located in the middle part of the corridor (Graph 2). This reflects the fact that, people in parishes a bit far away from the towns prefer commuting to towns once a week. However those people in parishes farthest from towns find it a strain on them to commute weekly. This is a result of friction distance. In case of people in parishes adjacent to the towns it was earlier noted that most people here commute daily to towns, thus resulting in a low percentage of weekly commuters.

### 3.1.3.2.2

Results of monthly commuting to the towns show that the percentage of such commuters is very low. The percentage of monthly commuters to Kampala is between 11.1%, and 26.2% within a distance of 3.5 and 14 miles from Kampala i.e. parishes between Sabagabo (Sabagabo sub-county) and Sabagabo (Sabaddu sub-county). This percentage falls to 11.7% in Mamyuka (Sabaddu sub-county - 16 miles from Kampala). However the percentage rises to 40.5% in Sabaddu parish (Sabaddu sub-county) which is 18 miles from Kampala.

The percentage of monthly commuters to Entebbe ranges between 10.1% and 27.3% within a distance of between 2 and 9 miles from Entebbe, i.e. parishes between

The highest percentage is recorded in parish Mutuba I i.e. 13 miles from Entebbe. Between 14 and 17.5 miles from Entebbe i.e. parishes between Mutuba III and Sabagabo (Sabagabo sub-county), the percentage ranges between 27.3% and 11.5%. However the lowest percentage is recorded as 6.2% in parish Sabaddu (Sabagabo sub-county).

Results on monthly commuting show that percentages of commuters to the towns tend to be highest in parishes farthest from the towns. (Graph 3).

### 3.1.3.2.3

Overall results on frequency of travel indicate that high percentage of commuters are of those people who commute daily to the towns. The findings similarly show that high percentages of daily commuters are in parishes closest to the towns. The parishes closest to Kampala with high percentages of daily commuters are: Sabaddu, Sabagabo, Mutuba II and Mmuyuka (Map 10). Those parishes nearest to Entebbe are: Sabaddu and Mmuyuka (Map 10).

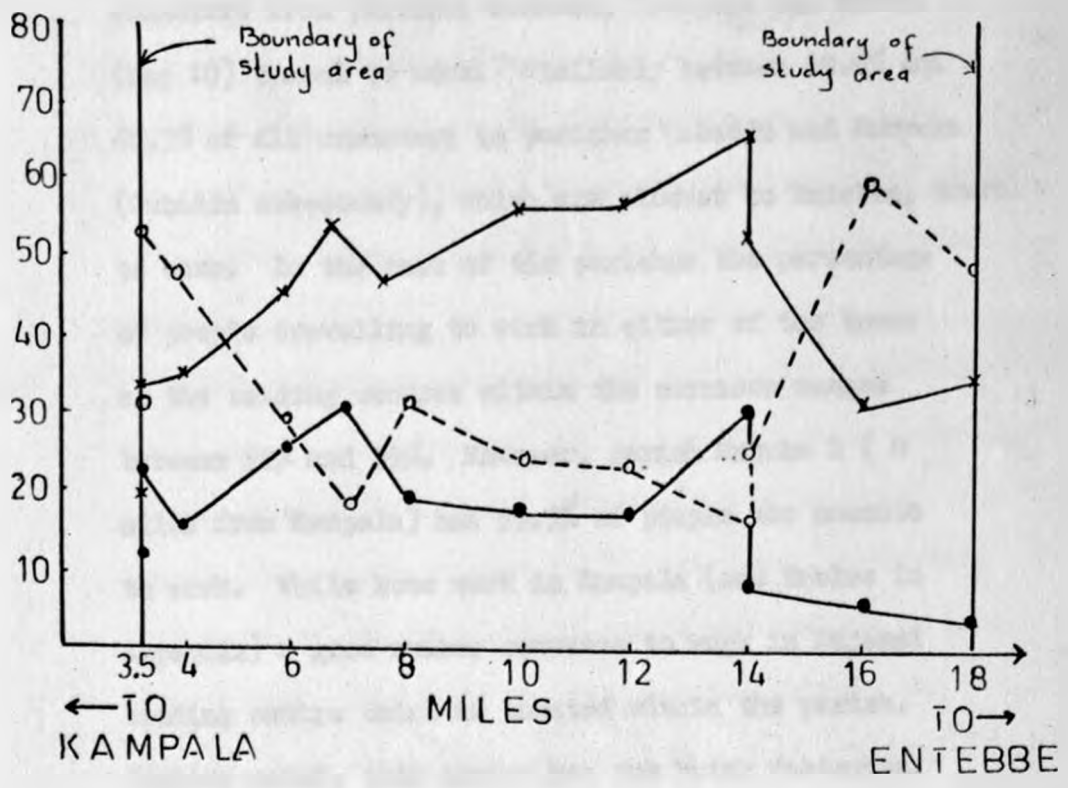
Findings further indicate that percentages of people who commute both weekly and monthly to the towns are generally low. These percentages are lower in parishes closer to the towns, getting higher in parishes farthest away from the town. It is stated that this is due to distance friction.

### 3.1.3.3

Purpose. Findings of the sample survey indicate that, parishes immediately adjacent to the towns have the highest percentages of people who commute to work in the towns, and in the trading centres in the same parishes

# Graph 4 Purpose of Travel

○--○ Work    ×--× Shop    ●--● Leisure



Results show that between 33% and 53.8% of all commuters from parishes Sabaddu, Sabagabo and Mutuba II (Map 10) travel to work. Similarly between 59.6% and 60.3% of all commuters in parishes Sabaddu and Mummyuka (Sabaddu sub-county), which are closest to Entebbe, travel to work. In the rest of the parishes the percentage of people travelling to work in either of the towns or the trading centres within the corridor ranges between 22% and 29%. However, parish Mutuba I ( 8 miles from Kampala) has 35.5% of people who commute to work. While some work in Kampala (see Tables in Appendix) a good number commutes to work in Kajansi trading centre which is located within the parish. Earlier noted, this centre has two brick factories. These two factors thus contribute to the parish's high percentage of people who commute to work.

#### 3.1.3.3.1

The percentage of people who purposely commute to shop is highest in parishes far away from the two towns. The percentage of this category of commuters ranges between 47% and 66.7% in parishes between a distance of 7 and 14 miles from Kampala. These parishes which lie between Mutuba III (Musale Sub-county) and Sabagabo (Sabaddu sub-county). Thus the percentage of people commuting to shop are lower in parishes near the two towns. The percentages range between 31.8%

and 32.1% in parishes Mummyuka and Sabaddu which are

The parishes involved are: Sabaddu, Sabagabo, Mutuba II and Mmyuka. One of the explanations to the low percentage in parishes closest to the towns is that, in these parishes there are high percentage of people who commute to work in the towns and the trading centres. As a result, these people carry on their shopping after work.

### 3.1.3.3.2

The percentage commuting for leisure is indicated to be low in parishes near the towns. The three parishes of Sabagabo, Mutuba II and Sabaddu (3.5 miles from Kampala) which are closest to Kampala show a percentage of between 22.3% and 16.3% of people who commute to towns for leisure. Similarly the two parishes closest to Entebbe, have percentages varying from 7.9% and 9.3% of people commuting to towns for leisure. These are parishes: Sabaddu and Mmyuka which lie between 2 and 5 miles from Entebbe (Graph 5). Percentages of people who commute to towns for leisure is low in parishes adjacent to the towns because these same parishes have high percentages of people who work in towns. As a result, some of the commuters have their leisure time in towns after work. Thus there may be no need again to go to the towns for leisure. The findings however show that the percentage of people who commute for leisure are higher generally in parishes distant from the towns. The percentages range between 4.8% and 30.3%. These parishes lie at a distance of between 7 and 14 miles from Kampala.

The identified parishes include: Mamyuka and Mutuba III (Sabagabo sub-county), Mutuba I, Musale and Sabawali (Musale sub-county) (Map 10).

3.1.3.3.3

Results from the analysis of commuter patterns within the study area show that the percentage of people who commute daily to the towns is highest in parishes immediately adjacent to the two towns. These parishes have been identified (see 3.1.3.2). Similarly it is indicated that the percentage of people who commute to work in the towns and in the trading centres within the corridor is highest in parishes closest to the two towns. These parishes have also been identified (see 3.1.3.3).

3.1.4

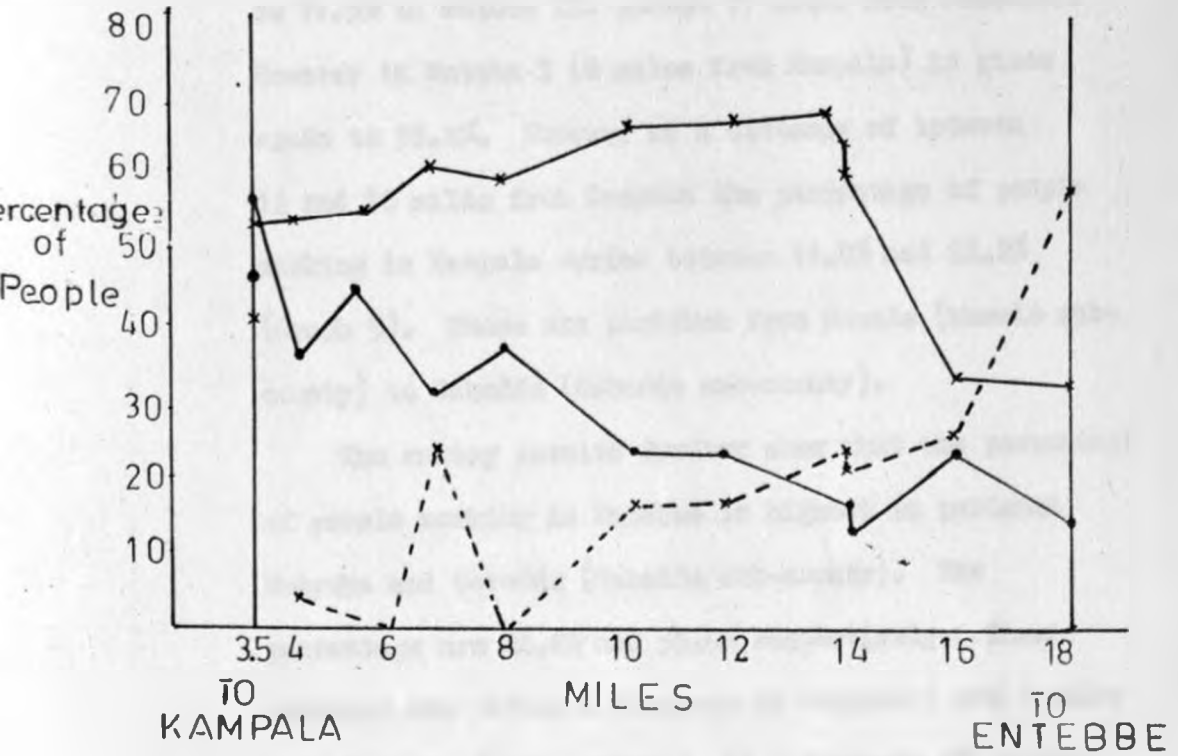
Work Places

'Work places' is one of the indicators used to identify urban sprawl which may be existing in certain parts within the corridor. This method reveals where people within the corridor work. If there is a substantial proportion of population in certain parishes who work in the towns these people can truthfully be considered as that part of Entebbe and Kampala's working population. Thus such people have chosen to make their homes beyond the town and city boundaries where land is cheaper; there are no planning controls and above all they can grow their own foodcrops. A high percentage of people from certain parishes who may be working in the towns may indicate the sprawling influence of the towns in such areas.



Graph 5 Place of Work

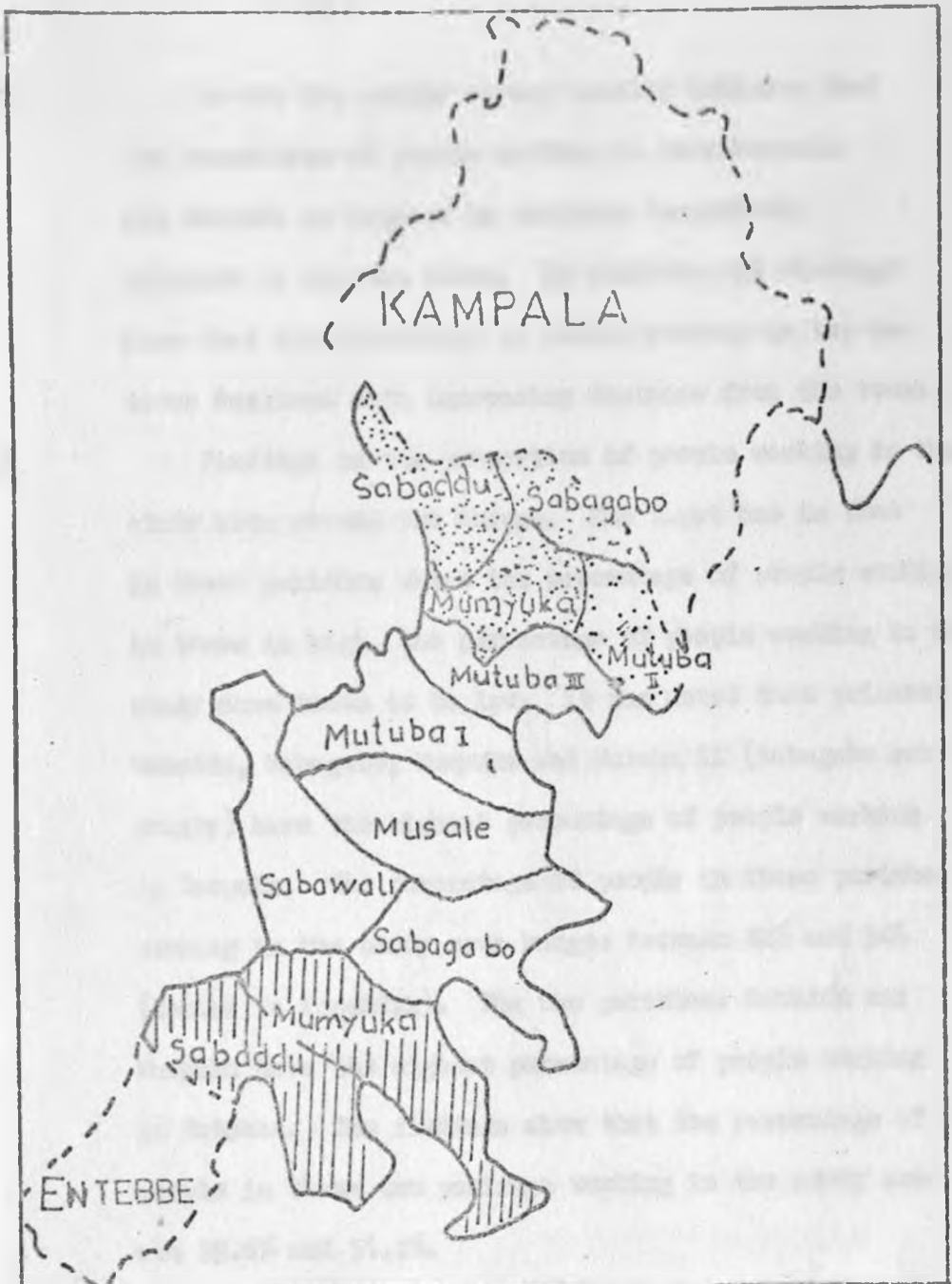
●—● Kampala    \*--\* Entebbe    x—x Study Area



3.1.4.1

Sample survey results reveal that the percentage of people working in Kampala is highest in parishes: Sabagabo, Sabaddu, Mumyuka and Mutuba II. This is between 3.5 and 4 miles from Kampala. The percentage ranges from 37% to 57.6%. The percentage declines to 31.5% in Mutuba III parish (7 miles from Kampala). However in Mutuba I (8 miles from Kampala) it rises again to 39.2%. However at a distance of between 12 and 18 miles from Kampala the percentage of people working in Kampala varies between 13.8% and 22.2% (Graph 5). These are parishes from Musale (Musale sub-county) to Sabaddu (Sabaddu sub-county).

The survey results further show that the percentage of people working in Entebbe is highest in parishes Mumyuka and Sabaddu (Sabaddu sub-county). The percentage are 46.6% and 55.0% respectively. These parishes are within a distance of between 2 and 5 miles from Entebbe (town centre). At a distance of between 7 and 9 miles from Entebbe, the percentage of people working in Entebbe ranges between 16.7% and 24%. This is in parishes Sabagabo and Musale. There are no recorded people working in Entebbe from parish Mutuba I (13 miles from Entebbe). In Mutuba III (14 miles from Entebbe), the percentage is 11.1%. In parishes Mumyuka (15 miles from Entebbe), Sabagabo and Mutuba II (17.5 miles from Entebbe), there are no recorded people who work in Entebbe.



KAMPALA ENTEBBE WORK PLACES:  
 CORRIDOR URBAN SPRAWL  
 INFLUENCE AREAS

LEGEND



Over 37% of the people work  
 in Kampala (37-57.67)



Over 46% of the people work  
 in Entebbe (46.6-55.0)

Map 12a

3.1.4.2

So far the sample survey results indicate that the percentage of people working in both Kampala and Entebbe is highest in parishes immediately adjacent to the two towns. In addition the findings show that the percentage of people working in the two towns declines with increasing distance from the towns.

3.1.4.3

Findings on the proportion of people working in the study area reveal two things. The first one is that in those parishes where the percentage of people working in towns is high, the percentage of people working in the study area tends to be low. It was noted that parishes: Sabaddu, Sabagabo, Mumyuka and Mutuba II (Sabagabo sub-county) have the highest percentage of people working in Kampala. The percentage of people in these parishes working in the study area ranges between 42% and 54% (Tables in Appendix). The two parishes: Sabaddu and Mumyuka have the highest percentage of people working in Entebbe. The findings show that the percentage of people in these two parishes working in the study area are 29.6% and 31.2%.

Secondly, the percentage of people working in the study area tends to be higher in those parishes recorded as having low percentage of people who work in the two towns. The parishes with a higher percentage of people working within the study area include: Mutuba I (Sabagabo sub-county). Mutuba I, Musale and Sabawali (Musale sub-county) and Sabagabo (Sabaddu sub-county) (Map 12a). One of the contributing factors to these parishes having a high percentage of people working in the study area is that these parishes are far away from the two towns....77/

Residents of these parishes find it increasingly difficult to commute daily for work in either of the towns (getting transport and transport costs). Supplementary, in each of these parishes there is a trading centre, except Sabawali. These centres as is later shown provide employment to the local people around. As earlier indicated, the growing of surplus foodcrops for sale in the town markets, markets in the trading centres and passing motorists along the main Kampala-Entebbe road is more marked in these mentioned parishes. Thus this type of agricultural activity contributes to a high percentage of people working in these parishes.

#### 3.1.4.4

The findings so far indicate that the highest percentage of people working in Kampala is identified in parishes: Sabaddu, Sabagabo, Mumyuka and Mutuba II. Also the highest percentage of people working in Entebbe is identified in parishes: Sabaddu and Mumyuka (Map 12a). Thus such parishes can be considered as accomodating part of the two urban centres working population. This in the long-run give rise to residential suburbs located outside the gazetted towns. The findings further show that the rest of the parishes have a low percentage of people who work in the towns. However, they have a higher percentage of people who work within the study area.

#### 3.1.5

##### Services

There are services which are characteristic of urban areas.

However as a nation develops such services as electricity, telephone and piped water may diffuse to the rural areas. Alternatively the government may adopt a policy whereby but a few of the stated services have to be extended to the rural areas.

Uganda is a developing economy and the stated services are still much concentrated in urban areas. There is no doubt that these services are equally found in rural areas. However what matters here is the quantitative use.

In case of electricity, it is the aim of Uganda Electricity Board to supply electricity to the countryside, beside the urban areas. According to the information obtained from Uganda Electricity Board offices in Kampala, electricity is supplied to people whom the Board feels will be able to pay the installation cost. That is the cost of wires from the voltage line to one's house. At a distance of half a mile from the main transmission line the cost as revealed by the Board is estimated at 10,000 shillings (S) (1975/76). Thus people are advised to apply for electricity supply as a group so that they can share the cost. Following from this intensive use of electricity outside the legal town boundaries could indicate a sprawling effect of an urban area.

3.1.5.1

Regarding the use of electricity the survey findings show that in parishes Sabagabo, Sabaddu, 63.6% and 55.6% of the people use electricity as a lighting system. These are some of the two parishes immediately adjacent to Kampala. ....79/

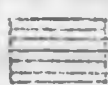


KAMPALA ENTEBBE PARISHES UNDER URBAN SPRAWL INFLUENCE: USE OF ELECTRICITY

LEGEND



Map 12 b



Over **55%** of the people use Electricity (**55.62** & **63.6**)



Over **46%** of the people use Electricity (**46.62** & **52.2**)

The percentage of people using electricity in parishes Mutuba II, Mumyuka (Sabagabo sub-county), Mutuba I, Musale, Sabawali (Musale sub-county) and Sabagabo (Sabaddu sub-county) is low. This percentage ranges between 23.3% and 38.7%

In the two parishes close to Entebbe, the percentage of people using electricity is also higher. The percentages are 46.6% and 52.2% for parishes Mumyuka and Sabaddu respectively (Map 12b).

### 3.1.5.2

Therefore, the results show that the percentage of people using electricity is highest in parishes immediately adjacent to the two towns. These parishes have been identified. In addition, the use of electricity tends to decline with increasing distance away from the two towns.

A high percentage of people using electricity in such parishes indicates the diffusion of this innovation from the towns to these area. This indicates the sprawling influence of the two towns in these area.

### 3.1.6

#### Use of piped water

Within the study area piped water is only found at Kisubi (6 miles from Entebbe). At Kisubi there is a catholic mission, a hospital and a big secondary school. Water here is pumped from Lake Victoria. A few people around this mission have had piped water connections to their homes. Results of the survey have indicated that in parish Sabaddu 30% of the people use piped water. This water is collected from stand pipes in Najjanankumbi, a place on the town periphery but within Kampala city boundaries....80/



Otherwise there is no piped water in Sabaddu parish.

### 3.1.7

#### Urban Settlements

Urban settlements in the study area are marked by the existence of trading centres. These centres lie along the main Kampala-Entebbe road, thus providing a clear example of 'ribbon development.' Each of the centres within the study area has a minimum of 6 shops, 1 bar, a market place or foodstuff shelters. In these trading centres there may also be found: residential structures, an industrial area, postal services, academic institutions and night clubs. No trading centres exist deep in the corridor (off the main Kampala-Entebbe Road).\* Thus the trading centres in the corridor are large enough to be considered an urban phenomena in themselves.

The existence of trading centres can indicate the sprawling of urban areas. This is particularly true where the development of a centre is influenced by the existence of an urban centre supplemented by the generated local demand from the surrounding area for goods and services. Thus centres which can be recognized as a feature of urban sprawl are those which accommodate part of the town working population. Besides there are other amenities which may exist in such centres that are not only utilized by the local people but also some town residents. Such amenities include: bars, night clubs and foodstuff markets. ....81/

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\* Information obtained from the area's District Administrative headquarters, Mpigi.

3.1.7.1

In the case of the study area there are eight trading centres. They include: Namasuba, Zana, Masaja, Kajansi, Namulanda, Kawuku, Kitala and Abaita'Babiri (Map 3b). Those centres which can be rightly identified as a feature of urban sprawl are: Namasuba and Zana. The former lies on Kampala's boarder, while the latter is half a mile from Kampala's boundary (Map 3b). The two centres are separated by a small medium density, residential area.

These two centres have population concentration and provide significant employment to the surrounding areas residents. The 1969 census Report shows that Namasuba had a population of 1334. This population is expected to have gone up since 1969 census. Further more, information obtained from the local Chief, where Namasuba is situated, shows that about half the centre's population works in Kampala. This reveals that Namasuba accommodates part of Kampala's working population. The findings of the sample survey indicate that 45.5% of the people working in parish Sabagabo, work in Namasuba. The amenities existing in the centre that some Kampala's residents have access to are: five bars, a night club, three foodstuff markets and three pork butcherries. This centre is famous for selling of pork and attracts many customers from Kampala.

