URBANIZATION IN DEVELOPING COUNTRIES: A CASE STUDY, KAMPALA UGANDA
An Elementary Survey of Land and Dwelling Environments.

By
STANLEY S. MULUMBA

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Signature of the Author ...............................................................
Department of Architecture June 1974

Certified By .................................................................
Thesis Supervisor

Accepted By ..............
Chairman, Departmental Committee on Graduate Students.
URBANIZATION IN DEVELOPING COUNTRIES

A CASE STUDY: KAMPALA UGANDA

an elementary survey of land and dwelling environments

mulumba
stanley s.
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PREFACE

As the city spreads over rural areas it becomes more and more urgent to carry out immediate land subdivision reform which will facilitate easier provision of infrastructure services and utility lines. The present generation of local independent professionals and planners has the moral responsibility of creating an orderly city development so that future generations do not blame us and inherit from us square miles of unplanned settlements of the magnitude of Kisenyi, Mulago and Kibuli-Wabigalo.

PURPOSE

The object of this study is to provide firsthand material with which to identify the existing basic housing patterns in the total housing system, especially as regards land subdivision and land utilization in the hope that it will serve as a tool for formulation of housing policies and programs.

APPLICATION

It is hoped that this study will not only serve as a reference for understanding the dwelling environment situations in Kampala but it will also be applied as a guide for making surveys and evaluations of other existing and new towns in Uganda and other developing countries.

DATA

The difficulties involved in carrying out a study about a place thousands of miles away can not be over-emphasised, especially when the city like Kampala happens to be one of the least documented cities in the world. I was, however, able to go to Kampala for a 3-months field-research in the summer of 1973, during which I also worked with the Town and Regional Planning Department and was able to collect very useful information and statistical data. Nevertheless much of the information in this study is speculative and based upon my limited estimations and knowledge of Kampala, and should not be read as conclusive. Useful information was obtained from Makerere Economic Development Research Papers, particularly those written by M. Tribe and M. Safier. All maps and aerial photographs were acquired from Lands and Surveys Department of the Ministry of Water and Natural Resources, Entebbe. All other photographs were taken, developed and printed by the author. The arrangement of this book line-negatives and half-tone negatives in the printing process were also made by the author.

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INTRODUCTION

Much has been said and written about the massive unemployment; economic; social; cultural; physical; environmental and housing problems which face developing nations as masses of people move from rural to urban centers in search of better employment; educational, and cultural opportunities and the more attractive city life.

Africa in particular stands at the cross-roads with one hand clutching to the traditional past where such problems were unknown and the other hand groping for guidance from the Western World which has lived with such problems for centuries.

As our societies progressively go through this rapid transformation from rural agriculturally-based to urban industrially-based societies we are confronted - in addition to our traditional three major enemies of poverty, disease and ignorance - by the challenge of a spiritual-cultural directional perspective. The challenge is particularly marked in urban centers such as Kampala where not only is there a large scale rural-to-urban migration but the city itself and its hinterland influence are rapidly expanding outwards engulfing rural areas.

People caught in this city expansionist spread have to quickly reassess their spiritual, material and social values - the values they attach to individual land rights and sizes of such lands, their family compositions and their attitudes to the old African concepts of communal responsibilities.

The chief aim of this study therefore is to attempt to throw some light on some of the characteristics which accompany this rural-to-urban transformation of societies and settlements.

Although this study tries to take a cross-section across all existing housing sub-systems in the city, special interest is attached to Kisenyi, Kibuli and Mulago localities which amply demonstrate the strains and trends which accompany a rural-to urban-transformation situation.

Specific interest is centered on land and its utilization as affected by coordinated settlement controls and policies or lack of them. Comparison is made between settlements which have had professional guidance in matters relating to proper land subdivision; layout of services; utility lines; and communication lines; taxation; coordination between public semi-public semi-private and private lands; and those localities which have not had such guidance.

Using conclusions drawn from the study of this city and the neighbouring city of Nairobi, Kenya, an attempt has been made to suggest a model upon which future planners of residential localities might base their planning policies.

THE HOUSING PROBLEM

The term Housing has many connotations some of which include:

1. Physical design, construction, management and maintenance of dwellings and the land on which they stand. 2. The structure of Market Demand And Supply. 3. Housing Finance. 4. Aspects of ownership v.s.v. rental use of land and dwellings. 5. Living standards as affected by the physical social cultural and economic circumstances of the environment.
This particular study concerns primarily in an evaluation of the merits and demerits of participation of the individual user in the decision-making, process, financing, physical design, construction and maintenance of his dwelling unit and its surroundings, and the various levels of participation of the public sector in these processes.

It is important however to get an overall picture of the present housing problem in Kampala in its total summary:

- With a population of 330,000 in 1969 and a theoretical number of 94,000 households (based on households of 3.5 persons of any homogenous composition occupying a self-contained dwelling unit, from a room to a country-house), studies done by Dr. Anthony Lubega in 1967 indicated that there were only 30,000 household dwelling units available in Kampala. The deficit of 64,000 dwelling units is compounded by the city's growth rate of 8% p.a. and is estimated at over 80,000 units in 1974.

- Of the existing housing stock about 20% are in bad condition and need replacement.

- More than 80% of the existing housing stock is privately built for owner-occupation and sub-letting. The majority of the remaining housing provided by the public sector is for civil servants and other government employees mostly in the middle and high income groups. The few government housing projects for general rental can only be afforded by middle and high income people.

- 85% of Kampala residents earn less than 400/= (Ugandan Shs.) ($58) per month of which they can afford only 15-20% for housing. 30% of the population earn less than 150/= ($21) p.m. and can afford 22-30/= ($7-8.5) per month on housing.

Unlike the middle and high income people who have access to institutional financing such as loans from commercial banks, insurance companies, mutual aid loans, loans from employers or private money-lenders, low-income people have virtually no access to such financing and must rely on self-help, savings contributions from family, relatives and friends, and from social security funds in order to build their own houses.

- Presently there is no investment by big private developers in low-income housing because the returns from high-income housing are by far more attractive to the investors.

- High rents in the high income housing sector are encouraged by the government's practice of providing housing rent subsidy of up to 90% to people who are already earning well above the national average - a practice inherited from the colonial times when large housing subsidies and other benefits had to be offered on top of big fat salaries in order to attract expatriate staff (and settlers). Embassies and multi-national corporations also offer a lucrative market for the private developer.

- Unlike Nairobi and other cities all over the world where old buildings in the city center originally occupied by large wealthy families have gradually escalated down the income ladder to within reach of the low-income people as they grow older, Kampala has no such process because of the high competition of high-income housing market escalated by government subsidies. It is more profitable for a building owner to tear it down and build a new one on which he can recover his capital outlay usually in less than 5 years by renting to high-level administrative civil servants than to sub-divide the old building into tenements for low-income multi-family use. The few existing tenements in Kisenyi were designed and built by low income people for the purpose. It is probable that former Asian residences above shops in the business city center will now be converted into tenements since the commercial use of the buildings still makes them more profitable than new residential buildings.

- More than 85% of dwellings privately built are constructed by artisans and small contractors and - especially with mud-and-wattle houses - by jobbing unskilled labour. Complete self-help and aided self-help accounts for perhaps less than 5% of the total dwelling construction in Kampala because most of the dwelling owners are too busy doing other jobs.

- Within the low income sector building costs of mud/wattle dwellings range from 7 to 14/= ($1-2) @ sq.ft. depending on the quality of finishes used, and on the social relationship between the developer and the artisan or jobbing team. In 1972 masonry/wood building cost were 30-40/= @ sq.ft. but have since gone up perhaps by more than 50% due to current inflation.

- More than 80% of the land in Kampala - especially that occupied by the low income people is privately owned by mailo landlords, which makes it difficult to coordinate land subdivision and development. But this also explains the absence of large-scale squatter settlements of the magnitude of Mathare Valley in Nairobi because poor people can not organise themselves to invade land which is already owned in small parcels.
REGIONAL CONTEXT
EAST AFRICAN COMMUNITY:

Uganda together with Tanzania and Kenya form a non-political economic federation which is composed of four major areas of central planning and administration.

1. The Common Market established in June, 1967, maintains a common external tariff; and controls industrial investment in partner states and allows easy flow of manufactured goods and labor.


3. The Research and Social Council includes the Veterinary and the Meteorology Departments.

4. The Finance Council includes the Economic and Consultative Council; and the East African Development Bank.

The supreme authority in the Community is the East African Authority consisting of the three heads of state and three special ministers. Administratively the Community is headed by a Secretary General who is based at the headquarters at Arusha in Tanzania.

NATIONAL CONTEXT
UGANDA

1. GEOGRAPHICAL:

LOCATION: In the heart of Africa between Lat. 1°S and 4°N and Long. 30° and 35°E. Neighbouring countries include Kenya to the east, Tanzania and Rwanda to the south, Zaire (Congo Kinshasha) to the west, and Sudan on the North.

AREA: About 236,000Km. (91,000 sq. miles) of which 17% is water and swamp.

ALTITUDE: On a plateau between 900m (3,000 ft.) around Lake Victoria, and 1,800 m. in the Kigezi highlands. The highest point is Margherita, 4,025 m., in the Rwenzori Mountains.

TEMPERATURE: 20°C (68°F) is the mean with a maximum of about 35°C (95°F) in Karamoja and a minimum of 4.4°C (40°F) in the Kigezi highlands.

RAINFALL: Average annual precipitation is 1270 mm (50 in.) with the highest in areas around Lake Victoria at about 1,626 mm (54 in.) and the lowest in Karamoja at about 800 mm.

2. POLITICAL HISTORY: The existence of Lake Victoria and the 'mountains of the moon' at the center of Africa was foretold by the Egyptian geographer, Ptolemy, in the second (2nd) century A.D. Herodotus also knew about the three great lakes and the mountains of central Africa.

By the time Europeans arrived in Uganda there were several kingdoms with well-developed political institutions dating back several centuries. Some historians suggest that the imperial kingdom of Bunyoro-Kitara extended as far as Tanzania and Ruanda. During the 1880's, under a line of powerful kings, Bunganda had built up a strong government system and was actively overrunning and extending her sphere of influence over the smaller neighbouring tribes.

Arab traders from Mombasa and Zanzibar first reached Buganda in the 1830's, thus
introducing cups, plates, cotton cloth, and Islamic religion into the region. Captain John Speke, the first European to visit Uganda arrived in Buganda in 1862 in search of the source of the Nile River. He was soon followed by Protestant Missionaries in 1862 and Catholic Missionaries in 1879. British colonizaton of Uganda started in 1888 with a Royal Charter granted to the Imperial British East African Co., under Captain Lugard. The company was replaced by a British Protectorate Commissioner in 1894. In 1896 the Commissioner began to extend his administration into Bunyoro, Busoga and other parts of Uganda.

Buganda was very disturbed in the period immediately before 1900. In fourteen years between 1884 and 1900 there were four kings, three civil wars and minor disturbing incidents. The first major conflict was between the Moslem Kabaka (King) Mwanga and Christian missionaries and their converts as a result of which 24 African Christians were burned alive on Namugongo Hill. Later the civil war shifted to Protestants against Catholics.

The final Protectorate agreement was signed with Buganda in 1900 and with the Toro and Ankole kingdoms in 1900 and 1901 respectively. From then on the country enjoyed relative peace until the 1966 monarch constitutional crisis. Constitutional changes leading to independence started in 1955 leading to the 1961 London Constitutional Conference which established a time table for independence. Uganda attained self-government on March 1, 1962 and full independence on October 9, 1962. In 1964 and with the election of the Kabaka by Parliament as a figure-head President, a federal-type government was consolidated to achieve a compromise between conflicting tribal interests mainly between
the Bantu tribes of the
four highly organized king-
doms of the south and the
pastoral Nilotic tribes of
the north.

