

// A STRUCTURE PLAN

FOR KUMI TOWN, UGANDA)/

BY

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CONSTANTINE OKIAI OTIM

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A Thesis submitted in part fulfilment for
the degree of Master of Arts Urban and
Regional Planning in the University of
Nairobi.

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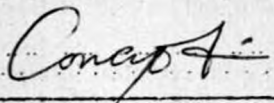
JUNE, 1984

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D E C L A R A T I O N

This thesis is my original work and has not been presented for a degree in any other University.

Signed




(Candidate)

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This thesis has been submitted for examination with our approval as University Supervisors.

Signed



(Supervisor)

June 1984.

A C K N O W L E D G E M E N T S

In carrying out this study I received much encouragement and guidance from the Chairman of the Department, Mr. Zack Maleche, for which I express appreciation.

My gratitude also goes to the colleagues and staff in the Department for useful questions and comments. I would particularly like to thank Mr. J.M. Kiamba for his dedicated and patient supervision of this study.

My particular thanks are due to the Commonwealth Secretariat, and the Uganda Government, for enabling me to attend the course and carry out this study, under the Commonwealth Fund for Technical Co-operation.

My particular thanks are due to Mrs. Sarah Lugusa and Mrs. Mary Muthigo for typing the thesis.

Finally, I must thank my grandmother, Ejuleri Adilu, for her determined advice; and my wife, Margaret, for her untiring support.

CONSTANTINE OKIAI OTIM

A B S T R A C T

In Uganda Urban Centres play a vital role in the development of the country. They provide the highest category of planned services and are therefore focal points for the provision of administrative commercial, industrial, social and recreational services for the benefit of the rural population which they serve.

A part from serving current needs, the urban centres are supposed to anticipate the future needs of both the hinterland and the national economy as a whole. They receive rural migrants seeking employment and other benefits available there.

These functions make it necessary for urban centres to be planned so that the growing resident population and the requirements of the hinterland can be adequately served.

This study was prompted by the fact that Kumi town was in 1973 designated a District Headquarters. It had previously been a small town serving as a County Headquarters, and had not received much planning guidance.

As a District Administrative Centre, Kumi town has had its public sector expanded by the new government departments. The informal sector has also started to expand, creating pressure on existing community facilities. There is shortage of housing, office space and recreational facilities, to mention a few. Private developers have invested in housing in a bid to satisfy the demand. However the developments are carried out in a haphazard manner, and the housing is sub-standard. Some industries are coming up, but these are located in wrong places because there is no land set aside for industrial use.

Investors in hotel business and other commercial undertakings are not encouraged to do so due to lack of services like water and sewerage, and lack of plots that are serviced with roads and other infrastructure.

These problems necessitate the provision of a structure plan that will facilitate and guide a new development. This study therefore proposes such a structure plan.

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CHAPTER 1

1.0 INTRODUCTION

1.1 PROBLEM STATEMENT

In 1973 the Ministry of Local Government was reorganised into the Ministry of Provincial Administrations. This is said to have arisen from the need to take administrative services nearer to the people.¹ This move enhanced the status of many towns as they became new district headquarters, because more districts were created. Kumi town was raised from the status of a county headquarters to that of a district headquarters. However, over the years, the inadequacy of Kumi town vis-a-vis its functional obligations has become apparent.

As a district headquarters Kumi town has received an influx of government departments. This has happened without any expansion or improvement of the existing facilities in Kumi town.

With the expansion of the public sector, employment in the informal sector is likely to rise. This will add to the strain on the community facilities and services. The pressure on community facilities is likely to attract private investment, particularly in housing. This would result in uncontrolled developments carried out in a haphazard manner without following

planning principles.

In 1968 the department of lands and surveys prepared a base map for Kumi town.² Since then political changes in the country have made it impossible for the department of Town and Regional Planning to prepare a land use plan for Kumi town.

There is therefore no structure plan to guide and facilitate the growth of the town.

1.2 RELATED LITERATURE

Before formulating the objectives of this study, it was necessary to consult literature related to the subjects of the growth of towns and also development plans.

There is a wealth of literature on the development of towns. Amongst the theories concerned with spatial structure, Location Theory is prominent. This theory seeks an answer to the question of what is the most rational pattern of land use. Goodall and Lean argue that quantitative factors of production and transportation largely determine the best locational pattern of land use.³

Another category of theories deals with urban growth. These theories contend that theories of structure do not account for all the relevant factors. Amongst the latter theories, the concentric zone theory, argued by Burges, contends that a town extends radially from its centre to form concentric zones.⁴ This theory is actually an application of Von Thunen's earlier theory relating to a town's hinterland.⁵ The concentric zone theory is compatible with Alonso's theory of Rents.⁶

The next theory in this category is the Axial Development theory, which goes a step further to state that development takes place along lines (routes) of least resistance. Accessibility is considered in terms of both time and physical distance.

The sector, or wedge theory, postulated by Hoyt, refines the axial theory to state that growth along a radial route will take the form of land use prevailing in that direction.⁷

The multiple nuclei theory, first argued by Harris and Ullman, argues that urban growth can take place around several distinct nuclei.⁸ A market centre, a village, a factory or even a railway station could start a nucleus.

These theories are both descriptive and analytical. They seek to explain internal structure of urban centres and also the pattern of outward expansion. Each theory emphasizes one or several factors shaping urban land use and expansion. With modification they assist the planner in projecting urban growth possibilities.

Literature on Development plans was also consulted.

A development plan indicates the land to be used, the manner of use and the phasing or priorities of development.⁹

A development plan normally consists of a basic map, a written statement and any other maps appropriate to the proposals.

Development plans should also be reviewed at least every five years. This regular review of the plan updates the information on the area and will also reflect the latest concepts of good planning.

In Uganda, development plans have been used to provide the basis for the provision of basic infrastructure

to the growing urban centres. They serve as land use allocation maps providing the platform for development control, as provided for in the Town and country Planning Act.¹⁰

It is not possible to accurately forecast every land requirement over many years ahead. Development plans are therefore at their best when depicting existing land use at the time of preparation. They are far less adequate in depicting future changes. It is difficult to make development plans responsive to future demands of change, except by regular updating, which is a costly exercise. This renders most development plans out of date and unable to reflect more recent developments in the fields of urban and regional planning. The land use plan embodies an assembly of principles and assumptions used in rationalising the proposals.¹¹

The need to improve on these principles and assumptions has led to a new generation of development plans. These plans focus on physical development in relation to the socio-economic, environmental and transportation planning.¹²

A development plan includes a written statement and diagrams, and illustrative explanation of the proposals. The statement covers national, regional

and the local context of the plan; the proposed strategy, policies and proposals, their relationship and availability of resources for implementation. The policies relate to the population, employment, housing, education, shopping, social and community services, recreation and conservation. The written statement and the diagrams identify action areas for which more detailed plans will be prepared.

Local Plans. These are proposals, maps and written statements for areas within the structure plan. Local plans can be district plans, action plans or even subject plans.

1.3 OBJECTIVES OF THE STUDY

1.3.1 The problems outlined above spell the necessity for a development plan for Kumi town. However due to limitations of information and time, only a broad structure plan will be prepared.

1.3.2 The basic objectives of this study therefore are:-

- (i) to allocate sufficient land for expected growth of Kumi town upto the year 2000.
- (ii) to produce a general plan which is capable of modification and extension.

- (iii) to provide a framework for more detailed planning
- (iv) to locate residential areas, work places, and social facilities so as to make journey to work and leisure as short as possible.
- (v) to indicate possible action areas in form of priorities.
- (vi) suggest development control measures.

1.4 SCOPE OF THE STUDY

This study is designed to deal primarily with urban problems in Kumi town. However any relevant regional and national contexts are considered.

1.5 JUSTIFICATION OF THE STUDY

Small urban centres in Uganda are considered by the government to be agents of socio-economic change in rural areas. They provide services that are needed by their rural hinterlands. They also provide employment for migrant rural labour. The importance of a study like this one cannot therefore be overemphasized.

Service centres facilitate the diffusion of innovations. Their proper development would go a long

way in diffusing growth consciousness in the surrounding areas.¹³ In the final analysis the proper growth of Kumi town will stimulate economic growth in the hinterland.

1.6 ASSUMPTIONS OF THE STUDY

In carrying out this study the following assumptions were made:

1.6.1 That in the foreseeable future the population of the town will grow through the process of immigration and natural growth. This population will require more urban space for accommodation and other activities.

1.6.2 That population growth will exert pressure on existing facilities and urban functions. There is therefore need to expand these services to meet the increased demands on them.

1.6.3 That economic activity will expand and create more employment, thus attracting more people into the town.

1.6.4 That Kumi town will continue to be the administrative, social and economic centre of Kumi district.

1.6.5 That the proper development of Kumi town will lead to increased development of the town as well as its hinterland.

1.7 METHODOLOGY OF THE STUDY

1.7.1 Two sources of data were used to facilitate this study. These were the primary and secondary data.

Secondary data was obtained from existing sources of information on the study area and the subject matter. This included demographic data from the Census Reports, topographical information from the Uganda Atlas and the base map prepared by the department of Lands and Surveys. Information on soils also came from the Atlas, together with climatic data. Other sources of secondary data came from the Kampala Development Plan; Department of Town and Regional Planning, Kampala; Town and Country Planning Act; Town Planning Department Handbook, Nairobi; the Water Development Office, Kumi; the National Development Plans (1971/72 - 1975/76). The Reconstruction and Recovery Plan (1980 - 1985) The rest of the sources of secondary data are quoted in the study.

1.7.2 Primary data was obtained by field surveys and visits in the town.

A household survey was carried out in the town to assess the socio-economic conditions of the households. This survey was carried out in September, 1983. From the 1980 population census Kumi town had 400 households.⁷ Assuming 20% to be a representative sample size, 80 households were determined for the survey. The sample was weighted according to the number of households in each census enumeration area. The required number of households were selected randomly from each census area. The questionnaire was administered to household heads or any other responsible person on a face-to-face basis. If there was nobody at home, then the next household was called at for interview until the required number of households was realized.

Informal interviews were also carried out. This involved interviewing government officials in the town. Officers in the Local Administration office, the District Commissioner's office and the Town Clerk's office provided useful information on the general development of the area.

A land use survey also provided an overview of the various types of land uses in the study area.

1.7.3 The data obtained from the mentioned sources was analysed manually and presented in tables, maps, diagrams and charts⁷ in the study.

1.8 LIMITATIONS

In carrying out this study a number of limitations were met.

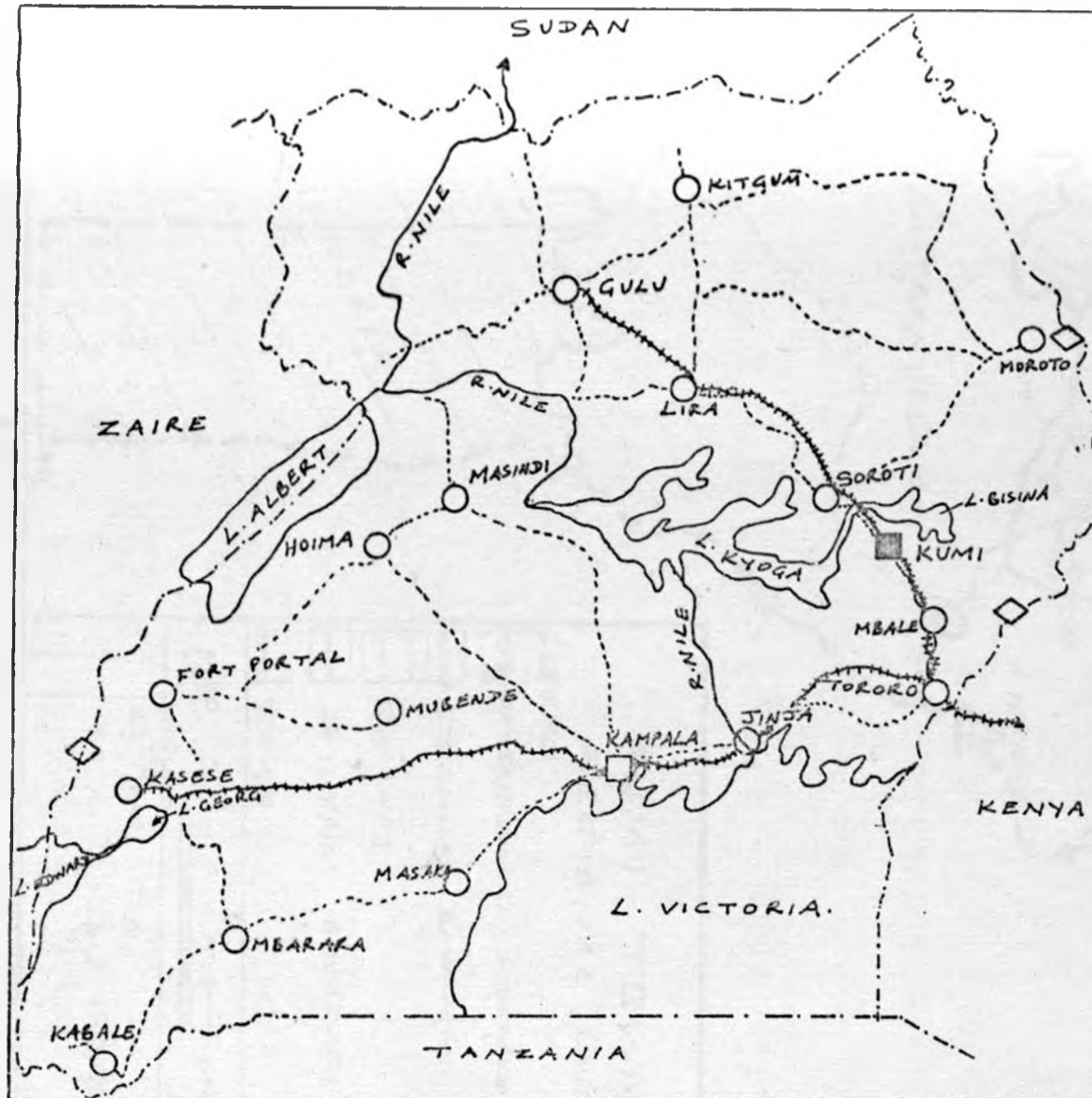
Permission to conduct the surveys took 2 months, leaving me with about 3 weeks to do the surveys. Secondary information was scanty. The main reason for this was the inferno that destroyed the headquarters of the Ministry of Provincial Administrations in Kampala in 1977. Relevant records were destroyed.

Finally research finance was too small given the rate of inflation in Uganda at the time, which ran at 800%.

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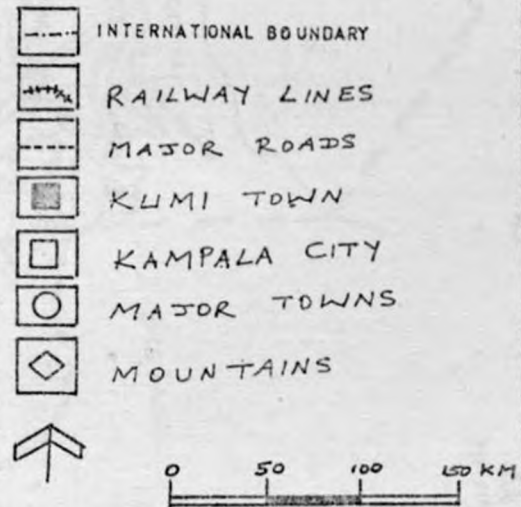
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KUMI TOWN

NATIONAL CONTEXT.

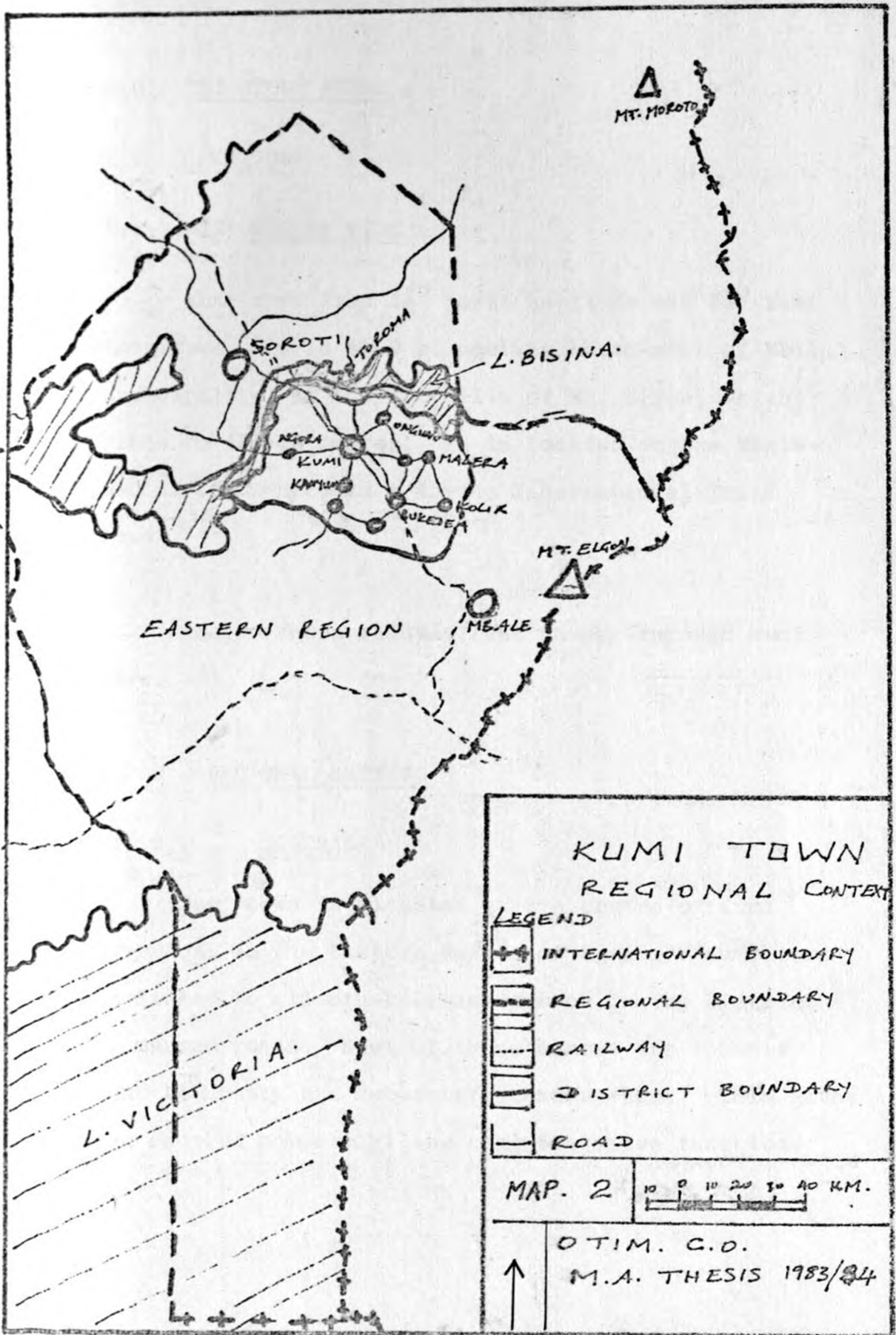
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M.A. THESIS 1983/4



CHAPTER 2

2.0 THE STUDY AREA

2.1 LOCATION

2.1.1. NATIONAL SETTING

Kumi town lies $1\frac{1}{2}^{\circ}$ North Latitude and 34° East Longitude. It is 51.2 kilometres north-west of Mbale Municipality, at the foothills of Mt. Elgon, which rises to 4255.8 metres. It is located on the Mbale-Soroti road which is a tarmac International Trunk road.