By the time of the survey, December 1975, Zana's population was estimated at 330 people. Out of this population 120 people were recorded as working in Kampala.\*

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\* Information from Local Chief of the area.

Zana trading centre can be similarly viewed as accommodating a small section of Kampala city working population. Zana itself employs 44.4% and 30.0% of the working people in parishes, Sabaddu and Muzuyuka (Sabagabo sub-county) respectively (Table 7).

The amenities existing in Zana which some Kampala's residents have access to are: two night clubs, four bars, one foodstuff shelter and a petrol filling station. The centre has also printerries which essentially serve Kampala.

It should however be noted that the stated amenities are equally utilized by some commuters between Entebbe and Kampala.

### 3.1.7.2

Thus Namasuba can be classified as 'ribbon urban sprawl' development. This is so because this centre follows the main Kampala-Entebbe road for about a quarter of a mile right from Kampala's boundary. Zana can be categorized as 'leap frog urban sprawl'. This type of urban sprawl connotes leaving of space between itself and the major urban centre where it originates. However, Zana has also elements of 'ribbon urban sprawl' development in a way that the centre's development has tended to follow the main Kampala-Entebbe road.

### 3.1.7.3

Although the rest of the trading centres are equally categorized as 'urban settlements', they cannot be looked at as a feature of urban sprawl.

It can be accepted that Kampala and Entebbe has had an influence on these centres development through the linking of these centres to the two towns by means of the main Kampala-Entebbe road. Thus trade continues to take place between these centres and the two towns. However these centres signify urban development which is being directly generated within the corridor. Abaita'Babiri trading centre's growth has much been accelerated by the overspilled urban development from Entebbe town. Thus Abaita'Babiri trading centre is looked at as a feature of 'urban overspill' development.

The subject on other urban settlements within the corridor is discussed in the later course of this chapter.

### 3.1.8

#### Types of Employment in the corridor

As earlier noted in 'Background' to the corridor, employment in the corridor is provided by agricultural, commercial and industrial sectors. Little employment is provided by health and educational institutions.

Types of employment can be used as an indicator to identify urban development in an area. Where commercial and industrial employment dominate, this could indicate some urbanization process taking place. On the other hand, where agricultural employment dominates this signifies the area still being rural.

3.1.8.1

In the case of the study area regarding agriculture, employment is provided in three ways. There is employment provided by the two estates (tea and sugar), then there are those people who partly practice agriculture to supplement their incomes. These are people who practice agriculture as a part time activity. There are also those people who have specialized in growing of foodcrops for sale in the town markets, trading centres and to passing motorists. These people derive their sole income from this type of agricultural activity.

Thus results of the survey show that between 18.2% of the total working in the study area, are involved in agriculture. This is in parishes: sabagabo, Mutuba II, Sabaddu, and Mumyuka (Sabagabo Sub-county) (Map 10). These parishes lie between 3.5 and 6 miles from Kampala. The percentage of people involved in agriculture out of the people who work in the study area in parishes: Mutuba III (Sabagabo Sub-county), Mutuba I, Musale, Sabawali (Musale Sub-county) is between 42% and 66.6%. These parishes lie between 7 and 14 miles from Kampala. The percentage declines again in parishes near Entebbe. In parishes Sabagabo, Mumyuka and Sabaddu (Sabaddu Sub-county) the percentage of people involved in agriculture is between 18.3% and 28.6%. These parishes lie between 2 and 7 miles from Entebbe. (See Tables in Appendix).

Regarding industrial employment, the only recorded figures are those of people employed in the brick

factory at Kajansi which is given as 190 people, and those employed in the Cement Block factory at Katambwa. The figure has been given as 20 people. There are no recorded official figures of people involved in small scale industrial enterprises as bicycle and shoe repairs and furniture making. This activity though tends to be found in most centres.

Commercial employment is particularly confined to the trading centres. Results of the survey show that out of the working population in the study area, between 33.3% and 45.4% of the people are involved in commercial activity. This is in parishes: Sabagabo, Sabaddu and Mamyuka (Sabagabo Sub-county). These parishes lie between 3.5 and 6 miles from Kampala. The percentage of people involved in commercial activity is high in Mutaba I. Thus the commercial sector employs 31.8% of the people who work in the study area. Thus from parishes Musale (Musale sub-county) to parish Mamyuka (Sabaddu sub-county), the percentage of people involved in the the commercial sector is between 10.0% and 31.8% (See table 7a). The percentage is high up again in parish Sabaddu (Sabaddu sub-county). This is the parish closest to Entebbe. The percentage is recorded as 44.1%.

### 3.1.8

Results of the survey show that the parishes near Kampala (Sabaddu, Sabagabo, Mutaba II and Mamyuka) have a low percentage of people employed in agriculture.

Similarly these same parishes show a high percentage of people in commercial employment. This may indicate the influence of Kampala due through its close proximity to these parishes.

Similarly results show that the percentage of people in agricultural employment is low in parishes Sabaddu, Sabagabo and Mumyuka, while the percentage of people in the commercial employment is highest in Sabaddu parish. This is the parish closest to Entebbe (Map 1C).

While the rest of the parishes have high percentage of people in the agricultural employment at the same time the percentage of people in the commercial employment is quite low.

Industrial employment is specifically concentrated at Kajansi trading centre (Mutuba I) and Katambwa (Mutuba II).

### 3.1.9

#### Results Assessment on existence of Urban Sprawl

In identifying areas in the corridor under urban sprawl influence, results of the sample survey from the selected indicators have to be considered together. Therefore taking all the used indicators together results show that: high population growth rates and densities, high percentage of people commuting daily to the towns, high percentage of people working in the towns, high percentage of people in the commercial sector, low percentage of people in the agricultural employment, and urban settlements which are a feature of urban sprawl, are identified in parishes immediately adjacent to the two towns.

From the analysis therefore, the parishes immediately adjacent to the two towns can be identified as being under urban sprawl influence.

Parishes adjacent to Kampala which are identified as being under urban sprawl influence are: Sabagabo Sabagabo, Sabaddu, Mutuba II and Mumyuka.

Table 7a percentage of people by parishes employed in the commercial sector.

SUB-COUNTY	PARISH	NO. OF PEOPLE WORKING IN THE STUDY AREA	PERCENTAGE OF PEOPLE IN THE COMMERCIAL SECTOR
Sabagabo	Sabagabo	22	45.4
	Sabaddu	45	33.3
	Mumyuka	30	39.9
	Mutuba II	25	40.0
	Mutuba III	31	23.0
Musale	Mutuba I	31	32.2
	Musale	21	31.8
	Sabawali	20	10.0
Sabaddu	Sabagabo	27	22.2
	Mumyuka	18	16.6
	Sabaddu	34	44.1

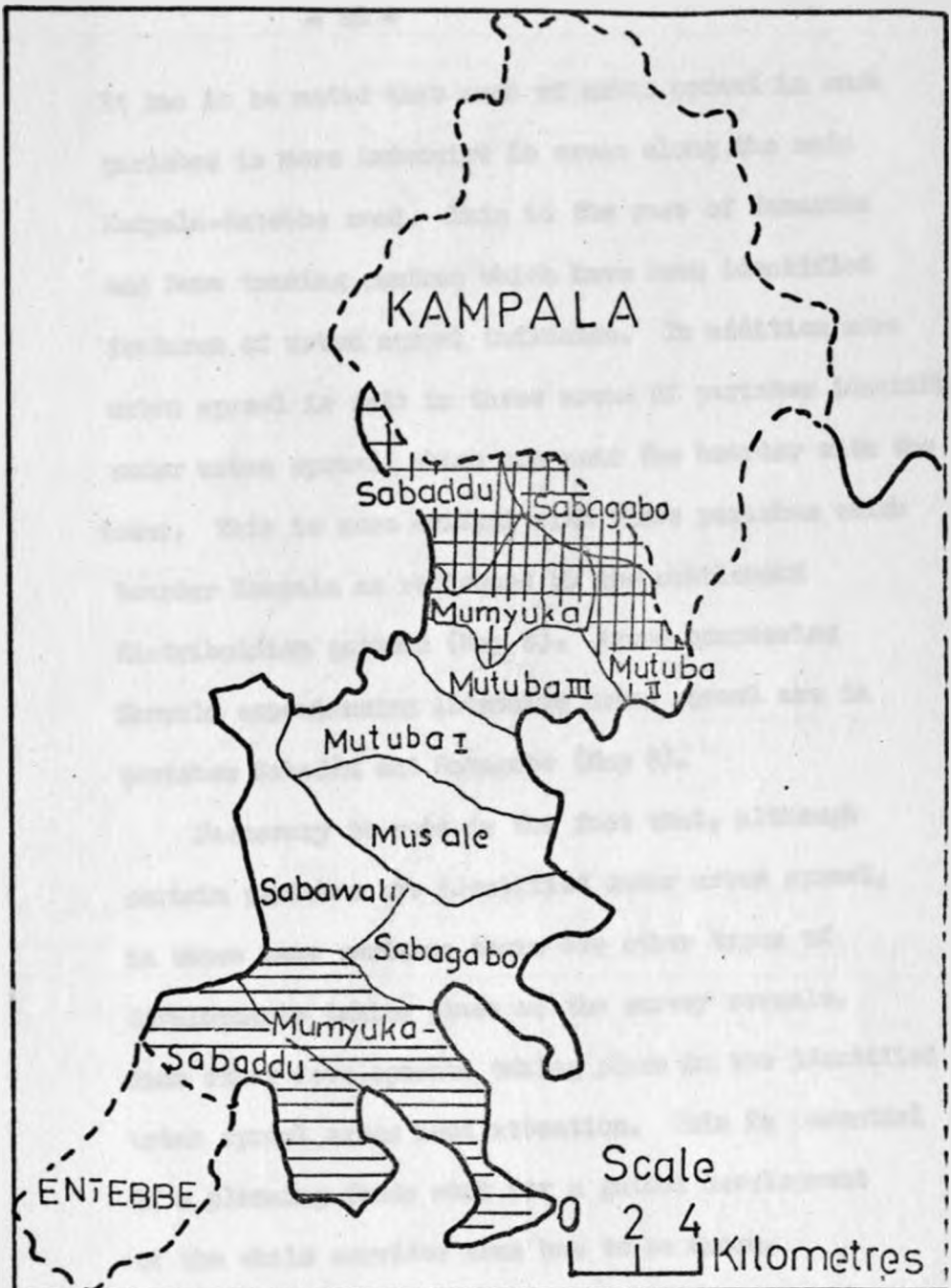
Source: Author's sample survey results.

Parishes closest to Entebbe identified under urban sprawl are: Sabaddu and Mumyuka (Map 13).

Results indicate that those parishes identified under urban sprawl, this type of development covers such entire parishes.

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**KAMPALA-ENTEBBE PARISHES UNDER URBAN SPRAWL INFLUENCE**



Map 13



Parishes under urban sprawl influence from Kampala.



Parishes under urban sprawl influence from Entebbe.

It

It has to be noted that much of urban sprawl in such parishes is more intensive in areas along the main Kampala-Entebbe road. This is the case of Namasuba and Zana trading centres which have been identified features of urban sprawl influence. In addition more urban sprawl is felt in those areas of parishes identified under urban sprawl, which are near the boarder with the towns. This is more evident with those parishes which boarder Kampala as reflected by the settlement distribution pattern (Map 8). Areas bordering Kampala experiencing intensive urban sprawl are in parishes Sabaddu and Sabagabo (Map 8).

Necessary to note is the fact that, although certain parishes are identified under urban sprawl, in these same parishes there are other types of developments taking place as the survey reveals. Thus other developments taking place in the identified urban sprawl areas need attention. This is essential if a planning frame work for a guided development of the whole corridor zone has to be drawn.

The subject on 'other types of development' not only within the identified urban sprawl influence areas but also in the rest part of the corridor forms the major discussion of 'Part II' in this chapter.

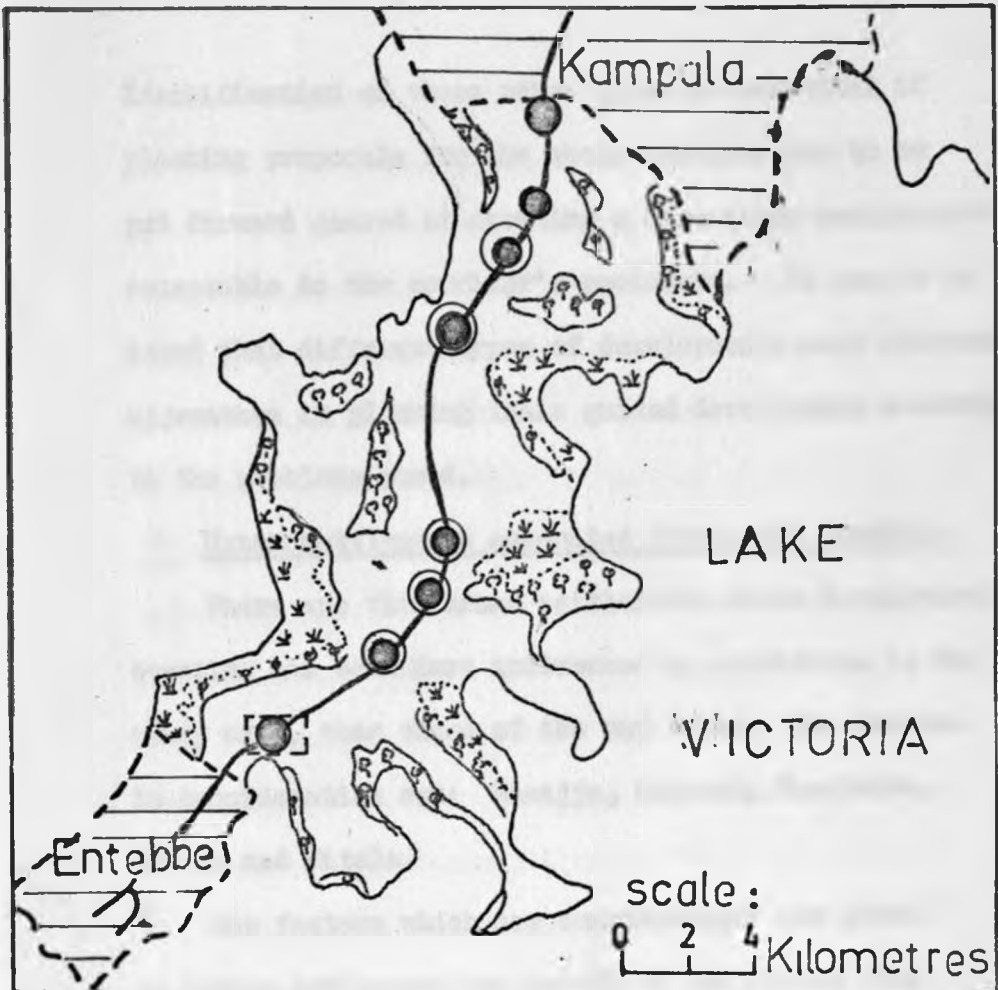
#### PART TWO (II)

#### OTHER TYPES OF DEVELOPMENT IN THE CORRIDOR

3.2



The study has so far revealed that besides urban sprawl, there exists other types of development within the corridor.

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KAMPALA ENTEBBE OTHER TYPES  
CORRIDOR OF DEVELOPMENT


LEGEND


 Internal generated urban settlements  
 Urban overspill Development

N



Map 14

 Agricultural Development areas

 Permanent Swamps

 Forest areas

Identification of these other types is essential if planning proposals for the whole corridor are to be put forward geared at creating a harmonious environment acceptable to the corridor's residents. It has to be noted that different types of developments need different approaches in planning their guided development according to the problems posed.

### 3.2.1

#### Urban settlements generated within the corridor

There are five urban settlements whose development overtime has been more influenced by conditions in the study area, than those of the two towns. The centres in consideration are: Masajja, Kajansi, Namulanda, Kawuku and Kitale.

Two factors which are complementary are given as having influenced the growth of the stated five urban settlements. One is the 'road factor.' It was earlier noted in 'Back ground to the corridor,' that the construction of the present Kampala-Entebbe road, linking two employment centres, opened up the study area for settlement. Centres like Kajansi followed the construction of the road. When the road was bituminized in 1948, Kajansi grew larger, and more centres like Namulanda, Kawuku, Kitale and Masajja came up. This road by providing accessibility encouraged trade which is channeled through these centres. Thus with more trade between the centres and the study area stimulated more commercial activity. However centres like Kajansi developed industrial activities.

In a settled area there is demand for goods and services. Thus this gives rise to a specific place from where the local population can have access to these goods and services. This therefore gives rise to a trading centre. This starts with few shops, but the number increases as the demand increases. These centres came up this way. It has to be noted that as population in the surrounding areas increased this generated more demand for goods and services. This in turn encouraged the increase of commercial institutions thus increasing the centres' functional importance.

However the two towns influence on these urban settlements development is reflected by the centres location in relation to the two towns. The Kampala-Entebbe road which links the two towns has eased trade between these urban settlements and the two towns. Similarly the study area lying between Kampala and Entebbe with easy access has attracted more settlement which is a contributing factor to generated demand for goods and services.

These urban settlements have become population concentration and employment centres. By the time of the survey, Masajja's population was recorded as being 80 people. Namulanda and Kitala's population were recorded as 100 and 90 people respectively. The 1969 population census report gives Kawuka and Kajansi's population as 297 and 1897 people. The population of these centres have gone up since then, though no official recorded figures are available. ....91/

Regarding the percentage of people who work in the study area that are employed in the trading centres, the details are given in Table 7b. The figures however given are those obtained during the sample survey.

**Table 7b: Percentage of people in the study area working in the trading centres**

SUB-COUNTY	PARISH	TRADING CENTRE	NO. OF PEOPLE WORKING IN THE STUDY AREA	NO. OF PEOPLE WORKING IN THE TRADING CENTRE	PERCENTAGE OF PEOPLE WORKING IN THE TRADING CENTRE
Sabagabo	Mamyuka	Masajja	30	7	23.3
Musale	Mutuba I	Kajansi	31	18	58.1
	Musale	Namulanda	22	10	45.5
	Sabawali	Namulanda	20	5	25.0
Sabagabo	Sabagabo	Kawuku	27	9	33.3
	Mamyuka	Kitala	18	6	33.3

Source: Author's sample survey, December 1975.

However, while these centres serve the local population, they have at the same time developed traffic oriented activities. These are activities which most of the time are enjoyed by commuters between Kampala and Entebbe. These include foodstuff markets and bars. Kajansi and Kitala have petrol filling stations.

As time goes on, these urban settlements will have their functional importance and population increased.

Kajansi which so far is the biggest urban settlement in the whole of the corridor, is expected to grow faster. At the time of the survey (December 1975) Kajansi had the largest population of all urban settlements within the corridor. Similarly, it is the only centre with an industrial area.

These centres pose various problems.

### 3.2.2

#### Urban overspill development

Urban overspill is another type of development that is identified within the study area. The two words 'overspill' and 'sprawl' appear to imply the same thing but they carry different connotations.

Monkhouse (1969) defines overspill as "the surplus population from a densely crowded urban area, which can no longer be effectively housed and maintained there, and so is compelled to move.

This may be a result of the actual growth of the population or of slum clearance and better housing which can accommodate fewer people."<sup>2</sup> H.W.

Fowler and F.G. Fowler define it as "surplus population."<sup>3</sup> Similarly, Monkhouse defines urban sprawl as 'a mere extension of an urban area beyond the legal boundaries'.

Although Abaita'Babiri's initial development was a result of the construction of the present main Kampala-Entebbe road supplemented by generated demand for goods and services in the surrounding area, later on it started receiving overspilled urban development from Entebbe. ....93/

It is this overspilled urban development which has contributed to the centre's rapid growth. J.R. Hather (1959) notes that within Entebbe Township boundary, an area for the low income group had been designated in a place called Kitoro-Kiwafu. This was basically an African settlement area within the town.<sup>4</sup> In this same place Grade II and Grade III houses were allowed to be put up. However as time went on the available housing in this area could not meet the influx of Africans. Thus more residence was sought in Abaita'Babiri trading centre. At the same time, as some people from the middle income group could not be accommodated in Entebbe, they equally sought residence in Abaita'Babiri. By the time of the survey (December 1975) information obtained in the area indicates that people from the middle income continue to seek residence here. The centre now has a population of about 1000 people.

To this end it has to be noted that the commercial activities, as shops, bars, night clubs and workshops which cannot find room within Entebbe township continue to locate in Abaita'Babiri.

Although Abaita'Babiri lies outside Entebbe town boundaries, yet it can be looked at as a residential suburb of Entebbe town. This is particularly for part of the town's low and middle income working population. In addition since the centre continues to receive overspilled development from Entebbe, it can be rightly .....94/



categorized as an 'urban overspill' development.

### 3.2.3

#### Agricultural development

Information on agricultural activity has been analysed in Chapter two (see           ). The survey indicates that there is no wide growing of crops for cash, other than tea and sugar grown on small estates (Map 3b).

Most of the agricultural production taking place is for subsistence. Crops range from sweet potatoes to cassava, bananas, beans, peas, tomatoes and fruits as pawpaws and oranges. Increasingly however has been the production of certain foodcrops whose surplus is exposed for sale. Such crops being exposed for sale include sweet potatoes, cassava ripe bananas, beans and tomatoes. The survey further reveals that some people within the corridor, particularly in the mid-parishes, have taken up agricultural production which is market oriented, as their own source of income. The mid-parishes where surplus of subsistence crops is increasingly being exposed for sale are: Mutuba I, Sabawali, Musale and Sabagabo (Map 10). Agriculture does however take place in identified areas under urban sprawl influence. However, agriculture in such areas is solely carried out to meet the daily food requirements.

Identification of agricultural development is essential especially when an agricultural policy has to be drawn up for the study area. Analysis of the existing agricultural development indicates ...95/

those areas where agriculture is still practiced, thus needing more attention in case an agricultural development programme is to be implemented within the study area. Similarly, those areas where agricultural innovations could be expected not to be easily adopted effectively are revealed.

#### 3.2.4

##### Problems accruing from the identified types of development within the corridor

The various identified types of developments have accompanying problems. However due to a mixed nature of the pattern of development existing within the corridor, all the identified problems are considered together. Nevertheless where a specific problem is more associated with a particular type of development, this is stated.

Many problems are identified. One of them is land fragmentation which is particularly pronounced in and around the trading centres. This is also true in areas bordering either of the two towns. Fragmentation is marked in Namasuba and the surrounding areas (Map 3c). Also land fragmentation is particularly marked in Abaita 'Babiri and the environ (Map 3c), and around Kajansi trading centre (map 3c). The main problem resulting from fragmentation is that, land subdivision takes place and continues doing so in a haphazard manner. This in turn gives rise to irregular shaped plots which lack satisfactory access. The implication of 'accessibility' here is that some plots do not have motorable roads linking ...96/

them to the main Kampala-Entebbe road, due to some other surrounding plots. At the same time due to their nature of subdivision such plots become difficult to serve with facilities like access roads. Worth noting is that plot sizes in such areas vary. Near the road, they range from 0.5 hectares ( $\frac{1}{2}$  acre) to 0.1 hectares ( $\frac{1}{4}$  acre). Away from the road, plot sizes vary between 0.2 hectares ( $\frac{1}{2}$  acre) to 0.4 hectares (1 acre) and above.