Uganda became a Republic in
1968 when Prime Minister
Dr. Milton Obote revoked
the old constitution and
introduced a new one
desbanding and superceding
the powers of the tradi-
tional kingdoms after the
Kabaka was forced to flee.
The last Kabaka went into
exile in Britain where he
dies in 1970.

Dr. Obote was deposed in
January 1971 by Major
General Idi Amin's army
take-over and the declara-
tion of the second Repub-
lic. Political activity
was banned in Uganda. In
August 1973 a new adminis-
trative framework was set
up headed by a State Su-
preme Council of which the
President, Vice President,
the Ministers of Defense
and Provincial Administra-
tions and the heads of the
armed services are members.

3. POPULATION: The total
population of Uganda was
9.5 million in 1969, and
was estimated at 10.5 mil-
lion in 1972 showing a pop-
ulation increase rate of
3.2% per year. Population
density is about 52 per
sq. Km. (130/sq. miles).

Urbanised population is
about 12% based on urban
centers with at least 10,000
people. The rate of urbani-
sation is about 8% per year.
The main towns include Kam-
pala (Capital) 330,000;
Jinja 47,000; and Mbale
There are four major Afri-
can groups in the country;
the Nilotics in the north,
the Nilo-Hamitic in the
west, the Sudanic in the
north and the Bantu group
in the south and west, which
is the most influential and
includes three of the four
largest tribes; the Baganda
who are over one million,
and the Banyankole and Bas-
oga each over 0.5 million
people.
In 1971 there were about 80,000 Asians but now only 5,000 remain in the country. There were 9,500 Europeans but less than 5,000 remain. Uganda has about 162,000 Rwandans, 65,000 Sudanese and 64,000 Zaire refugees.

LANGUAGES: There are about 24 tribes in Uganda each with its own language. Luganda language is the most widely used and is spoken or understood by about two thirds of the total population. Swahili, though the "lingua franca" of East and Central Africa, is little used in Uganda outside the military service, Kilembe Copper mines and some commercial establishments in Kampala. English is the official language.

4. ECONOMY: Uganda's Gross National Product was about US $1.1 billions in 1971 and growing at the rate of 4.2%. Real G.N.P. per capital was $105. The rate of economic growth has declined considerably since then and is about 1.2% according to Barclays Bank International Review.

The following table illustrates the economic standing of Uganda in comparison to other countries:

<table>
<thead>
<tr>
<th></th>
<th>GNP BILL.</th>
<th>PER CAPITA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$US</td>
<td>$US</td>
</tr>
<tr>
<td>UGANDA</td>
<td>1971</td>
<td>1.1</td>
</tr>
<tr>
<td>KENYA</td>
<td>1971</td>
<td>1.5</td>
</tr>
<tr>
<td>NIGERIA</td>
<td>1972</td>
<td>6.8</td>
</tr>
<tr>
<td>GHANA</td>
<td>1973</td>
<td>8.4</td>
</tr>
<tr>
<td>U.K.</td>
<td>1973</td>
<td>127.0</td>
</tr>
<tr>
<td>USA</td>
<td>1973</td>
<td>1151.8</td>
</tr>
<tr>
<td>TANZANIA</td>
<td>1971</td>
<td>1.2</td>
</tr>
</tbody>
</table>

Agriculture and related Activity account for about 60% of the GNP and provides employment for about 90% of the working population. Manufacturing accounts for less than 10% of GNP.

The cost of living had increased by 20% among low-income and 12% in the middle range income groups by 1971, and is thought to have more than trebled by 1973.
INTRODUCTION

URBAN CONTEXT: KAMPALA

LOCATION: On the northern shores of Lake Victoria in southern Uganda; on the Equator and Longitude 32° west.

AREA: 195.3Km. (75.4 sq. miles)

ALTITUDE: About 1219m (4,000 ft.) above sea-level.

TEMPERATURE: Mean temperature is 20°C (68°F); highest ever recorded was 36.2°C (97°F) and lowest: 13.3°C (56°F).

RAINFALL: 114.3mm-1270mm (45 in.-50 in.) per annum: rain is fairly distributed throughout the year with two peak seasons in March-May and October-November.

WINDS: Thunderstorms are frequent in the October-November rainy season; strong high winds are unknown in Kampala and Uganda as a whole.

HUMIDITY: About 70%-75%.

POLITICAL HISTORY: Modern Kampala City can be said to have been founded by Capt. Lugard of the defunct British East African Company in 1890. His first post was established on Old Kampala Hill and was later transferred to Nakasero Hill.

Before the 1880’s the capital of Buganda was not fixed but moved from one hill-top to another within the hinterland of present Kampala. The establishment of the Church Missionary society (Protestant) on Namirembe Hill in 1884 and the Roman Catholic Mission on Lubaga Hill in 1885 and later the Moslim Community on Kibuli Hill helped to stabilize and consolidate the position of Mengo Hill as the permanent palace-capital of Buganda.

Soon the four centers attracted sufficient population for urban development forming what was called the Kibuga (King's Capital) or Mengo Municipality until 1968.

Of special interest is the relationships between the former Kibuga and Kampala Municipality. While the later was economically supported by the central government and was able to afford various services and employ qualified professional planners and advisers, Mengo Municipality was administered by the Buganda Local Government which had neither the finances nor the qualified planners to advise and direct its growth. The village settlements on the boundary between the two towns enjoyed the benefits of both towns and therefore became major centers of attraction for low-income wage earners. This led to the slum-like settlements such as Kisenyi, Kibuli, Kagugube-Makerere, and Mulago all along the boundary.

Nakawa and Kawempe, the two other townships before 1968 were established in the 1950's. Nakawa was meant to develop into a satellite town mainly for immigrant workers.
URBANIZATION IN DEVELOPING COUNTRIES

SERVICES
- Schools
- Health
- Refuse Collection
- Public Transport
- Recreation
- Fire
- Police

UTILITIES
- Water
- Sewage
- Electricity
- Paved Roads
- Telephone

TEMPERATURE

SUNSHINE

WIND

HUMIDITY

RAINFALL

TOPOGRAPHY AND CIRCULATION

URBAN AREA LAND USE
INTRODUCTION

URBAN POPULATION GROWTH

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1450</td>
<td>250,000</td>
</tr>
<tr>
<td>1800</td>
<td>500,000</td>
</tr>
<tr>
<td>1900</td>
<td>2,000,000</td>
</tr>
<tr>
<td>1974</td>
<td>4,000,000</td>
</tr>
</tbody>
</table>

Horizontal: dates Vertical: population

URBAN AGE DISTRIBUTION

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Male (%)</th>
<th>Female (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5</td>
<td>55%</td>
<td>45%</td>
</tr>
<tr>
<td>6-10</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>11-15</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>16-20</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>21-25</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>26-30</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>31-35</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>36+</td>
<td>5%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Horizontal: percentages Vertical: ages

URBAN INCOME DISTRIBUTION

<table>
<thead>
<tr>
<th>Income (Uganda Sh. p.m.)</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 50,000</td>
<td>10%</td>
</tr>
<tr>
<td>50,000-100,000</td>
<td>20%</td>
</tr>
<tr>
<td>100,000-150,000</td>
<td>15%</td>
</tr>
<tr>
<td>150,000-200,000</td>
<td>10%</td>
</tr>
<tr>
<td>200,000-250,000</td>
<td>5%</td>
</tr>
<tr>
<td>Over 250,000</td>
<td>5%</td>
</tr>
</tbody>
</table>

Horizontal: percentages Vertical: income

CONSTRUCTION TYPES

- Adobe
- Wood
- Masonry-Wood
- Masonry
- Concrete

The chart shows (1) approximate percentage of each construction type within the total number of dwellings; and (2) building group that generally produces each type.

1969 Census: 330,000
1974 Estimate

POPULATION DENSITY 1:250000

URBAN INCOME PATTERN

LOW INCOME
MEDIUM INCOME
HIGH INCOME
Kawempe was established to encourage Asian businessmen to establish a new industrial satellite town. Most Asian businessmen who built factories in Kawempe had already sold them out to Africans before the early 1970's social-political changes.

ADMINISTRATION: Before Buganda Administration was abolished in 1966 Kampala City was run by four authorities; Kampala City Council; Mengo Municipal Council; Nakawa Town Council; and Kawempe Town Board. The last three were under Buganda Local Government Administration while Kampala City Council was under the Central Government. An act combining all these authorities under one boundary was passed in 1968. Although most of the various personnel in the former administrations were absorbed in the City Council the post of the Mayor and councillors were abolished and the city appears to be under the sole control of the Chief Engineer. Besides the City Council which deals with the day-to-day administration and implementation of policies, there are two bodies which affect the planning and direction of growth of the city; the Coordinating Committee consisting of officers from the ministries of Regional Administrations; Health; Planning and Economic Development; and Kampala and District Water Board. The third body is the Town and Country Planning Board.

There is a definite need to define the relationships between these three bodies since a number of their duties seem to overlap sometimes causing conflicts and delay of decisions especially in the field of housing policy.

In the field of housing, for instance, it is not very clear who has the responsibilities of formulating and directing the policies affecting housing as a whole in Kampala.

POPULATION: According to the 1969 Population Census the population of the politically defined area of Kampala was 330,000. The city population growth is about 8% per annum against a national population growth rate of 3.24 p.a.

The sex pyramid shows a balance between men and women as well as between adults and children. This contrasts considerably with prevailing situations in cities in developing countries which are overwhelmingly occupied by middle-aged single migratory labourer workers.

Part of the explanation lies in the fact that Kampala has not been invaded by rural migratory labourers as much as the city has invaded rural villages swallowing well-established families and crowding and sprouling over rural farms. In addition recent rural to urban migration patterns have shifted from uneducated "green-collar" labourers to young blue-collar school-leavers who intend to make the city their permanent home.

INCOMES: Kampala average annual per capital is US $70 (500 Uganda shillings p.m.) against a national per capita of US $105 (750/=p.m.). This compares with a USA per capita of $5,500. Although living standards are higher in Kampala the anomaly of per capita compared to the national level may be explained by the fact that 90% of Uganda's GNP derives from the rural agricultural sector.

Processing of agricultural products together with manufacturing (heavily geared to agricultural produce) account for 16% of the total city employment. Commerce accounts for 18%, and government institutions provide 16% of employment. The construction sector employs only about 9%; communications 7%; education 6%; and health 3%.

THE HOUSING PROBLEM: About 80% of Kampala workers earn less than US $70 p.m. (500/=p.m.) while only 10% earn over US $300 (2,000/= per month). In fact 60% of Kampala employees earn less than US $36 p.m. (250/=p.m.), an income which is unstable to buy or even rent a market-priced housing of acceptable standards.
LAND TENURE IN BUGANDA

It is important to understand the special land tenure circumstances surrounding Kampala in order to understand the unusual land use and property subdivision which exist in some areas of Kampala such as Kisenyi Kibuli and Mulago.

TENURE SYSTEM BEFORE 1900

Before the Europeans arrived, land in Uganda was controlled by chiefs and some few individual peasants, through rights based on a political system and through hereditary rights associated with original clan claims. Control could also be based on ritual or political functions of the chieftainship or through rights granted directly by the king to an individual either as a function of political office or as a reward for political or personal service to the king.

Three components of real land control can be identified:
1. Control based on clan hereditary rights.
2. Control based on political rights of the king and chiefs.
3. Control based on individual hereditary rights.