The Northern railway line passes through Kumi town.

2.1.2 REGIONAL SETTING

2.1.2.1. GENERAL

Kumi town is situated at the centre of Kumi district, in the Eastern Region of Uganda. Kumi town is linked to all other urban centres in the district by murram roads. Most of these centres are located next to county and sub-county headquarters. This gives the centres commercial and administrative functions.

2.1.2.2. KUMI DISTRICT AS THE REGION

Kumi town serves the whole of Kumi district, which is considered its region in this study.

POPULATION:

Kumi district has a total surface of 2861.2 sq. km. The land area is 2456.7 sq.km., and the rest is under water and permanent swamps. Kumi district had a population of 190,715 in 1969, and 239,539 in 1980. This was a growth rate of 2.1% p.a. The district had a population density of 78 and 97 persons per square kilometre in 1969 and 1980 respectively (land area only). The National average was 48 and 64 respectively.

PHYSICAL

The district has two types of soil. The Ferralitic soil on loose sandy sediments covers most of the district, and around Kumi town, the undifferentiated ferralitic mainly sand loams predominate. The district is at an altitude of 1066 to 1219 metres. There are no rivers or mountains. The area is pervaded by a system of temporal and permanent swamps, which ultimately drain into lakes Opetta, Bisina and Kyoga, all of which are part of the Nile basin.

VEGETATION

The dominant vegetation is wooded and mixed grassland savanna. Around Kumi town the Hyarrhania grass savanna predominates. There are five artificial small forests; one in Kumi town,; one in Ngora town; one near Atatur township; and two in Bukedea, near the shopping centre.

CROPS

The main cash crop in the district is cotton. About 20% of all cultivated land is under cotton.

Among the foodcrops, finger millet (Eleusine Caracana) contributes 40% to foodcrop hectarage 1970; Ground-nuts 10%; maize 5%; sweet potatoes 5%; cassava 30%; sorghum 5%; and simsim (seamum orientale) about 5%.

LIVESTOCK

The district has about 180,000 cattle and about 100,000 goats and sheep. A lot of the livestock is sold to major towns like Mbale, Jinja and Kampala.

KUMI TOWN

HISTORICAL

GROWTH

LEGEND

--- APPROXIMATE AREA BOUNDARY 1909

--- APPROXIMATE AREA BOUNDARY 1973

--- PROPOSED BOUNDARY

--- ROAD

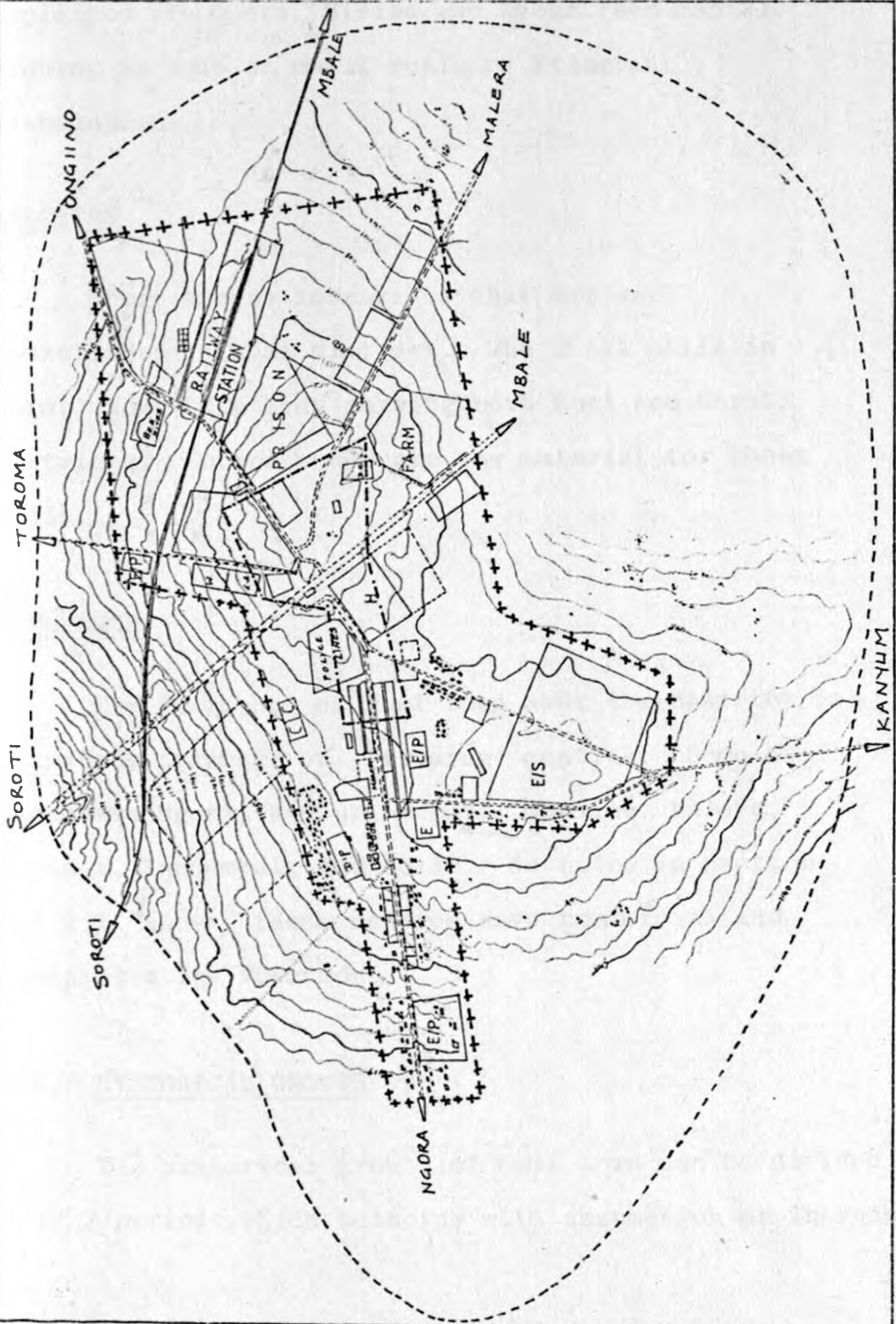
--- RAILWAY

--- CONTOURS

0 100 200 300metres

MAP NO 3

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Regional Planning
University of Nairobi
M.A. THESIS 1993/94



FISHING

By 1968 the annual production of fish was 137 tons for Kumi and Soroti districts. The lakes exploited are Opeta, Bisina and Kyoga (see map 2). Fishing is done on small scale by itinerant fishmongers.

INDUSTRY

There are no industries that are well established in Kumi district. The 2 oil mills in Soroti town have been serving both Kumi and Soroti districts. Cotton seeds are raw material for these mills.

INFLUENCE

The influence of Kumi town over the district is shared by a number of 'trading' centres. Some of these are Ngora, Atutur, Mukura, Ongiino, Malera, Bukedea, Kachumbala and Kolir. As noted in section 2.1.2.1. above, these centres have commercial and administrative functions.

2.2. HISTORICAL GROWTH

The historical growth of Kumi town can be divided into 3 periods which coincide with assumption of increased

administrative functions. These are:

1. 1896 - 1908 - Sub-county Headquarters.
2. 1909 - 1972 - County Headquarters.
3. 1973 - 1983 - District Headquarters.

By 1909 the town was covering about 1 square kilometre.

By 1956 the area of the town was about 2 square kilometres.

By 1983, the area of the town was about 3 square kilometres.

The proposed boundary that is being worked out will increase the area of the town to roughly 10 square kilometres.

2.2.1. 1896 - 1908

The name of the town comes from the name of a locally prevalent tree called EKUM in the local vernacular. Traditionally local elders used to discuss social matters under this tree. Traditional administration in this society was done by a clan council of elders.¹

The present site of Kumi town was the direct result of the imposition of British Colonial rule in the area in 1896. The Buganda Kingdom was used to subdue the rest of the Protectorate in line with Lord Lugard's successful concept of indirect rule.²

General in the Buganda army, Semei Kakunguru, had to set up Saza and Gombolola (Counties and sub-counties) headquarters for effective administration of the area. One of the sub-counties was Kumi, located at the home of a local chief called Oumo, son of Ekusai, who became the sub-county chief.

Cotton was introduced in the area in 1908.

In the same year Asian traders set up shops in Kumi. Also in 1908, A.L. Reverend Kitching started the construction of an Anglican Mission in Ngora urban centre, but operating from Kumi.

2.2.2. 1909 - 1972

Kumi became a county headquarters.³

In 1911 the first cotton seed experimentation station was built in Kadungulu, 24 kilometres west of Kumi town.⁴

In 1919 this station was finally transferred to Serere, which is now a National Agricultural Research Station.

In 1913 the Colonial government began licensing cotton traders. Asians quickly took this opportunity and established ginneries at sub-county level. Six ginneries were constructed in Teso between 1913 and 1914. One of these was KELIM ginnery 7 kilometres east of Kumi town.

In 1924 the hand-hoe was replaced by the ox-plough in this area, the plough having been introduced in 1910.

A training school for the use of oxen and the plough was also set up in 1910. This facilitated the making of spares as well.

The railway arrived in Kumi in 1928. Reverend Wiggins set up a Leprosy Centre, Hospital and Mission in Kumi town, at the present site of Wiggins Secondary School. The Leprosy centre has now been re-located 5 kilometres to the north and is aided by international agencies, particularly the German Leprosy Relief Association.

In this period housing and offices for the Teso Native Administration, for the sub-county, county and a police post were constructed.

The piped water system was established in the late 1950's, and a few extensions made in the 1960s. The system was originally meant for the Leprosy Centre.

The Agricultural Research Station was also set up in the late 1950s. The Dispensary was also built around this period.

2.2.3. 1973 - 1983

In 1973 Kumi became the headquarters of South Teso District, which was later changed to Kumi district in 1979. The district was created out of 3 counties - Kumi, Bukedea and Ngora counties.

In 1975 Kumi Town Council was established under the statutory instrument No. 55 of 1975, under the Urban Authorities (Declaration of Towns) Amendment Order.

The residence for the District Commissioner was built the same year. In order to facilitate this the site chosen was designated Grade 1 Residential Area, without due consideration of any zoning principles.

A number of government departments have already been moved from Soroti, the former district headquarters for the area.

Accommodation and office space for the new departments is very limited. Shops belonging to the Departed Asians Property Custodian Board have been converted for these purposes. Ugandan Asians were expelled by dictator Idi Amin in 1972.

2.3 PHYSICAL BASE

2.3.1. GENERAL

Kumi town is at an altitude of 1140 metres above sea level. The town occupies an area of 3.26 square kilometres.

Kumi town stands on a low lying hill surrounded by shallow grassy swamps.⁵ The hill is generally lower on the western part of the town.

2.3.2. CLIMATE

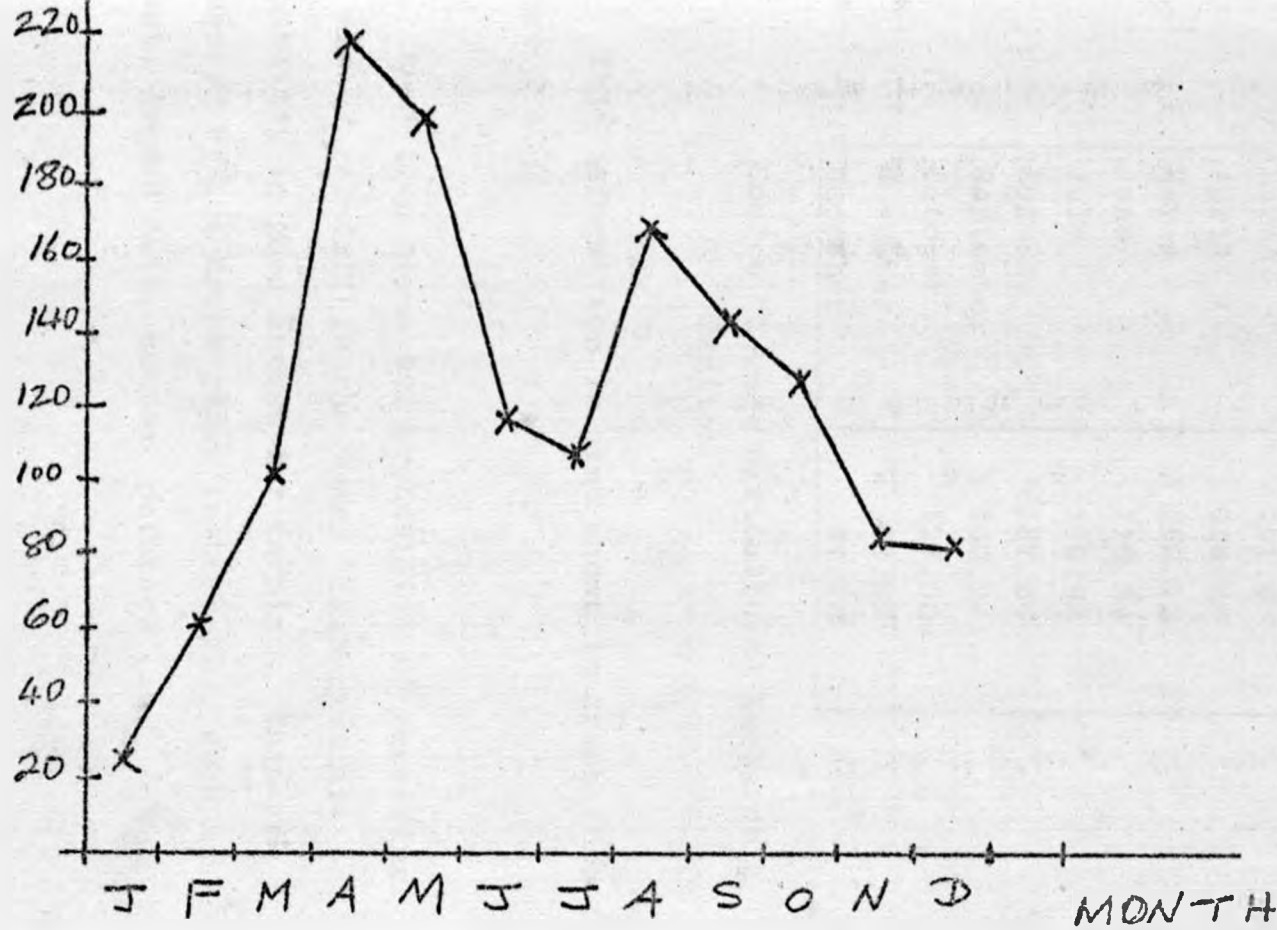
2.3.2.1 RAINFALL

Kumi town is in the northern end of the equatorial bi-modal rainfall regime of 1400mm. The modal downpours

RAINFALL
(MM).

FIGURE 2.1

MEAN MONTHLY RAINFALL



occur in April and August. The mean monthly rainfall figures are presented in table 2.1.

Month	Rainfall (mm.)
January	25.4
February	60.96
March	101.6
April	218.44
May	198.12
June	116.84
July	106.68
August	167.64
September	142.24
October	127.00
November	83.82
December	81.28

Source: Serere Agricultural Research Station.

This information is also shown in graph form in figure 2.1.

Kumi town has a 90% probability of receiving 914 mm. of rainfall in the year. This rainfall probability is good enough for farming. This is evidenced by the crops grown in the area, such as millet, ground nuts, cotton, potatoes etc.

2.3.2.2. TEMPERATURE AND WIND

The mean annual maximum temperatures range from 30°C to 32.5°C and the minimum range from 15°C to 17.5°C.

The general direction of wind is from East to West. This means that obnoxious industries and sewage works should be located to the west of the town.

2.3.3.0 SOILS AND GEOLOGY

The geology of the area is characterised by the Precambrian category of mainly undifferentiated acid gneises on a granite basement complex.⁶

The soil is basically Ferrallitic based on loose sandy sediments. The top soil is shallow and sandy, and is generally of medium potential farming land suitable for cultivation and livestock production.

KUMI TOWN

EXISTING

LAND USE

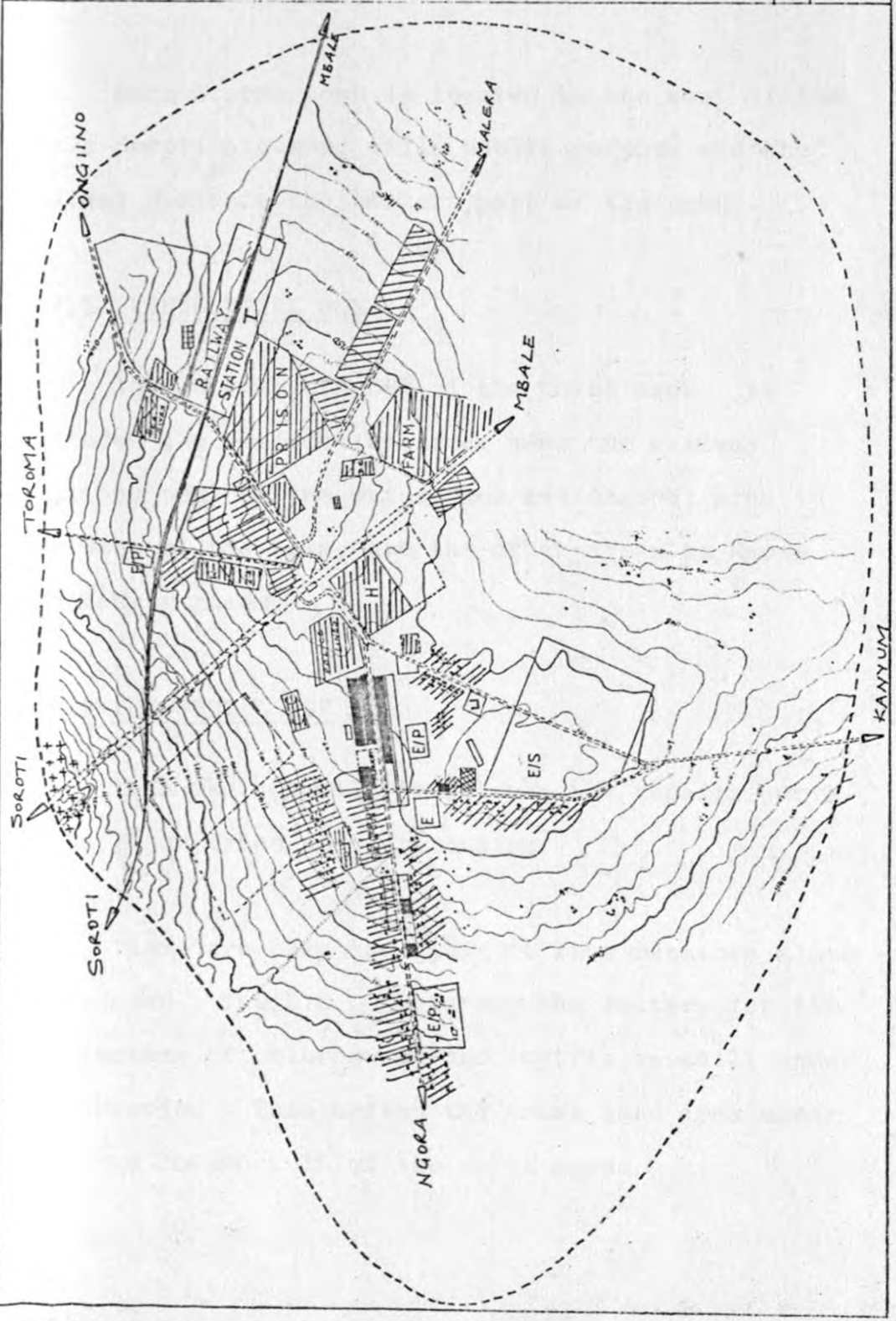
LEGEND

- RESIDENTIAL
- INDUSTRIAL
- EIP
- EDUCATIONAL
- PUBLIC PURPOSE
- PUBLIC UTILITY
- COMMERCE
- TRANSPORTATION
- RAILWAY
- ROAD
- OPEN SPACE
- FOREST

0 100 200 300metres

MAP NO 4

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2.4 EXISTING LAND USE PATTERN

Kumi town occupies about 3 square kilometres. The proposed boundary which is being worked out would expand the town to about 10 square kilometres.