There is a problem of continuing land speculation. Land speculation is a problem in a way that due to high demand for land outside the towns has been the result of rising land values. This problem is particularly marked in the identified parishes under urban sprawl influence. It has earlier been noted that people do purchase pieces of land outside the towns partly to avoid planning regulations, while other want to put up their own permanent structures and grow their own foodcrops to meet their daily food requirements, while commute to town for work. At the same time some buy these pieces of land and hoard them until that time the demand is much higher, then resell the same piece of land at a much higher price. Therefore noting that the price of land is determined by the land market (demand & supply forces) prevailing the stated factors are considered as being contributory to the rapid rise of land particularly in areas near both Kampala and Entebbe. ....97/

Information obtained from the valuation section Dept. of Lands and Survey, Kampala, indicates that an acre of land around Namasuba (Map 3b) close to the road ( $\frac{1}{2}$  from road) was valued at 15,000 shillings (U) in 1974. The same piece of land when its 'title' was acquired by someone else in 1976, March, it was valued at 18,000 shillings (U). Similarly, information obtained from the local chief (Parish chief), indicates that, around Abaita'Babiri Trading Centre an acre of land which cost 10,000 shillings in 1973, is now available at a value of 15,000 shillings. Around Zana Trading centre (Map 3b) ( $\frac{1}{2}$  of a mile from the centre), the information obtained indicates that an acre of land sold at between 9,000 and 10,000 shillings in 1974, now fetches 12,000 shillings (U) and above.

To this end, it can be noted that land speculation and subdivision are correlated. It has been noted that speculation pushes up the price of land due to high demand which cannot be met by the supply of land. What happens is that when one buys a piece of land and it is sufficiently large, he subdivides this in plots and sells them to other people. This leads the issue back to small plots subdivision often irregularly shaped and lacking accessibility to a major road.

Hoarding of land is another problem. Land is not available for development when it is required. ....98/

This problem is expected to be lessened under the new 'Uganda Land Reform Decree of June 1975'. Under the decree, anyone owning a piece of land has to show that it is being utilized otherwise it would be allocated to the landless. This problem of hoarding land is identified particularly in urban sprawl influence areas and around trading centres. Similarly as speculation continues agricultural land use may continue to be replaced by urban land use within the corridor. The foreseen problem is that in the long-run the corridor residents may have to buy food crops.

There are problems associated with population concentrations. These are problems arising from roadside and urban overspill developments. Namasuba trading centre (Map 3b) had a population of 1334 people (1969). By the time of survey (1976) the population had gone up, though no official figures are available. Similarly by the time of survey (1975) Abaita'Babiri had a population total of 910 people and Zana had 330 people. Nakawuku's population was recorded as 297 people in 1969, while that of Kajansi was 1897 people. No official population figures are available for centres Masajja, Kitala and Namulanda.

Identified in these centres with population concentration is lack of chemically treated clean water for domestic purposes.

.....99/

Water supply for all the trading centres is from either springs or wells. Often due to overcrowding on the little available springs or wells water is contaminated, and this can be a health hazard. Besides the source of water supply for each centre being insufficient in relation to the resident population, and lack of clean water, the water supply sources are located outside the centres. For instance the source of water supply for Abaita'Babiri which is a spring lies  $\frac{1}{4}$  of a mile from the centre. Residents who find it difficult to go regularly to collect water, do buy it from people who fetch it and sell a debe at 50 cents. In the case of Namasuba and Zana, water is fetched from a distance of  $\frac{1}{8}$  of a mile from each centre. Therefore the long distances the trading centres residents have to travel to fetch water is another problem.

Furthermore, identified within the trading centres, is the problem of lack of proper gabbage disposal and general sanitation. Bathrooms are constructed outside the living houses, however these are not properly maintained. Similarly pit latrines and urinals are not properly maintained, and these give rise to unabominable smell which is quite uncomfoting to the residents. This type of condition has after-ill-effects. In these same areas there are no water drainage channels.

.....100/

For instance lack of water drainage channels particularly that length of the Kampala-Entebbe main road runs through Mamasuba and Zana trading centres, is a big and serious problem, during the time it rains.

When heavy rain occur, water flows from the road and floods houses both in Mamasuba and Zana. The houses specifically affected are those close to the main Kampala-Entebbe road. Lack of water drainage channels within the centres themselves causes the ground in such areas to be very wet after rains. This problem is particularly felt in Kajansi especially in one of its residential areas for the low income group. This is an area which covers about 2 acres areally and contains more than 80 structures. The structures are so much close to one another with hardly water drainage channels. Abitata'Babiri trading centre experiences the same problem.

Associated with trading centres also, is lack of allocation of similar activities in some areas. This means that activities which should not be in the same area are located close to one another. This is evidenced by existence of night clubs, butcheries close to living houses, or a market shelter being close to a petrol filling station as in the case of Zana trading centre.

Particularly associated with roadside development is the problem of parking by the roadside either to pick up passengers or purchase certain articles within the trading centres.

Cars parking by the roadside have a side effect in a way that, a parked car obscures visibility to both the following and on coming vehicles. Similarly someone trying to cross the road from the front of a parked car could be hit by a vehicle approaching from behind. Thus roadside parking itself induces accidents. Worth noting also is that, by mere fact of slowing down because of people crossing the road or a car in front intending to park, causes delays and congestion at the same time.

Having identified the various types of development within the corridor and the accompanying problems, planning proposals are put forward. However the subject on planning proposals for the study area is fully dealt with in 'Chapter Four'.



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CHAPTER FOUR

POLICY RECOMMENDATIONS

4.0

4.1

The analysis carried out in chapter 'Three' reveals that urban sprawl exists within some parts of Kampala - Entebbe Corridor. The analysis further reveals that besides urban sprawl there exists other types of development within the Corridor. This therefore offers an explanation to the present mixed pattern of development which exists within the study area. It is also pointed out that each type of development has accompanying problems, which have been pointed out. Therefore in making future planning for the development requirements of this Corridor zone, different strategies are adopted in accordance with the identified different types of developments and the problems they pose.

There are particularly two main issues needing consideration in policy formulation for the study area. One is that, there is certain level of urban development taking place within some parts of the Corridor. This urban development is occurring in two forms. The first form is that urban expansion which is extending from the two towns peripheries into the Corridor in form of what has been categorized as 'urban sprawl' and 'urban overspill'. The second form is that urban development which is purely being generated within

the study area (internal generated urban settlements). The centres identified here are essentially an urban phenomena. The second issue is the concern of this agricultural land within the Corridor which is one of the most fertile parts of the country thus potentially rich agriculturally but having no substantial cash crop agricultural output. This land is a resource that could be utilized in the best alternative way possible. Taking advantage of the Corridor's proximity to the two towns, the area could produce food crops to meet the food requirements of the growing population of both Kampala and Entebbe. This step if adopted, it has both monetary and social benefits.

However it has to be noted that while giving consideration to the issue of urban development which is taking place within the Corridor, and the concern of the agricultural land which is not being put to its best use, this cannot be done in isolation of the two towns of Kampala and Entebbe. In some aspects what is happening within the Corridor is influenced by the two towns. Similarly, any planning for the study area will equally affect the two towns.

To this end, there are confronting questions that seek a solution.

- 1: In case of areas on the towns periphery but outside municipal boundaries which are

- essentially urban in character, should the case be put forward for them to be incorporated within town boundaries?
- 2: As an alternative to a suggestion of incorporating such areas within town boundaries should they have their own planning guidance which will create an orderly harmonious environment so that they are prepared in advance for future urban development, if in future they have to be included within municipal boundaries?
- 3: What should be done to other urban developments which are purely being generated within the Corridor?

There is therefore a necessity to examine here what planning problems confront both Kampala and Entebbe, before an answer can be given to these questions (or before recommendations can be made).

#### 1.1 Problems confronting Kampala and Entebbe towns

Taking into account the case of Kampala, the city's development has long been confronted with problem of private mailo land when required for acquisition. While acquisition has been inevitable compensation has been very costly. As a result of this land acquisition problem, it has had a directional growth of the town eastwards where land is public. The problem is expected to be minimized now that all land is government land under the 'Land Reform Decree' of June 1975. Under the

decree the government can acquire any piece of land if needed for public purpose.

Similarly it has always been difficult to exercise control of land held and developed privately. Furthermore, since the city's boundaries were extended in February 1968, from 8 to 75 sq. miles, the area became quite large, and this has had several effects. One, the skilled staff has not been sufficient to effect administration in the new town areas. Two, development control over unauthorized buildings and activities is very difficult especially in the new areas where residents were not formerly subjected to rules laid down by the old city council. Three, it has not been easy for the city council with limited funds to extend adequate services and urban infrastructure to most parts of the new town areas. Worth noting here is that, standards in the new town areas varied from those in the old city, and thus there has been a difficulty of setting even standards of development for the whole area.

From the brief analysis of Kampala's planning problems, any attempts to expand further Kampala's boundaries have to consider these issues seriously, for they will even be inherited in farther new town areas. As a matter of fact, most of present Kampala's area is still undeveloped. It is

forecasted that most of this area will not be used until the city has reached a mark of 1.6 million people by year 2000 A.D.<sup>2</sup> There is still need to concentrate development inside, other than encouraging expansion of the city boundary particularly at this stage when the need is not crucial.

Entebbe town has not faced problems of the same magnitude as Kampala. The current problem confronting Entebbe is that all suitable land for farther urban development is filled up. Resulting from this, there has been hardly any land for residential development. As a result there has been shortage of housing, so that part of Entebbe's population has overpilled in the rural areas on the town's periphery. This was first felt by the low income group. Entebbe town had planned areas for the low income group in places called KITORO and KIWAUFU. These were known as 'African Housing areas. In these same areas some of the middle income group people were also accommodated. However due to the influx of people in these African Housing areas, there was no more accommodation, thus part of the population sought residence in Abaita'Babiri and the surrounding areas. Increasingly also due to shortage of housing within Entebbe, people from the middle income group are flocking to Abaita'Babiri. Thus essentially

Abaita'Babiri and the immediate surrounding areas are residential areas for a part of Entebbe's working population. Similarly the commercial activities which cannot locate in Entebbe due to lack of space, they have had to locate in Abaita'Babiri.

Viewing that the only land available for further urban development in Entebbe lies outside, thus Abaita'Babiri and the immediate surrounding area (lies on Entebbe town's periphery) need a different approach from areas on Kampala's periphery, within the Corridor.

#### 4.1.2

##### Why people move to settle within the Corridor

Similarly, whatever planning policy that has to be adopted for the study area, there is also a need to first look into the issue as to why people are attracted into the Corridor. The survey revealed that people have immigrated into the Corridor. Among these immigrants into the Corridor, include a proportion of people from both Kampala and Entebbe towns. This indicates some urban-rural migration taking place within certain parts of the Corridor. However, the percentage of these immigrants vary from parish to parish as indicated in the tables with results of sample survey (See Appendix).

There are centrifugal forces which have forced some people to move out of these two towns. One of them is shortage of housing, and this is particularly so in the case of Entebbe town. The extra population that cannot be accommodated within Entebbe has

sought residence in Abaita'Babiri and the surrounding areas within the southern portion of the Corridor (map b). With Kampala the main problem has been to find a house near one's place of work. In looking for a house one considers the security in the surroundings and the standard of the house. As a result some people would only find accomodation within the Corridor but near their place of work within Kampala. Similarly some cheaper housing with security has partly attracted immigrants into the Corridor.

Zoning specifications and planning controls within the towns have further made peripheral areas of the two towns, of which some parts of the Corridor are, more attractive for settlement. In such areas there is freedom to put up any type of structures and develop any type of activity in any place with no interference of planning regulations.

In addition, land within the towns is more expensive as compared to land outside the town boundaries. As a result some people have preferred land outside the town boundaries as opposed to that in town. For instance the 'Valuation section' of the Ministry of Lands and Survey indicated that an acre of land in Najjanankumbi within Kampala (block 14) was valued at 20000 shillings in 1974. This place is located on the town periphery but within town. However a piece of land in Namasuba



(map 3b) is between 12000 and 15000 shillings. Again the value of land depreciates with increasing distance from the town/city area. In addition land values decrease away from the main road. Land values are further affected by the use of that piece of land, the terrain and other related factors.

A more important factor contributing to the attraction of the Corridor for settlement, is the people's desire to acquire land of their own outside the two towns where they can put up own structures, grow food crops to meet the families' daily food requirements, while commute to town for work. The data collected indicates that most people particularly those in parishes near the two towns move into the area purposely for both work and land (see Tables in appendix). The information obtained from the field reveals that people of the Ganda tribe, who form approximately more than 85 percent of the study area's residents, prefer staying on their own piece of land while commute daily to either of the towns for work.

Thus any policy approach for the Corridor has to take into consideration these factors which have been outlined.

#### 4.2

#### Policy approach

In order to be able to achieve a solution to the problems accruing from the identified types of development in an attempt to have a guided development

for the study area, two approaches are adopted. One is a policy approach on urbanization and the other is on agricultural development within the Corridor zone.

#### 4.2.1 Approach on urbanization

In dealing with the issue of urban growth within the Kampala-Entebbe Corridor, it has to be viewed from the National and regional context. Planning of one area (region) in isolation to the rest of the country is not advisable. The main reason being that whatever the way the region is delineated, its development depends in some way on the development of the rest of the country, vice versa. Even assuming that there are no other flows, there will still be the outflow of government taxes and outflow of government investment.

To this end from the National point of view it has to be noted that urban growth has an impact on regional development through high incomes and employment opportunities, whereby an urban tax payer gets an average cash income five times as high as that received by rural residents. At the same time it has an important direct influence on rural development through provision of urban commercial and governmental services surrounding rural areas and through dissemination from urban centres of innovation and new economic technology which modernize traditional life. As a result of this areas with more urban

centres are better developed, such as is the case with Buganda region, where the study area is located, and Busoga (Kiira) region. Therefore, the other side of urban growth development is that it creates regional imbalance as is the case in Uganda today. Encouragement of urban growth within the corridor, which would mean extending Kampala boundaries, and allowing other urban developments in other parts of the corridor freely, would work to widen further the existing regional imbalance. More national expenditure would be required for Kampala for instance, and due to existing economies of scale more investment would be attracted here. Similarly there would be more immigrations from the backward areas.

4.2.1.1

Alternative A: Decentralization viewed from National and regional context, and encouragement of urban development within Kampala and Entebbe

Therefore, instead of encouraging urban growth within Kampala-Entebbe corridor, which will not only contribute to regional imbalance, but also make the two towns too large, for at a future date areas experiencing urbanization may have to be included in the municipal boundaries, at the expense of the rural areas and country towns and particularly Kampala, this urbanization should be directed to up country

towns, where it is expected to generate more employment opportunities and more income in an attempt to iron out the existing regional economic disparity in the long-run. The government can do this by encouraging private entrepreneurs to invest in upcountry towns by providing incentives. The incentives include tax concessions, providing industrial estates, providing infrastructure as roads, water, sewerage and electricity. These investments would be as important in giving private investors confidence that the government was committed to the success of the upcountry towns as in ensuring that services are available when they are needed. Such step is being taken in Australia, where further urban growth is being diverted from Sydney and Melbourne to other country towns. These are the two largest cities in Australia, and they have been realised to be growing too large at the expense of the rural areas and country towns. The government as well can invest in these upcountry towns.

Again the corridor should be viewed from the regional context, that is in relation to the district where it belongs administratively. The study area's district headquarters at Mpigi (Map 1) has still problems of development, shortage of funds being one of the constraints.

It follows thus that instead of encouraging urban growth in the study area which would in the long-run require funds for development, these funds could be channelled to Mpigi. This would be a step to meeting this town's development requirements so as to facilitate efficient administrative control of the district as a whole.

Then the question is what should be done to encourage more development within the towns? One of the measures could be urban renewal, especially in Entebbe's low and middle income residential areas. This would involve new housing schemes. This measure has its setbacks. One is that it can be quite expensive undertaking, and with limited financial resources which have to be shared among other sectors of the economy, the scheme may take some time before completion. Secondly the scheme may have to involve the moving away of people from the site that is to be redeveloped. So the problem arises as to where to settle these people while the project goes on. When the project is finished there is no way of ensuring that the displaced people will be the ones to occupy the new houses. Pumwani, in Nairobi serves as a best example in this aspect. While the area was redeveloped to provide more and better housing, after the project was completed, many of the displaced people never

occupied the new houses. In this case it is inevitable that Abaita'Babiri and the environ have to be considered as future urban extension of Entebbe town. This is so because of little land available for any future urban development within Entebbe.

In the case of Kampala a couple of alternatives could be explored. One of them is to encourage more of site and service schemes especially in the present undeveloped parts of the city. Here essential services as piped water, roads surveyed plots, sewerage and drainage systems are provided. People then buy these plots and put up their own structures. The developers should be given a convenient time period during which they can be able to put up structures of the required standards (1-2 years). Meanwhile they can put up any type of structures as long as they are not a health hazard. This is a project that has to be undertaken by Kampala city council.

Another alternative is to put up tenant hire purchase structures. These are houses constructed by a government body or private firm then sold to individuals. This scheme could be undertaken by the National Housing Corporation and other private Housing Construction Companies. This type of project is currently being intensively undertaken within Nairobi City.

One snag with the project is that people who have own houses on own land outside the city may buy some of these houses and rent them while they continue to stay out of town. So in some way the project's effectiveness of minimizing urban development outside the town could be less.

Private ownership of land within Kampala is one of the factors that has contributed to development outside the city. On the part of individuals it has not always been easy to buy this land. If one did, he had to pay a high price. Land has always been hoarded in expectation of better prices in future. As a result most people bought land outside town which is simultaneously cheaper as has been indicated in chapter three. On the side of the government institutions, if acquired private land then they had to pay heavy compensations. As a result most private land has been avoided. Now that all land belongs to the government according to The Uganda Land Reform Decree, it is easy for the government to acquire land needed to develop for public purpose through compensation it feels is worth the value of land (after valuation of the required land). Similarly private developers should be able to buy unutilized land. This is so because according to the decree,

any piece of land not being utilized other than recognised open spaces, parks, reserve lands etc., can be allocated to any developers by the Land Commission. So this decree is expected to minimize land hoarding.

In spite of the various suggested alternatives urban growth may continue to take place outside. This is an area for further research work to look into more rational measures which can be adopted to attract more development within the city.

It is further recommended that Kampala city authorities look into the issue of urban rates in an attempt to find out if they contribute to development outside the town. Such task will involve land economists and valuers.

.2.1.2

Alternative B: Selection of certain few centres for planning

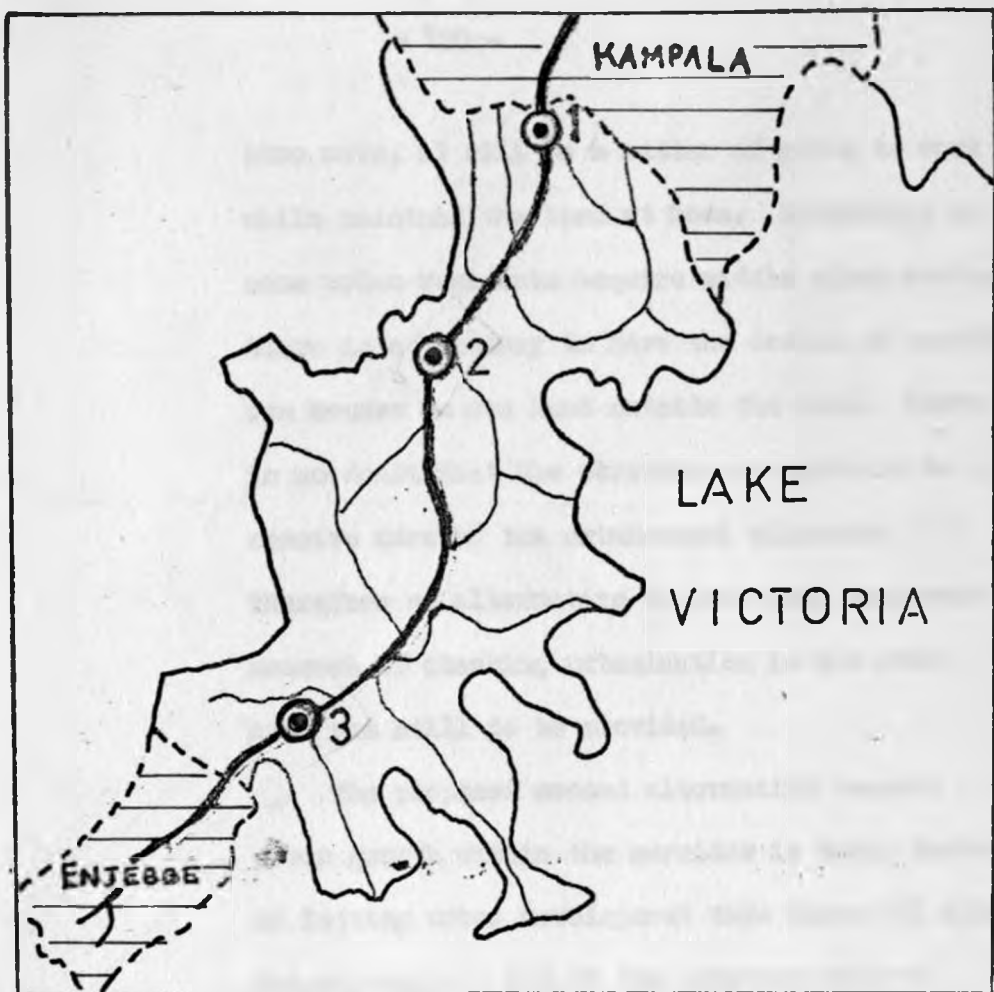
Admittedly urban growth is a finite process. Therefore the suggested alternative of discouraging urban growth within the corridor, due to earlier stated considerations, thus directing this to up-country towns through investment, may not provide much of the answer.

Attempts to halt the growth of the big cities have been made ever since the phenomena first appeared on human scene, and they have not been quite successful. Elizabeth I of England and



after her Oliver Cromwell tried to limit the growth of London by circling it with an enforced greenbelt, but this method failed. In any case such method applied to a growing city can only lead to over crowding. Similarly, to avoid big city problem nearly all countries today have embarked on programmes of industrial decentralization, often with unsatisfactory results. In Western nations the most far reaching attempt at decentralization is Great Britain's 'new towns' plan. This program has been eminently successful in creating new centres of industry as 'growth points', but it has not managed to stop the growth of London or to limit other cities, new or old, to their planned size. The Australian step to achieve this objective is too early to judge as the programme is still in process. These examples are not aimed at discarding the earlier suggested alternative, but to reveal that from what other countries have experienced, such step is not a sole answer, and thus need other alternative steps to be adopted.

Following from this, though urban growth may be directed in other towns, people in the corridor may not be ready to move. Bearing in mind that the majority of the corridor residents have their own structures on their own land, if



KAMPALA-ENTEBBE CORRIDOR PROPOSED TRADING CENTRES FOR PLANNING

LEGEND

- ⊙ 1 NAMASUBA
- 2 KAJANSIBIRI
- 3 ABAITA' BABIRI
- MAIN KAMPALA-ENTEBBE ROAD
- ACCESS ROADS



Map 1.5

Scale: 0 2 4 Kilometres

some move, it will be a matter of going to work while maintain the land at home. Similarly, as some urban residents acquire middle class status, there is a tendency to have the desire of acquiring own houses on own land outside the town. There is no doubt that the corridor may continue to receive more of the urban-rural migrants. Therefore an alternative to the first suggested measure of checking urbanisation in the study area has still to be provided.

The proposed second alternative towards urban growth within the corridor is that, instead of letting urban development take place all along the corridor, a few of the existing centres should be selected, and around these concentrate urban development and have them planned. This means that the study area's district authority should not allow any other big centres with high population concentrations, other than these service centres needed to meet the daily minimum requirements of the people in the surrounding areas.

The recommended centres for this measure are Yamasuba Trading Centre, which lies on the southern boundary of Kampala, Kajansi trading centre which is located in the middle part of the corridor, and Abaita'Babiri trading centre lying on the northern boundary of Entebbe town (Map 15).

These particular centres have become so much urban in character by the type of activities being operated in them and the type of services they provide. Similarly, they are identified as foci of population concentrations than any other centres within the study area. As earlier noted, the 1969 census figures give Namasuba's population as 1334 people and Kajansi's as 1897 people. Since then the population of these centres has precisely gone up, though there are no official figures to statistically verify this. Abaita'Babiri's population was not recorded then, but by the time of survey (1973 December), its population was recorded as 910 people. This is a tentative figure because there may be more people living in the centre than were recorded by the time of the survey. To this end the population of these centres is expected to go on increasing firstly because they are generating a bit of employment particularly in the case of Kajansi, and secondly they provide residence to some urban workers. This is particularly so with Abaita' Babiri which continues to provide residence to overspilled Entebbe's population, particularly that in the low income group, and increasingly of late some of the middle income group. Namasuba too accomodates part of Kampala's workers. There are a few people who commute from Kajansi to

Kampala and the number may increase as the centre acquires more functional importance.