1. CLAN LAND CONTROL:
There are 42 clans in Buganda region. A few of these clans were originally settled in the region before the advent of Buganda kings; others came with various invading monarchical dynasties, while the majority were conquered or sought protection of particular Buganda kings. All clans have land on hill-tops or in specific villages either by virtue of centuries of occupation or by right granted by one king or another. In both cases the effective control of clan lands is exercised by the hereditary head of the clan. This control was strongest in areas furthest away from Kampala whose hinterland contained most of the kings' palaces and the kings' personal control.

2. KING AND CHIEFS LAND CONTROL:
The king had some of the richest villages and the greatest number of estates all over the country. These were administered by palace officials or their deputies. The rights over such lands controlled by officials such as the Queen Mother, the king's sister, princes and princesses, the prime minister, keeper of fettishes, the chief cook, chief executioner, county and sub-county chiefs etc. were terminated with the removal or the dimise of the office holder.

3. LAND CONTROL BY INDIVIDUALS HEREDITARY RIGHTS:
Such lands were held on claims based on long occupation of the land holding and confirmed by the king, or on original grant of the holding or estate granted to the individual prince, chief or peasant by the king. Such holdings were small and occupied only by the title holder, his relatives or his servants. These lands were held for life and could be inherited.

PEASANT RIGHTS:
Although land was controlled by a few individuals such as hereditary chiefs and political officials, every individual in the country had the right to occupation and use of land derived from his status as a member of kinship or as a subject under a particular chief. The degree of the rights of occupation, grazing, water use, firewood gathering and other activities done on a particular piece of land varied depending on social and political conditions.

There was a high degree of mobility particularly with peasants under political chiefs who were transferable to any part of the kingdom. The mobility was particularly accentuated by the civil wars between 1884 and 1900 which were responsible for transfers of large sections of the population from one corner of the country to another as Moslems fought Christians and then Protestants fought Catholics. Usually peasants under a particular chief were converts to the religion which he supported and had to fight or flee with him when need arose.

THE 1900 AGREEMENT AND AFTER
Although Buganda was declared a British Protectorate in 1894 it was not until 1900 that an agreement was finally signed between the Kabaka (King) and the British Special Commissioner. The agreement laid down the conditions governing the relationships between the

By the terms of this agreement, 1,003 sq. miles of the 17,300 sq. miles in Buganda (6%) were allotted to the Kabaka and his family and the big chiefs in their official capacity and in private ownership.

Another 8,000 sq. miles were allotted to 1,000 chiefs and other important people. The remaining 8,000 sq. miles and more became Crown Lands which were reserved for later distribution to peasants and for public use such as forest reserves, roads and towns.

To define and to legalize the allotted sq. mile-holdings, the "Land Law of 1908" was enacted and the "freehold" land tenure system under which these land rights were held was termed the "mailo" system.

The position of the peasant was not defined in the Buganda Agreement of 1900 or the Land Law of 1908 although he continued to live on both the private mailo land and the public Crown lands in the same federal relationship to the new land-owners as before especially since the old chiefs became the new "mailo" land owners. But as cash crops were introduced and the peasants in both rural and urban areas got richer need arose to re-define this relationship and this was done in the Busulu and Envujo Law of 1928 which consolidated the security of the peasant.

LAND SUBDIVISION IN KAMPALA:

By the terms of the 1908 Land Law, a "mailo" owner could transfer land by sale, gift or will to another person of native origin. Most of the mailo lands were in and around Kampala. As the area got more and more urbanised the landowners subdivided and sold off substantial parts of their lands to speculators. Thus by 1950 the number of freehold landowners in Buganda had risen from the original 3,700 to over 50,000 and were estimated to be over 100,000 in 1972.

Most of the land subdivision was done by the owners without any technical help and central co-ordination. No land was reserved and laid out for future public uses such as roads and water mains. Property lines were drawn in all kinds of forms and shapes. In areas like Kisenyi, Kibuli, and Mulago land property lines are drawn through buildings because the building owners are old "Envujo" tenants caught on site in the land transfer process. The new land owner usually keeps the traditional tenants whom he finds living on his land.

In city-periphery areas this does not create many problems because these areas are still primarily rural. In the more urbanised sections of the city however traditional tenants create problems for the landowner who may want to invest in the land more economically, but finds it difficult to kick out tenants as they are protected by the Euvujo Law. It also poses a great challenge to the city planners who would like to initiate renewal programs.

Following the removal of the Kabaka and the desolution of kingdoms in the country, large areas of Kampala City formally belonging to the Kabaka and some former chiefs were taken over by the central government and made public lands. This presents an excellent opportunity for central re-planning.
CASE STUDIES

From the point of view of user-participation, housing development in Kampala can be classified under three major systems:

I. Private Owner-User-Developer System.
2. Private & Public Owner-User Developer System.

These systems may further be summarised under five subsystems:

I. Private Owner-User Developer Low Income: KISENYI KIBULI MULAGO.
II. Private Owner-User Developer High Income: OLD KAMPALA NSAMBYA COMMONWEALTH, KIRA ROAD, NAKASERO.
III. Public & Private Owner-User Developer (Site & Service): NTINDA, KISWA, KATALI.
IV. Public/Institutional Employee Rental: NAKAWA, NAGURU, NSAMBYA RAILWAYS.
V. Public General Rental: NSAMBYA RAILWAY LINES, BUGOLOBI PREFABRICATED PROJ.

Each of these subsystems can be further developed into more components: For example subsystem No. I has the following sub-groups:

a) Traditional Rural Houses in either thatched huts (very rare in Kampala), or mud/wattle rectangular houses unsystematically grouped in compounds around irregular courtyard.
b) Tenements - mud/wattle or masonry/wood rooms arranged around central courtyard (a recent evolution in Kampala)
c) Scattered Squatter Shanty dwellings in public areas bordering the Industrial area (Wabigalo)

Subsystem No. I has the following components:

a) Private individual Developed houses, e.g. all of Old Kampala and most of Nakasero.
b) Commercial Company mortgage housing., e.g. Nsambya Commonwealth Project.
c) Government/Parastatal/Institutional built mortgage houses., e.g. Nakasero & Kira Road.

Subsystem No. II has the following components:

a) Private individual Developed houses, e.g. all of Old Kampala and most of Nakasero.
b) Commercial Company mortgage housing., e.g. Nsambya Commonwealth Project.
c) Government/Parastatal/Institutional built mortgage houses., e.g. Nakasero & Kira Road.

Subsystem No. III has the following subgroups:

a) Core Housing: where land plots and a minimum dwelling unit consisting of a kitchen two rooms and a detached pit-latrine were provided with the hope that the tenant/mortgage-owner would add upon the unit as need arose., e.g. Ntinda.
b) Site and Service lines provided., e.g. Katali, Kiswa.

a) Industrial Row Housing: XIX Century European model used by low income industrial labourers and imported into Africa by the British in a degraded colonial form, (Dwelling was squeezed into one small room for family).
b) Labour "Camp" Row/Group Houses: XIX Century Colonial military model., e.g. Nakawa, Naguru.

Subsystem No. V

a) Walk-up Apartments., e.g. Bugolobi Prefabricated Project, Nsambya Railways.
b) High Rise Apartments: These are located above office buildings.

For the sake of simplification however this summary will describe the five major subsystems. Although these subsystem models are mixed in various locations all over the city, they are nevertheless characteristic of specific geographical localities in which they are predominant. All the fourteen case studies can therefore be fitted into one subsystem or another.
### OWNER DEVELOPER: LOW INCOME

<table>
<thead>
<tr>
<th>USER:</th>
<th>Income</th>
<th>Social Status</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
<td>Usually rural migrants with very limited skills and mostly self-employed in marginal jobs.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LAND/LOT</th>
<th>Areas:</th>
<th>Medium and Large Plots - usually with plenty of private dwellings on one lot.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tenure:</td>
<td>Legal ownership/legal rental.</td>
</tr>
<tr>
<td></td>
<td>Utilization:</td>
<td>All land is private; no planning coordination.</td>
</tr>
<tr>
<td></td>
<td>Plot-Layout:</td>
<td>Determined by social structure; based on traditional land subdivision in rural areas.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LAND AND DWELLING DEVELOPER: Developer:</th>
<th>Popular and Private.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Builder:</td>
<td>Owner (Self-help)/Artisan.</td>
</tr>
<tr>
<td>Mode of Development:</td>
<td>Incremental.</td>
</tr>
<tr>
<td>Construction Type:</td>
<td>Mud/Wattle, Masonry/Wood.</td>
</tr>
<tr>
<td>Financing:</td>
<td>Savings (from farms in countryside)/Relatives.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DWELLING:</th>
<th>Dwelling Unit:</th>
<th>Mostly rental rooms in row/crowded houses in subletting arrangements. Rooms in tenement houses around courtyards are a recent innovation copied from Asians.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dwelling location:</td>
<td>&quot;City Center,&quot; Periphery/Semi-rural.</td>
</tr>
<tr>
<td></td>
<td>Dwelling Type:</td>
<td>1 Story Attached houses crammed together in all directions.</td>
</tr>
<tr>
<td></td>
<td>Densities:</td>
<td>High in City Center and inner-ring locations. Low in periphery semi-rural areas.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MODEL ASSESSMENT:</th>
<th>Past:</th>
<th>The physical dwelling models in this category reflect the popular effort by the people to solve their own housing problem themselves.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>In the past the dwelling used to be a hut made of wooden post and elephant grass reeds frame and papyrus or grass thatch.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Present: There is a dynamic constant change as people improve their houses with better incomes or years of saving while new ugly shacks spring up here and there with new migrant arrivals.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Future: Mud is bound to remain the main form of housing accessible to low income people. It should be encouraged but receive urgent guidance especially in the field of plot subdivision and service/utility planning.</td>
</tr>
</tbody>
</table>
II. OWNER DEVELOPER HIGH INCOME:

Old Kampala, Kira Road, Nakasero, Nsambya

Middle, High
Middle-income, Professionals, Executives in multinational companies, High Level Civil Servants, Diplomatic Personnel.

Usually large lots with spacious gardens surrounding dwelling. Mostly legal ownership. Otherwise rental. Land is private with clearly defined public spaces. Uneconomically planned.


Spacious houses with 2-room servants houses attached.

City center, Inner ring and Periphery. 1-2 story detached "Victorian" sub-urban houses in large land plots.

Very low densities.

Model reflects extravagant living times of colonial masters and their Asian partners. It is accessible to less than 5% of the people.

Dwelling models were imported from Europe USA, and Asia. They reflect Western and Asian culture.

Before independence the dwellings were used by Europeans and Asians. In the present they are occupied by Africans in the high income sector.

Financially this is a model likely to keep expanding since it attracts financial institutions most. Based on total allocation of scarce financial resources in the country however, this sector should receive the least encouragement especially from the government.

III. PRIVATE/PUBLIC DEVELOPER:

Mt. Nuba, Kafuri, Kisha

Low, Medium-low, Middle
Small businessmen, semi-professionals, junior civil servants etc.

Small plots based on modern design concepts on "Site & Service" projects. Legal Ownership. Private with little public spaces. Well laid out. Economically planned.


Small room single/multi-family houses with subleeting space. Usually separate pit-latrines

Inner ring
1 Story houses arranged in square blocks and along main roads surrounding central semi-private open spaces.

Medium/densities.

Model reflects previous concern about finding new homes for migrant Africans in the past by colonial administrators.

Dwelling models are a confused mix of ideas of Western expatriates with "site and service" concepts for people they did not understand well and "deformed African" culture.

Before independence the model was used by Africans and is still so used.

If properly organised and managed this model has the highest potential for solution to the housing problem especially if it is planned in conjunction with model IV.