Much of the town is located to the west of the Mbale-Soroti highway, while public-purpose and the railway dominate the eastern part of the town.

2.4.1 RESIDENTIAL USE

This use covers 56% of the total area. It includes the residential areas near the railway station, next to the water tank and Angopet area to the west of the town; and the other areas on Ngora and Kanyum roads.

2.4.2 INDUSTRIAL USE

This use normally includes motor repairs, workshops, industries and warehousing.

There are only two grain-milling machines along Ngora road. The U.C.L. Laboratories factory for the manufacture of chloroquine and Aspirin is still under construction. This brings the total land area under this use to about 1% of the total area.

2.4.3. EDUCATIONAL USE

There are 4 primary schools and one secondary school in Kumi town as shown on map 4. The total area under this use amounts to about 24%.

2.4.4. RECREATION

The only recreational facility available is open space. During the survey, the respondents indicated their need for recreational facilities. 62% indicated the need for a library; 28% indicated a playground and 10% indicated a cinema.

2.4.5. PUBLIC PURPOSE

This use includes the Asian Cemetery just behind the shops on the northern side; the Town Council offices, District Administration, the Police; District Commissioner's office; the Law Court; the Prison and the Dispensary. The total area under this use is 10.0% of the total area of the town. There is no fire service.

2.4.6. COMMERCIAL USE

This use includes general retail shops, one wholesale shop for cigarettes and one parastatal specialized shop for the distribution of essential

commodities (under scarcity) such as sugar, salt and soap. This shop belongs to the Foods and Beverages Limited, a government owned company.

The shops also house (converted) the post Office and private offices. There is one 'SHELL' petrol filling station and one 'TOTAL' disused filling station. The Total station was wedged in between shops.

The market is located on the Ngora road between Angopet residential area and the shops. The land under this use occupies 5.00% of the total area.

2.4.7 PUBLIC UTILITIES

This use should include the water system, electricity, sewerage and Refuse disposal. Postal services, electricity and water system are available. The sites for the water reservoir and the Uganda Electricity Board installations cover about 1% of the total area. The Post office is within the shops.

2.4.8 TRANSPORTATION

This use includes the railway station. There is no proper Bus Park and Taxi (matatu) park in Kumi town. This use takes up 1% of the area.

There is no land under agriculture in Kumi town.
The total land use pattern is as follows:

Table 2.2. EXISTING LAND USE PATTERN

USE	PERCENTAGE
Residential	56
Industrial	1
Educational	24
Recreation (open space)	2
Public purpose	10
Commercial	5
Public utilities	1
Transportation	1

Source: Survey, 1983.

2.5 ECONOMIC CHARACTER

The economic character of any growing town can be assessed by looking at five major categories. These are:

1. Commercial activity
2. Industrial production
3. Employment structure and population distribution
4. The public sector
5. Transportation network.

These factors can also be related to the hinterland, with a view to assessing their impact on the district

or hinterland. This is the framework adopted here.

2.5.1. COMMERCIAL ACTIVITY

Kumi town had 1890 people as of 1983. The town centre has 40 shops which include commercial shops, bars and a few restaurants. There are only two restaurants and six tea kiosks, four of these in the market stalls.

There are 3 wholesale shops. One of these (owned by Ugandan Asians) is a mixed wholesale-retail shop. One of the other wholesale shops is basically for cigarette distribution. The remaining wholesale shop is not privately owned, but is a district depot for the government parastatal company - Food and Beverages Limited. This parastatal company supplies basic commodities like salt, sugar and soap, especially in times of scarcity at government (controlled) price. Market prices for these commodities are not controlled by the government.

The type of goods sold in the retail shops are similar. Apart from the cigarette distributor and the Foods and Beverages depot, there are no other specialized shops. One shop, however deserves mention. The Ministry of Rehabilitation was created after Idi Amin

was chased away in 1979. The district offices for this Ministry have widows' departments. In Kumi town this department assists widows, who lost their husbands during Idi Amin's rule of murder and terror. Much of the assistance is in the form of clothing for themselves and their children, for which the widows pay only a nominal amount. There is therefore one shop allocated for this purpose.

There is no shop specialized in selling farm implements or other specialized equipment.

Since the items sold in the non-specialized shops are available in other trading centres and other districts, the impact of these shops on the hinterland is quite small. However the restaurants and bars (2 of them) and the one lodging of 8 rooms have an impact on the hinterland. This is so because people from outside the town council, such as visitors on business or holiday or duty, and some who are in transit may use those facilities. This is particularly the case with the Auction Market days (Mondays) when customers and sellers from far away need to spend the night near or in the town.

There is only one, central market located in the town which serves the whole town and also its hinterland. It is an open market with a barbed wire fence. It has 13 restaurant stalls, of which only 7 are active throughout the week, the rest only on market days - Saturday and Monday. There are also provisions for shop stalls which presently are reduced in size and constructed from temporary materials. Two of the shop stalls are already in permanent materials and serve as butcheries, while the third is a hides and skins dealer shop.

Agricultural produce grown in the surrounding villages and town periphery are also sold in the market. There is very little diversification of the types of agricultural produce sold in the market, but the people I talked to indicated that what is there satisfies the customers' needs. The basic produce sold in the market are as follows:

1. Tomatoes, onions and other cooking ingredients.
2. Foods like meat, fish, eggs, potatoes, cassava, etc.

There is more diversity on market days. There are also 2 bicycle repair stands.

2.5.2. INDUSTRIAL ACTIVITY

(a) There are no heavy industries in Kumi town. There are, however, 3 flour mills of 12.5 to 15.0 horsepower, and all using electricity. Each one is owned by a private individual.

(b) Slaughter slab and hides and skins:

This abattoir employs only 2 people, all of them Muslims. It is a public one and after slaughter the carcass is inspected by the District Veterinary Officer. The two Muslims are the only ones doing the slaughter because in Uganda Muslims are recognised as the only religious category who slaughter, traditionally. The abattoir supplies the town's two butcheries, while the hides and skins find their way to the Tannery at Jinja Municipality, at the source of the Nile.

(c) Angopet Carpentry and Tinsmithing:

There is only one carpentry stand at Angopet residential area, which is barely standing on its feet. There is also a tinsmithing stand

near the market, where paraffin stoves are repaired. A few items like "Jerry can" plastic containers are also repaired. Others like saucepan and plates are also repaired here. Each of these two stands is owned by one individual.

(d) Industrial potential is low in this town.

However, there is a proposed factory, by "U.C.L. Laboratories Ltd.", which is under construction. This factory is a pharmaceutical one and will produce medicines like chloroquin and Aspirin, to start with. It is expected to employ 30 people when completed.

(e) Kelin Ginnery:

This ginnery is outside the present town boundaries. It is located 4.8 kilometres from the town centre on Malera Road. It employs roughly 100 people only during the ginning season - that is between the months of November and March. A few employees are retained for clearing and security purposes during the rest of the calendar year. The ginnery, is not part of the town's industrial activity since none of the staff stay in Kumi town.

2.5.3 Employment Structure:

Kumi town is a designated Administrative (and commercial) headquarters of the district. Consequently, most of the most important government District offices are already located there. Some important offices have not as yet been moved from Soroti, such as the District Engineer, the District Hospital, the details of which are dealt with in Section 2.5.4.

There are 18 government ministerial offices and one parastatal office in Kumi town. These offices employ quite a sizeable number of people from within and outside Kumi town. Most of the professional posts in these offices are manned by people from all over the country. The lower income jobs are especially an important source of employment for the residents of the town.

The light industries that have been mentioned provide a little employment but it is an addition to the public sector. Other sources of employment are the commercial sector and also transportation, especially the Taxi (matatu) operations. One petrol station - "Shell" is operative and employs 4 people. The labour force in these sectors is usually casual.

So we can say that Kumi town offers employment to the hinterland in commerce, transportation and of course administration.

One of the questions put to the sample respondents was to state the sector of employment. The results were as follows:

Table 2.4:

SECTOR	NUMBER	PROPORTION
Industry or workshop	4	5%
Commerce	30	37.5%
Transportation	6	7.5%
Public Sector	40	50%
Total	80	100%

The largest sectors employing people are the public sector followed by the commercial sector. It is therefore clear that Kumi is basically an administrative-commercial town.

With the majority, 50%, employed in the public sector, the sample indicates that the growth of Kumi town depends on the development of the public sector. This can be assisted by the distribution of commodities

(commerce). However, as pointed out above, in the section on resources, all is not bleak for Kumi town. At least light industries like fish-packing and small textile factories can be realized.

However, the fact that employment is not balanced, means that Kumi town cannot offer the agricultural hinterland many services.

2.5.4. THE PUBLIC SECTOR

Kumi town, as already pointed out, is the headquarters of Kumi District and the majority of the employees in the town are with the public sector. There are 18 Ministry offices expected to be moved to Kumi town, but so far only 12 have some departments in the town. The activities already in the town are as follows:

- A. Available departments:
 - 1. Office of the President
 - (a) The District Commissioner
 - (b) District Team Development Committee.
 - 2. Ministry of Agriculture and Forestry:
 - (a) District Agricultural Officer
 - (b) Agricultural Research Station
 - (c) Forest Officer.

3. Office of the Attorney General
 - (a) Magistrate Grade II court.

4. Ministry of Commerce
 - (a) District Trade Development Office.

5. Ministry of Education:
 - (a) District Education Officer
 - (b) Inspector of schools
 - (c) Secondary and Primary schools.

6. Ministry of Finance:
 - (a) Revenue office.

7. Ministry of Health
 - (a) A dispensary, formerly county level, exists with 50 beds.

8. Ministry of Information and Broadcasting
 - (a) District Information Office.

9. Ministry of Local Government:
 - (a) The Town Clerk
 - (b) Kumi District Administration.

10. Ministry of Internal Affairs
 - (a) District Police Commander
 - (b) District Prisons Commander.

11. Ministry of Lands, Mineral and Water Resources

(a) Kumi Water Supply Scheme.

12. Ministry of Works

(a) Road works department

(b) Mechanical workshop

(c) Buildings Branch office.

13. Ministry of Rehabilitation

(a) Widows department

B. Pending Departments:

(i) The District Farm Institute is still in Soroti, the original Teso district headquarters. Every district has such an Institute. The functions of the Institute are to identify plants and animal breeds that farmers can use on their farms, and to demonstrate the use of fertilizers, spacing of crops, etc. The Institute is therefore supposed to implement experience obtained in the Agricultural Research Station.

Presently the Serere Agricultural Research Station (of National Status) serves both Soroti and Kumi districts, at a higher level than the station within Kumi town.

- (ii) The Ministry of Industry has no department in the town. This is a pointer to the town's industrial status, as being weak.

- (iii) The Ministry of Culture and Community Development does not yet have a department in Kumi town. The offices of the Community Development Officer, Probation officer, Sports Officer, etc. are still in Soroti town.

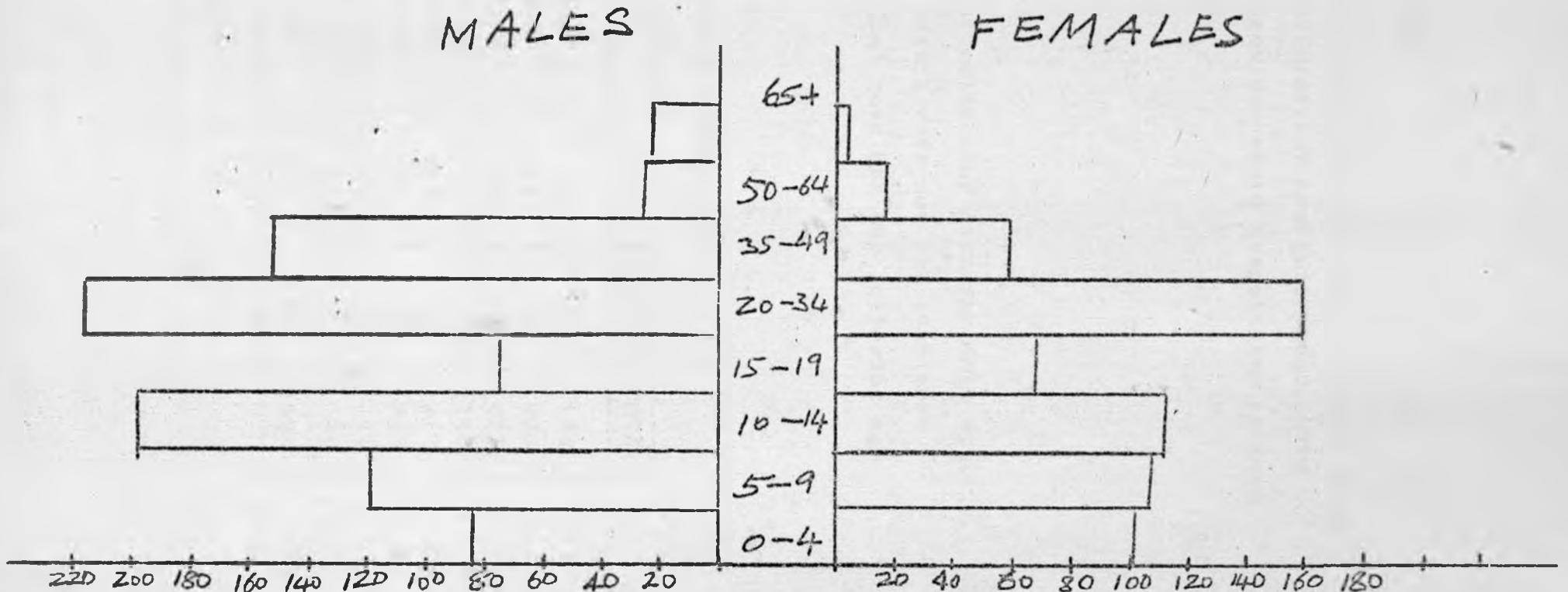
- (iv) The Ministry of Housing and Urban Development has no department in the town as yet. This is a young Ministry, as noted in Chapter one, created in 1980, but the housing section is an old one having been a part of one of the oldest departments in the country - Works and Housing. This department is still in Soroti town.

The Ministries of Labour and Lands, Water and Natural Resources do not yet have departments in the town.

When all these departments are eventually assembled in Kumi town, there will be need for office space as well as housing for their staff.

FIGURE 2.2

POPULATION PYRAMID



2.5.5. TRANSPORTATION

Transportation links between Kumi town and other urban centres in the district are quite good. The Soroti-Mbale road provides rapid transit for through traffic (see map 2).

2.6 POPULATION

2.6.1 AGE STRUCTURE

At the time of collecting data for this study, census figures in detail were not yet available. However, in 1969, Kumi town had the following age structure:

Table 2.5:

AGE STRUCTURE, 1969

AGE	%	MALES	FEMALES	TOTAL
0 - 4	12.09	83	101	184
5 - 9	14.84	118	108	226
10 - 14	20.44	194	117	311
15 - 19	9.46	74	69	143
20 - 34	24.80	217	160	377
35 - 49	14.00	153	60	213
50 - 60	2.60	23	18	41
60+	1.77	22	5	27
TOTAL	100	884	638	1522

Source: Census Report Vol.1, 1971.

Considering school age, working age and old age, we can rearrange this information as follows:

Table 2.6:

AGE CATEGORIES

AGE	YEARS	%
Preschool	0 - 4	12.09
Primary	5 - 14	35.28
Secondary	15 - 19	9.46
Working age	20 - 64	41.40
Old age	65+	1.77
Total		100

2.6.2 1980 CENSUS

The provisional figures available at the time of the survey were as follows:

Table 2.7

CATEGORY	NUMBER	%
Men	702	43
Women	343	21
Children((0 - 15)	588	36
Total	1633	100

Source: Census Report 1980.
Provisional Results.

The figures indicate that there are more men than women in Kumi, which lends support to the idea of rural-migration by men in search of employment.

2.6.3 EMPLOYMENT AND INCOME

As indicated in section 2.5.3 above, the employment structure of the town is dominated by the public sector. Next in dominance is the commercial sector.

The sources of income in the town are not diversified. These are as follows:

Table 2.8

INCOME BY SECTOR

SECTOR	%	AVERAGE INCOME (USHS.) PER MONTH
Agriculture	0	-
Industry/workshop	5	13,000
Commerce	37.5	10,000
Public	50	3,000
Transport	7.5	14,000

Source: Sample Survey, 1983.

The figures may appear high, but the inflationary situation in the country renders salaries meaningless. One Kenya shilling is, on the open market, equivalent to 30 Uganda shillings. So the monthly income of

3000 shillings is only 100 shillings in Kenya.

2.7 HOUSING

2.7.1 COUNCIL HOUSING

The Town Council is not yet in a position to build any council houses. It gets revenue of about 700,000 shillings annually from rates, licensing and taxes. These resources are far below the cost of even one decent house.

2.7.2 SUB-STANDARD HOUSING

There is much pressure for housing in this town. Private investors are now responding by constructing semi-permanent structures, mostly mud and wattle for walls and iron sheets for roofs (see section 2.9.1 below).

2.7.3 HOUSEHOLD SIZE

The sample survey revealed that the average household size was 5 persons - as shown below:

Table 2.9:

HOUSEHOLD SIZE

SIZE	NUMBER OF HOUSEHOLDS	%	CUMULATIVE %
1	9	11.25	11.25
2	4	5	16.25
3	11	13.75	30.00
4.	13	16.25	46.25
5	11	13.75	60.00
6.	12	15	75.00
7	5	6.25	81.25
8	6	7.5	88.75
9	4	5	93.75
10 and over	5	6.25	100.00
Total	80	100	

Source: Sample Survey, 1983.