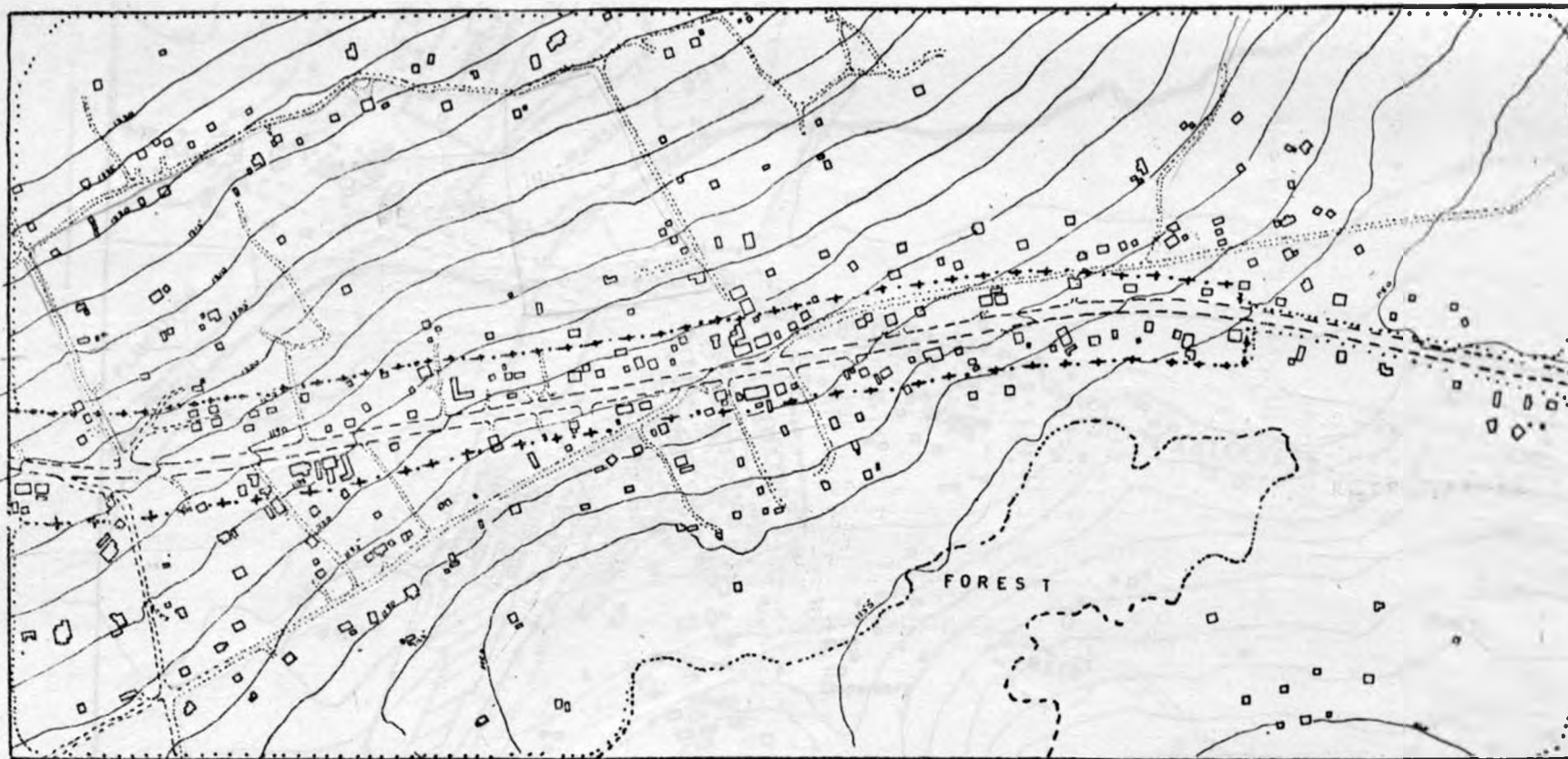
In respect of this view, these centres have minimum basic requirements that would start them off as bigger centres in the urban hierarchical structure. Though experiencing rapid urban growth, much of these centres' growth is uncontrolled. Therefore left alone they can become 'slum towns', featured by low quality of dwellings structurally and materially; poor sanitary conditions of dwelling and the environment; existence of a relatively high density population compared with available dwelling rooms and other services; the existence of relatively low density of population with first class dwelling but living in unplanned and unserviced residential areas; existence of a residential area within which all assortments of social, cultural and economic activities go on side by side or one on top of the other without conforming to any zoning specification or other standards. Such a feature has to be curbed, if these centres have to continue growing. Therefore there is need for land use control and physical planning guidance so as to create an orderly and harmonious environment which will be acceptable and benefit most of the people of these areas. This is part of the study's objective of having a planning framework for the corridor zone. Therefore, planning

of these centres is a component part of the planning programme for the whole study area.

Along this view therefore, if these centres have to be planned, they have to have layout plans indicating where development of various activities should be carried on. However the design layout alone is meaningless if no services are planned for too. Therefore hand in hand with how these centres should appear, proposals are made for improvement of existing poor and inadequate services while at the same time it is proposed to provide the missing ones.

As a first step towards planning of these centres, they are proposed for being included in the current number of trading centres in the country under planning control. This means that they will have design layouts showing what should be developed where. Drawing the plans of these centres will be carried out by the team of planners dealing with trading centres under planning control, in the physical planning Department, Kampala, Uganda. The plans would then be submitted to the parish chiefs and Health officers of the area so that they give guidance to the people who want to carry on some development within the centres. This is acceptable because it is the parish chiefs and the health officers of various areas who give consent to any developers in the trading

NAMASUBA TRADING CENTRE PHYSICAL FEATURES AND EXISTING DEVELOPMENT



SOURCE: DEPARTMENT OF LANDS AND SURVEY

LEGEND

- MIXTURE OF COMMERCIAL AND RESIDENTIAL AREAS
- MAINLY RESIDENTIAL AREAS
- KAMPALA ENTEBBE MAIN ROAD
- MOTORABLE TRUCKS
- CONTOUR LINES

SCALE

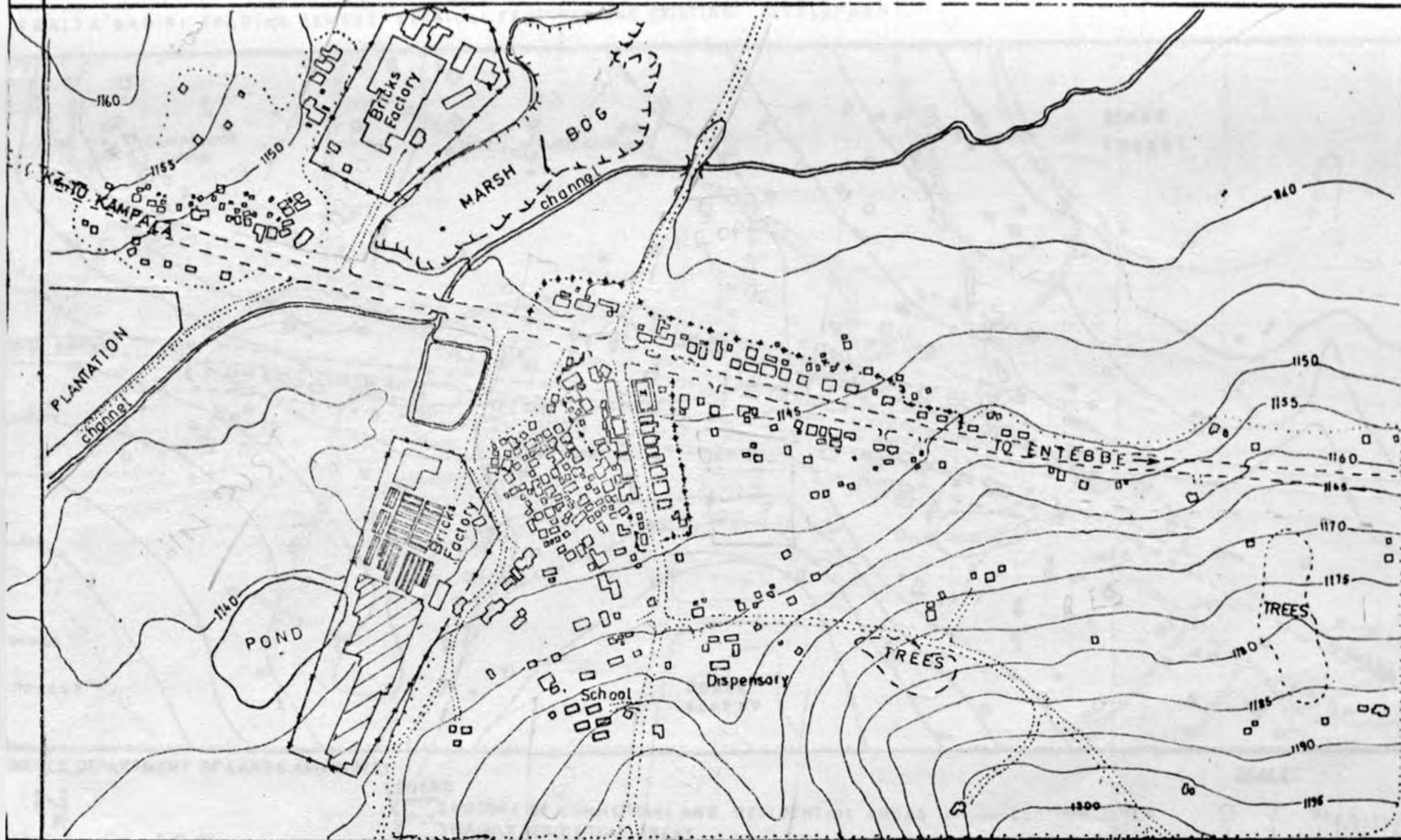
0 7 14  
Metres



MAP 15






KAJANSI TRADING CENTRE

PHYSICAL FEATURES AND EXISTING DEVELOPMENT



SOURCE DEPARTMENT OF LANDS AND SURVEY, ENTEBBE

LEGEND

-  MIXTURE OF COMMERCIAL AND RESIDENTIAL AREA
-  MAINLY RESIDENTIAL AREAS
-  INDUSTRIAL AREAS
-  MAIN KAMPALA ENTEBBE ROAD
-  MOTORABLE TRUCKS AND ACCESS ROADS

SCALE 0 7 14 METRES

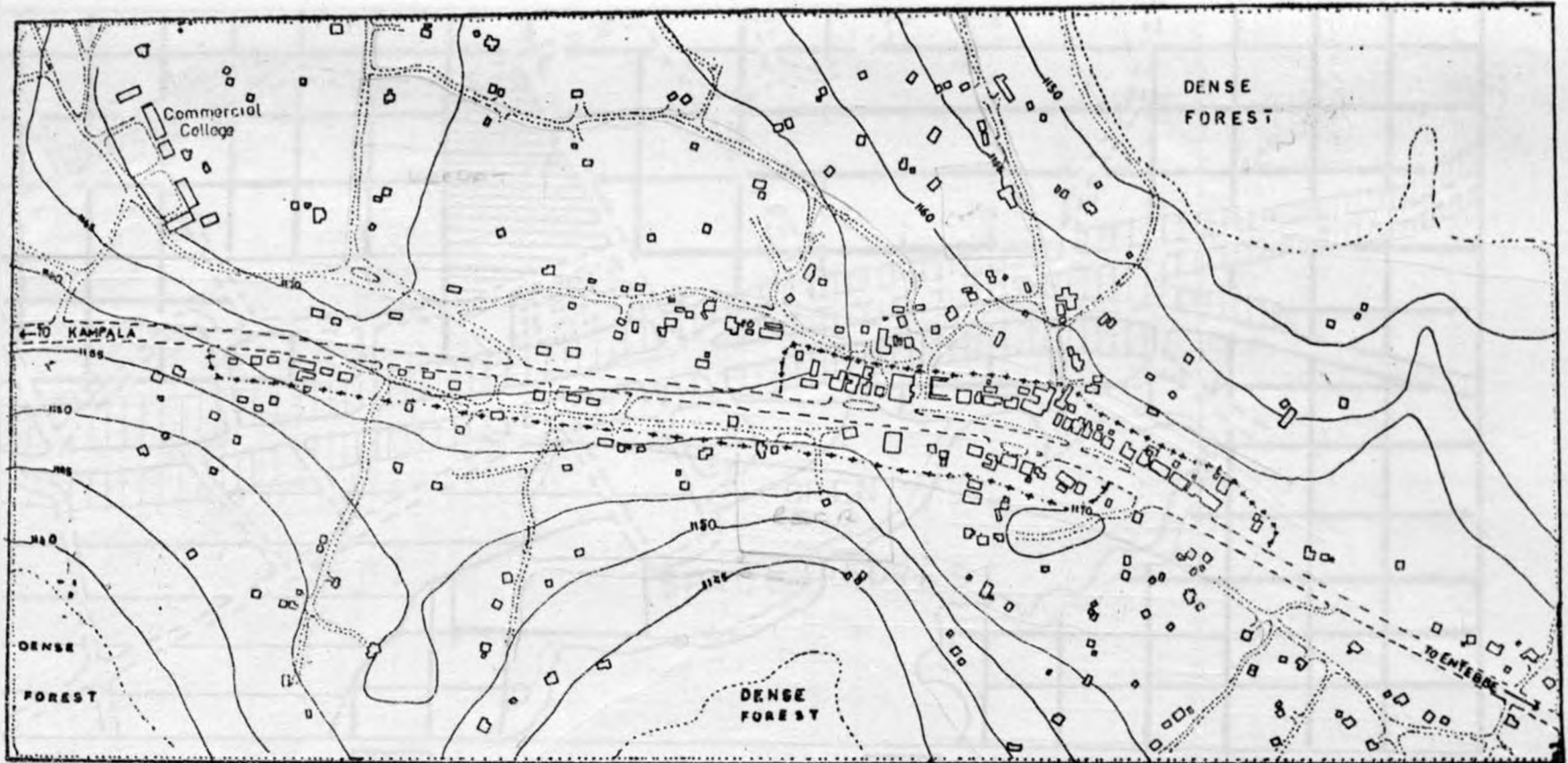
-  CONTOUR LINES
-  BRIDGE



Map: 16b



ABAITA' BABIRI TRADING CENTRE PHYSICAL FEATURES AND EXISTING DEVELOPMENT



SOURCE DEPARTMENT OF LANDS AND SURVEY

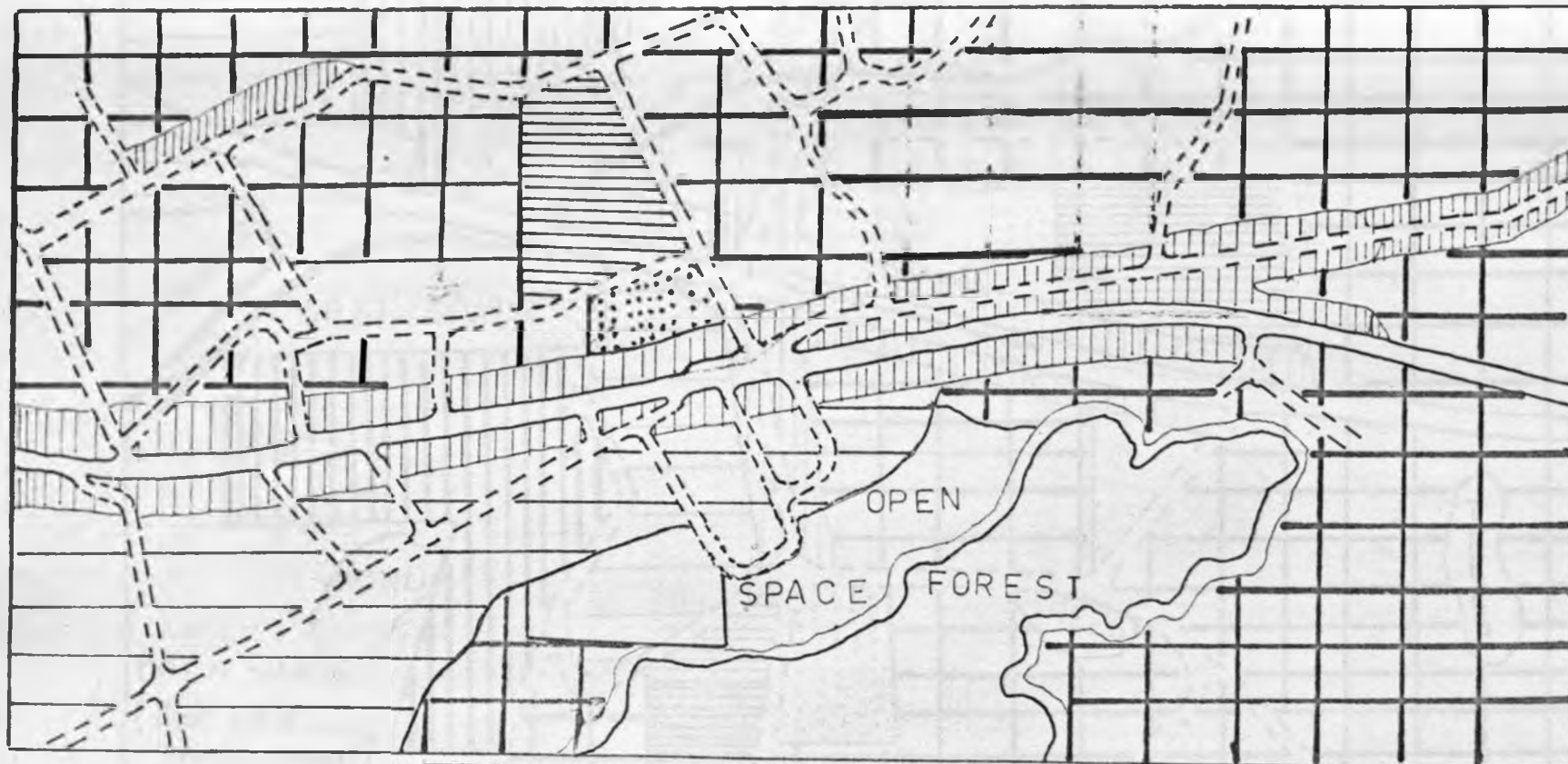
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MAP 16 C

LEGEND

- MIXTURE OF COMMERCIAL AND RESIDENTIAL AREAS
- MAINLY RESIDENTIAL AREAS
- MAIN KAMPALA-ENTEBBE ROAD
- MOTORABLE TRUCKS
- CONTOUR LINES







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# NAMASUBA TRADING CENTRE: PROPOSED LAND USE PATTERN

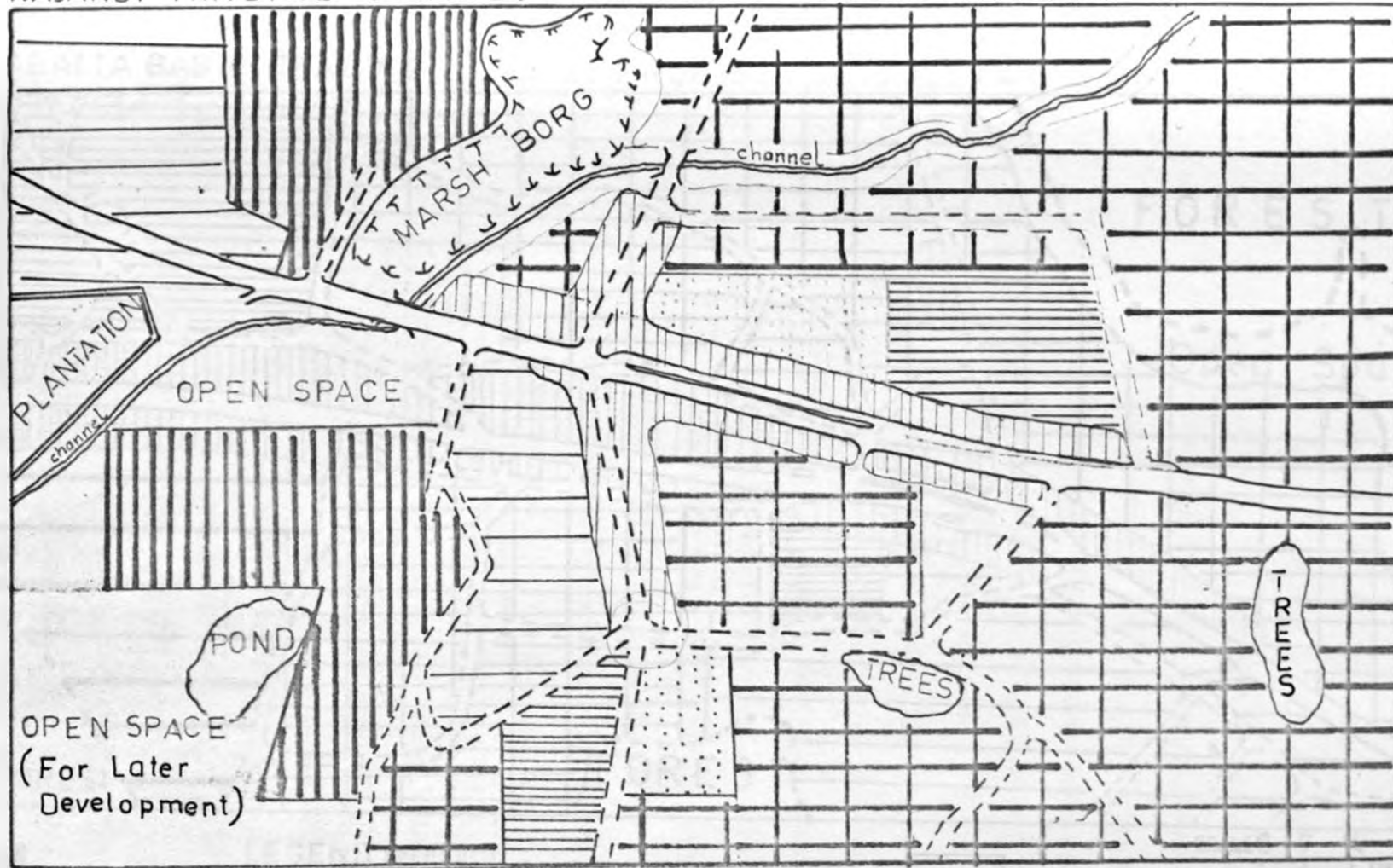


  
Map17a

## LEGEND









- |   |  |   |                            |
|---|--|---|----------------------------|
|  | Commercial area                              |  | Area for Health Facilities |
|  | Residential area<br>(Low and Medium Density) |  | Recreational Space         |
|  | Residential area<br>(High Density)           |   |                            |
|  | Area for Educational<br>Institutions         |   |                            |