IV. PUBLIC/INSTITUTIONAL EMPLOYEE RENTAL:

Nakawa, Nabusor

Low, Very/Low, Middle
Originally meant for semi-skilled and unskilled labourers in colonial government service. Situation has not changed much.


I-family room units arranged in long "Industrial How Houses". Over-simplified squeeze apartment type houses arranged in groups around communal space and services.

Inner ring
Semi-detached and "row-housing.

High density

Model reflects colonial solutions to African housing needs. Of special not is the disre gard for family occupation considerations.

Models were developed for low-income industrial labourers in the XIX Century Europe. They were later modified to serve African colonial requirements.

Model
Model has been used by Africans in the past and still is.

This model has limited future applications because of its political association with the colonial past and its social-cultural shortcomings.

V. PUBLIC GENERAL RENTAL:

Nsambya Railway Lines, Bugolobi Prefab.

Med/low, Middle, High
Model is used by skilled and semi-skilled people mostly in junior (assistant) administrative positions.


Complete apartment houses.

Inner ring and periphery.

3-5 walk-ups.

High and Med/High.

Model reflects XX Century approaches to housing problems at a universal level.

Model was developed in XIX Century Europe and USA originally for low income Public Housing.

Used by Africans and Asians.

If improved the model has appeal for application in the future. It has the attractions of economic use of land and centralisation of services. Improvements should include better land-use efficiency, user control and responsibility over semi-public spaces etc.
<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>I. OWNER DEVELOPER LOW INCOME:</th>
<th>II. OWNER DEVELOPER HIGH INCOME:</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEVELOPER (Land and Dwelling)</td>
<td>Popular/Private: Owner</td>
<td>Private: Owner (Public involved only in a private role)</td>
</tr>
<tr>
<td>TYPE OF DEVELOPMENT</td>
<td>Instant Private House</td>
<td>Instant Private House</td>
</tr>
<tr>
<td>INCOME</td>
<td>Low and Middle</td>
<td>Middle and High</td>
</tr>
<tr>
<td>LOCALITY</td>
<td>KISENYI</td>
<td>KIBULI</td>
</tr>
<tr>
<td>HECTARE-BLOCK</td>
<td>Building &amp; Plot Study</td>
<td></td>
</tr>
<tr>
<td>LAND USE PATTERN</td>
<td>Public</td>
<td>Semi-Public</td>
</tr>
<tr>
<td>LAND USE PERCENTAGES</td>
<td>Public</td>
<td>Semi-Public</td>
</tr>
<tr>
<td>DENSITIES</td>
<td>#) 20 People</td>
<td></td>
</tr>
<tr>
<td>LOCALITY POPULATION GROWTH</td>
<td>Horizontal: Percentages</td>
<td>Vertical: Population</td>
</tr>
<tr>
<td>LOCALITY AGE DISTRIBUTION</td>
<td>Horizontal: Percentages</td>
<td>Vertical: Ages</td>
</tr>
<tr>
<td>LOCALITY INCOME DISTRIBUTION</td>
<td>Horizontal: Percentages</td>
<td>Vertical: Incomes</td>
</tr>
</tbody>
</table>
### III. PRIVATE/PUBLIC DEVELOPER:

<table>
<thead>
<tr>
<th>Site and Services</th>
<th>NTINDA</th>
<th>RATALI</th>
<th>KISWA</th>
<th>NAKAMA</th>
<th>NAGURU</th>
<th>NSAMBYA RAILWAY</th>
<th>BUKOLOBI</th>
</tr>
</thead>
</table>

#### IV. PUBLIC EMPLOYEE RENTAL:

- Public Colonial Row-Housing Type
- Site and Services
- NTINDA
- RATALI
- KISWA
- NAKAMA
- NAGURU
- NSAMBYA RAILWAY
- BUKOLOBI

#### V. PUBLIC GENERAL RENTAL:

- Public and Institute Rental Apartments
- Site and Services
- NTINDA
- RATALI
- KISWA
- NAKAMA
- NAGURU
- NSAMBYA RAILWAY
- BUKOLOBI

### COMPARATIVE SUMMARY/EVALUATIONS:

The following summaries describe the common characteristics of the sub-systems in broad general terms.

1. Unplanned plot sub-division.
2. Planned/coordinated plot subdivision.
3. Small coordinated plots.
4. No private plots.
5. No private plots.

1. All land is private.
2. All land in plot-clusters is private.
3. All land in plot-clusters is private.
4. All land is public; no plot subdivision.
5. All land is public.

1. 90% private, 10% public.
2. 60% private, 40% public.
3. 80% private, 20% public.
4. 10% private, 80% semi-private, 10% public.
5. 20% private, 70% semi-private, 10% public.

1. Medium 5 high density.
2. Low density.
3. Low density.
4. Medium density.
5. High density.

1. Progressive rapid growth.
2. Progressive moderately slow growth.
3. Instant/progressive slow growth.
4. Instant static growth.
5. Instant static growth.

1. Young families with many infant children.
2. Age equally distributed.
3. Young families with many infant children.
4. Young families with many infants.
5. Young families with many infants.

1. More than 80% low income.
2. More than 60% is in the high income group.
3. Low and middle-low income.
4. Low and middle-low.
5. Middle and high income.
### Physical Development Matrix

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>KISWA (IO)</td>
<td>44</td>
<td>20</td>
<td>10</td>
<td>6</td>
<td>5</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>NAKASERO (7)</td>
<td>9</td>
<td>6</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>OLD KAMPALA (4)</td>
<td>80</td>
<td>60</td>
<td>20</td>
<td>10</td>
<td>5</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>MULAGO (3)</td>
<td>50</td>
<td>30</td>
<td>20</td>
<td>10</td>
<td>5</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>KIBULI (2)</td>
<td>40</td>
<td>20</td>
<td>20</td>
<td>10</td>
<td>5</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>KIRENJYI (I)</td>
<td>30</td>
<td>10</td>
<td>10</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>NAKAWA (II)</td>
<td>20</td>
<td>10</td>
<td>10</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>BUGOLOBI PREFABRICATED (11)</td>
<td>20</td>
<td>10</td>
<td>10</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>BUSUNGU (12)</td>
<td>20</td>
<td>10</td>
<td>10</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>MUGANDA (13)</td>
<td>20</td>
<td>10</td>
<td>10</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>1</td>
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<tr>
<td>NAMUGWU (14)</td>
<td>20</td>
<td>10</td>
<td>10</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>NAMALANDA (15)</td>
<td>20</td>
<td>10</td>
<td>10</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

### Land Use

<table>
<thead>
<tr>
<th>Area</th>
<th>Type</th>
<th>R-Value on Logarithmic Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Medium Low</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Medium</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>High</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

### Network Efficiency

- **Network Efficiency** is the ratio of the length of the network to the area served.
- The **R-Value** is derived from plots of different areas having a range of work efficiency, and follows:
  - Very Inefficient: R-value < 1 (1-2)
  - Inefficient: 1 ≤ R-value ≤ 3 (3-5)
  - Efficient: 3 < R-value ≤ 5 (5-7)
  - Very Efficient: R-value > 5 (7+)

### Physical Characteristics

- **Dwelling Type:**
  - Large (5-7)
  - Small (1-4)
- **Dwelling Units:**
  - 1-2 Floors (1-2)
  - 3 or More Floors (3+)
- **Number of Rooms:**
  - 1-2 (1-2)
  - 3 or More (3+)
- **Number of Bathrooms:**
  - 1 (1)
  - 2 or More (2+)
- **Localities:**
  - City Center Innen Peripherie
  - Kirendji
  - Kigali
  - Kibuli
  - Mulago
  - Old Kampala
  - Napak
  - Nakasero
  - Nakawa
  - Old Kigali
  - Kira Road

### Vertical Scale

- **Efficient:** The value varies inversely to the network efficiency, and is given in terms of work efficiency, and is shown in the graph, and tabulated as follows:
  - Very Inefficient: R-value < 1 (1-2)
  - Inefficient: 1 ≤ R-value ≤ 3 (3-5)
  - Efficient: 3 < R-value ≤ 5 (5-7)
  - Very Efficient: R-value > 5 (7+)

The layout efficiency of an urban area can be determined from the combination of these parameters.
The three graphs give a comparison between land use percentages in the 14 Case Study localities in terms of private, semi-private and public use, in relation to the desired/optimum percentages which have been arrived at from various case studies in Latin America and Nairobi, Kenya.

The graphs also compare existing locality densities in relation to the range of desired/acceptable densities (300-600 people per hectare) based upon case studies and acceptable standards in different urban contexts in Developing Countries. The range is computed from dwelling developments of 1-2 stories, an average built-up area of 10-20m² per person and 30-35% of land or plot coverage.

**COMMUNITY FACILITIES, UTILITIES/SERVICES MATRIX**

<table>
<thead>
<tr>
<th>Category</th>
<th>Estimate Population Total for the City</th>
<th>Locality Population</th>
<th>% of Total City Population</th>
<th>Community Facilities</th>
<th>Utilities and Services</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Police</td>
<td>Electricity</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Fire</td>
<td>Street Lighting</td>
</tr>
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<td></td>
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<td></td>
<td></td>
<td>Health</td>
<td>Paved Roads</td>
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<td>Schools</td>
<td>Surveillance</td>
</tr>
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<td></td>
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<td></td>
<td></td>
<td>Recreation</td>
<td>Fuel</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Refuse Collection</td>
<td>Water</td>
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<td>Public Transportation</td>
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**PUBLIC**: Streets, walkways, open spaces; Land used communally with minimum physical control and maximum public responsibility in purchase, development and maintenance.

**PRIVATE**: Dwelling and plots; Land with maximum owner/user control and responsibilities.

**SEMI-PUBLIC/PRIVATE**: Open spaces; Land used for utilities and services and having partial/complete control and responsibilities by a group of sharing users.

**KEY**:
- **VERTICAL SCALE**: Land Utilization percentages.
- **HORIZONTAL**: Residential population densities from 0-2,000 people/ha. on log. scale.
- **CURVES**: Range of optimum land utilization percentages.
- **SHADING**: Desired efficiency of land utilization.
1. KISENYI KAMPALA Low Income Uncontrolled Central Settlement

LOCATION: Kisenyi, an area of about 121.4 hectares (300 acres), lies on the north-eastern slopes of Mengo Hill, the site of the former palace of the King of Buganda (Kabaka). To the north and separated by Namirembe Road is Old Kampala, the site of the first British colonial settlement in Uganda. The eastern boundary is formed by Nakivubo Sports Stadium and Owino Market. To the south and separated by Kasese railway line and Kampala-Masaka road is Katwe, a settlement similar to Kisenyi settlement.

ORIGINS: Kisenyi means "swamp" in the Luganda language. Most of Kisenyi was reclaimed by drainage from a swamp along Nakivubo River.

During the mailo Land Settlement in 1900, most of Kisenyi went to the Kabaka and the rest to one senior prince and four senior chiefs. In subsequent years the land was further subdivided with landlord titles increasing from the 6 to 59 by 1952. The settlement is particularly attractive as a tenement rental neighborhood for low-income people because of its proximity to job opportunities in the city center and its prestigious location on the foothills of the former Kabaka's Palace.

LAYOUT: The honeycomb dusty lanes have developed from natural unplanned footpaths cutting across private property lines which have been laid out by individual landlords without any central and professional guidance and control.

Until 1969, Kisenyi was under Mengo Municipal Administration which had no land-use planning by-laws. Individual landlords subdivided their plots as they wished and with no considerations for future public access and utility line layout.