2.7.6 OCCUPANCY RATES

The comparison of habitable rooms and the number of persons in the dwelling gave the following results:

Table 2.10

ANALYSIS AREA	HOUSEHOLDS	PERSONS	ROOMS	O. R.
Town Centre	20	173	73	2.38
Angopet area	20	80	40	2.00
Tank area	20	79	53	1.49
Civic area	20	96	56	1.71
Total	80	418	222	1.9

Source: Sample survey, 1983.

Occupancy Rate is obtained by dividing the sample number of people in the area by the total number of habitable rooms. The figure obtained shows the extent of overcrowding in the various areas of the town.

2.7.7. HOUSE CONDITION

2.7.7.1 PIPED WATER

One question put to the respondents was to indicate availability of piped water. The result was as follows:

Table 2.11:

AVAILABILITY OF PIPED WATER

PIPED WATER	NUMBER	PERCENTAGE
Available	50	72.5
Not available	30	37.5
Total	80	100

Source: Survey, 1983.

2.7.7.2 KITCHEN OWNERSHIP

Kitchen ownership was indicated by the respondents as follows:

Table 2.12

KITCHEN OWNERSHIP

KITCHEN	NUMBER	PERCENTAGE
Private	36	45
Shared	37	46.25
None	7	8.75
Total	80	100

2.7.7.3 WATERBORNE W/C OWNERSHIP

The respondents indicated this to be as follows:

Table 2.13

W/C OWNERSHIP

W/C	NUMBER	PERCENTAGE
Private	2	2.5
Shared	0	0
None	78	97.5
Total	80	100

2.7.7.4 SEWERAGE DISPOSAL

On the question of sewerage disposal, the respondents indicated the following:

Table 2.14

SEWERAGE DISPOSAL

MEANS	NUMBER	PERCENTAGE
Public pipes	0	0
Pit latrines (Private)	43	53.75
Pit latrines (shared)	35	43.75
Septic Tank	2	2.5
Total	80	100

2.7.8 BUILDING MATERIALS

The author noted the building materials used in the sampled dwellings as follows:

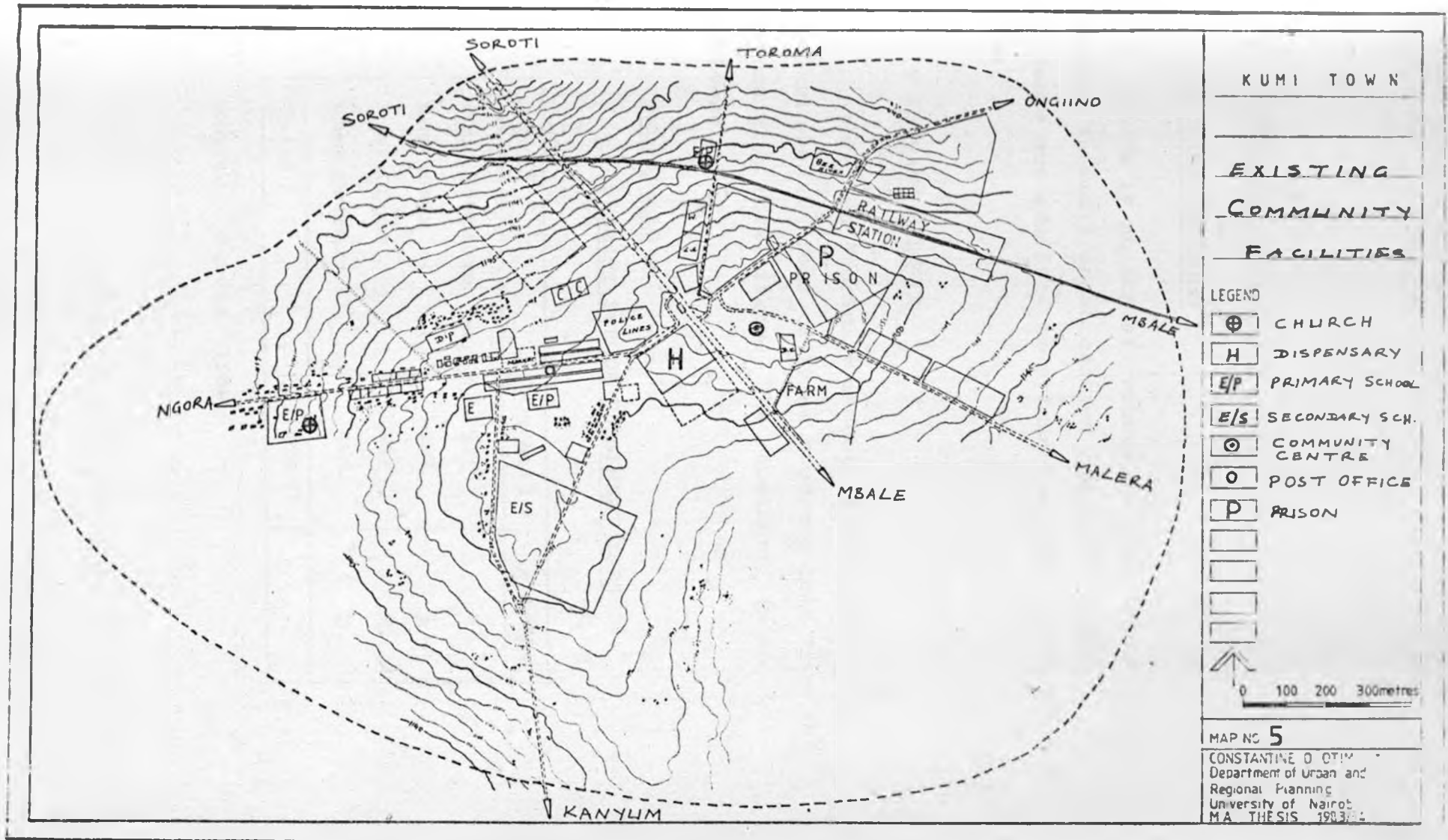
Table 2.15

BUILDING MATERIALS

Materials	Number	%
Permanent	39	48.75
Semi-permanent	41	51.25
Total	80	100

The semi-permanent materials include iron-sheets or flattened tins for roofs; and mud and wattle or mud-bricks for walls; earth/concrete floor.












Permanent materials include corrugated iron-sheets for roofs and concrete blocks for walls; and a concrete floor.

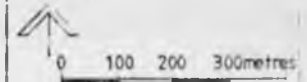


KUMI TOWN

EXISTING
COMMUNITY
FACILITIES

LEGEND

-  CHURCH
-  DISPENSARY
-  PRIMARY SCHOOL
-  SECONDARY SCH.
-  COMMUNITY CENTRE
-  POST OFFICE
-  PRISON
- 
- 
- 
- 



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2.8 COMMUNITY FACILITIES

2.8.1 NURSERY SCHOOLS

There is no nursery school in Kumi town. In Uganda, in small urban centres and rural areas, students are admitted to primary schools direct from home.

2.8.2 PRIMARY SCHOOLS

There are 4 primary schools with a total of 2229 students. Most of these students come from the surrounding rural areas. The enrolment is as follows:

Table 2.16

PRIMARY SCHOOL ENROLMENT 1983

School	On Roll	Streams
Kumi Township	457	1
Kumi Boys	422	1
Kumi Girls	537	2
Kumi Primary	613	2
Total	2229	-

Source: Survey 1983.

2.8.3 SECONDARY SCHOOLS

There is only one secondary school called Wiggins Secondary School. It has 536 students, and has 4 streams.

As with primary schools, this school serves areas outside Kumi town.

2.8.4 HEALTH FACILITIES

There is only one government dispensary in the town, with 50 beds. There is also a maternity wing designed for 20 beds, but crowding is considered normal. Some patients have to sleep on the floor due to lack of beds and space.

There is Ongiino Leprosy Centre with a general hospital in it. This Hospital is run by the German Leprosy Relief Association. It has 120 beds, a farm with 500 grade cattle, piped water, an emergency power generator; a small theatre; and an airstrip. Strictly speaking this Hospital is at present outside the town boundary. However, it assists town residents in most of their health needs.

2.8.6 LIBRARY SERVICES

There is no library of any description in the town.

2.8.7 RELIGIOUS INSTITUTIONS

There are two churches and one mosque in Kumi town. One church is Catholic and the other Protestant (see map 5).

2.9 SERVICES

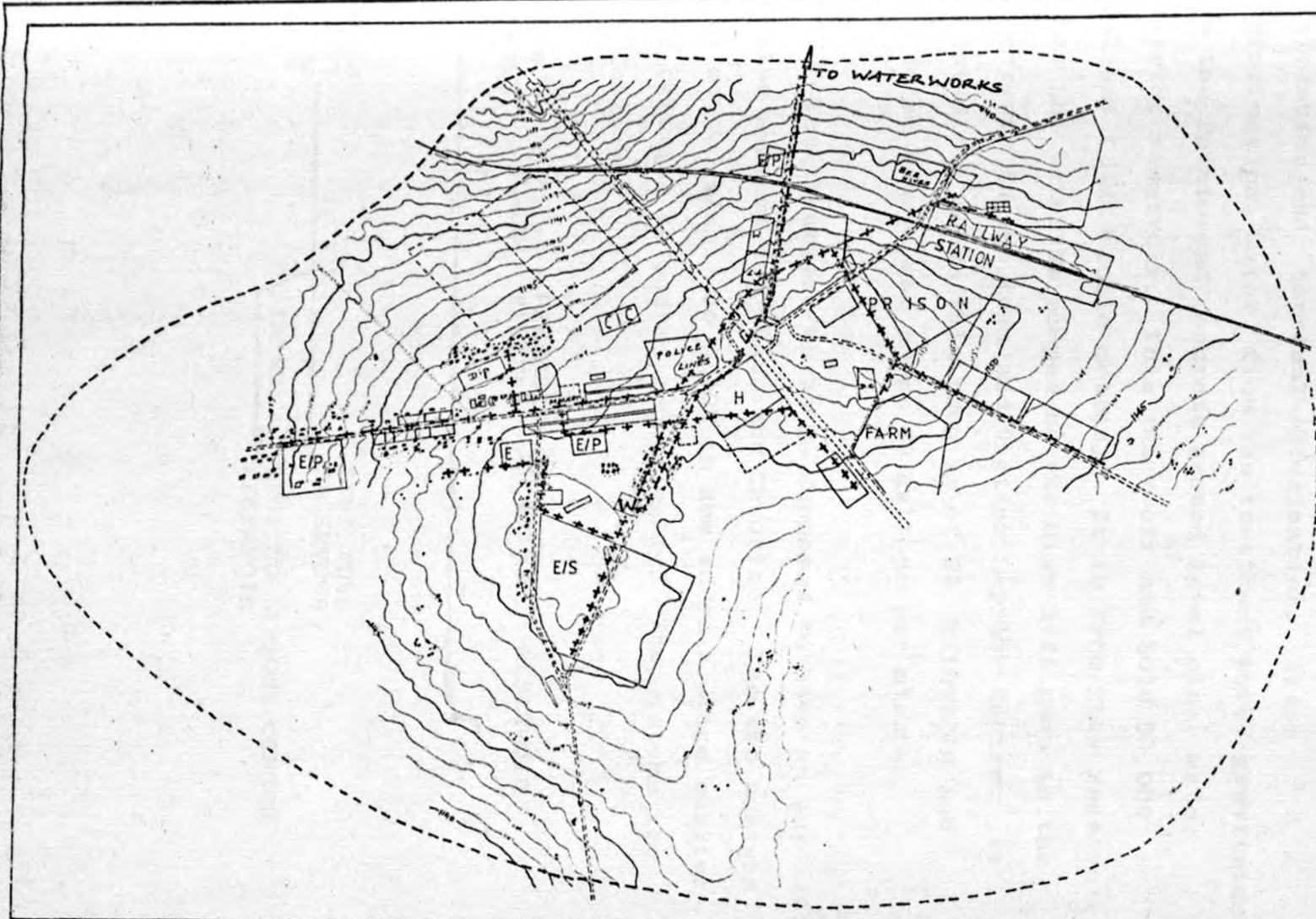
2.9.1 WATER SUPPLY

The current source of water supply in the town is Lake Bisina 16 kilometres north of Kumi town.

Water from the intake is pumped to the town after treatment. The town has a reservoir of 94.75 m^3 capacity. The pump at source has a capacity of 86.4 M^3 per day, and 227.4 litres per minute.

However most of the main pipe line requires repair as the jointed pipes leak.



As the population in the town grows the capacity of the tank, which just meets current daily demand, will become inadequate.



KUMI TOWN

EXISTING
RETICULATION
SYSTEM

LEGEND

-  WATER TANK
-  WATER PIPE
-  RAILWAY
-  ROAD
-  CONTOURS
-  PROPOSED TOWN BOUNDARY
- 
- 
- 
- 
- 
- 

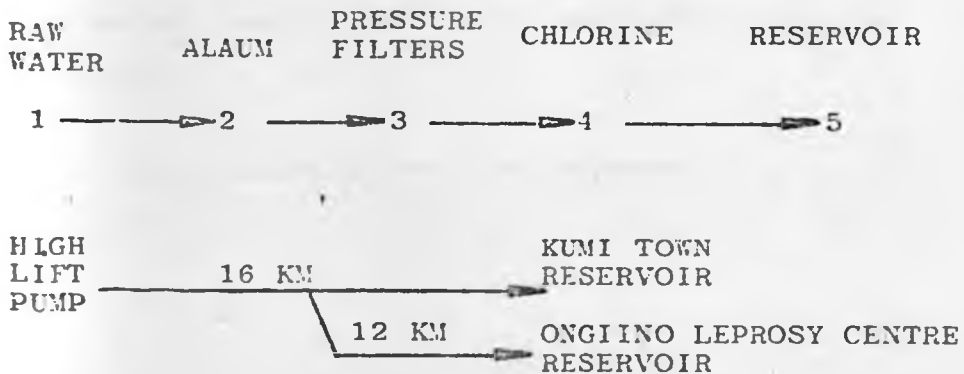
0 100 200 300metres

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The main pipe-line seems adequate at 127 mm diameter. The treatment works consists of flocculation, horizontal flow sedimentation, pressure filtration and terminal chlorination. After chlorination, water from the treatment works gravitates to the reinforced concrete ground level clear water service reservoir. This reservoir can hold 30,000 gallons (136.4 cubic metres). It is from this reservoir that the water is pumped by the high lift pump to the reservoir in the town and Ongiino Leprosy Centre. As pointed out above this pump is of 25 kilowatts and 30 Horse power, and pumps 60 gallons per minute.

The treatment works is supposed to have an automatic dosing systems for ALAUM and Chlorine. The two systems are not working. So ALAUM is now added a stage earlier and chlorine is poured mechanically. The systems are as follows:



Now the ALAUM is added at stage 1 - mechanically. Chlorine is also added at stage 4, mechanically.

The source of the water is manned by 9 pump attendants who work on shifts. There are also 5 General purpose porters for cleaning and repair works. This staff, it has been stated, is too small for the required tasks - especially leakages of the pipes. Most of the pipes are sheets of iron rolled to form pipes with welded joints. It is easy for such pipes to unfold and bust open. Plans to step up the system were buried by the military take-over in 1971. See the map (map No. 6) for current reticulation.

One of the questions put to the respondents was to indicate their sources of water. Since most of the time water from stand pipes or private pipes is not available, people have had to resort to other sources. Most of the respondents had more than one source because one has to take from whatever source is available.

The following was the response:

Table 2.17

Source	%
Private pipe	4.6
Communal pipe	25.3
Bore hole	1.3
Spring well	26.6
Hawker/Jerry can	42.2
Total	100

The hawkers charge between 30 shillings and 50 shillings for each 'debe' or Jerry can.

2.9.2 SEWAGE DISPOSAL

There is no sewerage system in Kumi town. Only 2 respondents gave their system as septic tank. The other 78 respondents indicated that they use no waterborne or W/C system (see a table 2.14 above).

2.9.3 SURFACE WATER DRAINAGE

At present there is no provision for surface water drainage. The only drainage which can be seen is along the trunk Mbale-Soroti road. For the rest of the town, surface water has been left to find its own way to lower areas.

2.9.4 GARBAGE COLLECTION

There is no clear procedure for disposing garbage. The Town Council has a small staff who go round the town in public areas and burn the litter on site.

There is no central incineration place for the litter. Residents actually dispose the garbage on their premises.

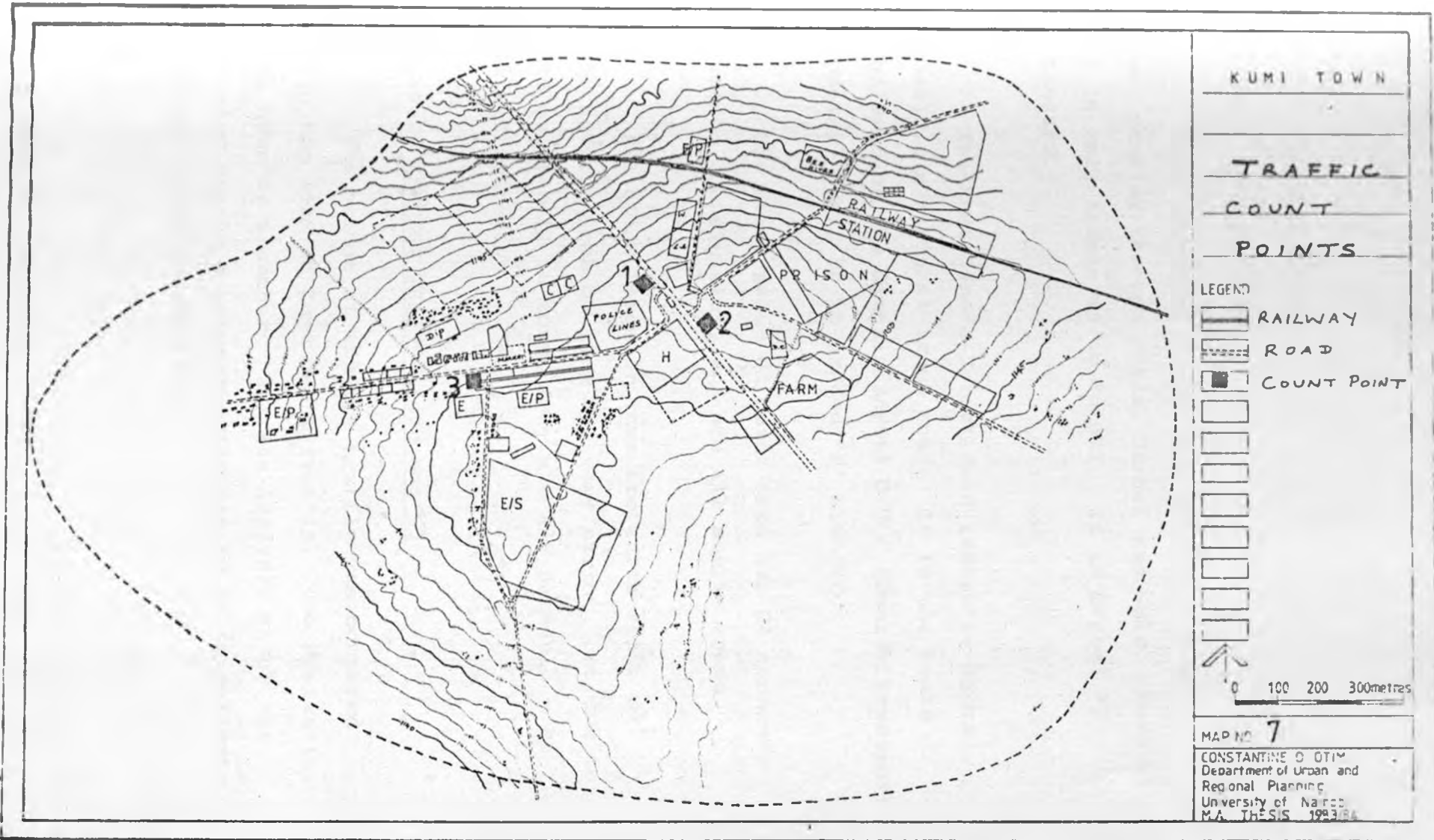
The respondents, when asked about the method of garbage collection indicated the method as follows: 5% by Town Council, 64% individually, and 31% communal method.