KAJANSI TRADING CENTRE: PROPOSED LANDUSE PATTERN

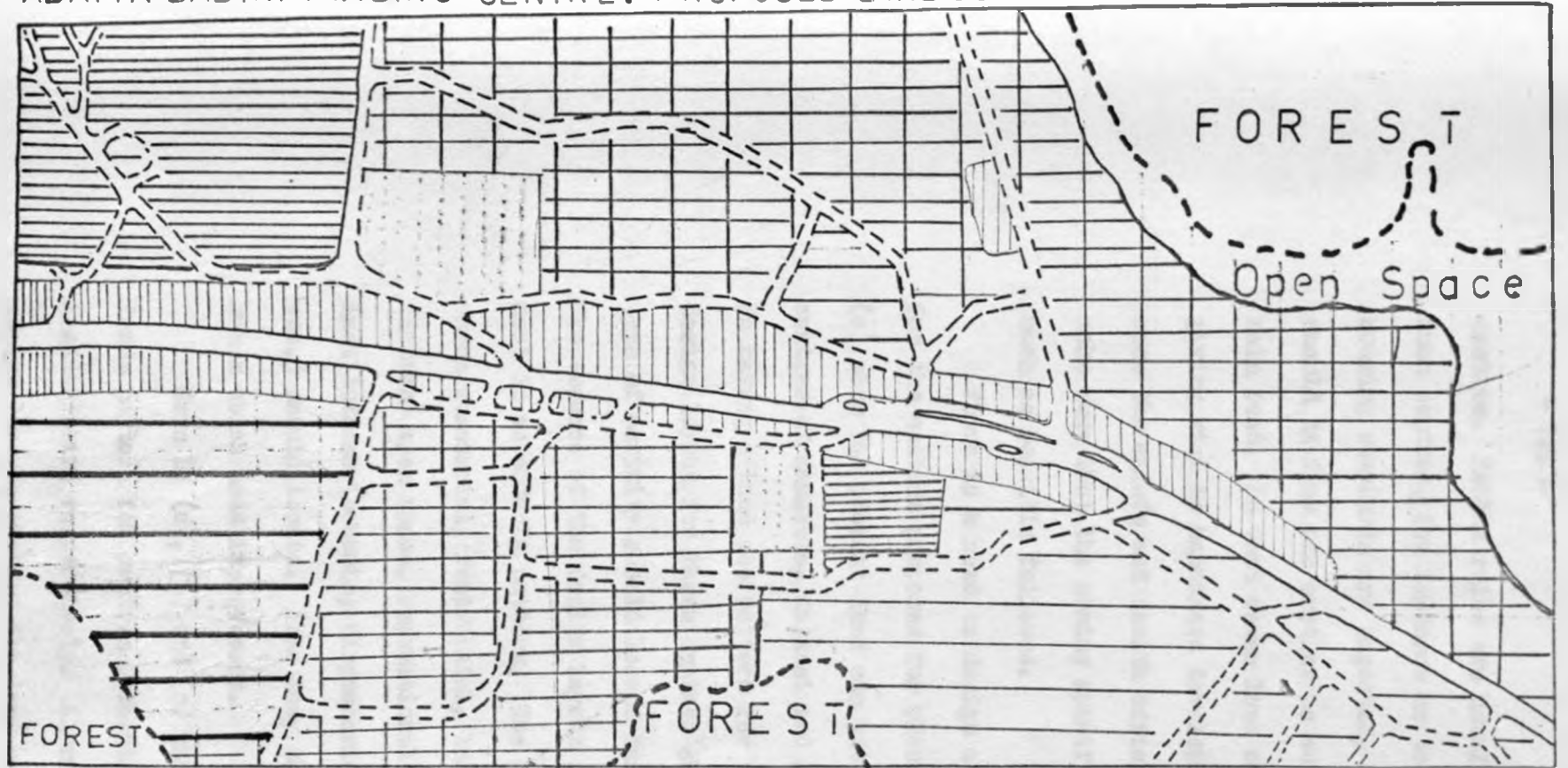



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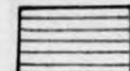

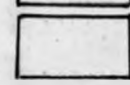


- |   |  |   |                             |
|---|--|---|-----------------------------|
|  | Commercial area                              |  | Industrial areas            |
|  | Residential area<br>(Low and Medium Density) |  | Recreational space          |
|  | Residential area<br>(High Density)           |  | Area for Health Facilities  |
|  | Areas for Educational Institutions           |  | Access roads to be Improved |

# ABAITA' BABIRI TRADING CENTRE: PROPOSED LANDUSE PATTERN



  
 Map 17c

## LEGEND

- |   |  |   |                              |
|---|--|---|------------------------------|
|  | Commercial area                              |  | Institutions' area (Schools) |
|  | Residential area<br>(Low and Medium Density) |  | Recreational space           |
|  | Residential area<br>(High Density)           |  | Access roads to be improved  |

SCALED 7 14  
 METRES

centres. Health rules are usually laid out for such centres, for instance as to what minimum housing standards are expected, how far structures should be from one another as well as from a main road. In most cases less care is taken, thus giving rise to haphazard development. In this case the chiefs and Health Officers will have to make sure that the zoning specifications are as much as possible followed.

There is a need to design a land use pattern for the centres proposed for planning. 16 (a) (b) (c) show the present land use pattern in the trading centres of Namasuba, Kajansi and Abaita'Babiri. In having a land use pattern for these centres, a design layout for these centres showing where each type of activity should locate has to be produced. The essence of the design layout is to guide development in an orderly pattern. The layout should show where commercial, residential, industrial (in some centres) open space, recreational space, area for institutions (schools, dispensaries, social halls etc.) should locate. Also they should show access roads which need improvement.

Maps 17 (a), (b) and (c) show the proposed land use pattern for centres Namasuba, Kajansi and Abaita'Babiri respectively. Along these proposed design layouts showing the land use pattern, the future development of the proposed urban settlements (centres) for planning is expected to be guided.

However it is recommended that members of the staff from the Physical Planning Department who will have been assigned to these centres should demarcate the proper boundaries for these centres. This is geared at concentrating urban development within the trading centres themselves. It is further proposed that planners assigned to these centres draw up plot sizes for the various activities.

Similarly, further subdivision of plots in these centres have to be discouraged. Much plot subdivision as the study has earlier indicated, denies access to other plots and induces high population density areas.

Besides having orderly development of various activities, low quality of dwellings structurally and materially have to be discouraged. Use of permanent building materials as bricks, block (cement and sand mixed), tiles, corrugated iron sheets, mud and wattle, but whose walls are plastered with cement need dramatizing. This can be done through news media as radios and newspapers. This is an innovation that will not only benefit the centres in the study area, but also those in other parts of the country. People have to be made in seeing the advantage of use of such materials especially where densities are high. They have to view this aspect in perspective of minimizing health hazards. These centres' areas' health officers will have to specifically undertake this responsibility.

However while this improvement programme is essentially aimed at reorganising the settlement pattern and physical layout of these centres, and uplifting the conditions of the environment, in the process, little demolition is to be allowed to take place. However any further development has to strictly conform to the set planning guidelines (controls).

#### 4.2.1.2.1

##### Water Supply

A further problem that has to be solved and especially if the population of these centres is to continue growing, is provision of adequate and clean water. Earlier on it was indicated that the main source of water supply to these centres is either wells or springs. Not only are water collecting points highly insufficient to the existing centres' population and thus congested, but the water is equally untreated. Due to congestion especially where water is obtained from wells, it tends to be contaminated which can be a health hazard.

It is proposed therefore that in the short-run in case of Namasuba, improvement be made on existing springs. This is water which flows out of a hill side, so where the water table reaches the surface water flows out. There are a couple of these springs around the centre. So all people need to do is contribute money, buy pipes then can employ someone to dip these pipes in the hill

sides where there are springs and this water will flow out through these pipes, instead of being collected on the ground. Alternatively people can group themselves in groups of 100 people, so that they collect funds, buy pipes and have these dug in the hill side. This would mean that each spring would be utilized by about one hundred people. The local chief with the co-operation of the centre's residents will have to organize the whole scheme. This will be a self-help scheme where people do not have to wait for the government to come and do everything for them.

In the long-run however piped water should be extended to this centre. Already a residential area which is just next to Namasuba, that is Najjanankumbi has piped water but is within the city boundary. The 'National Water and Sewerage Board, Kampala', has indicated that before the present regime, it had embarked on a project of extending water not only to most parts of Kampala but even the immediate outside areas. Water pipes were already laid running to most parts of the city. The snag is that due to financial constraints the Board has not been able to get twin pipes for the main supplying source at Tankhill, so as to increase the present capacity as to be able to supply water to most parts of Kampala and the immediate outside areas. The project was being financed jointly by Uganda Government and World Health Organization. The



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Board expressed the view that as soon as it can get funds to purchase the 'twin pipes', the project will go on as initially planned. How soon this will be, the answer is indefinite. However if the project is revived, Namasuba is proposed as one of the areas that should have extension of piped water to meet the current demand from the centre's increasing population. The National Water and Sewerage Board, expressed the view that supplying water to this area with stand pipes evenly distributed would roughly cost one tenth of a million (Uganda) shillings.

Kajansi trading centre too, needs a remedy. Water here is being collected from wells and some from the springs. The defect with wells is that when it rains surface run-off mixes up with this water. In the short-run Kajansi has to adopt a similar method proposed for Namasuba where springs have to be further improved on by buying 6" water pipe (diameter) and dip them into hillsides. This has to be done by groups. Alternatively the existing wells have to be improved on by occasional emptying out the water as it often gets dirty. Then, fence around these wells to protect any other rubbish from getting in. The Geological Survey Department in Entebbe has indicated that the water table around Kajansi is high and is one of the probable areas which could have a borehole.

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The Water Development Department should explore the possibility of constructing a borehole within this centre. The cost is estimated at less than  $\frac{1}{10}$  of a million shillings. In the long-run there is a possibility that this water could be pulled (sucked) from the ground, then pumped to a central tank on a nearby hill from where it can flow by pull of gravity to stand pipes that will have to be evenly distributed within the centre. This water can still be entered in peoples houses as long as they meet the costs of entering the water. This possibility should still be further explored by Water Development Department, Entebbe.

Abaita'Babiri in this respect is still in no better position, possibly even worse especially as the number of springs available are quite few. Like has been suggested for Namasuba and Kajansi, Abaita'Babiri's residents have to improve on their springs. Alternatively a borehole is suggested within this centre. Information obtained from the Geological Survey Department indicated that the water table in this centre was high and could have a borehole constructed.

In the long-run piped water is recommended to be extended to this centre from Entebbe town. This is not only highly essential in serving a part of Entebbe's working population, but also to

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meet the water supply requirement of a big institution which is located within the centre. This is a Commercial College School with resident students, numbering about 400 in all. Again Abaita'Babiri has to be looked at as an area which at some future date will be incorporated in Entebbe's municipal boundaries. Thus providing piped water in the area will have been one of the steps of preparing the area in advance for this urban development. Furthermore, information obtained from National Water and Sewerage Board indicated that if the Entebbe Water supply station receives a second water pump then it could be easy to have piped water extended to Abaita'Babiri. The project however was estimated at 2 million shillings. This includes the costs of laying the main supply pipes which are 6" in diameter, then distribution pipes of  $\frac{3}{4}$  diameter to people's houses and stand pipes.

#### 4.2.1.2.2

##### Drainage

The biggest problem that hits these centres is lack of directing flooded water on the road which usually invades residents' houses in rainy seasons. The problem is particularly acute with Nasasuba trading centre. It is proposed that the Ministry of Works come in and align water drainage channels on both sides of Kampala-Entebbe road, all along that length it runs through each of these centres.

From the end of these channels, the centres' residents should then dig the channels that will lead this water into the bush. Similarly within the centres there should be other drainage channels where water can collect and flow away instead of flooding all over the place, making it muddy. This has to be done by the people themselves.

#### 4.2.1.2.3

##### Sanitation

Attempts have to be made to make people aware of general cleanliness. This is a task that health officers in the area have to carry on.

There is a problem of where exactly garbage should be disposed of. Many alternatives are put forward in an attempt to have the problem minimized. One of them is that people in these centres collect money and buy garbage tins. The biggest garbage tin which is potable is at a price of 125 (U) shillings. Then each garbage tin can be used by two to three households. Emptying of the garbage tin can be done alternatively among the user households. This means that a specific place away from the centre and any settlement, has to be chosen for dumping of this garbage. The other alternative is to have money collected then put up refuse bankers. The Kampala structure plan proposes that one big refuse banker can be used by 250 people. Thus these refuse bankers are proposed for introduction in these centres, each refuse banker to 250 people. The particular people

using a specific refuse banker can employ somebody to empty it occasionally, or the centres as such with contributions from residents employ a certain number of people who will empty all of them now and then.

At the same time, the health officers have to check on people's pit latrines and find if they are in good order, and advise those who do not have any, to do so in the shortest time possible. Likewise the people have to be given guidelines on general cleanliness, like cleaning their compounds and maintaining their structures in good conditions at any one time. Where more than one household share a compound, this can be cleaned in a rotating order. Similarly advice on proper maintenance and cleanliness of bathrooms has to be given.

#### 4.2.1.2.4

##### Parking facilities

Lack of parking facilities is a problem that has to be solved. Any plan for these centres cannot neglect this aspect. The problem is particularly associated with urban settlements. Nevertheless in these centres there is a tendency to park cars along the sides of Kampala-Entebbe main road. The side effect of this is that it obscures visibility to other drivers and may result in accidents particularly where a person is trying to cross the road from the front of a

parked vehicle, and unknowingly is knocked by a hind coming vehicle. Similarly because someone is going to park by the roadside both the following and oncoming vehicles have to slow down. This causes congestion and makes unnecessary delays. There is need to provide large parking space and away from the roadside. Since parking takes place in front of buildings, any future buildings should be a good distance from the main road (Kampala-Entebbe). This leaves sufficient space where cars can park.

#### 4.2.1.2.5

##### Open Space (recreational)

As these urban settlements continue to grow this amenity has to be planned for. Amenity open space provides areas where people can quietly relax in the open air. This will have to be indicated by the centres' design layouts. (Maps 17 a, b and c).

Implementation is recommended to be undertaken by the residents of the trading centres organized by the local chiefs of these areas. Alternatively people can contribute money then employ someone to clear up the place. The ordinary maintenance of these places will have to be organized by the residents of these centres.

#### 4.2.2

##### Problems in the Implementation process

It would be quite unfair on the part of the study to state the recommendations for the study

area and how these should be implemented without pointing out the likely setbacks in the implementation process. Similarly the magnitude of the setbacks encountered, would influence the effectiveness of the recommendations.

Although it was suggested that one of the alternative ways of minimizing Kampala's expansion and other urban developments within the corridor by redirecting this growth to upcountry towns through provision of services as roads, water supply, sewerage system, just to mention a few, so as to attract private investment that would generate employment opportunities and income, this does not guarantee that private investors will move to these upcountry towns. Kampala is a national capital, the biggest commercial and industrial centre in the country. So there is already a market with high purchasing power that attracts private investors. Most of the investors may not be ready to risk the uncertainties of the upcountry towns. However if some do invest in these towns they may do it on a small scale in the short-run, and not until they have won confidence that it pays investing in these towns, then can they increase their investments in the long-run.

In providing services to attract investors the government may find it is short of sufficient skilled manpower or funds to start off with even the minimum required services. So there may have to be postponement of the projects for an undefined period of time.

On the issue of carrying out redevelopment in the selected trading centres, it may not be easy in the short-run to create a community spirit, and especially as some projects' success depend on the co-operation of these centres' residents. Therefore issues which need a group of people to work together, like a certain number of people to improve on an existing spring, or use a refuse banker and employ someone to empty the garbage tin regularly, the people may at first be reluctant to co-operate. This leads to the point of managerial problem. Different people have different perceptions on innovations. Thus while some may readily pick up innovations, others will take some time. Possibly not until these people who are reluctant to adopt the innovations, have seen that their friends have been successful than can they themselves pick up these innovations. For a while therefore ideas like having general cleanliness in the surroundings at any one time, maintenance of structures in good conditions, the use of permanent building materials, just to mention but a few, may not be readily complied with.

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It was pointed out that other than the selected centres, other trading centres should not be allowed to attract more population concentration. This may not be feasible. Some people have their own pieces of land near these trading centres and are free to build. The problem could be acute if there are many more people of this kind.

Another foreseen snag in the implementation process may be availability of funds on the side of individuals and the government. In carrying out the projects which are of self-help in nature, money contribution may not be sufficient. This may be due, on part of some individuals who may not readily be able to pay their contributions. Alternatively a project may be forecasted to cost a certain amount just to find afterwards that the cost is much more than was estimated. All this may cause delays in effecting of the projects. Possibly in some cases some may have to be postponed indefinitely.

Likewise the government Departments to whom some projects are addressed, may in the short-run not be able to undertake some of these projects due to limited funds.

Alternatively, these Departments may have already had a list of priorities, so they may have to finish them off first and then give consideration

to what the study has recommended. How soon can these recommendations on projects concerning their being effected by the government, depends on the period set for projects being carried on.

Pointing out, but a few setbacks which are likely to affect implementation does not imply that the recommended projects if implemented will not be a success, but that the fruits may have to be awaited for some time. At the same time during the implementation process the setbacks may reveal that some of the strategies adopted cannot work, and therefore may have to be substituted with others.

Briefly, the approach on urbanization within the corridor has indicated how the issue of urban growth within the corridor is proposed to be handled. This is but one aspect of development within the corridor. The other aspect is agriculture which is dealt with in the next section of the chapter.

#### 4.3

##### Agricultural policy

Needless to say, towns and cities have to continue expanding, and as they expand they encroach on agricultural land converting it into urban landuse. This goes on and on. Nevertheless it has to be noted that towns need hinterlands, not only for supply of raw materials to feed the industries, but more important also, to meet food supply requirements for feeding the towns' growing population. Thus any hinterland near an urban centre that can meet the latter requirement

is at an advantage because of the proximity. Noting this therefore, the situation cannot be left alone. There is need to regulate and direct urban development in those areas where the opportunity cost is speculated not be high, while utilizing those areas which are agriculturally potentially rich. Therefore these areas that would otherwise have been under urban invasion can be put under agricultural production of which one of the specialities is production of food crops. This goes in line with putting available resources to best economic use.

Since most of Kampala's area is still unutilized, and that most of this area will not be used until the city has reached a mark of 1.6 million people by the late 1980s and early 1990s, and considering the view that since the city's boundaries were extended, much of its area has had no proper planning control and lacking most of urban infrastructure and supplemented by shortage of manpower, as earlier stated no possible expansion of boundaries should be considered at this stage. In the case of Entebbe the town can accommodate very little further development and is already experiencing overspilling. Therefore as earlier stated, overspill areas have to be regarded as part of Entebbe and be planned for in advance for at a later stage they could be included in the municipal boundaries. Along this

view therefore, the corridor being one of the most fertile parts of the country, should be planned for intensive agricultural development as an alternative to urban expansion in the area. One cannot deny the view that one time the whole area may form part of the cornubation of Kampala and Entebbe, but while the situation in the two towns <sup>has</sup> not exploded, the potential in the area has to be tapped. Thus fostering agricultural development in the corridor should be seen as a means of checking urban expansion while utilizing the available resources in the alternative best way possible. This step or measure is equally adopted as one of the alternatives for the area's future development requirements.

In drawing up proposals for agricultural development within the area, the objectives are summarized as follows:

- a: to be used as a means of discouraging urban expansion in an area that is potentially rich agriculturally, while putting the resources to best alternative use.
- b: to supply part of the two towns' food crops requirement, taking the advantage of the area's proximity to the two towns.

c: Increase rural incomes while at the same time provide employment opportunities, thus contributing to rural development.

d: part of the diversification programme in agriculture, where crops can be grown for export market to earn foreign exchange.

In any type of economy there is need to utilize the available resources in the best alternative ways possible. The Kampala-Entebbe corridor is well endowed with physical factors which can support agricultural development. The area's soils are of grey humose sands and yellow red loams type, with high and medium productivity (Map 7). The rains range between 50 and 60 inches, with an average of 50 inches per annum, while the relief ranges between 3750 ft and 4050 ft, with the top of the hills reaching 4200ft. The area thus is suitable for a good number of horticultural crops, that are specified later, which could meet part of food supply demand of the two towns of Entebbe and Kampala. This area for instance has a much better locational advantage in relation to big markets for this type of crops, than Kigezi which currently has the biggest vegetable scheme in Uganda, and lies about 300 miles away from the capital, Kampala. As Kampala and Jinja's population

continues to grow, the two largest towns in Uganda (Kampala = 331,839 people, Jinja = 117,000 people, 1969 population census) and only 50 miles apart, demand for horticultural crops is bound to increase. The area can take the advantage in supplying part of the required food supplies for these centres, while simultaneously acting as a means of regulating urban invasion within the corridor.

Further more, the measure would contribute to people's cash income. Growing food crops for sale will provide extra income besides that income derived from secondary and tertiary activities. The survey has revealed that agricultural production is carried on at subsistence level to meet the families food requirements, while cash income is derived from tertiary and secondary activities. Increasingly however the surplus food crop is being exposed to the market. Similarly the measure itself would provide more employment opportunities. Thus availability of employment opportunities and more cash income derived from this type of economic activity enhances rural development. This would work in line with what Uganda's 'Third Five Year Development Plan 1971/2 - 1975/6' emphasizes, that, "the key to rural development lies in the promotion of those economic activities carried out in rural areas."

One of the programmes under Uganda's agricultural policy is geared to achieving greater diversification and increased output of agricultural products. This is aimed at reducing the substantial dependence on coffee and cotton as main export earning cash crops. Thus introduction of certain crops which have high overseas demand, that would bring the country foreign exchange, will be a part of this programme. Such crops to be grown for export include asparagus, french beans, capsicum, melons, strawberries, passion fruits, flowers (carnations gladioli). Growing of these export crops are similarly geared at taking advantage of the area's proximity to Entebbe International Airport, whereby these can be picked and flown fresh to overseas markets.

4.3.1. Crops recommended to be grown for home consumption

In recommending certain horticultural crops to be grown, consideration has to be given to certain preconditions necessary for crops production. These include proximity to water, soil fertility, climatic conditions and the transport situation. Availability of water is the essential factor for vegetable production during dry season. In the case of study area this occurs between December and March, then between June and July. Similarly as vegetables are expected to serve as a source of cash income, the area selected for growing these crops has to be fertile. The climatic conditions are important because through the temperatures and rainfall

reliability the growth of the crops is affected. Furthermore an area's location and its distance to the market is an essential factor which affects transport costs considerably.

As can be gathered in chapter two 'Background to the Corridor', the area's high rainfall level, well distributed throughout the year, with temperatures ranging from 65 to 70<sup>o</sup>F and medium to high soil productivity, the study area provides ecological pre-conditions for a variety of horticultural crops. By selecting adequate varieties, the list of crops could even be extended. Thus the recommended crops are white cabbage, cauliflower, onions, lettuce, tomatoes, eggplants, beans (french), carrots, cucumber, peas, and celery. Among some of these as is later on stated, could in the long-run be exported. These crops are among the large variety being grown in Kigezi district.

It has been discovered by the Department of Agriculture in Kigezi district that the horticultural crops flourish well on red clay loams with soil productivity rating of medium to high. Similarly these crops grow well on yellow red loams. The study area has all these soil conditions which make it suitable for growing these crops. The banana is used as an indication for suitability of growth of certain vegetables in an area, mainly those requiring a higher mean temperature, such as tomatoes, onions, carrots, beans, eggplants, cucumber, carrots, passion fruits and peas, to state but a few.



Thus the study area being a banana growing area, further indicates its suitability for growing of recommended crops.

Further on the recommended crops for growing within the corridor have high returns in terms of yields in tons per acre, as compared to other types of vegetables. This is justified by a comparison of yields in tons per acre of different kinds of vegetables in Uganda (Table 8) carried out by the Department of Agriculture in Entebbe (1969). The given crops could have been grown under proper observed conditions, thus giving high returns per acre, however the figures are taken as average. Returns are expected to vary due to climatic and soil factors, use of fertilizers etc...

Table 8 Yields in tons per acre of different kinds of vegetables in Uganda

Kind	tons/acre	Kind	tons/acre
Artichoke (pieces)	16,000	Kohlrabi	4
Bean French	2	Leek	4
Bean Runner	3	Lima Bean	1.5
Beet Root	3	Melon	8
Broad Bean	2.5	Marrow	6
Brussel sprouts	3	Onions	5

Table 8 ctd.

Kind	tons/acre	Kind	tons/acre
Broccoli	2	Okra	4
Cabbage white	8	Parsley	4
Cabbage red	6	Parsnip	8
Capsium	2	Pea	1.5
Cauliflower	4	Potato sol	4
Celery	8	Radish (bunches) 10,000	
Cucumber	3	Rhubarb	1
Eggplant	4	Spinach	2
Fennel	6	Swiss chard	4
Garlic	2.5	Tomatoe	8
Kale	6	Turnip	5
		Lettuce	4

Source: A.C.K. Will. Vegetable Growing Guide for Uganda.