POPULATION: Kisenyi has a large percentage of adult employable population. Most of the residents are immigrants from rural areas who come alone to look for work and then bring their families later on to work for a short time and go back to the countryside. The percentage of children is increasing. In 1954 it was only 9%. In 10 years it had increased to 17% and is now over 22%. The total population increased from 2914 in 1954 to 4847 in 1964. In 1969 it had more than doubled to 11,000.

LAND USE: About 78% of Kisenyi is residential, 17% commercial and 3% agricultural. The percentages however do not reveal the multi-functional nature of the locality because almost every house has a home-industry or commercial establishment. Most houses rented by women are used for such businesses as brewing and selling of beer, or preparing food to sell to town workers.

Small industrial enterprises such as bicycle-repairs, wood-workshops, metal repairs, shoe, and watch repairs, and car repairs are found along major streets and sometimes in the open under tree sheds.
VIEW FROM NAKASERO MARKET: Overlooking Nakivubo Car Park, Kisenyi and Mango. Note the mixture of old Indian shops and modern concrete banks and offices in the foreground.
INCOMES: The average income is very low, approximately 3300/= (480 US$) p.a.. People earning 100/= ($15) a month live next to those earning 1,000/= ($140) per month. Only about 1% earns 12,000/= ($1,700) per year while more than 85% earn less than $425 per year.

CIRCULATION: Kisenyi locality is surrounded by primary vehicular routes. All internal lanes although used by vehicles are mostly dusty pedestrian routes.
**CASE STUDIES: KISENYI LOCALITY**

**LAND USE PATTERN**

- **Public**
- **Semi-Public**
- **Semi-Private**
- **Private**

**LAND USE PERCENTAGES**

<table>
<thead>
<tr>
<th>Area (Ha)</th>
<th>Public</th>
<th>Semi-Publ.</th>
<th>Semi-Priv.</th>
<th>Private</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.10</td>
<td>---</td>
<td>---</td>
<td>0.90</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1.00</td>
<td>100</td>
<td>90</td>
<td>100</td>
</tr>
</tbody>
</table>

**DENSITIES**

- Lots: 15
- Dwelling Units: 50
- People/Ha.: 320
- 20 people

**NETWORK EFFICIENCY**

- \( N = \text{network length (circulation)} = 185 \)
- \( A = \text{area(s) served (circulation, lots)} \)
- Block area: \( 10,000 \text{ m}^2 = 1 \text{ Hectare} \)
- \( R = \frac{N}{A} = 185 \)

Locality block studied is 100 meters by 100 meters (1 Hectare).

**LOCALITY BLOCK STUDY**

**LOCALITY SEGMENT PLOT STUDY**
URBANIZATION IN DEVELOPING COUNTRIES

TOP LEFT: Low-middle income tenements constructed from plans. This kind of innovation is relatively new. Old tenements in this locality were not planned but converted from family houses.

BOTTOM LEFT: Small dark courtyards serve as outdoor living spaces as well as for commercial enterprises such as “bars” for selling locally brewed banana beer, and “hotels” for serving self-employed workers from Nakivubo.

BOTTOM RIGHT: “Dry Cleaner” business thrives even along dusty lanes. Note the fire place in the foreground where illegal spirits are usually brewed.
CASE STUDIES: KISENYI LOCALITY (29)

The chart shows (1) approximate percentage of each construction type within the total number of dwellings; and (2) building group that generally produces each type.

TYPICAL DWELLING

PHYSICAL DATA

SOURCES: CITY COUNCIL
QUALITY OF INFORMATION: ACCURATE/APPROXIMATE

DWELLING UNIT:
Type: ROOM
Area (m²): 258.5m² (2783ft²)
Tenure: RENTAL

LOT/LAND:
Utilization: PRIVATE
Area: 507.2m² (9600ft²)
Tenure: OWNERSHIP

DWELLING:
Location: CITY CENTER
Type: SEMI-DETACHED
Number of Floors: 1
Utilization: MULTIPLE
Physical State: GOOD

DWELLING DEVELOPMENT:
Mode: INSTANT/INCREMENTAL
Developer: PRIVATE
Builder: ARTISAN
Construction Type: MASONRY/WOOD
Year of construction: 1965/66

MATERIALS:
Foundations: CONCRETE
Floor: CEMENT SCREED
Walls: 6" x 4½/2" CONC. BLOCKS
Roof: G.C.I SHEETS

SOCIO-ECONOMIC DATA

SOURCES: INTERVIEW
QUALITY OF INFORMATION: APPROXIMATE

GENERAL: SOCIAL
User's Ethnic Origin: UGANDANS
Place of Birth: KAMPALA
Education Level: PRIMARY

NUMBER OF USERS:
Married: 7 COUPLES
Single: 
Children: 23
Total: 35

MIGRATION PATTERN:
Number of Moves:
Rural - Urban: from couple
Urban - Urban: to couple
Urban - Rural: 
Why Came To Kampala: WORK

GENERAL: ECONOMIC
User's Income Group: LOW-HIGH
Employment: SALESMAN
Distance To Work: 1 MILE
Mode of Travel: WALKING

COSTS
Dwelling Unit: NOT AVAILABLE
Land - Market Value: $

DWELLING UNIT PAYMENTS
Financing:
Rent/Mortgage: $14 (100/=)

$ Income For Rent/Mortgage: Per month
per room.
2. KIBULI KAMPALA Low Income
Uncontrolled Central Settlement

LOCATION: Kibuli hill is located about 3 Km. (1.5 miles) to the north of the city center.

ORIGINS: Kibuli's development is based upon religious and economic factors. Kibuli hill is generally associated with the Moslem Faith as much as Lubaga and Nsambya hills are associated with the Catholic Church and Namirembe hill the Protestant Church.

Kibuli mosque which lies on the crest of the hill is the headquarters of Moslems in Uganda. As you move down the hill you pass through spacious properties and modern houses of mostly well-to-do Moslems of social significance. Further down the hill towards a papyrus swamp the valleyside is invaded by low-income settlers a good number of who are immigrants from Kenya, Rwanda and Congo.

LAYOUT: The layout is typical of a rural setting under the invasion of the unguided hand of urbanization. There is no coordination of the buildings and the service routes that feed them. Land properties are privately owned in irregular unstandardized shapes and sizes.

POPULATION: In 1969 there were slightly over 10,000 people. Most of the people have lived in the locality for generations.
LAND USE: Land use ranges from the industrial area on the northern boundary to residential on hill slopes and institutional on the hill top.

INCOMES: The majority of the people are in the low-income sector earning less than 300/=p.m.. However, some of Kampala's richest business men live in this locality. Moslems have been the leading African businessmen in Uganda.

CIRCULATION: There is no tar-mac road in the locality although the murram roads are good and accessible all year round. Pedestrians dominate. Again most access routes are unplanned.
CASE STUDIES: KIBULI LOCALITY

**LAND USE PATTERN**

- Public
- Semi-Public
- Semi-Private
- Private

**LAND USE PERCENTAGES**

<table>
<thead>
<tr>
<th>Area (Ha)</th>
<th>%</th>
</tr>
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<tbody>
<tr>
<td>Public</td>
<td>0.10</td>
</tr>
<tr>
<td>Semi-Publ.</td>
<td>--</td>
</tr>
<tr>
<td>Semi-Priv.</td>
<td>--</td>
</tr>
<tr>
<td>Private</td>
<td>0.90</td>
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<tr>
<td>Total</td>
<td>1.00</td>
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</table>

**DENSITIES**

<table>
<thead>
<tr>
<th>No./Ha.</th>
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<tbody>
<tr>
<td>Lots</td>
<td>1</td>
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<tr>
<td>Dwelling Units</td>
<td>46</td>
</tr>
<tr>
<td>People/Ha.</td>
<td>280</td>
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<tr>
<td>20 people</td>
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</table>

**NETWORK EFFICIENCY**

\[ N = \text{network length (circulation)} = 300 \]
\[ A = \text{area(s) served (circulation, lots)} = \text{block area (10,000 m}^2) = 1 \text{ Hectare} \]
\[ R = \frac{N}{A} = \frac{300}{1} = 300 \]

Locality block studied is 100 meters by 100 meters (1 Hectare).

**LOCALITY BLOCK STUDY**

**LOCALITY SEGMENT PLOT STUDY**

1:2500
TOP LEFT: "Urba-rural" characteristics: modern western and traditional rural dwellings stand side by side in green banana plantations.

BOTTOM LEFT: Nursery school. Schools like this one spring up all over the city usually without the knowledge and consent of the City Council.

BOTTOM RIGHT: Kibuli-Wabigalo settlement was created by the housing demand of industrial workers. Cooking, conversation, laundry and other household activity take place in the open compound.
The chart shows (1) approximate percentage of each construction type within the total number of dwellings; and (2) building group that generally produces each type.

**SOCIO-ECONOMIC DATA**

**GENERAL: SOCIAL**
User's Ethnic Origin: UGANDA
Place of Birth: KAMPALA
Education Level: GCE.

**NUMBER OF USERS**
Married: YES
Single: SINGLE
Children: 5
Total: 7

**MIGRATION PATTERN**
Number of Moves:
- Rural - Urban: 1
- Urban - Urban: 1
- Urban - Rural: 1

**Why Came To Kampala:**

**GENERAL: ECONOMIC**
User's Income Group: MIDDLE-HIGH
Employment:
Distance To Work: 3 MILES
Mode of Travel: CAR

**COSTS**
- Dwelling Unit: $5,000
- Land - Market Value: $1,000 per 1/4 acre

**DWELLING UNIT PAYMENTS**
Financing: LOAN
Rent/Mortgage: $ Income For Rent/Mortgage:

**PLAN**

- LR Living Room
- DR Dining Room
- BR Bedroom
- K Kitchen
- L Laundry
- T Toilet-Bathroom
- C Closet

1:200

0 1 5

15 m
3. **MULAGO** KAMPALA Low Income Uncontrolled Suburban Settlement

**LOCATION:** Mulago is located on the northwestern slopes of the flat-topped hill, about 5 km to the north of the city center where the Mulago General Hospital is located. It is bounded on the west by Bombo Road and Makerere University.

**ORIGINS:** Although there are no surviving castles and palaces on the hill, Mulago is one of the hills in and around Kampala frequently settled by the ancient kings of Buganda. When Mengo became firmly established as the capital of the Buganda Kingdom around the early 19th century, it became the chief center of second homes or "town houses" of important rural chiefs who came occasionally to Kampala to attend court meetings. As the hill quickly developed the most important medical institution in the country in the early 1920's, the chiefs were forced to move out by the mushrooming "bedroom" community of immigrant laborers and patients which occupies the western slopes of the hill today.

**LAYOUT:** The settlement layout was determined by irregular footpaths as the settlement developed from a rural-type open system to a dense conglomeration of buildings erected without any coordination and control. As in the case of Kisenyi and Kibuli, siting...
CASE STUDIES: MULAGO LOCALITY

**LOCALITY POPULATION GROWTH**

![Graph showing population growth over time.]

**LOCALITY AGE DISTRIBUTION**

![Bar chart showing age distribution.]

**LOCALITY INCOME DISTRIBUTION**

![Bar chart showing income distribution.]

**LOCALITY CIRCULATION PATTERN**

![Map showing circulation pattern.]

**LOCALITY LAND USE PATTERN**

![Map showing land use pattern.]

**1969 Pop. Census:** 7,000

**1969 Census**

**1969 Figures**

**Services**

- Schools
- Health
- Refuse Collection
- Public Transport
- Recreation
- Fire
- Police

**Utilities**

- Water
- Sewage
- Electricity
- Paved Roads
- Telephone

**50% 40 30 20 10 0**

**Uganda Sh. p.m.**

- 25,000
- 10,000
- 5,000
- 1,000
- 500
- 250

**US $ p.a.**

- 12,000
- 8,000
- 4,000
- 2,000
- 1,000
- 500

**Services**

- Schools
- Health
- Refuse Collection
- Public Transport
- Recreation
- Fire
- Police

**Utilities**

- Water
- Sewage
- Electricity
- Paved Roads
- Telephone
of dwellings bears no relationships to plot sizes and shapes. As many as ten or more dwellings may be scattered or packed on a single plot in various orientations and configurations.