2.9.5 ELECTRICITY

Kumi town is well supplied with electricity. Various voltage capacities exist including 240 volts; 33 k.v. and 66 k.v. pylons pass through the town.

2.9.6 POST OFFICE












The postal and telephone services are now under review for improvement. All government departments have been connected. So internal as well as external services are available.



KUMI TOWN

TRAFFIC
COUNT
POINTS

LEGEND

-  RAILWAY
-  ROAD
-  COUNT POINT
- 
- 
- 
- 
- 
- 
- 
- 



0 100 200 300metres

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2.10 TRANSPORTATION

2.10.1 ROAD NETWORK

Kumi is served by one international trunk road passing through Mbale, Soroti and Gulu. However, it is only tarmac up to Soroti. It is graded 'A' standard.

The Kumi-Sererere-Soroti road (shown as Ngora road) is a national trunk road. It is the route followed by the Kampala Soroti U T C (Uganda Transport Company) Bus. It is graded 'B' standard.

The other group of roads (see map 2) connects Kumi to the district, and are all murram roads.

All other roads in town are earth roads or footpaths. Some of them are very narrow, but due to the sandy soil in town, they are all passable even in wet season.

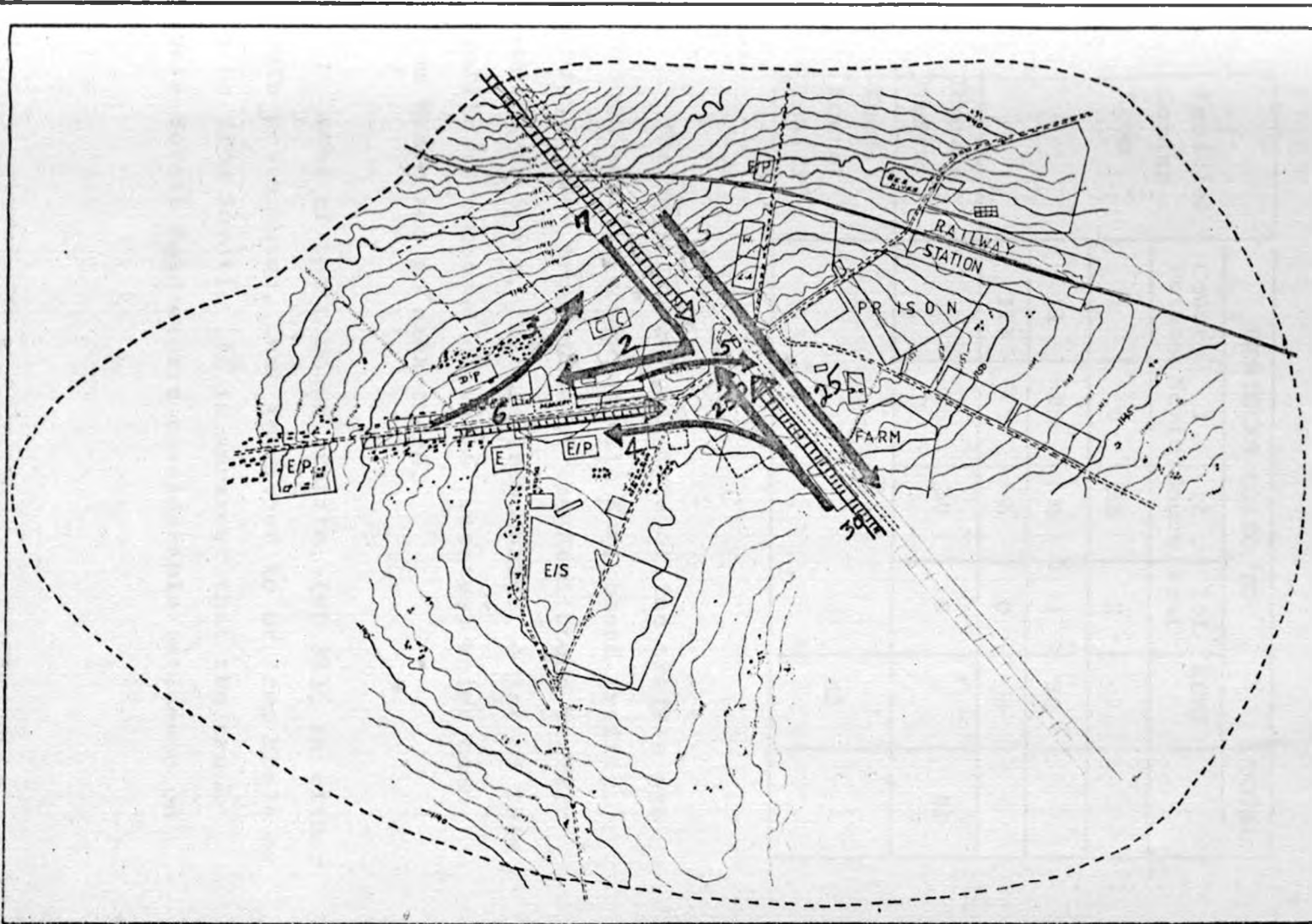
2.10.2 THROUGH TRAFFIC (see Map 9)

The volume of through traffic was compared with the size of Kumi bound traffic. The evaluation was done by a number writing Analysis which was carried out on a non-marketing day so as to estimate traffic on an average day.

Three count points were established, No. 1 at the "Soroti Stage" near the Shell Petrol Station. This point can be called the North-Point; No. 2 at the "Mbale Stage" opposite the Dispensary. This is the South-point; No. 3 at the "Happy Bar" point on the Kumi-Serere road to the west of the town. These are indicated on the map. The numbers of all vehicles entering or driving out of Kumi town were noted for a period of 3 hours. It was necessary to allow 3 hours, rather than, the traditional one hour, because certain vehicles like long distance buses appear only at regular times once and for all. At certain hours of the day traffic is almost not there. Some vehicles stop temporarily in Kumi town.

When the noted numbers are compared it is possible to estimate, quite accurately, the number of through trafficants and the Kumi bound traffic.





The results were as follows:



KUMI TOWN

VOLUME
OF THROUGH
TRAFFIC

LEGEND

-  RAILWAY
-  ROAD
-  THROUGH TRAFFIC
-  KUMI BOUND TRAFFIC

- 
- 
- 
- 
- 
- 
- 



0 100 200 300metres

MAP NO 8
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Table 2.20:

THROUGH TRAFFIC VERSUS KUMI BOUND TRAFFIC

Vehicles Coming from	VEHICLES GOING TO					TOTAL
	Count Points	I North	II South	III West	KUMI	
I		0	25	2	7	
II		23	0	4	30	
III		3	5	0	6	
Through Traffic		26	30	6		62
Kumi Bound Traffic					43	

The table shows that more of the traffic was through traffic compared with Kumi bound traffic. A significant proportion of the Kumi bound traffic comes from South, that is from Mbale. A lot of this traffic is composed of taxis (matatus) which come from Mbale and go back there.

Most of the through traffic, (90.3%), is either South-North bound, that is either to or from Mbale or to or from Soroti. It is apparent that the trunk Mbale-Soroti Road exerts considerable influence on

through-traffic. The hinterland around Mbale, and so around Mt. Elgon, is more densely populated and has greater land carrying capacity. It is a coffee growing region, and coffee earns Uganda about 90% of total Foreign Exchange. The coffee grown in this region is Arabica - the higher quality compared with Robusta coffee grown in other parts of Southern and Western Uganda. The western route comes next to the first two (North-South) because of the good Missionary Hospital in Ngora, which, as pointed out above, has been chosen as a Regional Demonstration Rural Hospital for comprehensive medical and surgical services in East Africa.

2.10.3 GENERAL TRAFFIC VOLUME

In order to estimate the general traffic volume in the centre of the town, I undertook a one-hour traffic count at two points; East at the Dispensary; West at the Post office. These points are marked A and B, respectively, on the map. The exchange point for taxis is just to the left of the point A. The results were as follows:

Table 2.21

GENERAL TRAFFIC VOLUME

No. OF VEHICLES	COUNT POINTS	
	A (East)	B (West)
Towards Centre	9	5
From Centre	15	7
Total	24	12

Source: Traffic Counts, 1983.

2.10.4 MODE OF TRANSPORT

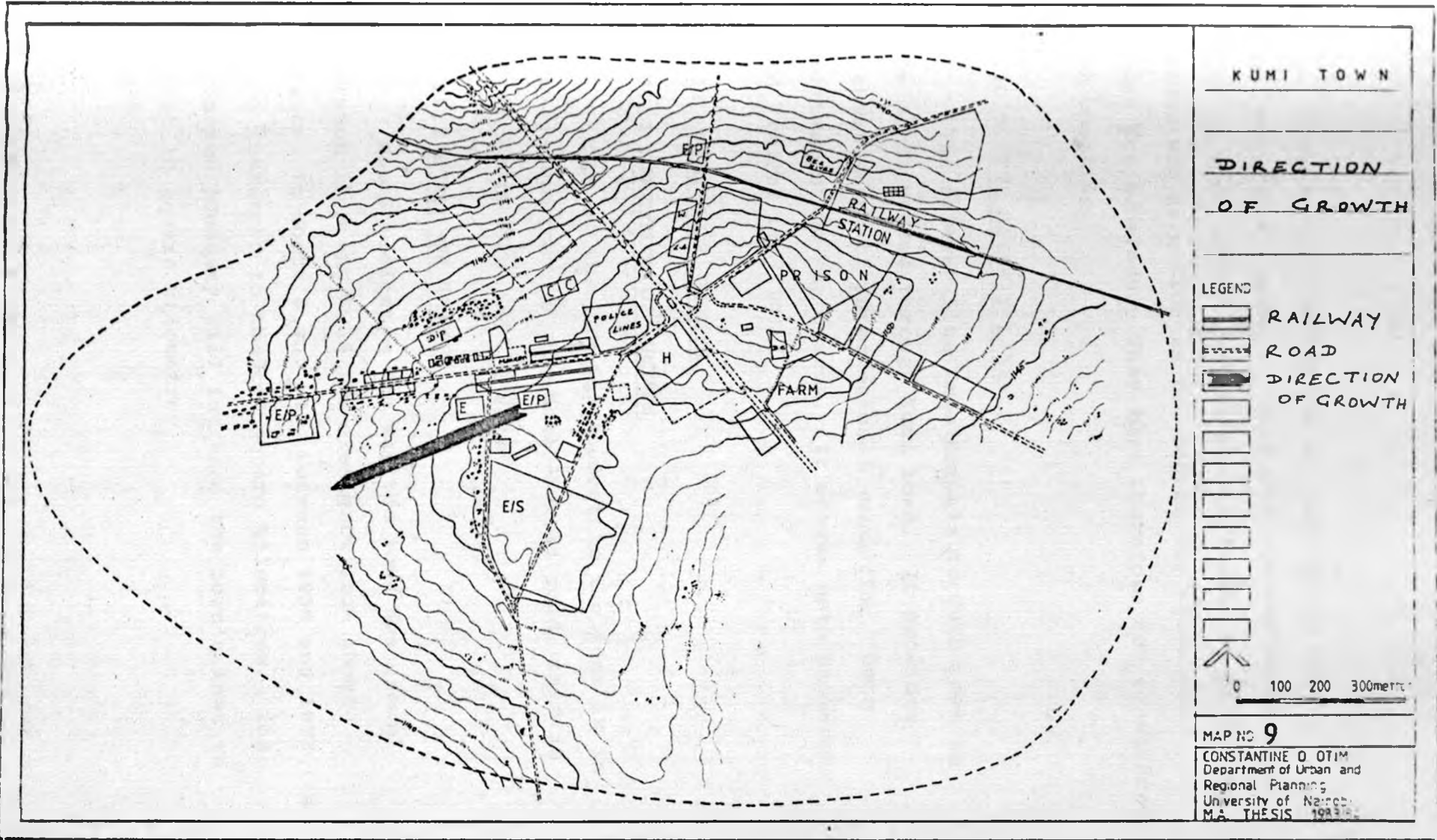
During the traffic counts the following 4 categories of vehicles were used: cars, light trucks, heavy trucks, and buses.

The mode of transport was therefore as follows:

Table 2.22

MODE OF TRANSPORT












MODE	No.	%
Cars	60	57.14
Light Trucks	23	21.90
Heavy Trucks	17	16.19
Buses	5	4.77
Total	105	100



KUMI TOWN

DIRECTION OF GROWTH

LEGEND

-  RAILWAY
-  ROAD
-  DIRECTION OF GROWTH
- 
- 
- 
- 
- 
- 
- 
- 

0 100 200 300metre

MAP NO 9

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 Regional Planning
 University of Nairobi
 M.A. THESIS 1983

Motorcycle traffic was so negligible that it was left out altogether. Both bicycle and pedestrian traffic were heavy, but it was difficult to ascertain volume and direction as the routes for these two modes are numerous. They were therefore not considered for counting.

2.10.5 THE RAILWAY LINE

The railway line from Kampala to Gulu town in the North passes through Kumi town. It provides a cheap means of interregional commuting both northwards and southwards. It serves both passenger and freight traffic.

2.11 PHYSICAL GROWTH

2.11.1 DIRECTION OF GROWTH

Much of the new development in the town is in the Western part of the Mbale-Soroti road, that is along Ngora road (see map 9).

2.11.2 SCALE OF GROWTH

Map 3 indicates the way the town has grown. Between 1909 and 1956 its area grew from about 1sq.km. to about 2 sq. km. Between 1956 and 1973 its area increased to about 3 square kilometres. The proposed boundary will increase the town's area to about 10 square kilometres.

2.11.3 LAND OWNERSHIP

All the land within the present urban land uses is government land. This land was acquired as the need arose.

No land banking had been done by the government in anticipation of development.

REFERENCES

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2. Thomas, H.B.: Capax Imperii: The Story of Kakunguru. Uganda Journal (6:3), 1939.
3. Pirouet, M.L. : in University of East Africa. University Social Science Council Conference. Kampala, 1969.
4. Teso Local Administration. Teso District Book. Soroti, 1957.
5. Department of Lands and Surveys: The Uganda Atlas. Government Printer, Entebbe, 1962.
6. Ibid. pp. 21 - 24.

CHAPTER 3

3.0 PROBLEMS IDENTIFIED

3.1 INTRODUCTION

As a District Headquarters, Kumi town is deficient in some basic facilities. It is now necessary to briefly examine those facilities.

3.2 LAND USE

3.2.1 RESIDENTIAL

Presently residential land use is haphazard and there are no clearly defined areas that conform to zoning principles.

As more government departments are brought here, the town will require land to be allocated for low density, medium density and high density residential areas for the various cadre of workers. These are categorised as Grade I, Grade II and Grade III residential housing standard respectively, in section II of the second schedule of the Town and Country Planning Act.¹

These categories of housing exist in all planned urban centres in Uganda and are designed to cater for the 3 basic categories of income levels thus (1972-salaries).

- (i) High income (over 2,000 shillings); Low density housing standard; Grade I.
- (ii) Medium income (500 - 2,000 shillings); medium density housing standard; Grade II.
- (iii) Low income (under 500 shillings); High density housing standard; Grade III.

The present levels of salaries in government are about 3 times those indicated above.

Under this land use category, as the town grows, a Hostel will become necessary. This can be deferred but land should be banked for it.

Therefore under this land use, development is haphazard. Furthermore more land is needed for this type of use. (See plate 1).

3.2.2. INDUSTRY

Presently the flour mills are located in the town centre. However, in future, bigger industries cannot be located in the town centre. Manufacturing and workshops will need a proper industrial zone. The U.C.L. plant mentioned in section 2.4.2. above was temporarily located in the town centre because there

is no industrial land set aside. The basic problems under this use are that flour mills are in the town centre, as well as the U.C.L. Laboratories; secondly there is no land set aside for industrial use (see plate 2(a)).

3.2.3. EDUCATION

There are no Nursery schools in Kumi town. However, by the year 2000, when the estimated population will be 5970, there will be need for 2 nursery schools.

The 4 primary schools and the secondary school will need to be expanded to 4 streams each by the year 2000.

There is no Technical College in Kumi town as well as a Teachers College.

The basic problems under this use is lack of nursery schools, a technical college and a Teachers College. The Secondary school needs to be expanded. These improvements will require land to be set aside.

3.2.4. RECREATIONAL USE

In section 2.4.4. above it was noted that there are no recreational facilities. There is need for a

stadium and other sports facilities. The stadium would provide space for organised district games, National events or even agricultural shows.

3.2.5. PUBLIC PURPOSE

3.2.5.1. DISTRICT COMMISSIONER'S OFFICES

These are now located in the Rest-House, which is meant for official visitors to the district. There is therefore need to allocate land for the construction of these offices including offices for all other departments.

3.2.5.2. TOWN COUNCIL OFFICES

These are presently located to the West of the market, in what used to be a veterinary office operating on livestock auction days. There is therefore need for proper Town Council offices which will require land to be set aside for that purpose.

3.2.5.3. FIRE STATION

The Town Council has no fire station and fire engine. Both are necessary in this town. Therefore there is need for land to be set aside for this purpose.

3.2.5.4. DISTRICT HOSPITAL

Kumi town has a dispensary, but it was originally serving the County of Kumi. Now it is serving the whole district. Land should therefore be set aside for a District Hospital.

3.2.5.5. THE PRISON

The prison is just next to the County offices. Its farm land is too small for future expansion. This prison is therefore in the wrong location. A new site should be allocated for it, which needs to be big enough for future expansion.

3.2.5.6. PLACES OF WORSHIP

There is no mosque in the town. The Catholic and Protestant churches are located in Primary schools, but they may need to expand in future. Land should be put aside for these uses.