Department of Agriculture, Entebbe

While consideration is given to yields in tons per acre to justify the growing of the recommended vegetables, it is still essential to find out what price each of these crops commands in the local market, much as the price which would be received by the farmers on the farm. While the prices of some vegetables are given, it has to be noted from the beginning that since 1973, there have been no stable prices of food crops. Information obtained from 'The price control Board' in the Ministry of Commerce and Industry, Kampala, indicates that it has been quite difficult to maintain stable prices

for food crops. This is influenced by many economic factors, of which is outside the scope of this paper. So due to the changing nature of prices overtime, what is given now is likely to be different next year (1977).

In addition the prices that are given, are average, otherwise prices tend to be higher. During the survey it was found that most market vendors prefer selling their foodstuff in heaps. By using selling in 'heaps method', they get more money. Weighing crops means they have to confine themselves to the government prices, which they consider as a loss under the prevailing economic situation. Table 9 shows prices of a variety of a couple of vegetables, obtained in Nakasero Market, one of the main Kampala city markets.

Table 9 Prices of some vegetables in Nakasero Market, Kampala. (In shillings per kgm)

Vegetable Variety	Price	Vegetable Variety	Price
Onions	6.50-7.00	Carrots	4.00-4.50
Tomatoes	5.00-5.50	Turnip	2.00-2.50
Cauliflower	4.50-5.00	Cucumber	3.50-4.00
White cabbage	3.50-4.00		
Red cabbage	3.00-3.50	Beet root	2.50-3.00
Lettuce (1 piece)	1.50-2.00	Bean French	3.50-4.00
Celery	6.00-7.00	Bean Broad	2.50-3.00
Eggplant	4.00-4.50	Capsicum	3.50-4.00
Peas fresh	5.00-5.50	Leek	3.00-3.50

Source: Author's information from Nakasero Market.

In 1969, the price of each type of vegetable received by farmers in Kigezi, was between 0.07 shillings/kgm and 0.09 shillings/kgm less than the price offered in Kampala. Prices in Kampala are higher so as to cover the transport costs. As earlier noted, Kigezi is 300 miles away from Kampala, the main vegetable consumer centre. These days transport cost per kgm on each item has precisely gone up though no figures are available to validate it. As regards to the study area, it is so much close to either Kampala or Entebbe that transport costs would be expected to be very minimal. The farmer would possibly receive between 0.45 shillings/kgm and 0.50 shillings/kgm less than what is offered in Entebbe or Kampala markets in 1975. Although prices of foodstuffs keep on changing now and then, the prices are always increasing. At the same time from Table 9 which shows local market prices, and at the same time taking into account that the prices farmers would receive would be slightly less (about 5 - 10 cts), the recommended crops show that they command a high price. This high price reflects the economic justification for the recommended crops to be introduced within the corridor.

Worth noting at this early stage is that there are two main subsistence crops whose surplus is exposed to the market. These are sweet potatoes and cassava. On a fairly small scale are also tomatoes, onions and beans. These crops are predominantly grown in the mid-parishes of the

corridor. In these areas of production "debe", a tin full of potatoe weighing 10 k<sub>gm</sub>, of sweet potatoes costs between 12 and 16 (U) shillings while similar quantity of cassava costs between 10 and 12 shillings. The variations in prices are due to supply and demand forces. Concerning tomatoes, onions and beans, no precise prices can be given per k<sub>gm</sub>, as no weighing of these crops when selling takes place in the area. Instead these are sold in heaps. However the prices of these commodities can be estimated at between 0.40 shillings/k<sub>gm</sub> and 0.45 shillings/k<sub>gm</sub> less the price offered in Kampala and Entebbe. No information was available in the field on yields in bags per acre, since farmers in this area do not keep records on their crop output on the farms.

Recommended crops to be grown in the area for export market

Uganda currently is not involved in exporting any of the horticultural crops it produces. So what is produced is for the domestic market. Uganda could still take the initiative of exploring the horticultural crops market overseas. So far in East Africa it is Kenya that is having substantial export of horticultural produce to overseas markets. One of the main growing areas of these crops is Kikuyu Division. Information obtained from 'Horticultural Crop Development Authority' in Nairobi, indicates that Kikuyu Division has similar ecological conditions as Kampala-Entebbe corridor,

though slight variations could occur due to slight weather changes in any of the two places any time. Otherwise the two places have high rainfall amounts, moderate temperatures (65-70°F) and fertile soils. Thus horticultural crops being grown in this particular division could be innovated within Kampala-Entebbe corridor, and they can flourish. Again success of the innovation will depend on the farming techniques, application of fertilizers where necessary and the care taken during the growing season, just to mention a few of the factors which could affect growth.

The crops proposed for starting off with include asparagus, Beans (French), capsicums, flowers (carnations) and chillies. A short list is proposed because these are expected to be experimental and when the innovation is successful more crops could be explored.

The market for these crops as is recorded by the 'International Trade Centre UNCTAD/GAT' are found specifically in Western European countries. Briefly commenting on the market for each crop; Asparagus demand is highest in the months between December and April, then July and December again, when no production takes place in Europe because of Autumn and Winter. The main markets are: United Kingdom, Switzerland, Federal Republic of Germany, Belgium and Sweden. Several importers

in Switzerland have increasingly shown interest in the product.

French Beans: Although consumption of frozen beans is rapidly increasing in all European countries, fresh beans are still in great demand. Market opportunities appear in United Kingdom. However exports could also be substantially increased to France and the French speaking regions of Switzerland and Belgium where consumers are prepared to pay high prices for good products owing to the traditional emphasis on sophisticated cuisine. Export here has to be during winter time in the Northern Hemisphere.

Capsicums: Exports in this crop have the best prospects for expansion on all the European markets. For instance importers in Europe in 1974, were interested in receiving relatively large quantities of capsicums. Production from Cuba and Ethiopia the main producers has tended to decline possibly due to political or climatic circumstances. This was particularly market in 1974. Though, these two countries could still regain their dominance in production, Kenya for instance can still compete with well graded and well packed capsicums. The corridor is left to explore the possibility too.

Flowers (carnations): The exports of flowers find their market particularly in France, United Kingdom, West Germany, Belgium and Netherlands. The demand for this crop is high particularly in Winter.

Chillies: These can be grown and exported all the year round. The overseas demand is high in Europe. The main country with the highest demand is United Kingdom.

The recommended crops for export according to the 'International Trade Centre UNCTAD/GATT' report have a wider market overseas. However if the objective of innovating these crops is to earn foreign exchange that could be used in purchasing industrial products overseas, there has to be an economic justification for growing the recommended crops. This is considered in terms of the returns in prices in overseas markets. Therefore the figures available are of Kenya's horticultural crops overseas market prices. Taking into account that Uganda does not export any horticultural crops, therefore Kenya's figures are used to justify economically the growing of horticultural crops for export within Kampala-Entebbe corridor. This is adopted because geographically the two countries are at an equal distance from Western European states where the main markets for these crops is. Transport costs particularly by air should be similar. Thus it is assumed that Uganda



should be able to get similar prices overseas as Kenya currently does. For instance in 1968 Kenya's horticultural crops for export totalled 1500 tons worth K£ 150000. By 1971 the value increased to K£540000. In the Kenya's Development Plan 1974/1978 it is planned that by the end of 1978 the value should have gone up by K£2.2 million.

However other things like the quality of crops and terms of trade may bring some slight variation in the value of crops that are recommended for the study area as compared to what Kenya is currently earning from these crops.

Table 10 indicates some of the crop types the returns in tons per acre (in some cases no information was available), local market price in Nairobi, Free on Board Nairobi Airport export prices and then the average net overseas market prices (U.K.).

Table 10: Overseas market prices in shillings per ton of some Kenya's horticultural crops

Variety of crop	tons per acre	Local price in Nairobi	F.O.B. Nairobi Airport, Export price	Overseas market price
French beans	2.5	4.00-4.50	6.50 net	11.
Capsicum	3	1.20-1.80	2.80 net	5.
Asparagus	3	5.00-6.00	20.00 net	26.
Flowers (Carnations)		6.00-8.00	14.00 net	18.
Chillies	2	2.50-3.00	5.00 net	8.
Mangoes		7.50-8.50	10.00 net	15.
Courgettes	4	2.00-2.50	3.50 net	8.
Pinapples		3.00-3.50 (1 fruit)	5.20 net (1 fruit)	9. (1 f
Lime	2.5	2.00-2.50	3.50 net	6.

Source of Table 10:

1. Horticultural Crop Development Authority, Nairobi, Kenya.
2. Report by International Trade Centre UNCTAD/GATT 'HORTICULTURAL PRODUCTS OF KENYA' Volume 1 - Major Findings and Recommendations 1975 pages 1-183
3. Lockwood Press, 'Fruit Trades Journal' Volume No. 149 No. 20 May 14, 1976 pages 59-67

The figures in the table thus give a picture of the foreign exchange Kenya earns from exporting her horticultural crops. These are but a few of the horticultural crops Kenya exports. Through introduction of the recommended crops within Kampala-Entebbe corridor as one of the areas in the country, Uganda could be able to have access to overseas markets and get a substantial foreign exchange to enable it to meet part of her imports from Western countries.

Transportation of these crops would involve mainly flying them. Therefore the study area can take the advantage of Entebbe international airport. These can be picked and flown fresh to Europe.

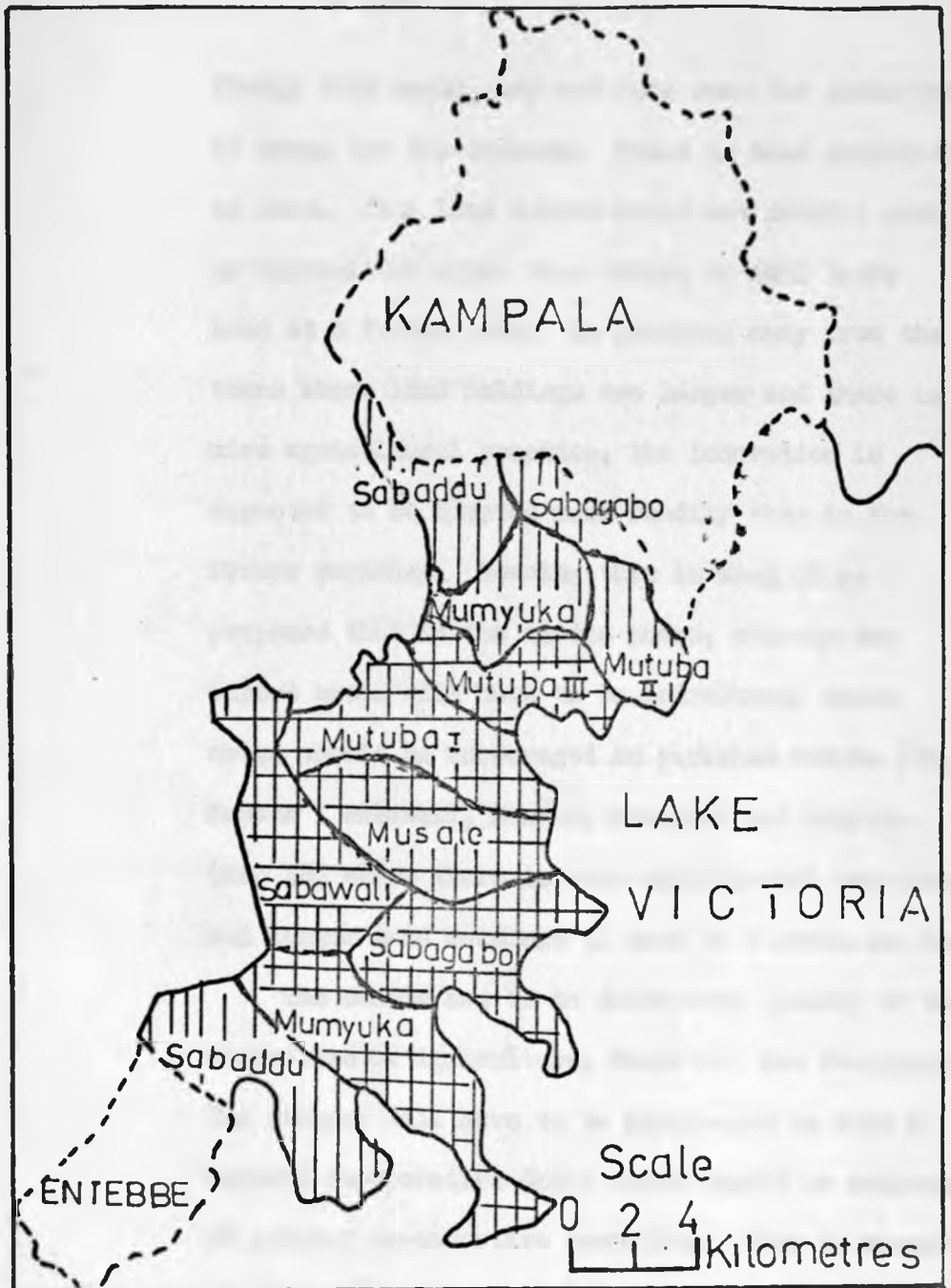
To this end, it has to be noted that in proposing more horticultural crops in the area there is a need at present for an agriculturalist to carry out an agricultural feasibility study in the study area to look into the ecological conditions thoroughly, and find what particular varieties should be recommended for the area, specifically for the export market.

4.3.3

Implementation

In implementing a project of this nature some farmers will undertake it if to some degree they are certain that some crops will bring them cash within a short-range. In the first phase of the programme therefore it is proposed that those crops grown for sale in the two towns of Entebbe and Kampala, which can as well be sold to institutions and trading centres within the study area have to be started with. The programme has to be undertaken by the Ministry of Agriculture, through the area's district agriculture Department. After this has met success, then crops for export market can be introduced. This has to be done this way because farmers have to gain confidence that the crops they grow bring them substantial income, and therefore this provides an incentive to take up more innovations.

At this early stage it has to be noted that although the programme is planned for the whole corridor zone, the response from people concerning the innovation is expected to vary over the area. People in parishes closest to either of the towns, where urban influence has been identified the innovation could be expected not to be adopted effectively. In these parishes most people work in towns and have less interest in farming. Similarly the densities of population are highest (chapter three 3.1.2), thus making land holdings smaller, which means other than accommodating food crops for



KAMPALA ENTEBBE CORRIDOR. PROPOSED AREAS TO GROW HORTICULTURAL CROPS.

LEGEND



Map 18

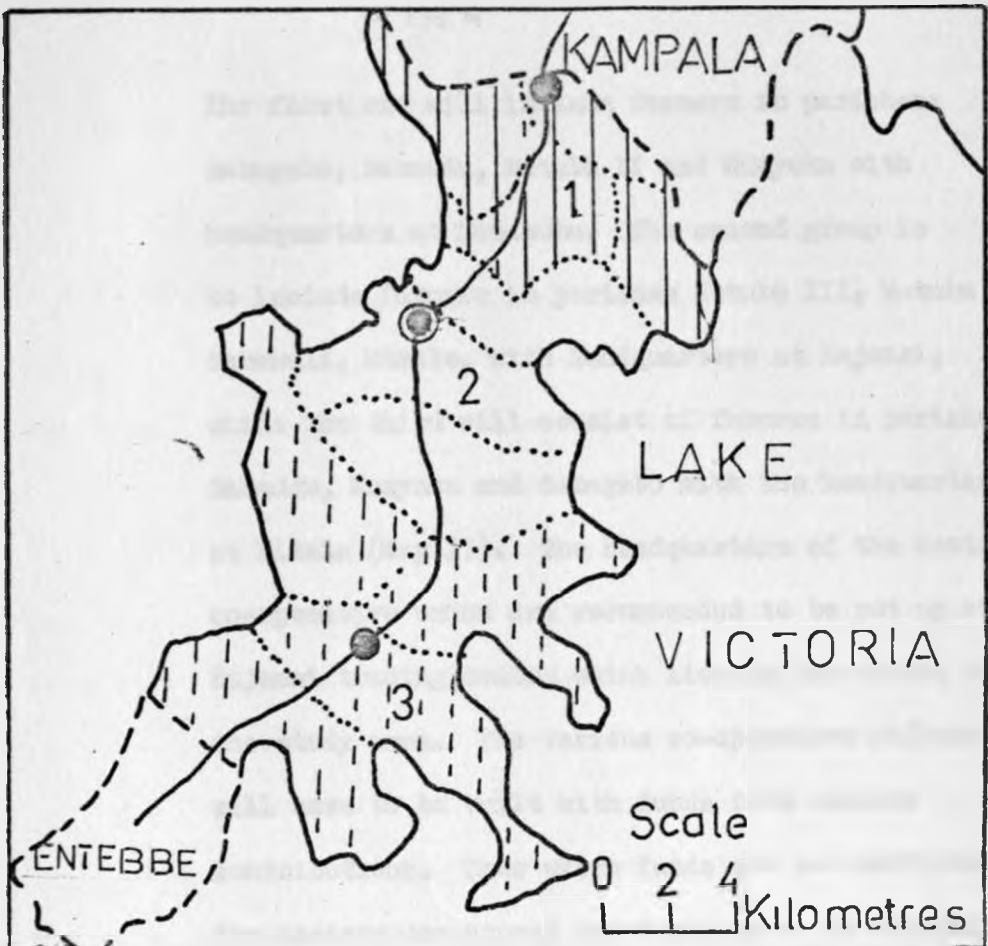


Areas to grow crops for town markets (domestic)  
 Areas to grow crops for domestic and export markets




family food needs, may not have room for production of crops for the markets. There is also speculation on land. Thus land owners would not readily take up agriculture since they intend to sell their land at a future date. In parishes away from the towns where land holdings are larger and there is more agricultural practice, the innovation is expected to be adopted more readily than in the former parishes. Bearing this in mind it is proposed that in the second phase, whereby the export crops will have to be introduced, these crops should be encouraged in parishes Mutuba III, Mutuba I Sabwali, Musale, Sabagabo and Muryuka (Map 16) where there is more agricultural practice and larger land holdings (1 acre to 6 acres and above).

The scheme has to be undertaken jointly by the Ministries of Agriculture, Marketing and Co-operatives. The farmers will have to be encouraged to form a central Co-operative Union which should be composed of primary co-operative societies. This is suggested so because the study area is large and the central co-operative union would need some branches in certain parts of the study area to make its operation function effectively.

Three groupings of primary co-operative societies are proposed. The co-operative societies are suggested to be formed in groups of four parishes each, except one where there are three. This is because there are 11 parishes within the study area.



**KAMPALA-ENTEBBE CORRIDOR PROPOSED GROUPS OF FARMERS CO-OPERATIVE SOCIETIES BY PARISHES**

-  First group by parishes of farmers co-operative society
-  Second group by parishes of farmers cooperative society
-  Third group by parishes of farmers cooperative society

● Proposed headquarters for each group  
 1 Namiasuba 2 Kajansi 3 Kitale



**Map 19**

⊙ Proposed main headquarter for study area's central cooperative union

The first one will include farmers in parishes: Sabagabo, Sabaddu, Mutuba II and Mumyuka with headquarters at Namasuba. The second group is to include farmers in parishes Mutuba III, Mutuba I, Sabawali, Musale, with headquarters at Kajansi, while the third will consist of farmers in parishes Sabaddu, Mumyuka and Sabagabo with the headquarters at Kitala (Map 17). The headquarters of the central co-operative union are recommended to be put up at Kajansi trading centre which lies in the middle of the study area. The various co-operative offices will have to be built with funds from members contributions. Thus where funds are not sufficient, the society can appeal for funds from the Ministry of Co-operatives and Marketing, in form of a loan.

The Ministry of Agriculture through its officers in the area will have to advise on the acreage to be allocated to each type of crop, then farming and planting methods.

Forming a co-operative society in a scheme of this nature ensures many chances of success and has various advantages to the farmers. The Horticultural Crop Development Authority of Kenya has expressed the view that though there are individuals who grow and sell on their own, most horticultural crops have been successful under co-operative societies. The Development Authority farther stressed the view that, particularly where horticultural production is undertaken for export a co-operative society is essential. Briefly the

advantages accruing from a co-operative society are as follows:-

Co-operatives may in favourable circumstances reduce the costs of marketing by doing the job better than the private trader. This might be where the small primary traders lack the finance and the storage facilities to enable them to carry out effectively the middle man's functions. A large group of producers by paying comparatively small financial contributions into a central pool may be able to raise more capital. In addition the co-operatives provide a useful channel for propagating ideas for the improvement of methods of cultivation to their membership peasant farmers. They also help to improve the product marketed by encouraging the production of a more standardized product or more effective grading of the product. Similarly the co-operatives obtain loans or credit for their members more easily than would have been for an individual.

There are problems which do occur however. In some cases there tends to be little knowledge on managerial and counting skills. This is accompanied by little capital and understanding of the true nature of a co-operative society. However the stated problems can be overcome in the long-run.

The co-operative society in Kigezi district involved in the production of horticultural crops



for domestic market has proved successful since early 1950s. This is 'The Kigezi District Vegetable Growers Co-operative Union Ltd'. Therefore under the umbrella of a co-operative society, it will be easy for farmers to get loans which would be used in the purchase of fertilizers, equipment and insecticides. The system is that Uganda Commercial Bank gives loans to co-operative societies who in turn lend money to the farmers. It would be unrealistic to expect average farmers in absence of suitable credit facilities to buy sufficient fertilizers and equipment when because of the nature of agriculture the returns come only some months later.

Though there are extension workers in the area's district, some would have to be specifically assigned to <sup>the</sup> study area in giving guidance in the production of the recommended crops. Therefore the Ministries of Agriculture, Marketing and Co-operatives, through their Departments in the district where the study area belongs administratively, will have to provide these. Extension workers from the Department of Agriculture will advise farmers on farming techniques, use of fertilizers and insecticides, while those from the Department of Marketing and Co-operative would give guidance in managerial and marketing issues, essential in a project of this nature.

Marketing of the produce

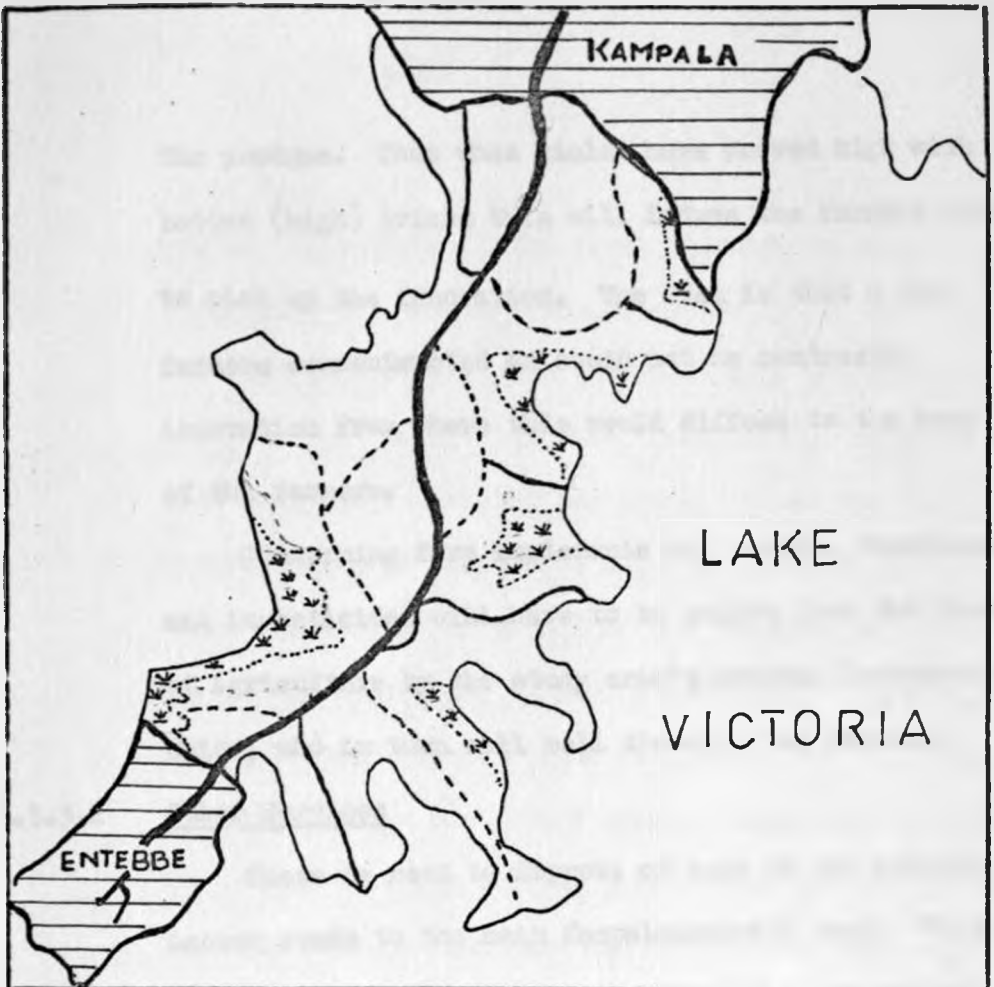
While it is proposed that the Central Co-operative Union will carry on the marketing of food crops, the marketing of the recommended crops for export should be channelled through a marketing Board. For the time being the recommended horticultural crops can be handled by the Produce Marketing Board until funds are available backed up by sufficient production of the recommended export crops, then a separate Marketing Board to handle these crops can be put up. This is a responsibility that has to be undertaken by the central government through the ministries of Agriculture, Marketing and Co-operatives. A marketing board provides an assured market to producers and promotes high quality output. A marketing board creates problems too. A system of isolating producers from world price fluctuations might provide a poor 'school' for entrepreneurs, who learn better by having to deal with market uncertainty, and it is such a class of enterprising producers which most developing countries require so much.