POPULATION: Mulago has been referred to as a "bedroom" community because it provides short term lodging spaces mostly to patients and their attendants.

In 1969 there were about 7,000 permanent residents in the locality, of whom more than 50% were in the employable age of 20-50.

LAND USE: Less than 50% of the dwellings are for residential use only. The majority of dwellings are used also for such commercial and industrial activities as car-repairs, bicycle-repairs, welding of charcoal stoves making paraffin lanterns and etc.. There are no public, semi-public or controlled open spaces in the community.
CASE STUDIES: MULAGO LOCALITY

LAND USE PATTERN

Public

Semi-Public

Semi-Private

Private

LAND USE PERCENTAGES

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Area (Ha)</th>
<th>%</th>
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<tr>
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DENSITIES

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<th>No./Ha.</th>
<th>Lots</th>
<th>Dwelling Units</th>
<th>People/Ha.</th>
<th>20 people</th>
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<td>7</td>
<td>50</td>
<td>300</td>
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NETWORK EFFICIENCY

\[ N = \text{network length (circulation)} = 200 \]
\[ A = \text{area(s) served (circulation, lots)} \]
\[ X = \text{block area (10,000 m}^2) = 1 \text{ hectare} \]
\[ R = \frac{N}{A} = \frac{200}{1} = 200 \]

Locality block studied is 100 meters by 100 meters (1 Hectare).

LOCALITY BLOCK STUDY

LOCALITY SEGMENT PLOT STUDY
TOP LEFT: Mulago overflows with activity. Merchandise, light industry, and household activities flow out of the dwellings into the streets and open spaces to intermingle with children playing areas, garbage dumps and animal husbandry.

BOTTOM LEFT: One of the main streets. National Hospital in the background.

BOTTOM RIGHT: Main street. Chairs, tables, cooking pans, wash-basins, and hand wagons in the background indicate the extent to which outdoor spaces are put into multi-purpose use.

INCOMES: No data is available but the economic set-up although poorer is very similar to that of Kisenyi.

CIRCULATION: The dusty murram-finished streets are generally accessible and moderately used by motor vehicles. Primarily pedestrian routes are often invaded by motorists, handcarts, cyclists and even cows.
The chart shows (1) approximate percentage of each construction type within the total number of dwellings; and (2) building group that generally produces each type.

**TYPICAL DWELLING**

**PHYSICAL DATA**

**SOURCES:** STANLEY  
**QUALITY OF INFORMATION:** ESTIMATE

**DWELLING UNIT**
- **Type:** HOUSE  
- **Area (m²):** 210 m²  
- **Tenure:** OWNERSHIP

**LOT/LAND**
- **Utilization:** PRIVATE  
- **Area:** NOT AVAILABLE  
- **Tenure:** MAILO LAND LEASE

**DWELLING**
- **Location:** INNER CITY RING  
- **Type:** DETACHED  
- **Number of Floors:** 1  
- **Utilization:** MULTI-FAMILY  
- **Physical State:** MODERATE

**DWELLING DEVELOPMENT**
- **Mode:** INSTANT  
- **Developer:** OWNER  
- **Builder:** ARTISAN  
- **Construction Type:** MUD & WATTLE  
- **Year of construction:**

**MATERIALS**
- **Foundations:** WOODEN POST CONSTRUCTION  
- **Floor:** CEM. SCREED ON HARDCORE  
- **Walls:** MUD & WATTLE  
- **Roof:** TIM

**SOCIO-ECONOMIC DATA**

**SOURCES:** STANLEY  
**QUALITY OF INFORMATION:** ESTIMATE

**GENERAL: SOCIAL**
- **User's Ethnic Origin:** UGANDAN  
- **Place of Birth:** KAMPALA  
- **Education Level:** NONE

**NUMBER OF USERS**
- **Married:** YES  
- **Single:** YES  
- **Children:** -  
- **Total:** 15

**MIGRATION PATTERN**
- **Number of Moves:** VARIES  
- **Rural - Urban:** -  
- **Urban - Rural:** -  
- **Why Came To Kampala:** WORK

**GENERAL: ECONOMIC**
- **User's Income Group:** LOW  
- **Employment:** SELF-EMPLOY.  
- **Distance To Work:**  
- **Mode of Travel:**  

**COSTS**
- **Dwelling Unit:** $700 (5,000/)
- **Land - Market Value:** MEDIUM

**DWELLING UNIT PAYMENTS**
- **Financing:** SAVINGS  
- **Rent/Mortgage:**  
- **Income For Rent/Mortgage:**
4. OLD KAMPALA KAMPALA
High Income Private Central Settlement

LOCATION: The locality is located about 2 Km west of the city center on the former boundary between the defunct Mengo Municipality and Kampala Municipality. To the south and south-east lie Kisenyi and the former Lubili (King's Palace) and to the west and north-west Lubaga Cathedral and Namirembe Cathedral, the two main centers of the Catholic and Protestant Churches in Uganda.

ORIGINS: In 1890 Captain Lugard of the British East African Company made a forced entry into Buganda against the wishes of the Kabaka and pitched up his tent on Old Kampala Hill, then called "Impala" - the Luganda name of the antelopes which the Kabaka used to herd on the hill. In 1891 the old fort was built on the summit of the hill and its security attracted Asians to settle and establish trading business on the hillside. When government transferred to Nakasero Hill a few years later the Asian businessmen also transferred their business to the lower slopes of Nakasero. Their residential houses however remained on Old Kampala and the locality has been occupied almost exclusively by Asians until 1972 when Asians moved out of Uganda.

LAYOUT: The streets of Old Kampala are parallel to the slopes of the hill. A large open space at the hill apex
is reserved as a landmark of the city beginning. The locality is a strong mixture of British colonial and Asiatic-Oriental traditions.

POPULATION: In 1969 the total population of the locality was about 6,500. It is difficult to estimate the present population characteristics since the re-occupation of the premises left by the Asians is still in progress. In some cases houses have been taken up by large families while in others large houses have been allocated to bachelors. It will be interesting to watch the results of wholesale instant replacement of one ethnic group by another on the character of the locality.

LAND USE: About half of Old Kampala is residential. The rest is covered by open spaces, Hindu temples, mosques, schools and other institutions.

INCOMES: It is again difficult to assess the present income levels of the people...
CASE STUDIES: OLD KAMPALA (45)

Lots Dwelling Units People/Ha.
12 24 108
0

NETWORK EFFICIENCY

\[ N = \text{network length (circulation)} = 430 \]
\[ A = \text{area(s) served (circulation, lots)} = \text{block area (10,000 m}^2) = 1 \text{ Hectare} \]
\[ R = \frac{N}{A} = \frac{430}{100} = 4.3 \]

Locality block studied is 100 meters by 100 meters (1 Hectare).

LOCALITY SEGMENT PLOT STUDY
TOP LEFT: Rich spacious grounds with good roads and plenty of vehicular traffic.

BOTTOM LEFT: Expensive high income dwellings combining Indian and Western European culture.

BOTTOM RIGHT: Houses left over by Asians and now occupied by middle and high income Africans.

moving into the locality. The Asian community was mostly middle and high income community of businessmen and professionals. The new tenants are a mixture ranging from African graduates to small businessmen and even low-income clerical and office workers.

CIRCULATION: Vehicular circulation dominates. All roads have permanent all-weather surfaces and are well-kept. A bus route along Namirembe road serves the area.
The chart shows (1) approximate percentage of each construction type within the total number of dwellings; and (2) building group that generally produces each type.

**TYPICAL DWELLING**

**PHYSICAL DATA**

**SOURCEs:** CITY COUNCIL

**QUALITY OF INFORMATION:** ACCURATE

**DWELLING UNIT**

- **Type:** HOUSE
- **Area (m²):** 226.7m² (2440ft²)
- **Tenure:** OWNERSHIP

**LOT/LAND**

- **Utilization:** PRIVATE
- **Area:** 464.5m² (5,000ft²)
- **Tenure:** LEASE

**DWELLING LOCATION**

- **Type:** DETACHED
- **Number of Floors:** 1
- **Utilization:** SINGLE FAMILY
- **Physical State:** GOOD

**DWELLING DEVELOPMENT**

- **Mode:** INSTANT
- **Developer:** PRIVATE
- **Builder:** SMALL CONTRACTOR
- **Construction Type:** MASONRY/WOOD
- **Year of construction:** 1940

**MATERIALS**

- **Foundations:** R.C. CONC.
- **Floor:** CEM/SCREED
- **Walls:** CONC. BLOCK
- **Roof:** G.I. SHEETS

**SOCIO-ECONOMIC DATA**

**SOURCEs:** STANLEY

**QUALITY OF INFORMATION:** APPROXIMATE

**GENERAL: SOCIAL**

- **User's Ethnic Origin:** ASIAN
- **Place of Birth:** UGANDA
- **Education Level:** GCE

**NUMBER OF USERS**

- Married: YES
- Single: YES
- **Children:** 7
- **Total:** 9

**MIGRATION PATTERN**

- **Number of Moves:** NONE
- **Rural - Urban:**
- **Urban - Urban:**
- **Urban - Rural:**
- **Why Came To Kampala:** WORK

**GENERAL: ECONOMIC**

- **User's Income Group:** HIGH
- **Employment:** BUSINESS
- **Distance To Work:** 1 MILE
- **Mode of Travel:** CAR

**COSTS**

- **Dwelling Unit:** $10,000
- **Land - Market Value:** $3,000

**DWELLING UNIT PAYMENTS**

- **Financing:** LOAN
- **Rent/Mortgage:** YES
- **Income For Rent/Mortgage:**

**ELEVATION**

**PLAN**

- LR Living Room
- BR Bedroom
- K Kitchen
- DR Dining Room
- L Laundry
- T Toilet-Bathroom
- C Closet

**DWELLING**

1:200
5. NSAMYA COMMONWEALTH
Middle/High Income Private Suburban Project

LOCATION: Nsambya Commonwealth Project is located about 3.2 km from the city center on the south-eastern slopes of Nsambya hill. The apex of the hill is occupied by the Mill Hill Missionary Headquarters and Nsabya Hospital. To the north lies the Railways and Police Housing estates.

ORIGINS: Development of the estate was initiated in 1968 by the Commonwealth Development Corporation (London), who are 50% share-holders of Housing Finance Company Uganda Lt., in conjunction with the Registered Trustees of the Catholic Archdioces of Kampala, (The Catholic Church are the owners of the land). The purpose of the project was to provide housing for Kampala middle income workers on an ownership (mortgage) basis. Only 60 hectares of the 121.4 hectares (300 acres) originally planned were developed, because of the lack of finance support following the pull-out of the Commonwealth Development Corporation, the shortage of skilled manpower, materials, and an unstable political and social climate.

LAYOUT: The street pattern is planned on a typical rectangular grid for middle and upper income families. Streets are wide and dwellings are surrounded by open spaces. All property boundaries were demarcated with...
CASE STUDIES: NSAMBYA COMMONWEALTH PROJECT (49)

**Locality Population Growth**
- Horizontal: dates
- Vertical: population
- 1973 Estimate: 10,000

**Locality Age Distribution**
- Male
- Female
- Horizontal: percentages
- Vertical: ages

**Locality Income Distribution**
- Uganda Sh. p.m.
- US $ p.a.
- Horizontal: percentages
- Vertical: income

**Mulumba Estimate.**

**Locality Circulation Pattern**

**Locality Land Use Pattern**
wire fences; individual plot owners have already started planting hedges along the wire lines.