3.2.5.7 LIBRARY AND CINEMA

The town does not have these amenities. Land should be put aside for these uses.

3.2.6. COMMERCIAL

3.2.6.1. THE SHOPS

The town centre has 35 shops. Standard provision for a town of this size is 50 shops and over. More land should be put aside for this use.

3.2.6.2. THE MARKETS

The retail market is the only one serving the town's needs. This market should be expanded, and so land needs to be put aside for this purpose.

The livestock market ("Auction") is located just behind the Town Council offices. This market is important, but it should be located elsewhere as it is too near the town centre. Land should be put aside for this market (see plate 3).

3.2.6.3. RESIDENTIAL HOTEL

The town has no proper residential hotel. The one lodge in the town centre is small and is sub-standard. Land should be put aside for this use.

3.2.6.4. PRIVATE OFFICE SPACE

As the town grows, the need for office space in the private sector will increase. Some of these

offices (like Advocates) are now located in converted shops. Land should be put aside for this purpose.

3.2.7 PUBLIC UTILITIES

3.2.7.1. SLAUGHTER HOUSE

There is an open air slaughter slab just behind the central market. There is need for a proper slaughter house. Land should be put aside for this purpose (see plate 4 (a)).

3.2.7.2. YARDS

The Town Council has no Yard. The Ministry of Works (M.O.W.) has a very small yard within its office compound. There is therefore need to put aside land for the two yards.

3.2.7.3. SEWAGE DISPOSAL PLANT

The town has no sewage disposal plant. This will be necessary when a sewerage system is established. Land should be put aside for the plant (see plate 6 (b)).

3.2.7.4. REFUSE DISPOSAL AREA

The town has no refuse disposal area. Space should be allocated for this purpose.

3.2.7.5. CEMETERIES

The Asian Cemetery behind the shops should be removed to another site and expanded to cater for all the public and all religious affiliations.

3.2.7.6 ELECTRICITY

It is difficult to allocate land in advance for electricity distribution stations

3.2.7.7. POST OFFICE

The Post Office is currently housed in a converted shop. There is need for a proper site for it, and so land should be allocated for this purpose.

3.2.8. TRANSPORTATION

3.2.8.1. BUS STATION

There is no Bus Station in the town. Land should therefore be allocated for this purpose (see plate 8 (a).

3.2.8. PETROL STATIONS

There is one "Shell" Service Station located at the junction of Ngora road and Mbale-Soroti road. It should be re-located.

Furthermore, by the year 2000, there will be need for at least one other service station. There is therefore need for land for 2 service stations.

3.2.8.3. TAXI AND LORRY PARKS

These parks are not available. The two parks could be located near the Bus Park. Land should be put aside for this purpose (see plate 8 (b)).

3.2.8.4. AIRSTRIP

Kumi town has no airstrip. However, Kumi Leprosy Hospital, 5 Kilometres away has an airstrip.

3.3. BOUNDARY EXTENSION AND LAND OWNERSHIP

All the developments indicated above will require acquisition of new land. All the land immediately around the town is freehold rural land. The proposed boundary will include this freehold land within its borders.

The acquisition of this land is provided for in the Town and Country Planning Act.²

R E F E R E N C E S

1. Uganda Government. The Town and Country Planning Act. Chapter 30. Second Schedule, Section II. Government Printer, Entebbe, 1964.
2. Ibid., Sections 17 and 18.

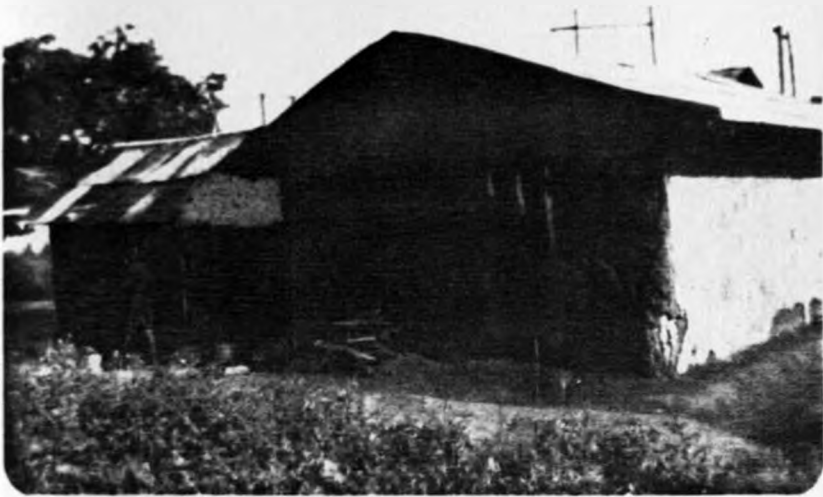


Plate 1 (a). Most residential housing is of semi-permanent materials and haphazard.,

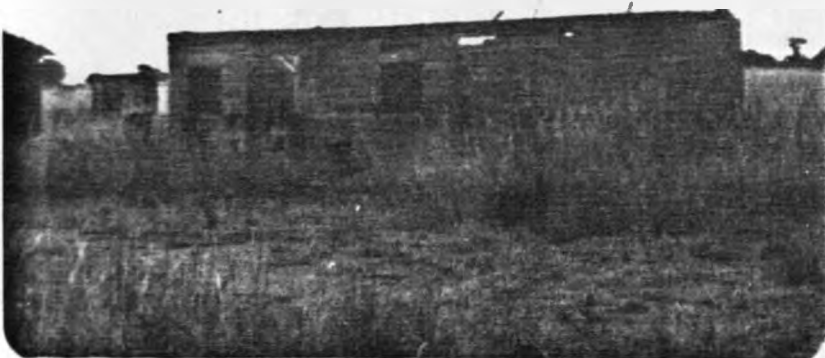


Plate 1(b). Private housing under construction along Kanyum road. There is need for more housing and residential land.



Plate 2 (a): The U.C.L. Laboratories. There is need for industrial land.

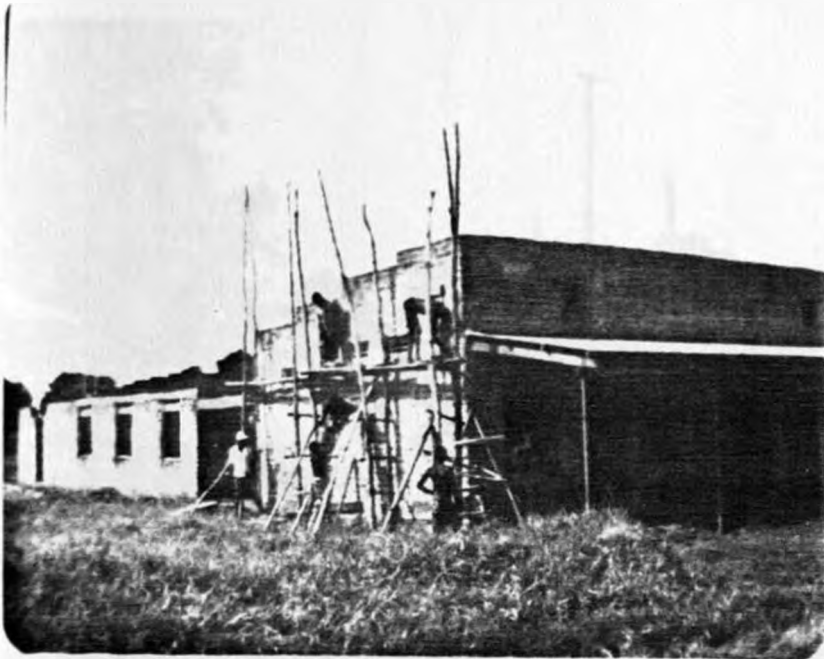


Plate 2(b): New shops are going up on Ngora road. There is need for more commercial plots.



Plate 3 (a): The Market stalls are of temporal and semi-permanent materials.



Plate 3(b):The market on Livestock 'Auction' days. Trees and open space around the market facilitate trade.

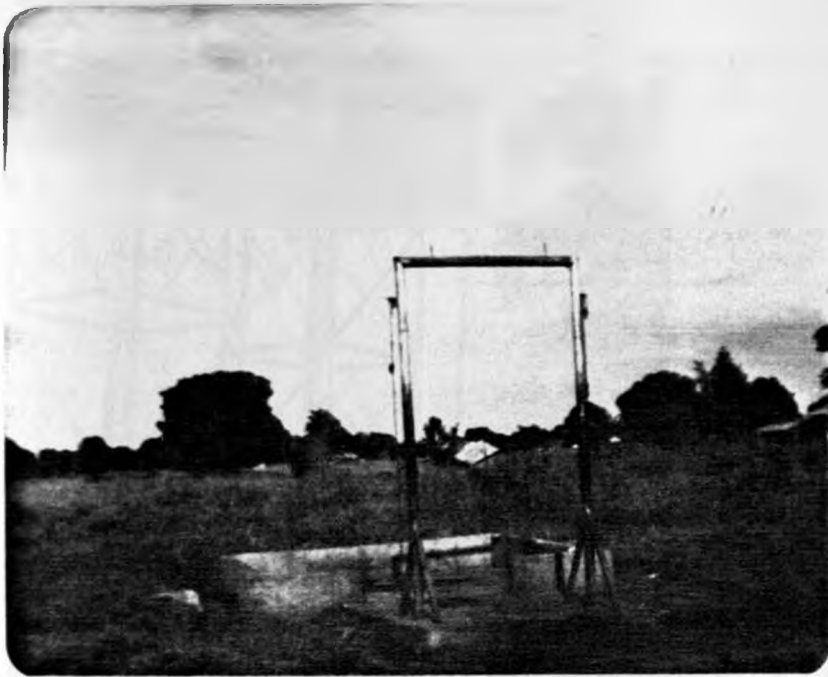


Plate 4(a): The slaughter slab. There is need for a proper abattoir and a hides and skins Banda.



Plate 4(b): Grass thatched restaurants; most active on market days. There is need for better restaurants and hotels.



Plate 5 (a): The Water Reservoir. It is too small and is empty most of the time.



Plate 5(b): The boreholes are vandalised soon after they are repaired. Hawkers charge very highly for water.



Plate 6(a): Latrines are few and poorly maintained.



Plate 6(b): Dumping spot in foreground. There is no proper garbage collection system and disposal site.



Plate 7(a): Relaxation on a market day. Proper recreational facilities are lacking.

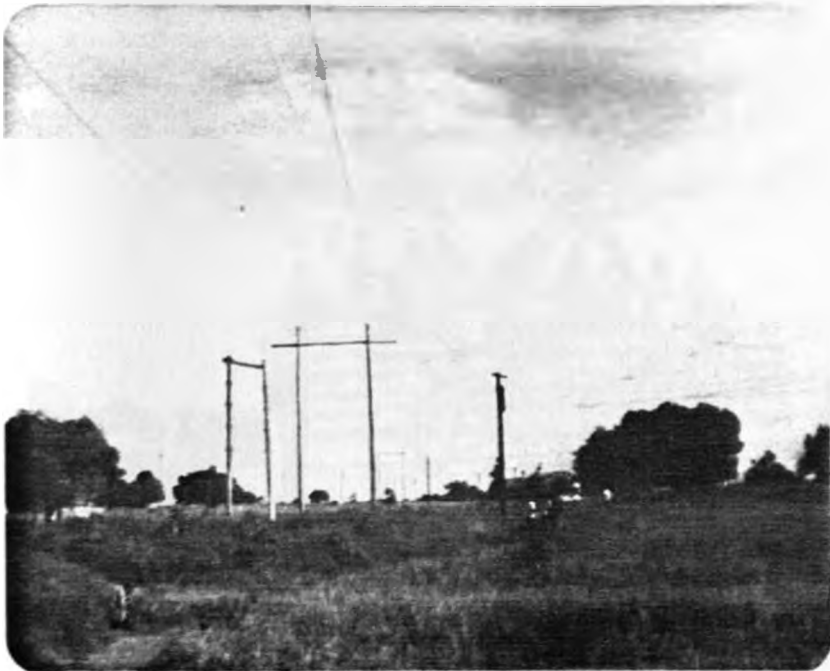


Plate 7(b): Electricity is available at various voltages.



Plate 8(a): Buses pick up passengers anywhere. There is no Bus station. Note that this central road is narrow and without proper drainage.



Plate 8(b): Lorries (and matatus) provide vital transport. However, there are no proper parks for them.

CHAPTER 4

4.0 PROPOSALS

4.1 INTRODUCTION

Chapter 3 examined the problems pertaining to the functions of Kumi town as a district headquarters.

Chapter 4 sets out to propose how these problems can be resolved.

Section 4.2. sets the basis for population projections. Section 4:3 examines land use requirements for various years, according to the land use category. Section 4.4. presents the land use proposals based on the estimated land use requirements up to the year 2000. Section 4.5 presents the immediate programmes in the implementation of the proposals. Section 4.6 presents programmes relating to phase two, or the medium term, implementation of the proposals.

4.2 POPULATION

The military regime between 1971 and 1979 caused so much hardship and insecurity in Urban centres in Uganda that most of them recorded negative growth between 1969 and 1980 censuses.¹

Kumi town recorded a growth rate of 0.73% per annum in that period.

In order to derive a reasonably assumed growth rate for Kumi town, it is necessary to examine comparable towns in Kenya, where conditions have been more normal.

The Human Settlements Strategy in Kenya has provided overall guidelines for the planning of a network of designated service centres.² In that document, the functional designation of each type of planned centre is as follows:

- (i) One designated Local Centre for a rural population of about 5000. Here there is negligible resident population.
- (ii) One designated market centre for approximately 15,000 rural population. A resident population of 2000 people.
- (iii) One designated Rural Centre for about 40,000 rural population. A resident population of between 2000 and 10,000.

(iv) One designated urban centre for about 120,000 rural population. A resident population of above 5000.

Though Kumi town has a resident population of only 1890 in 1983, it serves the whole district which has a population of about 240,000. This places Kumi town in the fourth category, that is urban centre.

Since Kumi town is here considered an urban centre by virtue of its functional status, some urban centres in Kenya were examined with a view to approximating Kumi town's growth rate. The towns are near Uganda so that similarities of growth circumstances are increased. The towns considered are as follows:

TABLE 4.1

SOME GROWTH RATES FROM KENYA

TOWN	1980 POPULATION	GROWTH RATES 1980 - 2000	
		HIGH	LOW
Kimilili	2000	7.5%	8.5%
Busia	3000	6.4%	7.5%
Lodwar (urban)	2000	2.05%	3.25%
Kapenguria	4200	6.0%	7.0%
Total		5.48%	6.56%

Source: Human Settlements Strategy, Table 8.7

In section 2.12 above, it was noted that Kumi District has a growth rate of 2.1% p.a. Furthermore the Human Settlements Strategy notes that urban centres grow at rates at least double that of their districts of location.³

Therefore the author thought it fit to assume 5% and 7% as the Low and High growth rates for Kumi town respectively.

Using these assumed growth rates, and using the compound Interest Formula, the population estimates up to the year 2000 are presented as follows:

$$P_n = P_t \left(1 + \frac{r}{100}\right)^n, \text{ where}$$

P_n = Required population

P_t = Base population

r = Rate of growth

n = Interval in years.

Using the population of 1983 as the base population, the following table is obtained:

TABLE 4.2

PROJECTED POPULATION

YEAR	POPULATION	
	G.R. = 5%	G.R. = 7%
1983	1890	1890
1985	2084	2164
1990	2659	3035
1995	3394	4256
2000	4332	5970

If the conditions in Uganda had been more normal, the growth of 2.1% for Kumi district would have been higher. The country's average for the same period was 2.8% p.a.

This being the case the author assumes the growth rate of 7% as representing the situation better. Consequently all calculations done below use the 7% p.a. growth rate for the population.

4.3 LAND USE REQUIREMENTS

4.3.1 INTRODUCTION

Before establishing land use requirements it is necessary to indicate land use proportions that are typically found in towns as small as Kumi town.

The Town Planning Department Handbook established that an urban centre, in Kenya, the size of Kumi town, would, on average have the following land use zone proportions.⁴

Residential	41.5%
Industrial	7.8%
Educational	15.6%
Recreational	13.2%
Public purpose	15.0%
Commercial	3.9%
Public utilities	3.0%

Using these proportions it is now possible to estimate the required land for all the broad land uses.

The Town Planning Handbook recommends that when one use type is known, the rest can be calculated (sheet C 14).

In the case of Kumi town, residential land is estimated first, and then the others are also worked out.

4.3.2. RESIDENTIAL AND OTHER LAND USES

The 1972 Kampala Structure Plan assumed 3 broad categories for incomes.⁵ These were:

Low Income	Less than 500 shillings
Medium income	500 - 2000 shillings
High income	over 2000 shillings

The author intends to use these 3 categories for calculating residential land use requirements. In Uganda the 3 categories are used for the 3 basic Housing Schemes in all urban centres. These are:

TABLE 4.3

INCOME AND HOUSING SCHEMES

INCOME	TYPE OF SCHME	RESIDENTIAL DENSITY (PERSONS PER ha.)
Low	Grade III	250
Medium	Grade II	75
High	Grade I	30

The proportions of these income groups in Kumi town was as follows:

TABLE 4.4.

INCOME CATEGORIES

CATEGORY	No.	%
Low Income	33	41
Medium Income	26	33
High Income	21	30

The high income group is unusually big because traders and government officials still form a big proportion of the total employed population.

Before calculating housing needs in the 3 categories, it is necessary to calculate residential densities for the 3 groups in terms of units per hectare. Kumi town has an average household size of 5 persons. If residential density is divided by the figure 5 then the required units per hectare are obtained as follows:

CATEGORY	RESIDENTIAL DENSITY (PERSONS PER HECTARE)	ACCOMMODATION DENSITY UNITS PER HECTARE
Grade III	250	50
Grade II	75	15
Grade I	30	6

Using the projected population and the household size of 5 persons, the following number of units will be required:

TABLE 4.5

HOUSING NEEDS IN UNITS

Year	Population	Total Units	Low Income 41%	Medium Income 33%	High Income 26%
1983	1890	378	155	125	98
1985	2164	433	178	143	112
1990	3035	607	249	200	158
1995	4256	851	349	281	221
2000	5970	1194	490	394	310

Using the housing densities of 50, 15 and 6 units per hectare for low, medium and high income categories respectively, the amount of hectarage necessary for these units are as follows:

TABLE 4.6

TOTAL RESIDENTIAL HECTARAGE 1983 - 2000

Year	Total Hectares	Low Income (50 u/ha)	Medium Income (15 u/ha)	High Income (6 u/ha)
1983	27.7	3.1	8.3	16.3
1985	31.8	3.6	9.5	18.7
1990	44.6	5.0	13.3	26.3
1995	62.5	7.0	18.7	36.8
2000	87.8	9.8	26.3	51.7

So by the year 2000 total residential land requirement will be 87.8 hectares. The rest of the land uses will have the following requirements by the year 2000.