It is also argued that stabilization delays the farmer in adjusting his production plans in the direction of the commodity most favourably priced on the world market and thus tends to reduce the country's total earnings. These are but a few of the setbacks with a Marketing Board.

4.3.3.1




Making farmers adopt the innovation

Making the farmers adopt the innovation could prove difficult in the short-run. It has to be noted that farmers cannot be forced to grow certain crops they do not want. If they are, the care they will take will be less and this would affect the returns from the farms. As earlier noted the response to adopting the horticultural crops in the study area will vary between people in parishes closest to the two towns and those in parishes away from the towns. This is due to factors earlier explained. It has been suggested that primary societies which should be components parts of the central co-operative union, should be formed by grouping parishes. The same parish groupings are suggested for introduction of the innovation. With the aid of agricultural extension workers, in each of the three groups of parishes, some farmers four to five in number could be selected. These are farmers who should initially show interest in undertaking the growing of these crops. Then these farmers should be availed with required seeds, fertilizers and insecticides at subsidized prices. Besides, these farmers have to be given aid in farming techniques. Each of these could start with at least three to four crops and let the Department of Co-operatives in the area's district, market



KAMPALA-ENTEBBE CORRIDOR PROPOSED ROADS FOR IMPROVEMENT

LEGEND

-  Main Kampala Entebbe Road
-  Existing Access Roads
-  Existing Access Roads Recommended for Improvement

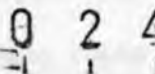
N



Permanent Swamps



Map 20

Scale :  Kilometres

the produce. Thus when yields have proved high with better (high) prices this will induce the farmers around to pick up the innovation. The idea is that a few farmers concentrated on could act as centres of innovation from where this would diffuse to the rest of the farmers.

Concerning farm implements as; seeds, fertilizers and insecticides will have to be bought from the Ministry of Agriculture by the study area's Central Co-operative Union, who in turn will sell these to the farmers.

#### 4.3.3.2 Other Services

There is need to improve on some of the existing access roads to the main Kampala-Entebbe road. This is inevitable because farmers involved in a project of this nature need easy access to places where they take their produce for sale when it is still fresh. Similarly extension workers who give advise on farming techniques and farm management should be able to reach all the farmers.

It is proposed that the area's district (Mengo) section of the Ministry of Works, should approach its parent Ministry in Entebbe so as to get aid in both equipment and funds to improve on the proposed access roads. The proposed access roads for improvement are given in Map 18.

#### 4.3.3.3 Land Policy

The issue is that if the recommendations have to be implemented, how can the government make sure that the land in this area is protected for these horticultural

crops. This needs in the first instance to examine concisely what the land tenure system is in the corridor. The land tenure system in the study area was initially a mixture of 'mailo' land and 'free hold'. This has been analysed in chapter two 2-6 d. Since the land Reform Decree of June 1975, all land is owned by the 'Land Commission' on behalf of the government. However anyone who owned land by way of acquiring a 'title' or has no 'title' from the Land Commission but the ownership is recognised by the area's chief, before June 1975 when the Decree was effected, is given a leasehold of 99 years. Thus the owner of the land can sell it any time he wants. Similarly the new occupier has to register with Land Commission. At the same time the former tenants on Mailo land, under the new decree cannot be evicted. If this is to be done the land owner has to inform the land commission in three months time in writing. The Land Commission then considers the case. Thus most former tenants are protected and can grow the recommended crops, while initially there was no incentive to grow cash crops under fear of eviction.

In protecting this land for agriculture, there are some alternative proposed measures which would have to be adopted. One is to impose some form of tax on land that would not be utilized for production of the recommended crops. Again this will depend on how large the

land holding will be. Some plots are too small that can only accommodate a family house then a small area for some few food crops. The measure is to apply to larger land holdings (from  $1\frac{1}{2}$  acres and above). The measure should discourage people who purposely move in the area, buy land, put up own structure, grow own food supplies, while commute to work in town. Particular attention should be paid to parishes which have been identified as not being under sprawl influence. These areas are still rural with a lot of agricultural practice and land has to be protected before hand. The measure has to be undertaken by the Land Commission. Along this, land values can be inflated so that only those people who will need the land to carry on agriculture can be given concessions. Again this is a measure that has to be undertaken by the Land Commission. Another alternative is to give loans to people who will want to undertake the project. This is an incentive in form of availing initial money capital. The loans can be negotiated between the central co-operative union and Uganda Commercial Bank, and this would be paid over a certain period. Many people could be attracted that way.

There are some setbacks that have to be borne in mind. Though tax could be imposed there is no assurance that though people may pick up the project, they will do it successfully. The fact is that people cannot be

forced to do what they do not like. Some might even decide to sell their land and go. Again some people may refuse to pay the imposed tax, and if the land commission evicts them then it has to find some place where to resettle them. Again raising the value of agricultural land could make agriculture very expensive and especially in some cases when returns are low. Many people may not be attracted in the area as well. Furthermore, giving loans as an incentive to farmers is an acceptable idea but some farmers may not be able to pay in time or in the course may give up the project and possibly leave the place. This creates problems.

Furthermore the Land Commission in conjunction with the Ministry of Works should ensure that no farmers are put close to the main Kampala-Entebbe road, so as to reserve sufficient space for the expected project of constructing a dual carriage way between the two towns. The Ministry of Works in Entebbe has indicated that the project is to be effected though no definite date is set as yet. Much of the dual carriage way will follow the existing road. In this issue the Ministry of Works has to define what area is to be reserved from each side of the road. This is the information the study area's district Agriculture Department will have to get, and through its extension workers, advise farmers accordingly.



4.4

Problems expected during implementation

A couple of problems are bound to be encountered in the implementation process. A few of these have been cited during the discussion. However there are still more that deserve a mention. One of them, some people may not be willing to adopt the innovation because of the different perception they will have on the project as opposed to that of the Ministry of Agriculture that will be trying to implement the project. As earlier noted the response from people in parishes closest to the two towns is expected to be poor. This is due to so much speculation on land for urban use that agriculture may not be a priority among their interests. Again in these parishes the densities have been quoted to be high (population) and size of holdings are too small in most cases to be economic for growing of such crops for sale, thus all what can be done in such case is to grow just sufficient food crops for family consumption. Similarly most people in these parishes commute as earlier indicated to either of the towns for work, so there is less interest and time to undertake farming activity.

A project of this nature needs a good number of extension workers, who at the same time will be regular particularly in the initial stages. Though there are extension workers in the study area's district, there is a need to assign a specific number to this particular

area if the scheme has to bear fruits. For instance in Kenya, the horticultural growing areas are assigned a number of extension workers who work hand in hand with farmers. These include both, agricultural and co-operative extension workers. However the study area has to be considered in regard with other areas in the country, so that this particular area will get a share of extension workers in relation to the needs of other areas in the district and the country at large.

In this respect therefore, the number required is likely not to be met, which would affect farming techniques, management, production and marketing to some level.

In relation to the problem of availability of required extension workers, there is also a problem in connection with movement of these farmers to the farms. Movement of extension workers will be to some degree constrained by the transport problem. In the short-run therefore not all farmers may be regularly consulted to note on their progress and receive further advice.

The various crops have various diseases, some of which are given in Table 11. These are bound to attack the crops at the beginning, thus affecting production. Some farmers may go to the extent of being discouraged and abandoning the crops if the situation is serious. Besides crop disease and pests, inflation has greatly affected the cost of production and prices of produce of different kinds. Therefore the price of fertilizers,

insecticide and seeds may prove quite expensive.

**Table 11: Pests and Diseases which affect the  
recommended horticultural crops**

Crop Variety	Pest or disease
Bean french & runner	Doralisfabae, Hylemyia cilicrura
Carrot	Psila rosea, Atlemaaria porri
Cauliflower	Deficiency of boron and molybdenum
Celery	Septoria apii
Lettuce	Scleritinia Sclerotiorum, Bremia Lactucae, agrolis spp
Onion	Peronospora destructor, Botrytis allii
Tomatoe	Septoria lycop. Phytophthora infestans, Blossom end rot.

Source: F. Scherer. The Development of Small Holder  
Vegetable Production in Kigezi, Uganda.

This could keep some people out of the project for some time or may undertake it at a small scale.

There is as well a problem of high degree of uncertainty in an economic prediction in the current circumstances of the country's economy. As a result of this, some farmers may not readily take up the initiative of taking up the crops and forming a co-operative society.

4.4.1 Comment:

The project however requires people to work hard and work together. The proposed plan sets out the direction of development while the project constitutes the engine of growth. It is likely that as the plan proceeds new evidence will suggest that some crops in the plan are no longer worthy of support and other crops not originally included should now be elevated for inclusion in the programme.

4.5 Conclusion on recommendations:

As a step towards coming up with a planning programme for the whole corridor zone, as the objective of the study spells out, two policies have been adopted. One policy on urban growth and the other on agricultural development. In assessing the proposals put forward thus, the foreseen problems which have been identified have to be considered along, and possibly the results of the policy may have to be awaited for sometime.

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CHAPTER FIVE

CONCLUSION

5.0

The thesis set out to investigate the existence and extent of urban sprawl within Kampala-Entebbe corridor. Attempts were made at identifying the accruing problems from this nature of development. The study went further to identify any other types of development that existed within the corridor. In identifying the various types of development the study was geared at coming out with a future planning frame work for the development of the whole corridor zone.

In the study it was recognised that towns continue growing areally. Much of this areal expansion goes beyond the legal town boundaries. This urban expansion outside the town boundaries has been viewed as 'urban sprawl'. The study further pointed out that urban sprawl is generally regarded as bad. This is so because it is a result of settlement areas outside town boundaries which are unplanned, unserviced, increase journey to work and become quite costly to redevelop when time comes to absorb them within town boundaries.

It was pointed out that urban expansion outside municipal boundaries results from two factors. One being that the parent town could be having little room for further urban development. In such case further urban development takes place outside the town area as has been identified in the case of



Abaita'Babiri, outside Entebbe town. Such areas can be more rightly regarded as part of urban areas and need attention to prepare them in advance for future urban development. The second factor is, the 'town planning regulations', which are viewed as a contributing force to urban development outside the legal town boundaries. This expansion occurs outside the town while leaves plenty of room within the town itself. Such case has been cited with Kampala. It was further pointed out that people's desire to have their own land outside the town where they can put up permanent structures, and grow foodcrops just to meet family needs while commute to town for work, has further contributed to urban expansion. This occurs in form of residential suburbs. This is a feature identified in parts of the study area.

However urban sprawl was pointed out as a nation wide phenomena, thus Kampala particularly was not unique in this aspect. Uganda has had attempts to tackle this issue by revising most of her town boundaries since indepence. Through this step urban expansion areas initially outside town boundaries were incorporated. The measure has as well had its own repercussions, among which has been the shortage of skilled staff to effect administrative control over enlarged town areas, lack of sufficient funds, and thus not being able to provide adequate ... /1

urban services and infrastructure to most of the new town areas. Similarly it has been difficult to effect planning control especially on pieces of land privately owned and controlled.

In treating the issue of urban sprawl in the study area, the study revealed that this nature of development is closely related to the total development of the whole corridor zone. The study further indicates the corridor's development is closely tied to the development of the main Kampala-Etebbe road. While the road linked the two towns, it also provided access to the corridor. Thus more settlement was attracted in the study area. Similarly the study area's proximity to the two important urban centres has attracted immigrants who include those from Kampala and Etebbe. It is indicated that most immigrants particularly those in areas closest to the two towns are essentially urban commuters. This reflects urban sprawl influence in such areas.

In identifying urban sprawl development within the corridor, selected indicators were used. These included population growth rates and densities; commuter patterns; services (intensity of use of electricity; occurrence of urban settlements; types of employment in the corridor and work places. Information used to determine areas of urban sprawl using the selected indicators was that derived from answers given on questionnaire sheets used during .... 175

the field survey. No single indicator could satisfactorily indicate the extent of urban sprawl. As a result all the indicators were compared. The aggregate results indicated that urban sprawl influence was strongest in parishes immediately adjacent to the two towns. Urban sprawl from Kampala was identified taking place in parishes: Sabaddu, Mumyuka, Mutuba II and Sabagabo (Sabagabo sub-county). Urban sprawl from Entebbe was identified taking place in Sabaddu and Mumyuka parishes (Sabaddu sub-county).

The study further points out that besides urban sprawl other types of development were existing in the corridor. Identification of other types of development is essential if the study has to come up with a planning frame work for the whole corridor zone. Different types of development need different approaches in planning for their guided development.

Other types of development identified were:  
Urban settlements generated within the corridor.  
These centres like any other centres in the study area have come up along the main Kampala-Entebbe road. Much influence towards their development has been pointed out as the existence of Kampala Entebbe road and the local generated demand for goods and services. The two factors have been pointed out as being complementary. Urban overspill, is another identified type of development in the corridor.

This is identified with Abaita'Babiri trading centre. Although this centre has also come up due the existence of Kampala-Entebbe road and the local generated demand for goods and services, however much of the centre's development has been due to overspilled urban development from Entebbe town. Overspilled urban development from Entebbe to Abaita'Babiri include low and middle income population and the commercial activities.

The study further identifies agricultural development. Much of this agriculture is at subsistence level. Increasingly however, especially in the mid-parishes within the corridor, has been the exposing of surplus food crops to the market. Growth of crops for cash income therefore has been noted as being insignificant. Currently there is one tea-estate and a sugar estate. The sugar cane grown is specifically for producing jaggery. Besides there are two dairy farms and one poultry farm.

Various problems were identified in connection with the identified different types of development. Among the identified problems include rising land values particularly in areas near the towns. This is resulting from speculation on land. Similarly the rush for land which has been a contributing force to inflated land values has led to pre-mature subdivision of land. This is particularly marked in areas within and around trading centres.

Much subdivision of plots have created high densities in certain areas, and the problem of having no access to some plots. It was recognized that this will cause future problems of providing services like water and roads if the present subdivision mainly in the trading centres is allowed to continue. Pointed out was a problem of lack of water which is well-treated for domestic use. Similarly there is an identified problem of lack of water drainage channels, proper garbage disposal and general sanitation in the trading centres. It was pointed out that the existing water supply for the population in the trading centres was too small to meet the demand of the existing population. The study however points out that no single problem may be specifically pin pointed on one type of development. Thus one problem may result from more than one type of development. This is due to the fact that no one type of development can be singled out as the only existing type of development in a particular area. As the study has revealed, each type of development contains some elements of other types of development.

Along the identified types of development and accruing problems, a policy approach was drawn up for the study area. Two policy approaches were adopted.

A policy for urban development and a policy for agricultural development within the corridor.

The policy for urban growth within the corridor takes into account the fact that encouraging urban development in the study areas has to be considered at national and regional level. Kampala, the capital city is growing fast at the expense of other country towns. In the policy the study enhances the view that instead of having urban development within the corridor this should be redirected to up country towns, through more investment in these towns. This will have the effect of minimizing the existing regional economic imbalance. This has to be drawn out clearly in the National urban policy, by the government. Similarly at regional level (district level) more investment could be redirected to the study area's district administrative headquarters at Mpigi. The headquarters still suffers from shortage of urban services and infrastructure. Encouraging urban development within the corridor would mean that part of the funds which could have been allocated to Mpigi would have to be directed to urban development in the study area.

In the policy for urban development, the study points out that at present most of Kampala's area is not fully utilized. The Kampala structure Plan Report (1972) forecasts that most of Kampala's area will not be used up until the city's population has passed a mark of 1.6 million people by late 1980s and early 1990s. At the same time Kampala is

CURRENTLY experiencing both planning and administrative problems. Taking into account the two stated issues the study stresses that no further expansion of Kampala should be encouraged at this stage. More development therefore should be encouraged within the city. In case of Entebbe, it was pointed out there is little room for further urban development. Therefore areas where overspilled urban development from Entebbe is occurring should be regarded as part of Entebbe urban morphology. Thus they need immediate planning guidance and at a future date they should be incorporated within Entebbe town boundaries.

The study recognised that efforts to minimize urban development within the corridor by encouraging more urban development within Kampala, while at the same time redirect some of it to up country towns may not be feasible. Other countries particularly Western Europe have attempted to direct urban development from the larger cities, however with little success.

Learning from this, an alternative approach is put forward. Instead of allowing urban development all along the whole corridor zone, a few centres with high potential for urban development are recommended for designation. These centres would then have to be given physical planning guidance and have urban development concentrated in them. The selected centres are: Namasuba, Kajansi and Abaita'Babiri.

Public services and utilities which are currently inadequate will have to be improved upon. These include water supply, access roads, water drainage channels, garbage and general sanitary facilities. Open space and recreational facilities would have to be provided. The study stressed that much of the development in these centres will have to be undertaken on self-help scheme basis by the people (residents). However in the process of implementation the study stresses that the various government departments and ministries will have to come in and give some aid to the people (centres' residents) financially, technically and otherwise.

The agricultural policy was adopted firstly to use agriculture as a means of checking urban development within the corridor. This co-ordinates the agricultural development policy with that of urban growth within the corridor whereby it is stated that further urban development should be redirected to up country towns. Secondly the policy for agriculture is geared at utilizing the land resource within the corridor in the best alternative way possible. As earlier indicated the corridor is one of the most fertile parts in Uganda, and thus is agriculturally potentially rich. It was pointed out that this potential has to be tapped.

In the agricultural policy it is recommended that horticultural crops be introduced in the area. .... 181/



Two categories of crops are recommended. There are those crops for home consumption and those for export market. The horticultural crops for domestic purpose are geared towards meeting part of the food supply needs of both Kampala and Entebbe towns. At the same time the supply of these crops would be made available to the trading centres within the corridor. It is stated in the policy that crops intended for two towns' markets and the trading centres will have to be introduced first. Thus when these are successful, in the second phase those crops intended for export market can then be introduced. The crops for export have been recommended to take the advantage of Entebbe International airport which is in close proximity to the study area. Therefore these horticultural crops can be picked and then be flown fresh to overseas markets.

So far there are no horticultural crops grown for export in Uganda. However information obtained from 'Horticultural crop Development Authority' in Nairobi, Kenya, indicates that some of the present horticultural crop producing areas have similar ecological conditions as the study area. The information further reveals that a good variety of the horticultural crops can do quite well within the corridor. So the study recommends some crops to be tried in the first instance, then others would be implemented later.

The policy takes into account the economic implications for the introduction of horticultural

crop farming in the study area. First of all, there is expected increased incomes and creation of employment opportunities. The two factors contribute to rural development, a rural development programme, Uganda is pursuing. At the same time the crops to be grown for export will bring in foreign exchange which could enable the country to purchase industrial machinery overseas, for use at home. Introduction of this type of crops for export will be in line with the government's policy of diversifying her agricultural export crops. This is an attempt at minimizing dependence on the few existing export crops.

In the policy it was stated that the innovation should be carried out on co-operative society basis. However to make the innovation a success, the ministries of agriculture, co-operatives and marketing will have to be involved in the scheme.

Considering the recommendations in the two policy approaches, the study recognizes the view that there are bound to be problems in the implementation process. There are likely to be problems in relation with shortage of funds on the side of the government ministries and on the side of the individuals especially where self help scheme projects are involved. Shortage of funds would imply postponement of projects for some time or indefinitely. The study further notes that not most of the people may be willing in the short-run to take up innovations, like adopting the growing of the proposed horticultural crops, or contributing money .... 183/

jointly so as to be able to buy water pipes for the proposed water springs for improvement. At the same time little co-operation could be expected among the individuals involved in the various projects implementation particularly in the initial stages. Further more the skilled staff to give guidance in the implementation process may not be readily available in sufficient numbers. This would definitely affect the progress of the various projects.

The recommendations put forward under the two policy approaches on urban and agricultural development within the corridor are an attempt at curbing the various identified problems accruing from the various types of developments. At the same time the suggested recommendations provide an approach to a planning framework for a guided development of the whole corridor zone.

The present study does not claim to have been exhaustive in its attempt to identify the problems facing the development of the study area and in finding solutions to these. Some aspects that should have been brought up within the scope of the study may have been unintentionally omitted. Where such cases occur this provides room for more research work on the subject in question. At the same time, to make the research more meaningful, more study should be undertaken on the 'possibilities' of limiting the size of urban settlements not recommended for planning, to a certain level.

..... 184/

This is aimed at confining all urban development to the recommended selected urban settlements (centres) for planning. There is also need for further research to be undertaken to find more about the development requirements of the proposed urban settlements (centres) for planning in the area.

Similarly, there is a necessity for an agricultural feasibility study to be carried out in the study area. This study would have to examine thoroughly the ecological conditions of the area, then examine other varieties of horticultural crops that can be grown in the area, which can be grown for export market.

Studies are also recommended to be carried out on more effective measures' which should be adopted to protect agricultural land from the invading urban landues.

It is hoped that if the recommendations are carried out they will be a step to providing development requirements within Kampala-Entebbe corridor.

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Tables containing results  
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APPENDIX

i Questionnaire used.

ii Tables containing results of the sample survey.

KAMPALA - ENTEBBE CORRIDOR QUESTIONNAIRE

1. Distance in Miles from

(a) Kampala :                      (b) Entebbe :

2. How often do you travel to

(a) Kampala None  Daily  Once a week  Once a month

(b) Entebbe None  Daily  Once a week  Once a month

3. Purpose of travel

Work  Shop  Leisure  other...

4. What is your occupation?

None  Agriculture  Industry  Commerce   
Office

5. Where do you work

Kampala  Entebbe  Study Area

6. Means of travel

Bicycle  Own car  Bus  Taxi  Other

7. Income per month

- (a) below 100 shs. =
- (b) 100 - 299 shs. =
- (c) 300 - 599 sh. =
- (d) 600 - 899 sh. =
- (e) Over 900 sh. =

8. How long have you settled here?

9. Why did you move here

Work  Land  Both  Other

10. Where did you come from? and distance

(a) Province :                      District :  
(b) County :                      sub-county :

11. Type of house

Temporary  Semi-permanent  Permanent

12. What is the lighting system?

Electricity  Halicane lamp  Candle  ....2/ ...