POPULATION: No population statistics are available, but based on 6 people per dwelling unit the housing project will house about 10,000 people of young and middle income families.

LAND USE: The total scheme was designed to include shopping facilities and institutions such as schools etc. when completed. The completed section is basically residential.

INCOMES: The average income is 2300/= ($0.330) per month. Some tenants earn over 3,500/= per month.

CIRCULATION: All streets in the locality are designed for vehicular traffic. A bus service along Gaba road is easily accessible.
CASE STUDIES: NSAMBYA COMMONWEALTH PROJECT (51)

LAND USE PATTERN

<table>
<thead>
<tr>
<th>Category</th>
<th>Area (ha)</th>
<th>%</th>
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</thead>
<tbody>
<tr>
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<tr>
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<td>--</td>
</tr>
<tr>
<td>Private</td>
<td>0.69</td>
<td>69</td>
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</tbody>
</table>

Total: 1.00 100

DENSITIES

- No./Ha.
- Lots: 20
- Dwelling Units: 20
- People/Ha.: 120
- 20 people

NETWORK EFFICIENCY

N = network length (circulation) = 220
A = area(s) served (circulation, lots)
   = block area (10,000 m²) = 1 Hectare
R = N/A = 220/1 = 220

Locality block studied is 100 meters by 100 meters (1 Hectare).

LOCALITY BLOCK STUDY

LOCALITY SEGMENT PLOT STUDY
URBANIZATION IN DEVELOPING COUNTRIES

TOP LEFT: Mortgage houses for middle and high income groups by the Commonwealth Finance Co. and Nsambya Catholic Church.

BOTTOM LEFT: BOTTOM RIGHT: Kireka Housing Estate mortgage houses by the National Housing Corporation. This represents the first attempt by the corporation to deal with low-income housing problems. However not only are the houses too expensive for the low income people but the project is located so far from work and is not easily accessible to people without cars that it is now occupied by high and middle income people.
The chart shows (1) approximate percentage of each construction type within the total number of dwellings; and (2) building group that generally produces each type.

**SOCIO-ECONOMIC DATA**

**SOURCES:** STANLEY  
**QUALITY OF INFORMATION:** APPROXIMATE

**GENERAL: SOCIAL**  
User's Ethnic Origin: UGANDAN  
Place of Birth: MBARARA  
Education Level: UNIVERSITY

**NUMBER OF USERS**  
Married:  
Single: YES

**Children:**  
Total: 1+2 servants

**MIGRATION PATTERN**  
Number of Moves: 4  
Rural - Urban: 1  
Urban - Urban: 3  
Urban - Rural:  
Why Came To Kampala: WORK

**GENERAL: ECONOMIC**  
User's Income Group: MIDDLE HIGH  
Employment: ACCOUNTANT  
Distance To Work: 4 MILES  
Mode of Travel: CAR

**COSTS**  
Dwelling Unit: $6,000  
Land - Market Value:

**DWELLING UNIT PAYMENTS**  
Financing:  
Rent/Mortgage:

% Income For Rent/Mortgage:

**TYPICAL DWELLING**

**PHYSICAL DATA**

**SOURCES:** CITY COUNCIL  
**QUALITY OF INFORMATION:** ACCURATE

**DWELLING UNIT**  
Type: HOUSE  
Area (m²): 68.51  
Tenure: MORTGAGE

**LOT/LAND**  
Utilization: PRIVATE  
Area: 464.5m²  
Tenure: LEASE

**DWELLING**  
Location: INNER RING  
Type: SEMI-DETACHED  
Number of Floors: 1  
Utilization: SINGLE FAMILY  
Physical State: NEW

**DWELLING DEVELOPMENT**  
Mode: INSTANT  
Developer: PRIVATE CORPORATION  
Builder: LARGE CONTRACTOR  
Construction Type: MASONRY/WOOD  
Year of construction: 1972

**MATERIALS**  
Foundations: R.C. CONCRETE  
Floor: CEMENT/SCREED  
Walls: PRECAST CHECCOLITE  
Roof: ASBESTOS SHEETS

**ELEVATION**

**PLAN**

- LR: Living Room  
- DR: Dining Room  
- T: Toilet-Bathroom  
- K: Kitchen  
- L: Laundry  
- C: Closet
6. KIRA ROAD  High Income Government Suburban Dwellings

LOCATION: Kira Road falls within the 5 Km ring about 4.5 Kms from the city center. The area is bounded by Kira Road highway and Mulago-Kamwokya housing estates to the north and the high-income diplomatic-core residential Kololo Hill to the south. To the north-east lies a new City Council middle-income estate of walk-up apartments. To the east is Lugogo By-Pass.

ORIGINS: Most of the present Kira Road locality buildings were constructed by the Colonial Central government in the late 1940's and 1950 for use of European and Asian civil servants. More than 80% of the buildings belong to the government but a few companies and individual employers have constructed complexes of flats and apartments either for use of their employees or for rent to government civil servants, Foreign Embassy personnel or other companies.

LAYOUT: Kira Road has the most compact building layout in Kampala. Buildings are arranged along four parallel streets in a way that minimizes lengths of service and utility lines.

POPULATION: Before independence and the 1971-73 changes the locality was dominated by Asians with large families and middle-high incomes. At present many Asians especially those employed in government service, teaching and the medical institutions...
still live in the area. But the number of Africans with varying employment fields and varying incomes are moving into the area to occupy houses left as a result of the "Asian Exodus" to Britain and other countries.

LAND USE: More than 80% of the land is residential. There is a market in the southwestern corner of the locality but most of the shopping is done by car in the city center. The rest of the land accommodates schools and playgrounds in the valley boundary between the locality and Kololo Hill.

INCOMES: Most of the residents earn executive salaries of at least $400 (2800/=) per month. Some company executives earn twice that much. Average income is about $500 (3500/=) a month.

CIRCULATION: Circulation within the locality is mostly pedestrian although each dwelling is accessible by car, travel to town and other places is by private car but a bus runs very frequently along the main Kira Road highway.
CASE STUDIES: KIRA ROAD

LAND USE PATTERN

Public
Semi-Public
Semi-Private
Private

LAND USE PERCENTAGES

<table>
<thead>
<tr>
<th>Area(Ha)</th>
<th>%</th>
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<td>Private</td>
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<td>Total</td>
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DENSITIES

<table>
<thead>
<tr>
<th></th>
<th>No./Ha.</th>
</tr>
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<tbody>
<tr>
<td>Lots</td>
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<tr>
<td>Dwelling Units</td>
<td>56</td>
</tr>
<tr>
<td>People/Ha.</td>
<td>240</td>
</tr>
</tbody>
</table>

20 people

NETWORK EFFICIENCY

N = network length (circulation) = 200
A = area(s) served (circulation, lots)

- block area (10,000 m²) = 1 Hectare
N = A = 200

Locality block studied is 100 meters by 100 meters (1 Hectare).

LOCALITY BLOCK STUDY

LOCALITY SEGMENT PLOT STUDY
TOP LEFT: Kira Road by-pass. Kampala and District Bus Co. has the monopoly of public transportation within the city.

BOTTOM LEFT: Middle class residential houses formerly used by Indian clerical and semi-professional civil servants and now occupied by Africans in high senior administrative positions.

BOTTOM RIGHT: Dwellings reflect the strong combination of Indian and European cultural backgrounds.
The chart shows (1) approximate percentage of each construction type within the total number of dwellings; and (2) building group that generally produces each type.

**Typical Dwelling**

**Physical Data**
- **Sources:** City Council
- **Quality of Information:** Accurate

**Dwelling Unit**
- Type: Apartment
- Area (m²): 131.9 (1420ft²)
- Tenure: Rental

**Lot/Land**
- Utilization: Semi-Private
- Area: 1071.4 (11536ft²)
- Tenure: Lease

**Dwelling**
- Location: Inner Ring
- Type: Semi-Detached
- Number of Floors: 2
- Utilization: Multi-Family
- Physical State: Good

**Dwelling Development**
- Mode: Instant
- Developer: Government
- Builder: Large Contractor
- Construction Type: Masonry/Concrete
- Year of Construction: 1952

**Materials**
- Foundations: R.C. Concrete
- Floor: CIM/Screed
- Walls: Conc. Blocks
- Roof: R.C. Slab

**Socio-Economic Data**
- **Sources:** Stanley
- **Quality of Information:** Estimate

**General: Social**
- User's Ethnic Origin: Ugandan
- Place of Birth: Kampala
- Education Level: University

**Number of Users**
- Married: Yes
- Single: 5
- Children: 5
- Total: 7+ Servants

**Migration Pattern**
- Number of Moves: 1
- Rural - Urban: 1
- Urban - Urban: 2
- Urban - Rural: 3
- Why Came To Nairobi:

**General: Economic**
- User's Income Group: High
- Employment: Civil Servi
- Distance To Work: 3 Miles
- Mode of Travel: Car

**Costs**
- Dwelling Unit: $8,000
- Land - Market Value: 0

**Dwelling Unit Payments**
- Financing:
  - Rent/Mortgage: 5% Income For Rent/Mortgage
7. NAKASERO HILL High Income Private Central Settlement

LOCATION: Nakasero residential area lies on the upper slopes of Nakasero Hill, the lower slopes of which are built up with the central business and administrative center of Kampala city.

ORIGINS: In the later half of 1800's the British Colonial Government transferred its administrative post from Old Kampala to a fort on top of Nakasero Hill. As more and more British administrators and advisors arrived into the country the hill slopes were built up in a truly Colonial British style.

LAYOUT: The street pattern, typical of conventional colonial town, is an irregular triangular pattern following the contours of the hill side. Dwellings are spaced far and apart and surrounded by large gardens.

POPULATION: Today there are very few Europeans left in the country and these are more concentrated in the Ambassadorial areas such as Kololo and Mbuya Hills. Nakasero is now dominantly settled by Africans in high managerial posts and with large families. According to 1969 Census there were about 4,000 people in Nakasero residential area. Figures today are difficult to estimate since some of the houses are still empty while others have been occupied by families twice or three times the former occupant's sizes.

LAND USE: The residential section of Nakasero Hill has large areas of land devoted to governmental buildings such as the State House, Chief Justice's House, Law Courts and the Historical Fort at the apex and various social clubs. There is hardly any commercial or industrial activity in this section.

INCOMES: The locality still remains a high income area with average salary over 2,500/= ($355) per month.

CIRCULATION: There are no public bus routes in the locality. Although the area is adjacent to the business and commercial area each household has at least one car, and vehicular circulation dominates.
CASE STUDIES: NAKASERO HILL (61)

LOCALITY POPULATION GROWTH

- Horizontal: dates
- Vertical: population

1969 Pop. Census: 4,000

LOCALITY AGE DISTRIBUTION

- Male: Horizontal: percentages
- Female: Vertical: ages

1969 Census

LOCALITY INCOME DISTRIBUTION

- Uganda Sh. p.m.
- US $ p.a.