TABLE 4.7

TOTAL LAND REQUIREMENT

Use Zone	Percentage	Hectares
Residential	41.5	87.8
Industrial	7.8	16.5
Educational	15.6	33.0
Recreational	13.2	27.9
Public purpose	15.0	31.7
Commercial	3.9	7.8
Public utilities	3.0	6.3
TOTAL	100	211.0

4.3.3. THE PROPOSED BOUNDARY

Using the proposed boundary, it is now possible to estimate the amount of land that is required and that which will be available in future.

TABLE 4.8

REQUIRED LAND USE

USE ZONE	REQUIRED LAND (HECTARES)
Residential	87.8
Industrial	16.5
Educational	33.0
Recreational	27.9
Public purpose	31.7
Commercial	7.8
Public utilities	6.3
Total	211

The estimated land within the proposed boundary is 985 hectares. Therefore the remaining 774 hectares will be banked for future use.

4.3.4. DIRECTION OF GROWTH

The presence of the railway station and Government offices to the East of the Soroti-Mbale road has tended to limit growth in the easterly direction.

Most of the new development is taking place in the westerly direction particularly along Ngora road and to a lesser extent along Kanyum road. This

westerly growth does not pose any physical constraints because these areas are easily serviced with water and sewerage, by gravity only.

However, the already proposed boundary is a limitation here. The boundary will expand the town to 10 sq.km. Since this land will be acquired, all the proposals made here should be within the proposed boundary. The author feels that this will assist the government at this time of Rehabilitation and Reconstruction. Alternative growth possibilities are therefore not considered here.

In proposing the land uses, a number of guiding principles were considered. The total structure should be capable of modification and extension to allow for indefinite growth. The road system should be cheap to construct and easy to extend. The journey to work and recreation should be minimised. This is done by locating residential areas, work areas and social facilities so as to give maximum convenience to people in all parts of the town.

In order to develop a pleasant and healthy town for all citizens, wind direction plays a role in locating the industrial area and the sewerage plant.

Furthermore the low-income people, whose proportion is bound to grow in the town, should receive the most attention.

The resources likely to be available were also considered. That is, policies should be capable of being implemented.

Finally it is sought to provide easy movement between all parts of the town using vehicular and pedestrian movement.

4.4. LAND USE PROPOSALS

4.4.1 RESIDENTIAL

By the year 2000, residential use will require 87.8 hectares. Grade I housing will require 16.3 hectares for 98 units. Some of these units should occupy 6 hectares along Malera road, next to the Agricultural station. Another 6 hectares should be located south of the Wiggins Secondary school. Then another 5 hect-res should be located to the west of this school along Kanyum road.

Grade II housing will require 8.3 hectares by the year 2000, for 125 houses. These should be located west of Wiggins school (4 hectares) and another

4 hectares should be located south of the proposed hospital.

Grade III housing should not be far from the shopping centre, offices and industrial areas, because the residents may not afford private transport. This category of housing will require 3.1 hectares for 155 houses. Out of this figure, 1 hectare should be located near the water tank, 1 hectare north-west of the central market, and 1 hectare north of the railway along Toroma road.

4.4.2 INDUSTRY

Industrial use requires 16.5 hectares by the year 2000, which amounts to 7.8% of total land use for that year.

Land for heavy industry should be located north of railway crossing on Soroti road. This land is near the railway, so shunting can be done for easy handling of bulky goods. The location will ensure that noxious industries do not affect residents of the town because the wind direction here is from East to West. Pollutants will be blown over the proposed sewage works. Land for this use should amount to 8 hectares.

Light industry should be located to the South-west of the town. This should occupy 8 hectares.

Some Go downs should be located east of the railway station, to occupy 0.5 hectares.

4.4.3 EDUCATION

4.4.3.1 NURSERY SCHOOLS

By the year 2000, 2 Nursery schools will be required. Each of them will occupy 0.8 hectares. One should be located just off Kanyum road next to the Primary school.

The other should be located to the north of the Agricultural farm along Malera road.

4.4.3.2. PRIMARY SCHOOLS

All the 4 existing Primary schools are required to operate at 4 streams by the year 2000. Each one will require 3.5 hectares including staff housing of 30 units.

A total of 14 hectares will therefore be required for this purpose.

4.4.43.3. THE SECONDARY SCHOOL

Wiggins Secondary School occupies about 4 hectares. However, by the year 2000 its expected enrolment will require 5 streams because it serves the rural areas as well. Assuming that it will eventually be made a Boarding School, it will require 18.2 hectares for dormitories, staff housing and playing fields. However since the stadium is just to the East of the school, 16 hectares will be adequate.

4.4.4. RECREATION

As a district headquarters Kumi town requires some recreational facilities. Foremost among these is a stadium and fields for sports like tennis and netball. These facilities should be near the residential areas.

The stadium should be located East of the Wiggins Secondary school.

Recreational land use will require 27.9 hectares by the year 2000, including passive open space.

4.4.5. PUBLIC PURPOSE

4.4.5.1. GOVERNMENT OFFICES

Space required by public purpose will amount to

about 40 hectares. Government offices and Town Council offices should be located East of the Mbale-Soroti road, occupying about 11 hectares.

Police lines should remain on the western side of the Mbale-Soroti road.

4.4.5.2. FIRE STATION

A fire station is necessary in a growing town like Kumi. The station should be located in the police station.

4.4.5.3. HOSPITAL

The dispensary needs to be allocated land so that it can be expanded into a District Hospital. An Ambulance station should be included so that emergency cases can be handled at night, instead of waiting for the driver to report on duty the next morning.

4.4.5.4. PLACES OF WORSHIP

The Catholic and Protestant churches are located in the Primary schools. This is a normal practice throughout the country.

However, the churches may wish to expand their services, so 0.5 hectares should be allocated for each, one near the water tank; the other near the railway crossing along Ongiino road.

There should also be another 0.75 hectares allocated for a Mosque near Kumi Girls' Primary school, along Ngora road, to include space for an elementary school for Islamic studies.

4.4.5.5. PRISON

The Prison should be allocated 18 hectares north of the town, to include offices, staff housing and a farm. In order to minimise expenditure on new housing and offices, some prison staff should remain in the present site.

4.4.5.6. LIBRARY

The Library needs to be near the Town Council Offices. It should therefore be allocated 0.75 hectares within the office area, East of the Mbale-Soroti road.

4.4.5.7. POST OFFICE

The Post office should not be in the middle of shops as it is now. Furthermore it should not be far from the hospital and the town centre. It should therefore be allocated 0.75 hectares west of the hospital.

4.4.6. COMMERCE

4.4.6.1. SHOPS AND PRIVATE OFFICES

Enough space should be allocated for more shops and private offices. Some hotels can also be built under this use. Therefore 25 hectares should be allocated for this purpose.

4.4.6.2. HOTEL

Kumi town requires a residential hotel of good standard to cater for visitors of various social standing. One hotel occupying 1 hectare should be located to the East of the proposed prison farm.

4.4.6.3. THE MARKETS

The Central Market serves the town throughout the week, including the provision for daily requirements. It should therefore be expanded and improved to include good stalls and lockup shops. It should occupy 2. hectares.

The livestock market should be located north of the railway station at the Kraal - to occupy 7.5 hectares.

4.4.7 PUBLIC UTILITIES

4.4.7.1. SLAUGHTER HOUSE

This should be located next to the Livestock market. The site should include a hides and skins Banda. This will require 0.75 hectares.

4.4.7.2 YARDS

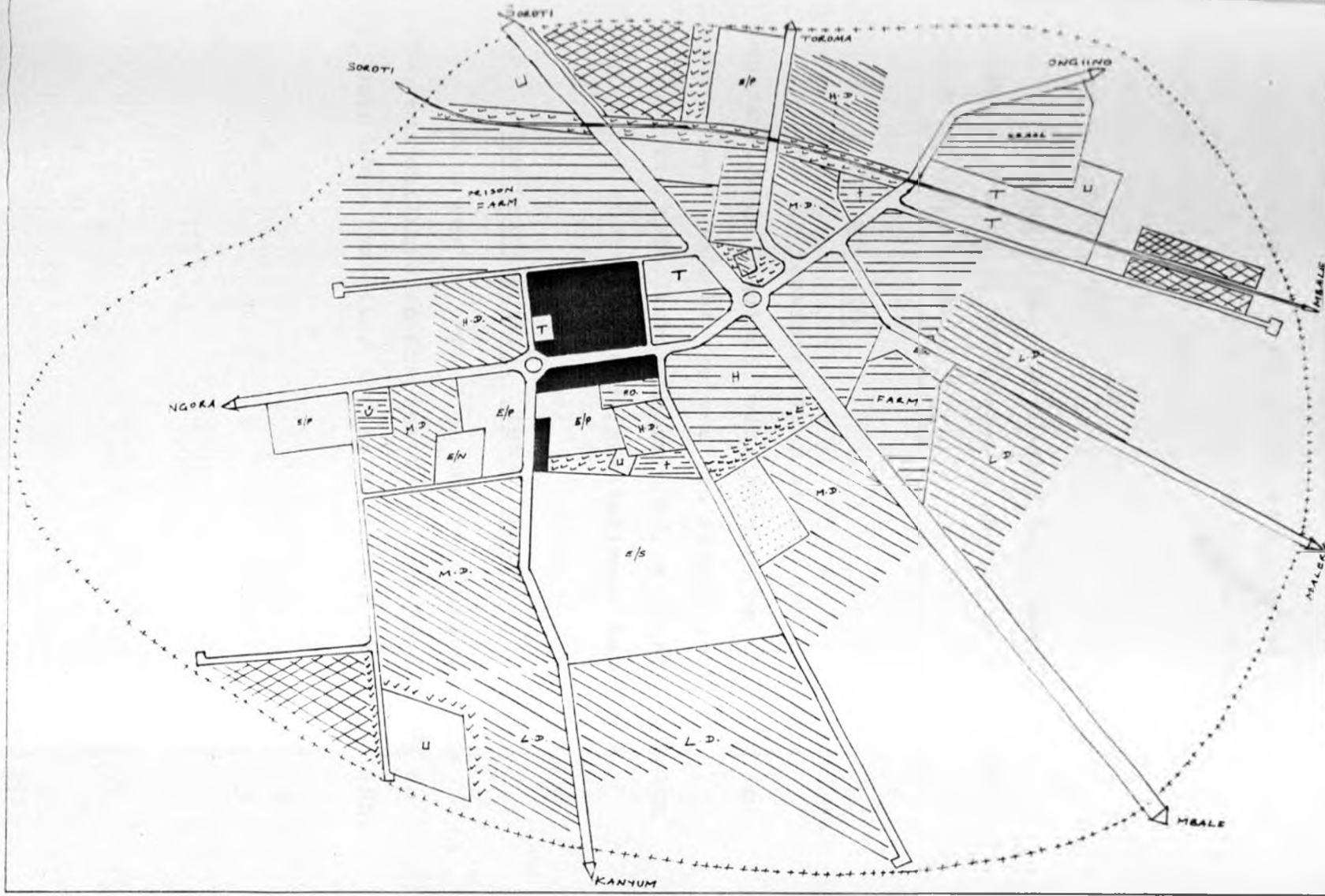
The Town Council and the Ministry of Works require yards. These should be located at the works office along Toroma road. This will require a total of 2 hectares.

4.4.7.3. SEWAGE DISPOSAL

When the sewerage system is established, a sewage plant will be required. The site north of the town, to the north-west of the railway crossing on Soroti road is ideal. It facilitates sewerage by gravity. The wind direction, East-west. is also considered in this location. An initial allocation of 2 hectares would be adequate.

4.4.7.4. CEMETERIES

There is need for a cemetery site. A site south-west of the town needs to be provided, occupying 4 hectares.



KUMI TOWN
Proposed Land Use
Pattern, Year 2000

LEGEND

-  Residential
-  Industrial
-  Educational
-  Recreational
-  Public Purpose
-  Commercial
-  Public Utilities
-  Transportation
-  Open Space
-  Road
-  Deferred



0 100 200 300metres

MAP NO.10
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4.4.8 TRANSPORTATION

4.4.8.1. BUS PARK AND TAXI PARK

There is need for a Bus station and a Taxi park. A site of 1.5 hectares should be allocated north of the police lines.

4.4.8.2. LORRY PARK

A Lorry park is necessary near the Central market. A site of 0.2 hectares should be allocated north of the market.

4.5 DEFERRED LAND

All the remaining land within the proposed boundary, when acquired, will have to be deferred for future use. Some of the uses in future would include an Agricultural showground, a Rural Training Centre and government and institutional land uses.

4.5. IMMEDIATE PLANS : 1983 - 1985

In order to speed up the resolution of the problems outlined in Chapter 3, it is necessary to propose some immediate action areas for the year 1985.

4.5.1. RESIDENTIAL USE

Accommodation in Kumi town is rapidly becoming acute. Table 4.5. above indicates that as of 1985 433 housing units are required. 178 of these will be for low income workers, 143 for medium income and 112 for high income categories.

Therefore a total of 32 hectares will be required for this use, as shown in table 4.6. above.

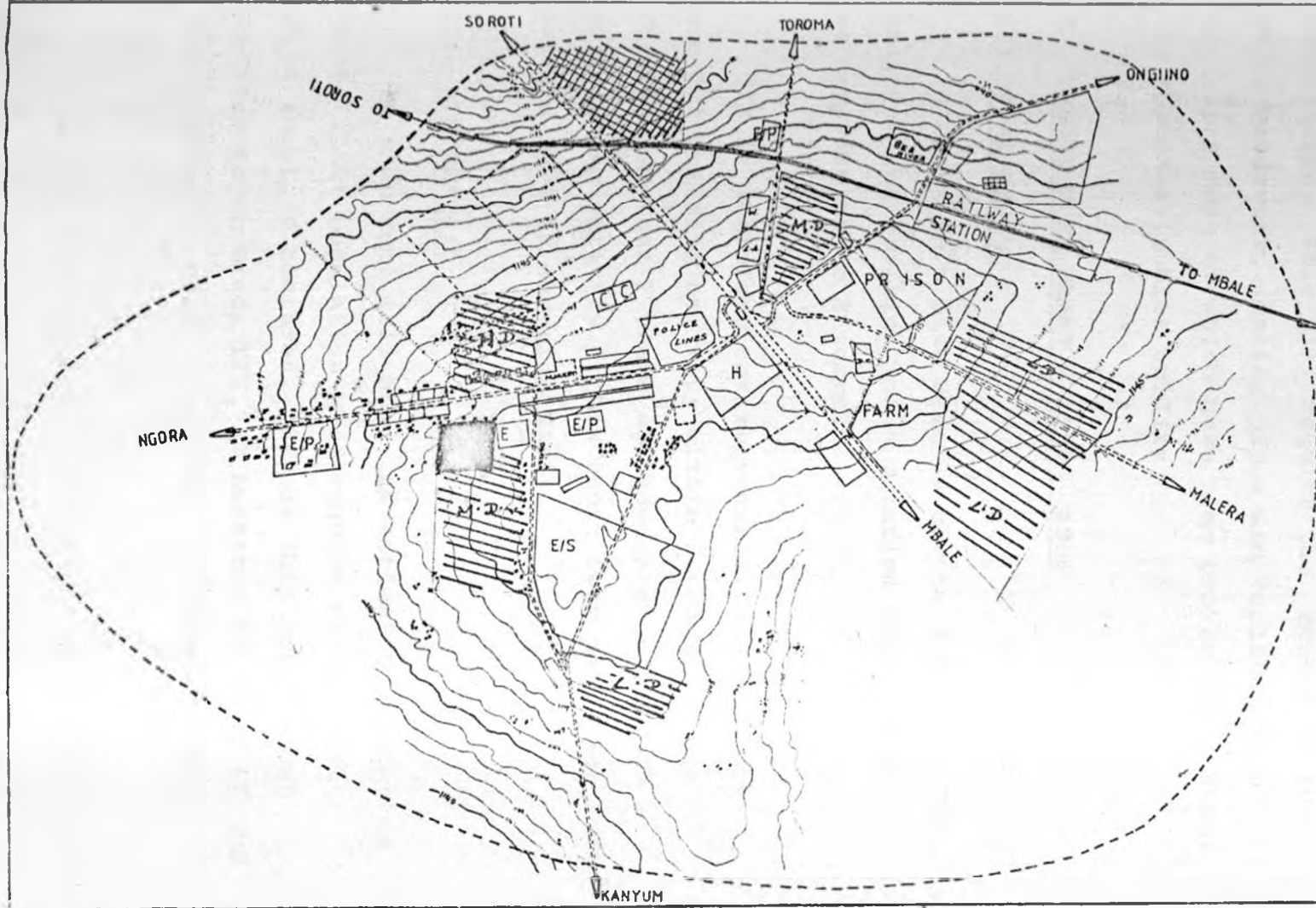
4.5.2. INDUSTRY

The location of the U.C.L. Laboratories in town demonstrates the need for industrial land. For the year 1985, industrial use requires about 3 hectares.

Serviced plots covering at least 3 -hectares could be provided by 1985.

4.5.3 EDUCATIONAL

By 1985 the population of Kumi town will be 2164. Standard provision for a Nursery school is one for 2500 people. One Nursery school therefore would be needed around 1985. This will require about 0.8 hectares. The Nursery school should be located off Kanyum road so as to serve the western part of the town, which is also currently more populated than the Eastern part.







KUMI TOWN

IMMEDIATE
PLANS

1983-1985

LEGEND

-  RESIDENTIAL
-  INDUSTRY
-  NURSERY
-  SCHOOL



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4.6.4. PUBLIC UTILITIES

WATER SUPPLY

The present water supply system needs to be rehabilitated. This will require the repair of the leaking reservoir, leaking pipes and replacement of stand pipes most of which have been broken off. Water is an essential public utility.

4.6 SHORT TERM PLANS - 1985 - 1990

4.6.1. TIME PERIOD

A short-term plan usually covers 5 years. The production and revision of a detailed short term plan may take up to 3 years.

It is therefore not reasonable to expect new plots for building activity within 5 years. It is here proposed that 7 years are adequate to produce some building activity. This short term plan therefore considers 1990 as the plan limit.

4.6.2. RESIDENTIAL

In 1990 Kumi will have an estimated population of 3035. That population will require residential land of about 45 hectares. Out of this space about 5 hectares go to Grade III, 13 hectares to Grade II and 26 hectares go to Grade I housing, as shown in table 4.6. above.

4.6.3 INDUSTRY

In order to encourage industrial development in the town, some serviced plots should be provided. For the year 1990 these should cover 8.4 hectares, which amounts to 7.8% of total land use in that year.

4.6.4. PUBLIC PURPOSES

The District Commissioner's offices and other departmental offices should be increased to cater for in-coming departments.

4.6.5. COMMERCIAL

The market needs to be expanded and, if possible, upgraded to 'A' standard with stalls in permanent materials. The market could include lock-up shops. This will require at least 2 hectares.

4.6.6. TRANSPORTATION

The road network in the town needs to be developed at this phase of development. There should be streets on either side of shops, running parallel to the Ngora road. Other proposed roads are shown in map 10. The road network will guide the further growth of the town in an organised manner.

4.7 1990 - 2000

In the remaining years of the plan period, some amount of work will still need to be done.