13. Source of water supply

Pipe  borehole  Spring  well

14. Are you renting the house?

(a) Yes  (b) no

15. Do you own the house you are staying in?

(a) Yes  (b) No

## RESULTS OF THE SAMPLE

- 1 -

PARISH: SABAGABO		DISTANCE FROM:		
SAMPLE 52 PEOPLE		1. KAMPALA: 3.5 MILES		
		2. ENTEBBE: 17.5 MILES		
		Total number	Percentage	
1. People travelling to:	i	Kampala (a) Daily	24	46.1
		(b) Once a week	16	30.7
		(c) Once a month	12	23.2
	ii	ENTEBBE (a) Daily		
		(b) Once a week		
		(c) Once a month	6	11.5
2. People travelling to:	i	Shop	18	34.6
	ii	Work	28	53.8
	iii	Leisure	6	11.6
3. People involved in:	i	Agriculture	10	19.2
	ii	Commerce	24	46.1
	iii	Industry	4	7.7
	iv	Office work	14	26.9
4. People working in:	i	Kampala	30	57.6
	ii	Entebbe	1	
	iii	Study area	22	42.4
5. People using following modes of transport	i	Bicycle	5	9.6
	ii	Motor bike		
	iii	Own car	10	19.2
	iv	Bus	13	25.0
	v	Taxi	20	38.4
	vi	walk	4	7.7
6. People earning following income per month:	i	below 100 sh.		
	ii	100 - 299 sh.	5	9.6
	iii	300 - 599 sh.	27	52.0
	iv	600 - 899 sh.	10	19.2
	v	Over 900 sh.	10	19.2

			Total number	Percentage
7. People who moved in the area because of:	i	work	13	25.0
	ii	land	9	17.3
	iii	Both	30	57.7
	iv	Other		
8. No. of following type of houses	i	Temporary	7	13.4
	ii	Semi-permanent	19	36.7
	iii	Permanent	26 v	49.9
9. People who:	i	Rent houses	10	19.2
	ii	Own houses	42	80.8
10. People using:	i	Electricity	32	63.6
	ii	Halicane lamp	20	38.4
	iii	Candle		
11. People using:	i	Piped water	16	30.8
	ii	borehole	33	63.5
	iii	Spring		
	iv	Well	3	5.7
12. People who moved from:	i	Kampala	15	23.2
	ii	Entebbe	9	17.3
	iii	Elsewhere/ in the study area	10	19.2
	iv	Elsewhere	18	34.6

PARISH: MUTURA II	DISTANCE FROM:
SAMPLE 45 PEOPLE	1. KAMPALA: 3.5 MILES
	2. ENTEBBE: 17.5 MILES

			Total number	Percentage
1. People travelling to:	i	Kampala (a) Daily	25	55.6
		(b) Once a week	15	33.3
		(c) Once a month	5	11.1
	ii	ENTEBBE (a) Daily		
		(b) Once a week	1	2.5
		(c) Once a month	5	11.1
2. People travelling to:	i	Shop	20	44.4
	ii	Work	15	33.3
	iii	Leisure	10	22.3
3. People involved in:	i	Agriculture	14	31.1
	ii	Commerce	16	35.6
	iii	Industry	5	11.1
	iv	Office work	10	22.3
4. People working in:	i	Kampala	20	44.4
	ii	Entebbe		
	iii	Study area	25	55.6
5. People using following modes of transport	i	Bicycle		
	ii	Motor bike	4	8.8
	iii	Own car	11	24.6
	iv	Bus	20	44.4
	v	Taxi	17	15.5
	vi	walk	3	6.7
6. People earning following income per month:	i	below 100 sh.	3	6.7
	ii	100 - 299 sh.	5	11.1
	iii	300 - 599 sh.	23	51.1
	iv	600 - 899 sh.	9	20.0
	v	Over 900 sh.	5	11.1



			Total number	Percentage
7. People who moved in the area because of:	i	work	10	22.3
	ii	Land	11	24.6
	iii	Both	24	53.1
	iv	Other		
8. No. of following type of houses	i	Temporary	7	15.5
	ii	Semi-permanent	21	46.6
	iii	Permanent	17	28.9
9. People who:	i	Rent houses	6	13.3
	ii	Own houses	37	86.7
10. People using:	i	Electricity	10	22.3
	ii	Halibane Lamp	32	71.1
	iii	Candle	3	6.6
11. People using:	i	Piped water		
	ii	borehole		
	iii	Spring		
	iv	Well	45	100.0
12. People who moved from:	i	Kampala	10	22.3
	ii	Entebbe	2	3.3
	iii	Elsewhere/ in the study area	19	42.5
	iv	Elsewhere	14	31.9

## RESULTS OF THE SAMPLE

- 1 -

PARISH: SABADU		DISTANCE FROM:		
SAMPLE: 81 PEOPLE		1. KAMPALA: 4 MILES		
		2. ENTEBBE: 17 MILES		
		Total number	Percentage	
1. People travelling to:	i	Kampala (a) Daily	50	61.7
		(b) Once a week	20	24.4
		(c) Once a month	11	13.9
	ii	ENTEBBE (a) Daily		
		(b) Once a week	15	19.9
		(c) Once a month	5	6.2
2. People travelling to:	i	Shop	28	34.3
	ii	Work	40	49.4
	iii	Leisure	13	16.3
3. People involved in:	i	Agriculture	20	24.4
	ii	Commerce	35	43.3
	iii	Industry	7	8.7
	iv	Office work	19	23.4
4. People working in:	i	Kampala	30	37.0
	ii	Entebbe	6	7.4
	iii	Study area	45	55.6
5. People using following modes of transport	i	Bicycle	5	6.2
	ii	Motor bike		
	iii	Own car	15	19.9
	iv	Bus	19	23.5
	v	Taxi	31	43.0
	vi	walk	6	7.4
6. People earning following income per month:	i	below 100 sh.	4	4.9
	ii	100 - 299 sh.	23	26.3
	iii	300 - 599 sh.	35	43.3
	iv	600 - 899 sh.	12	14.8
	v	Over 900 sh.	7	8.7

			Total number	Percentage
7. People who moved in the area because of:	i	work	18	22.2
	ii	land	25	30.8
	iii	Both	38	47.0
	iv	Other		
8. No. of following type of houses	i	Temporary	13	16.3
	ii	Semi-permanent	23	28.3
	iii	Permanent	45	55.4
9. People who:	i	Rent houses	23	28.4
	ii	Own houses	58	71.6
10. People using:	i	Electricity	45	55.6
	ii	Halicane lamp	30	37.0
	iii	Candle	6	7.4
11. People using:	i	Piped water		
	ii	borehole		
	iii	Spring	50	57.0
	iv	Well	31	43.0
12. People who moved from:	i	Kampala	20	24.4
	ii	Entebbe	8	9.9
	iii	Elsewhere/ in the study area	42	51.8
	iv	Elsewhere	11	13.9

PARISH: MUMYUKA		DISTANCE FROM:		
SAMPLE 55 PEOPLE		1. KAMPALA: 6	MILES	
		2. ENTEBBE: 15	MILES	
		Total number	Percentage	
1. People travelling to:	i	Kampala (a) Daily	25	45.5
		(b) Once a week	17	30.9
		(c) Once a month	13	23.6
	ii	ENTEBBE (a) Daily		
		(b) Once a week	5	9.1
		(c) Once a month	15	27.3
2. People travelling to:	i	Shop	25	45.5
	ii	Work	16	29.1
	iii	Leisure	14	25.4
3. People involved in:	i	Agriculture	10	18.2
	ii	Commerce	20	36.4
	iii	Industry	2	3.6
	iv	Office work	23	41.8
4. People working in:	i	Kampala	25	45.5
	ii	Entebbe		
	iii	Study area	30	54.5
5. People using following modes of transport	i	Bicycle		
	ii	Motor bike	5	9.1
	iii	Own car	20	36.4
	iv	Bus	12	21.8
	v	Taxi	18	32.7
	vi	walk		
6. People earning following income per month:	i	below 100 sh.		
	ii	100 - 299 sh.	7	12.7
	iii	300 - 599 sh.	14	25.4
	iv	600 - 899 sh.	27	49.1
	v	Over 900 sh.	7	12.7

			Total number	Percentage
7. People who moved in the area because of:	i	work	11	20.1
	ii	land	14	25.4
	iii	Both	30	54.5
	iv	Other		
8. No. of following type of houses	i	Temporary	7	12.7
	ii	Semi-permanent	20	36.4
	iii	Permanent	28	50.9
9. People who:	i	Rent houses	13	23.6
	ii	Own houses	42	76.4
10. People using:	i	Electricity	15	27.3
	ii	Halicane lamp	40	72.7
	iii	Candle		
11. People using:	i	Piped water		
	ii	borehole		
	iii	Spring	47	85.5
	iv	Well	8	14.5
12. People who moved from:	i	Kampala	14	25.4
	ii	Entebbe	9	16.4
	iii	Elsewhere/ in the study area	20	36.4
	iv	Elsewhere	12	21.8

## RESULTS OF THE SAMPLE

- 1 -

PARISH: MUTUBA III		DISTANCE FROM:		
SAMPLE 54 PEOPLE		1. KAMPALA:		MILES 7
		2. ENTEBBE:		MILES 14
		Total number	Percentage	
1. People travelling to:	i	Kampala (a) Daily	10	18.5
		(b) Once a week	36	66.7
		(c) Once a month	8	14.8
	ii	ENTEBBE (a) Daily	4	7.4
		(b) Once a week	10	18.5
		(c) Once a month	10	18.5
2. People travelling to:	i	Shop	34	63.0
	ii	Work	12	22.2
	iii	Leisure	8	14.8
3. People involved in:	i	Agriculture	33	61.1
	ii	Commerce	7	13.0
	iii	Industry	10	18.5
	iv	Office work	4	7.4
4. People working in:	i	Kampala	17	31.5
	ii	Entebbe	6	11.1
	iii	Study area	31	57.4
5. People using following modes of transport	i	Bicycle	4	7.4
	ii	Motor bike	3	5.6
	iii	Own car	10	18.5
	iv	Bus	12	22.2
	v	Taxi	25	46.3
	vi	walk		
6. People earning following income per month:	i	below 100 sh.	5	9.3
	ii	100 - 299 sh.	16	29.7
	iii	300 - 599 sh.	12	22.2
	iv	600 - 899 sh.	10	18.5
	v	Over 900 sh.	11	20.3

			Total number	Percentage
7. People who moved in the area because of:	i	work	8	14.8
	ii	land	10	18.5
	iii	Both	36	66.7
	iv	Other		
8. No. of following type of houses	i	Temporary	7	13.0
	ii	Semi-permanent	18	33.3
	iii	Permanent	29	53.7
9. People who:	i	Rent houses	12	22.2
	ii	Own houses	42	77.8
10. People using:	i	Electricity	21	38.9
	ii	Halibane lamp	28	51.8
	iii	Candle	5	9.3
11. People using:	i	Piped water		
	ii	borehole		
	iii	Spring	54	100.
	iv	Well		
12. People who moved from:	i	Kampala	10	18.5
	ii	Entebbe	4	7.4
	iii	Elsewhere/ in the study area	27	50.
	iv	Elsewhere	13	24.

## RESULTS OF THE SAMPLE

- 1 -

PARISH: MUTUBA I

DISTANCE FROM:

SAMPLE: 51 PEOPLE

1. KAMPALA: 8 MILES

2. ENTEBBE: 13 MILES

			Total number	Percentage
1. People travelling to:	i	Kampala (a) Daily	17	33.3
		(b) Once a week	22	43.1
		(c) Once a month	12	23.5
	ii	ENTEBBE (a) Daily	6	11.8
		(b) Once a week	12	23.5
		(c) Once a month	17	33.3
2. People travelling to:	i	Shop	24	47.1
	ii	Work	18	35.3
	iii	Leisure	9	17.6
3. People involved in:	i	Agriculture	12	23.5
	ii	Commerce	7	13.7
	iii	Industry	25	49.0
	iv	Office work	7	13.7
4. People working in:	i	Kampala	20	39.2
	ii	Entebbe	1	1.9
	iii	Study area	31	60.8
5. People using following modes of transport	i	Bicycle		
	ii	Motor bike	5	9.8
	iii	Own car	8	15.7
	iv	Bus	10	19.7
	v	Taxi	28	44.9
	vi	walk		
6. People earning following income per month:	i	below 100 sh.	8	15.7
	ii	100 - 299 sh.	10	19.7
	iii	300 - 599 sh.	10	19.7
	iv	600 - 899 sh.	14	25.3
	v	Over 900 sh.	9	17.6



			Total number	Percentage
7. People who moved in the area because of:	i	work	15	39.4
	ii	land	8	15.7
	iii	Both	28	44.9
	iv	Other		
8. No. of following type of houses	i	Temporary	10	19.7
	ii	Semi-permanent	16	31.3
	iii	Permanent	25	49.0
9. People who:	i	Rent houses	17	33.3
	ii	Own houses	34	66.7
10. People using:	i	Electricity	18	35.3
	ii	Halicane lamp	23	44.8
	iii	Candle	10	19.7
11. People using:	i	Piped water		
	ii	borehole		
	iii	Spring	40	78.4
	iv	Well	11	21.6
12. People who moved from:	i	Kampala	12	23.5
	ii	Entebbe	8	15.7
	iii	Elsewhere/ in the study area	22	43.2
	iv	Elsewhere	9	17.6

PARISH: MUSALE

DISTANCE FROM:

SAMPLE: 36 PEOPLE

1. KAMPALA: 12 MILES

2. ENTEBBE: 9 MILES

			Total number	Percentage
1. People travelling to:	i	Kampala (a) Daily	8	22.2
		(b) Once a week	20	55.6
		(c) Once a month	8	22.2
	ii	ENTEBBE (a) Daily	12	33.3
		(b) Once a week	18	50.0
		(c) Once a month	6	16.7
2. People travelling to:	i	Shop	21	58.3
	ii	Work	9	25.0
	iii	Leisure	6	16.7
3. People involved in:	i	Agriculture	24	66.6
	ii	Commerce	6	16.7
	iii	Industry		
	iv	Office work	6	16.7
4. People working in:	i	Kampala	8	22.2
	ii	Entebbe	6	16.7
	iii	Study area	22	61.1
5. People using following modes of transport	i	Bicycle	4	
	ii	Motor bike		
	iii	Own car	8	22.2
	iv	Bus	10	26.7
	v	Taxi	14	51.1
	vi	walk		
6. People earning following income per month:	i	below 100 sh.	4	11.1
	ii	100 - 299 sh.	12	33.2
	iii	300 - 599 sh.	9	25.0
	iv	600 - 899 sh.	3	8.5
	v	Over 900 sh.	8	22.2

			Total number	Percentage
7. People who moved in the area because of:	i	work		
	ii	Land		
	iii	Both	28	77.8
	iv	Other	8	22.2
8. No. of following type of houses	i	Temporary	4	11.1
	ii	Semi-permanent	11	30.6
	iii	Permanent	21	58.3
9. People who:	i	Rent houses	8	22.2
	ii	Own houses	28	77.8
10. People using:	i	Electricity	12	33.3
	ii	Halicane lamp	24	66.6
	iii	Candle		
11. People using:	i	Piped water		
	ii	borehole		
	iii	Spring		
	iv	Well	36	100
12. People who moved from:	i	Kampala	4	11.1
	ii	Entebbe	9	25.0
	iii	Elsewhere/ in the study area	10	26.7
	iv	Elsewhere	13	37.2

## RESULTS OF THE SAMPLE

- 1 -

PARISH: SABAWALI		DISTANCE FROM:		
SAMPLE 33 PEOPLE		1. KAMPALA: MILES 14		
		2. ENTEBBE: MILES 7		
			Total number	Percentage
1. People travelling to:	i	Kampala (a) Daily	4	12.1
		(b) Once a week	13	39.4
		(c) Once a month	16	48.5
	ii	ENTEBBE (a) Daily	8	24.2
		(b) Once a week	16	48.4
		(c) Once a month	9	27.4
2. People travelling to:	i	Shop	17	51.5
	ii	Work	6	18.1
	iii	Leisure	10	30.3
3. People involved in:	i	Agriculture	14	42.4
	ii	Commerce	9	27.4
	iii	Industry	4	12.1
	iv	Office work	6	18.1
4. People working in:	i	Kampala	6	18.1
	ii	Entebbe	7	21.3
	iii	Study area	20	60.6
5. People using following modes of transport	i	Bicycle		
	ii	Motor bike	5	15.2
	iii	Own car	5	15.2
	iv	Bus	8	24.2
	v	Taxi	15	45.4
	vi	walk		
6. People earning following income per month:	i	below 100 sh.	5	15.
	ii	100 - 299 sh.	8	24.
	iii	300 - 599 sh.	9	27.
	iv	600 - 899 sh.	3	9.
	v	Over 900 sh.	8	24

			Total number	Percentage
7. People who moved in the area because of:	i	work	14	12.1
	ii	Land	14	12.1
	iii	Both	25	75.8
	iv	Other		
8. No. of following type of houses	i	Temporary	4	12.1
	ii	Semi-permanent	6	18.1
	iii	Permanent	23	69.8
9. People who:	i	Rent houses	8	24.2
	ii	Own houses	25	75.8
10. People using:	i	Electricity	6	18.1
	ii	Halicane Lamp	27	81.9
	iii	Candle		
11. People using:	i	Piped water		
	ii	borehole		
	iii	Spring		
	iv	Well	33	100.0
12. People who moved from:	i	Kampala	3	9.1
	ii	Entebbe	9	27.4
	iii	Elsewhere/ in the study area	15	45.4
	iv	elsewhere	6	18.1

## RESULTS OF THE SAMPLE

- 1 -

PARISH: SABAGABO		DISTANCE FROM:		
SAMPLE: 42 PEOPLE		1. KAMPALA: 14	MILES	
		2. ENTEBBE: 7	MILES	
			Total number	Percentage
1. People travelling to:	i	Kampala (a) Daily	12	28.6
		(b) Once a week	19	45.2
		(c) Once a month	11	26.2
	ii	ENTEBBE (a) Daily	20	48.0
		(b) Once a week	13	30.9
		(c) Once a month	9	21.1
2. People travelling to:	i	Shop	28	66.7
	ii	Work	10	24.0
	iii	Leisure	4	9.3
3. People involved in:	i	Agriculture	12	28.6
	ii	Commerce	20	48.0
	iii	Industry	3	7.1
	iv	Office work	7	16.3
4. People working in:	i	Kampala	5	12.0
	ii	Entebbe	10	24.0
	iii	Study area	27	64.0
5. People using following modes of transport	i	Bicycle	4	9.5
	ii	Motor bike		
	iii	Own car	8	19.0
	iv	Bus	14	33.3
	v	Taxi	16	38.2
	vi	walk		
6. People earning following income per month:	i	below 100 sh.		
	ii	100 - 299 sh.	18	42.7
	iii	300 - 599 sh.	10	24.0
	iv	600 - 899 sh.	6	14.3
	v	Over 900 sh.	8	19.0

			Total number	Percentage
7. People who moved in the area because of:	i	work	10	24.0
	ii	Land	20	48.0
	iii	Both	12	24.0
	iv	Other		
8. No. of following type of houses	i	Temporary	5	11.9
	ii	Semi-permanent	17	40.1
	iii	Permanent	20	48.0
9. People who:	i	Rent houses	15	35.7
	ii	Own houses	27	64.3
10. People using:	i	Electricity	22	52.3
	ii	Halicane Lamp	14	33.3
	iii	Candle	6	14.4
11. People using:	i	Piped water	7	16.3
	ii	borehole		
	iii	Spring		
	iv	Well	35	83.7
12. People who moved from:	i	Kampala	3	7.5
	ii	Entebbe	9	21.1
	iii	Elsewhere/ in the study area	19	45.2
			11	26.2
	iv			

## RESULTS OF THE SAMPLE

- 1 -

PARISH: MUMYUKA

DISTANCE FROM:

SAMPLE: 63 PEOPLE

1. KAMPALA: 16 MILES

2. ENTEBBE: 5 MILES

			Total number	Percentage	
1. People travelling to:	i	Kampala (a) Daily	25	39.7	.9
		(b) Once a week	30	46.6	.6
		(c) Once a month	8	11.7	.5
	ii	ENTEBBE (a) Daily	40	64.5	.4
		(b) Once a week	15	23.8	.5
		(c) Once a month	8	11.7	.1
2. People travelling to:	i	Shop	20	31.8	.1
	ii	Work	38	60.3	.6
	iii	Leisure	5	7.9	.3
3. People involved in:	i	Agriculture	13	20.6	.3
	ii	Commerce	19	30.2	.5
	iii	Industry	6	9.5	
	iv	Office work	25	39.7	1
4. People working in:	i	Kampala	15	23.8	8
	ii	Entebbe	30	46.6	0
	iii	Study area	18	29.6	2
5. People using following modes of transport	i	Bicycle	10	15.9	9
	ii	Motor bike			
	iii	Own car	19	30.2	3
	iv	Bus	8	11.8	9
	v	Taxi	20	31.8	5
	vi	walk	8	11.7	
6. People earning following income per month:	i	below 100 sh.	8	11.7	
	ii	100 - 299 sh.	10	15.9	
	iii	300 - 599 sh.	8	11.7	
	iv	600 - 899 sh.	16	25.4	
	v	Over 900 sh.	21	35.1	

.....2/



			Total number	Percentage
7. People who moved in the area because of:	i	work	12	19.0
	ii	Land	18	28.6
	iii	Both	33	52.4
	iv	Other		
8. No. of following type of houses	i	Temporary	9	14.4
	ii	Semi-permanent	11	17.5
	iii	Permanent	43	68.1
9. People who:	i	Rent houses	14	22.2
	ii	Own houses	49	77.8
10. People using:	i	Electricity	30	46.6
	ii	Kerosene Lamp	20	31.8
	iii	Candle	13	21.6
11. People using:	i	Piped water		
	ii	borehole		
	iii	Spring	50	78.4
	iv	Well	13	21.6
12. People who moved from:	i	Kampala	6	9.5
	ii	Entebbe	6	9.5
	iii	Elsewhere/ in the study area	15	23.8
	iv	Elsewhere	36	57.2

PARISH: SABADDU

DISTANCE FROM:

SAMPLE: 109 PEOPLE

1. KAMPALA: 18 MILES

2. ENTEBBE: 2 MILES

			Total number	Percentage
1. People travelling to:	i	Kampala (a) Daily	25	22.9
		(b) Once a week	40	36.6
		(c) Once a month	45	40.5
	ii	ENTEBBE (a) Daily	68	62.4
		(b) Once a week	30	27.5
		(c) Once a month	11	10.1
2. People travelling to:	i	Shop	35	32.1
	ii	Work	65	59.6
	iii	Leisure	9	8.3
3. People involved in:	i	Agriculture	20	18.3
	ii	Commerce	30	27.5
	iii	Industry		
	iv	Office work	59	54.1
4. People working in:	i	Kampala	15	13.8
	ii	Entebbe	60	55.0
	iii	Study area	34	31.2
5. People using following modes of transport	i	Bicycle	25	22.9
	ii	Motor bike	6	5.5
	iii	Own car	20	18.3
	iv	Bus	25	22.9
	v	Taxi	30	27.5
	vi	walk	4	2.9
6. People earning following income per month:	i	below 100 sh.	9	8.3
	ii	100 - 299 sh.	20	18.3
	iii	300 - 599 sh.	6	5.5
	iv	600 - 899 sh.	24	22.0
	v	Over 900 sh.	50	45.9

			Total number	Percentage
7. People who moved in the area because of:	1	work	25	22.9
	11	land	34	31.2
	111	Both	51	45.9
	1v	Other		
8. No. of following type of houses	1	Temporary	9	8.3
	11	Semi-permanent	21	19.3
	111	Permanent	79	72.4
9. People who:	1	Rent houses	31	28.4
	11	Own houses	78	71.6
10. People using:	1	Electricity	57	52.2
	11	Kerosene lamp	35	32.1
	111	Candle	17	15.7
11. People using:	1	Piped water		
	11	borehole		
	111	Spring	109	100.0
	1v	Well		
12. People who moved from:	1	Kampala	8	7.3
	11	Entebbe	20	18.3
	111	Elsewhere/ in the study area	58	53.3
	1v	Elsewhere	23	21.1