4.7.1. RESIDENTIAL

The estimated population of 5970 in the year 2000 will require a total of 1194 residential units. This requires land amounting to 87.8 hectares. By 1990 only 607 units will have been constructed at the maximum. This leaves out 587 to be constructed in the remaining time.

4.7.2 INDUSTRIAL

Industrial use requires 16.5 hectares by 2000. By 1990 a maximum of 8.4 hectares will have been provided. This leaves 8.1 hectares to be provided between 1990 and 2000.

4.7.3. EDUCATIONAL

A number of programmes need to be considered here for the year 2000.

The second nursery school will be necessary by this time. This should be located in the Eastern part of the town as the other one is in the western part.

Adequate staff-housing should be provided within the primary and secondary school compounds. This will mean expanding the Primary Schools to 3.5 hectares each, which is enough land to include 30 staff houses. The 4 primary schools will require a total of 14 hectares.

The secondary school will also need expansion from the present 4 hectares to 7.1 hectares, if it remains a day school. If it is made a boarding school, it will require 18.2 hectares. 16 ha. are provided.

4.7.4. RECREATION

The stadium and other sports fields will require to be provided in this plan period.

Passive open space will also need to be allocated for passive recreation.

The total land required by this category by the year 2000 is 27.9 hectares.

4.7.5 PUBLIC PURPOSE

4.7.5.1. HOSPITAL

The dispensary needs to be expanded to a hospital.

4.7.5.2. FIRE STATION

This should be provided as a growing town like Kumi cannot do without a Fire engine.

4.7.5.3. PLACES OF WORSHIP

Land should be provided so that the Catholic and Protestant churches can construct new churches if they wish. There is also need for a mosque in the town.

4.7.5.4. PRISON

The Prison should be relocated, if possible, at this plan period.

4.7.5.5. LIBRARY

The library should be provided.

4.7.6 COMMERCE

4.7.6.1. Shops and private offices will need space to be provided for expansion and new construction.

4.7.6.2. Hotels will require space.

4.7.7. PUBLIC UTILITIES

4.7.7.1 A proper slaughter house should be provided.




4.7.7.2 Yards for the Ministry of Works and the Town Council will be necessary.










KUMI TOWN

SHORT TERM
PLANS

1985 - 1990

LEGEND

-  RESIDENTIAL
-  PUBLIC PURPOSE
-  MARKET

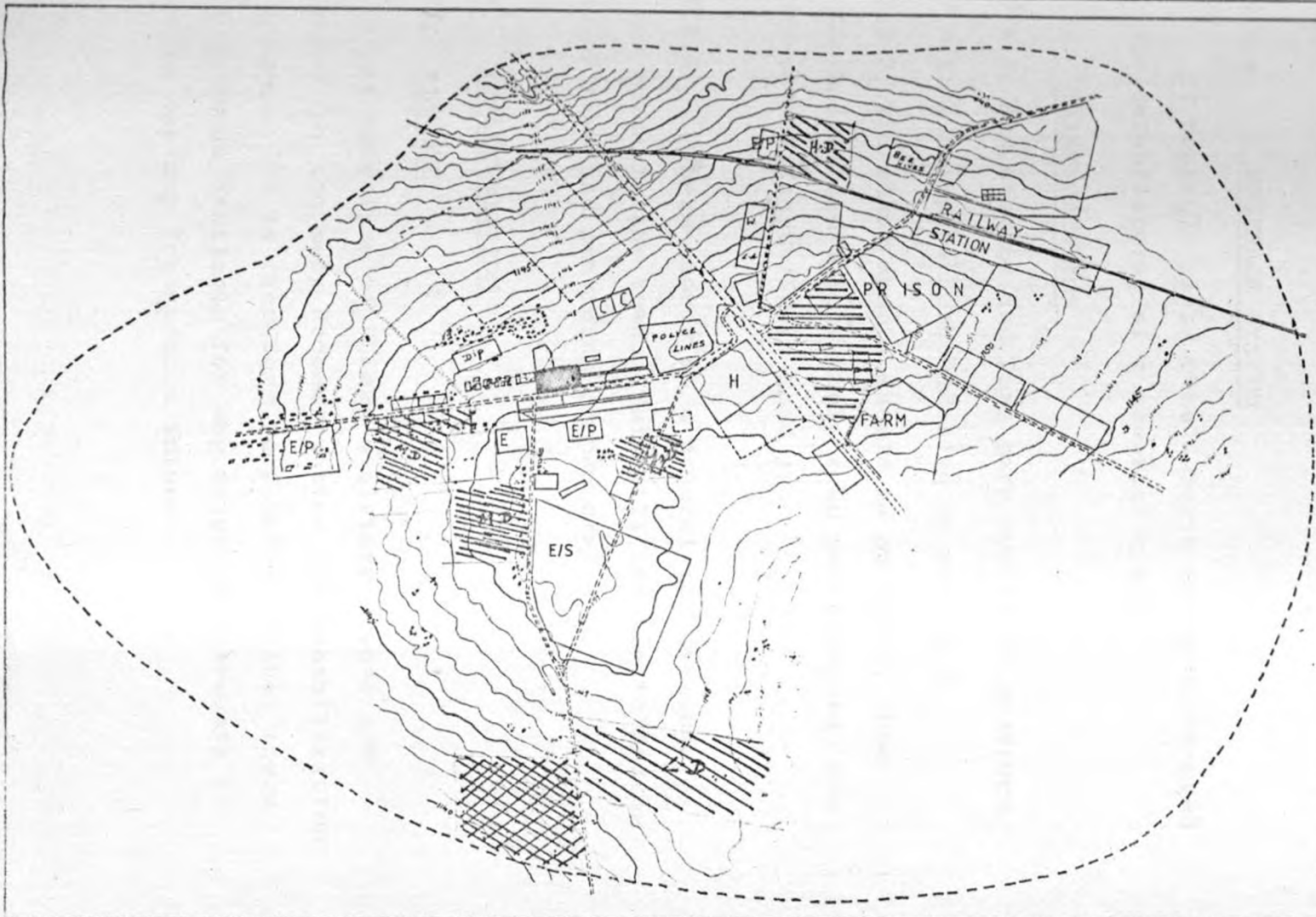
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0 100 200 300metres

MAP NO 12

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4.7.7.3. CEMETERIES

A new site for cemeteries for all the community should be provided.

4.7.7.4. SEWERAGE SYSTEM

If possible plans should begin to be elaborated for the establishment of a sewerage system.

4.7.8 TRANSPORTATION

4.7.8.1. Bus station and Taxi park should be provided.

4.7.8.2. A Lorry park should also be provided.

4.7.8.3. Two roundabouts should be provided. One on the Ngora road/Soroti-Mbale road junction; and the other on the Kanyum/Ngora road junction.

4.7.8.4. There should be a general improvement of the roads in the town. This will include tarmacing some of them and providing proper drainage.

4.8 IMPLEMENTATION

4.8.1. FINANCE

At this time of Uganda's history, funds are required for too many Reconstruction and Rehabilitation programmes. It is therefore very unlikely that there will be funds available for any major improvements in the town for any foreseeable future.

The financing of the programmes requires further investigation by the Ministry of Housing and Urban Development, the Ministry of Finance and also the Ministry of Local Government. Agreement has to be reached on how to raise the money, including the possibility of requiring external loans.

There is no Five-Year Development Plan at present. There is only a Recovery Plan, Phase II. However, the next Five-Year Development Plan should allocate some money to the Ministry of Housing and Urban Development and the Ministry of Works to carry out some of the developments required.

4.8.2. ADMINISTRATION

In general, the following agencies are responsible for the proposed programmes.

LAND USE	PROGRAMMES	IMPLEMENTING AGENCY
RESIDENTIAL	Council Housing	National Housing Corp.
	Private Housing	Ministry of Housing Ministry of Housing
INDUSTRIAL	Workshops	Ministry of Industry
	Warehouses	Ministry of Commerce
EDUCATIONAL	Schools	Ministry of Education
	Staff Housing	" "
RECREATION	Playgrounds Open space	Ministry of Culture and Community Development
PUBLIC PURPOSE	Administration	Ministry of Local Govt./ President's Office
	Police	Ministry of Internal Affairs
	Prison	Min. of Internal Affairs
	Health	Min. of Health
	Religious	Christian and Muslim Organisations
	Socio-Cultural	Min. of Culture and Community Development
	Law Courts	Ministry of Justice
COMERCIAL	Shops and Hotels	Min. of Housing
	Ma	Min. of Commerce
	Markets	Min. of Local Govt.
	Private Offices	Min. of Housing Min. of Commerce
	Petrol Station	Ministry of Transport and Communications.
	Banks	Ministry of Finance
PUBLIC UTILITIES	Water supply	Min. of Lands and Surveys
	Power	Uganda Electricity Board
	Sanitation	National Water and Sewerage Corp.
	Refuse Disposal	Town Council
TRANSPORTATION	Gazetted roads	Min. of Transport and Communications
	Council roads	Town Council/Min. of Works
	Railways	Uganda Railways Corp.
	Bus Station	Town Council/Min. of Works
	Car/Taxi Parks	Town Council/Min. of Works
	Air Strip	Min. of Transport and Communications

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CHAPTER 5

5.0 SUMMARY AND RECOMMENDATIONS

5.1 SUMMARY

5.1.1. GENERAL

This study presents the planning analysis of Kumi town in 1983, the long term development proposals for Kumi town for the year 2000, the immediate land use proposals for the year 1985 and the short term proposals for the year 1990.

The material for analysis was collected in September 1983 using the questionnaire presented as the appendix, and informal interviews with opinion leaders and Government officers in the town.

The objective of the study was to produce a broad structure plan for the development of this growing town. The author felt that the study would be useful to the Department of Town and Regional Planning in Kampala, and Kumi Town Council, in the preparation of an official Development Plan for Kumi town.

The study is based upon the government's policy of taking services nearer to the people, following which new districts were created in 1973.

Consequently Kumi town was designated the administrative headquarters of the newly created Kumi District in 1973. Kumi had been a county headquarters and a trading centre before 1973. It was gazetted as a town in 1975. The town therefore became a designated administrative-commercial town. It is the district's administrative centre and has the function of providing the highest level of services to the population in the town and surrounding rural areas. It is assumed that forthcoming National Development Plans will facilitate the functions of the town by giving high priority to the progressive building up of infrastructure in the town.

Based on the status of being the district's administrative commercial centre, Kumi town is expected to continue growing and will have a population of 6000 by the year 2000, from the present level of 1900 people.

This study sought to anticipate the land use requirements that would be necessary to serve such a big increase in the town's population. All these anticipated land uses were proposed within the proposed town boundary. The broad structure plan for the year 2000 was therefore based upon calculations of how much land is required for such an urban growth, what traffic

network would serve the town well and what other structural elements would be important for the long term development.

In fact it is nearly impossible to make a realistic estimate of Kumi's population in the year 2000, which is 16 years ahead. What is of interest here is to produce a realistic estimate of growth for the next seven years, up to the year 1990, and to produce a realistic short term plan for that period. The main purpose of the Long Term Structure Plan is to be a guideline for making the short Term proposals.

Before the short-term plan for the year 1990 was produced, it was necessary to analyse the existing situation and level of development in the town, to identify the planning problems in the town.

The Long Term and the Short Term proposals were then prepared. The implementation of these plans was also considered in relation to the various agencies involved in development control in a town like Kumi.

5.1.2 PROBLEMS IDENTIFIED

The major problems identified in the study were:

Administration:

Some District Functions, like the Hospital and Ministerial offices were not yet located in Kumi town. Office space is also lacking. There are not many industries in Kumi town, and the potential for new industries is quite limited.

Housing:

Housing in the town is acute particularly for government employees.

Public Utilities:

Water is essential in a town like Kumi. The water supply system does not function most of the time. Toilet facilities in the town need to be improved.

Transportation:

Parks for Buses, Lorries and Taxis are necessary in this town. These are not yet provided.

5.1.3 THE STRUCTURE PLAN

The structure Plan assumes a population of 6000 for the year 2000. The direction of growth of the town has been distributed to achieve a compact town spreading

down the hill on which it stands. This is in line with the already proposed boundary. The town is small so only one main centre has been proposed and given good growth opportunities for the commercial and administrative functions.

The regional roads entering the town, together with a few more internal access roads are sufficient for the year 2000.

5.1.4 SHORT TERM PLAN

The short term plan was proposed assuming a resident population of 3035 in the year 1990. Land use plans presented in these proposals follow the assumptions laid down in the structure plan, including land uses and a Traffic Network.

5.1.5 IMMEDIATE PLANS

In order to speed up the implementation of the short term proposals, a number of immediate plans were proposed for the period ending in 1985. These proposals included provision of some office space, some industrial land and some public housing.

5.2 RECOMMENDATIONS

5.2.1 FORWARD PLANNING

Much of the impetus for growth in the town will depend on administrative and policy decisions at national level. Consequently projection of employment, housing and other sectors cannot be very accurate. This situation is aggravated by lack of proper planning data.

As population grows there will be continued pressure on land for the various urban land uses, thus affecting the rural agricultural land around the town.

Planning information for controlling and guiding this outward growth is unreliable and not up-to-date. Consequently planning for a town like Kumi continues to be based on rough guidelines. The following are therefore suggested:

- (i) Determination of what long term projects would be undertaken in the town. This should follow a national policy embodying the spatial allocation of growth in a hierarchy of towns as district headquarters and regional centres. Development projects to be located in these centres could then be determined.

- (ii) Keeping accurate information on the sub-division and transactions of land and developments carried out.
- (iii) Keeping accurate information on building activities in the public and private sectors.

This data will be useful in the revision of short term plans and the long term plans as well.

5.2.2. LAND USE

The land use proposals presented for the year 2000 broadly indicates how the various types of land use could be located. The proposals are expected to facilitate development control and detailed planning so that developers can build in the right places.

Most of the land in the proposed boundary will be private freehold land under cultivation. It will be necessary to acquire this land for public purposes. This is usually done by agreement as provided for in Section 17 of the Town and Country Planning Act. Where agreement is impossible, compulsory Acquisition powers should be used.

5.2.3 SERVICES

The provision of land for additional development cannot be effective without a supporting network of services like water, sewage and roads. The existing services are so inadequate that some programmes to improve the situation are necessary. The Town Council should review the existing water supply system with a view to rehabilitating the system and to extend connections to other needy parts of the town.

The Town Council should also provide a long-term sewerage plan which should start operation by the year 1990.

5.2.4 EMPLOYMENT

The town needs to expand its economic base. It should aim at developing sectors that have higher employment and income generation. The sectors should be able to utilise raw materials available in the region. In order to promote this the Town Council should:-

- (i) identify specific resources and commission feasibility studies if possible. The results could be used to attract investors.

- (ii) provide adequate infrastructure to attract industrial, commercial and service activities in the town.
- (iii) encourage local entrepreneurs to promote development in their own town.

5.2.5 HOUSING

Most of the housing provision in the town is likely to remain in private hands up to the year 1990. The structures are mainly of semi-permanent materials. This is due to lower costs of construction and rent affordability.

The designation of the low income and also medium income residential areas will certainly encourage the present monopoly of housing by private developers.

High income public officers will most likely live in institutional housing in the low density residential areas. However non-public residents demanding this type of housing should be catered for by encouraging private developers to build high income low density housing.

In order to preserve agricultural land around the town, urban sprawl should be limited by encouraging maisonettes and moderate storeyed buildings in the residential areas. This provision will also reduce costs of extending services.

The additionally designated residential areas will need detailed planning for roads and plot sub-divisions so as to facilitate orderly development. These detailed plans should embody reasonable and affordable standards of construction for the various income groups. This provision will encourage private developers whose contribution is very much needed.

Reasonable alternative housing technology should be worked out by the Town Council and the Ministry of Housing and Urban Development. They should also work out reasonable housing finance systems for the town.

5.2.6 MANAGEMENT

The financial and manpower resources of the Town Council are not adequate to enable it to carry out large scale housing and other projects. These projects would require implementation maintenance and administration at the Town Council level. The Council

currently lacks the technical departments to provide and maintain infrastructure and services.

These are functions that the Council will ultimately assume. The likely financial input and sources will have to be evaluated by the Ministries of Housing and Urban Development, Local Government, and Finance.

5.3 CONCLUSION

There is need to do more research of urban centres in Uganda, with a view to establishing an adequate data bank on all urban centres.

This data would assist the government in allocating development projects to the urban centres. The projects would then be appropriate to the functional status and resource base of the Urban Centres.

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APPENDIX

OTIM OKIAI CONSTANTINE

DEPARTMENT OF URBAN AND REGIONAL PLANNING

UNIVERSITY OF NAIROBI

M.A. THESIS : FIELD SURVEY, SEPTEMBER, 1983.

DEVELOPMENT PLANNING FOR KUMI TOWN

HOUSEHOLD SURVEY

QUESTIONNAIRE

- 1. District Number -----
- 2. Household Number -----
- 3. Number of persons -----
- 4. Number of adults over 18 years -----
- 5. Number of children -----
- 6. Estimated total household income -----
- 7 (a) Occupation -----
 - Agriculture -----
 - Industry or Workshop -----
 - Commerce -----
 - Transportation -----
 - Public Sector -----
 - Student : Primary : Secondary -----
 - Other -----
 - None -----

- 7(b) Monthly Household bracket (shillings)
 - 500 - 999 -----
 - 1000 - 1499 -----
 - 1500 - 1999 -----
 - 2000 and over -----
 - Note stated -----

- 8 Type of House
 - Semi-detached -----
 - Single house -----

- 9. Ownership of Dwelling
 - Self-owned -----
 - Rented -----
 - Staff House -----
 - Not stated -----

- 10. Method of Financing in Self-Ownership
 - Own Savings -----
 - Tenant Purchase -----
 - Mortgage -----
 - Bank Loan -----
 - Inherited -----
 - Other -----

- 11. If rented, rent in shillings per month -----

- 12. Building materials used:
 - Permanent -----
 - Semi-permanent -----
 - Temporary -----

- 13. Number of habitable rooms -----
- 14. Approximate total of floor area in square metres

- 15. Kitchen ownership
Private -----
Shared -----
None -----
- 16. Water available on Plot Yes ----- No -----
- 17. Source of water supply:
Private piped -----
Communal piped -----
Bore-hole -----
Spring well -----
Hawker/Jerrycan -----
- 18. Waterborne W.C. ownership
Private -----
Shared -----
None -----
- 19. Sewage Disposal
Public pipes -----
Septic tank -----
Private Latrine -----
Shared Latrine -----
- 20. Bathroom ownership
Private -----
Shared -----
None -----

21. Ownership of vehicle

Car -----

Motor-cycle -----

Bicycle -----

None -----

22. Electricity connection: Yes ----- No -----

23. Garbage collection method:

Town Council -----

Private -----

Communal -----

None -----

24. What can you afford for better housing?

Below 500 shillings

500 - 749

750 - 999

100 - 1249

1250 - 1499

1500 and over.

25. Which of these facilities would you like nearby?

Nursery school -----

Ambulance -----

Playground -----

Library -----

Cinema -----

Community Hall -----

Fire station -----

Better hotels -----

Private clinic and pharmacy -----

Other -----