1969 Figures

SERVICES

- Schools
- Health
- Refuse Collection
- Public Transport
- Recreation
- Fire
- Police
- Utilities

MARKET STREET overloo king
Nakivubo Car-park and Old Kampala Hill.
19th. Century Asian-type shopfronts
still survive along side walk-up and
high-rise concrete office blocks.
Peddlers carry merchandise on hand-
carts to and from Nakasero Market and
Nakivubo carpark.
LOCALITY AERIAL PHOTOGRAPH

LOCALITY PLAN

1:10000
LOCALITY SEGMENT AERIAL PHOTOGRAPH
CASE STUDIES: NAKASERO HILL

LAND USE PATTERN

Public
Semi-Public
Semi-Private
Private

LAND USE PERCENTAGES

<table>
<thead>
<tr>
<th>Area (Ha)</th>
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DENSITIES

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<th>No./Ha.</th>
<th>Lots</th>
<th>Dwelling Units</th>
<th>People/Ha.</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>4</td>
<td>18</td>
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</tbody>
</table>

20 people

Network Efficiency

\[ N = \text{network length (circulation)} = 200 \]
\[ A = \text{area(s) served (circulation, lots)} = \text{block area (10,000 m}^2\text{)} = 1 \text{ Hectare} \]
\[ R = \frac{N}{A} = \frac{200}{10,000} = 200 \]

Locality block studied is 100 meters by 100 meters (1 Hectare).

LOCALITY BLOCK STUDY

LOCALITY SEGMENT PLOT STUDY
TOP LEFT: Former Uganda Club. Rich equatorial trees provide luxurious privacy and shelter to the houses. In the background are Kitante and Kololo Hills, both high income areas.

BOTTOM LEFT: A neglected unoccupied house left after the departure of Asians and Europeans in 1972. Most of such houses are being replaced with high rise and walk-up rental apartments by the National Housing Corporation.

BOTTOM RIGHT: British country-type houses set in rich extensive gardens now occupied by senior government African officials.
CASE STUDIES: NAKASERO HILL

The chart shows (1) approximate percentage of each construction type within the total number of dwellings; and (2) building group that generally produces each type.

TYPICAL DWELLING

PHYSICAL DATA

| Type          | Area (m²) | Tenure     | LOT/LAND Utilization | Area (m²) | Tenure     | DWELLING Location | Type          | Number of Floors | Utilization | Physical State |
|---------------|-----------|------------|----------------------|-----------|------------|-------------------|---------------|-----------------|-------------|----------------|               |
| HOUSE         | 205.82     | OWNERSHIP  | PRIVATE              | 2265.42   | LEASE      | CITY CENTER       | DETACHED      | 1               | SINGLE FAMILY | OLD           |               |

DWELLING DEVELOPMENT

<table>
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<tr>
<th>Mode</th>
<th>Developer</th>
<th>Builder</th>
<th>Construction Type</th>
<th>Year of construction</th>
<th>1921</th>
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<tr>
<td>INSTANT</td>
<td>PRIVATE</td>
<td>SMALL CONTRACTOR</td>
<td>MASONRY/WOOD</td>
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MATERIALS

<table>
<thead>
<tr>
<th>Foundations</th>
<th>Floor</th>
<th>Walls</th>
<th>Roof</th>
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<tbody>
<tr>
<td>R.C. CONCRETE</td>
<td>CONCRETE/SCREEN</td>
<td>CONC. BLOCK</td>
<td>G.I. SHEETS</td>
</tr>
</tbody>
</table>

SOCIO-ECONOMIC DATA

SOURCES: STANLEY

QUALITY OF INFORMATION: APPROXIMATE

GENERAL: SOCIAL

User's Ethnic Origin: EUROPEAN
Place of Birth: BRITAIN
Education Level: UNIVERSITY

NUMBER OF USERS

Married: YES
Single:       
Children: 2
Total: 4+3 SERVANT

MIGRATION PATTERN

Number of Moves: 1
Rural - Urban:   
Urban - Urban:   
Urban - Rural: 1
Why Came To Kampala: WORK

GENERAL: ECONOMIC

User's Income Group: HIGH
Employment: EXECUTIVE
Distance To Work: 1/2 MILE
Mode of Travel: CAR

COSTS

Dwelling Unit: $10,000
Land - Market Value: $4,000

DWELLING UNIT PAYMENTS

Financing: MORTGAGE
Rent/Mortgage: \% Income For Rent/Mortgage:

PLAN

LR Living Room LR Kitchen
DR Dining Room L Laundry
D Dining T Toilet-Bathroom
BR Bedroom C Closet

1:200
8. NTINDA ESTATE KAMPALA
Low/Middle Income
Government Suburban Project

LOCATION: Ntinda estate which is about 160 Ha. (400 acres) lies about 7.2 Km. (4.5 miles) from the city center and about 1.6 Km. to the north of a junction 5.5 Km. (3.5 miles) along Kampala-Jinja Road.

ORIGINS: The project was initiated in 1953 after the government began to change the Building By-Laws to deal with the realities of low-income town dwellers. The movement of Africans into urban centers was already changing to permanent residence from migratory labour.

At the same time the colonial government began to realize that "the cost of building quarters for low income African labourers to good standards must place an economic rent beyond the pocket of such persons and therefore the rent of even the smaller houses must have considerable element of subsidy".

It was further recognised that to reduce the high costs associated with the high standard of building construction and materials specified in Grade One Building By-Laws, and to reduce any government subsidy while bringing the houses nearer to the economic means of the poorer Africans for whom they were intended, the tendency is to reduce drastically the number and size of rooms and otherwise simplify or reduce houses's amenities so that in the end they are not the sort of houses which Africans would like.

The government decided to simplify building standards by introducing Grade II and Grade III which made it permissible to build houses in traditional methods such as mud and wattle within specified areas provided certain minimum building standards were maintained. Ntinda was one of the areas specified.

LAYOUT: Ntinda locality consists of two sections; Grade I Section where houses were built and completed by the government in high standard materials and then mortgaged off to prospective buyers. This section is on the higher slopes and is arranged along three parallel streets.

Grade II Section arranged around a ring-road consists of site and service scheme where-by tenants were given sites and stand-pipes and then built their own houses.

POPULATION: Interpolation of 1969 Census data indicates that there were about 2,200 people in Ntinda estate. Although most of the houses in the tenant purchase scheme were already purchased by 1973 a good number of original owners has moved to larger houses in high income areas such as Kololo, following the departure of Asians and Europeans.

LAND USE: More than 90% of the locality is used for residential purposes and the rest is used for administrative and other institutional purposes. There is very little commercial and no industrial activity.

INCOMES: The locality houses people with higher incomes than originally planned for. Average income is over 1,000/= per month. More than 4% earn over 2,000/= per month.
LOCALITY POPULATION GROWTH

Horizontal: dates Vertical: population

1969 Pop. Census: 2,200

LOCALITY AGE DISTRIBUTION

Horizontal: percentages Vertical: ages

MALE: 52% FEMALE: 48%

LOCALITY INCOME DISTRIBUTION

Horizontal: percentages Vertical: income

Uganda Sh. p.m. US $ p.a.

1969 Census 1974 Estimates

SERVICES

SCHOOLS
HEALTH
REFUSE COLLECTION
PUBLIC TRANSPORT
RECREATION
FIRE
POLICE

UTILITIES

WATER
SEWAGE
ELECTRICITY
PAVED ROADS
TELEPHONE

Streicher Road: Site and service Self-help Scheme. Mud/wattle houses. Murram finished roads get muddy during the rainy season and dusty during the dry season. Note children playing in storm-water trenches due to lack of sufficiently defined children playgrounds.
NTINDA ROAD: NTINDA ESTATE IN THE BACKGROUND

LOCALITY PLAN
CASE STUDIES: NTINDA ESTATE (71)

Vehicular: Expressway
District Road
Minor Road

Pedestrian: Heavy
Light
Railway

LOCALITY CIRCULATION PATTERN

RESIDENTIAL
COMMERCIAL
INDUSTRIAL

LOCALITY LAND USE PATTERN

PK Parking
F Police
F Fire Department
S School
PO Post Office
SS Social Services
R Rapid Transit

0 100 200 300 400 500m
CIRCULATION: New streets besides the three existing parallel streets in the upper section and the ring road in the lower section are being constructed. All the streets are equally used by both pedestrians and vehicles.
CASE STUDIES: NTINDA ESTATE

LAND USE PATTERN

Public
Semi-Public
Semi-Private
Private

LAND USE PERCENTAGES

<table>
<thead>
<tr>
<th>Area (Ha)</th>
<th>%</th>
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<td>Private</td>
<td>0.80 80</td>
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<td>Total</td>
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DENSITIES

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<tr>
<th>NO/Ha.</th>
<th>Lots</th>
<th>Dwelling Units</th>
<th>People/Ha.</th>
<th>20 people</th>
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<td>96</td>
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NETWORK EFFICIENCY

N = network length (circulation) = 200m
A = area(s) served (circulation, lots)
R = block area (10,000 m²) = 1 Hectare

Locality block studied is 100 meters by 100 meters (1 Hectare).

LOCALITY BLOCK STUDY

LOCALITY SEGMENT PLOT STUDY
Top left: Site and Service Self-Help Scheme. Main house in concrete blocks and kitchen and service unit in mud/wattle walls.

Bottom left and right: Mortgage housing by the African Housing Department of the old colonial government. Limited agricultural subsistence food production still persists.
The chart shows (1) approximate percentage of each construction type within the total number of dwellings; and (2) building group that generally produces each type.

**TYPICAL DWELLING**

**PHYSICAL DATA**

**SOURCES:** CITY COUNCIL  
**QUALITY OF INFORMATION: ACCURATE**

**DWELLING UNIT**
- **Type:** HOUSE  
- **Area (m²):** 704m² (7550ft²)  
- **Tenure:** MORTGAGE

**LOT/LAND**
- **Utilization:** PRIVATE  
- **Area:** 704m² (7550ft²)  
- **Tenure:** LEASE

**DWELLING**
- **Location:** PERIPHERY  
- **Type:** DETACHED  
- **Number of Floors:** 1  
- **Utilization:** SINGLE FAMILY  
- **Physical State:** GOOD

**DWELLING DEVELOPMENT**
- **Mode:** INSTANT & INCREMENTAL  
- **Developer:** PRIVATE SECTOR  
- **Builder:** LARGE CONTRACTOR AND ARTISAN  
- **Construction Type:** MASONRY/WOOD & MUD & WATTLE  
- **Year of construction:** 1954

**MATERIALS**
- **Foundations:** CONC.  
- **Floor:** CEM/SCREED  
- **Walls:** CONC. BLOCK  
- **Roof:** LOCAL CLAY TILES

**SOCIO-ECONOMIC DATA**

**SOURCES:** STANLEY  
**QUALITY OF INFORMATION: APPROXIMATE**

**GENERAL: SOCIAL**
- **User’s Ethnic Origin:** UGANDA  
- **Place of Birth:** KAMPALA  
- **Education Level:** GCE

**NUMBER OF USERS**
- **Married:** YES  
- **Single:**  
- **Children:** 2  
- **Total:** 6

**MIGRATION PATTERN**
- **Number of Moves:** 2  
- **Rural - Urban:** 1  
- **Urban - Urban:** 1  
- **Urban - Rural:** Why Came To Kampala: WORK

**GENERAL: ECONOMIC**
- **User’s Income Group:** MIDDLE  
- **Employment:** CLERICAL  
- **Distance To Work:** 5 MILES  
- **Mode of Travel:** BUS

**COSTS**
- **Dwelling Unit:** Land - Market Value:

**DWELLING UNIT PAYMENTS**
- **Financing:** Rent/Mortgage:  
- **% Income For Rent/Mortgage:**

**PLAN**
- **LR Living Room**  
- **K Kitchen**  
- **BR Bedroom**  
- **V Verandah**  
- **T Toilet-Bathroom**  
- **L Laundry**  
- **D Dining**  
- **C Closet**

**SECTION**
9. **KATALI**  KAMPALA
Low/Middle Income Site and Services
Government Suburban Project

LOCATION: Katali lies 4.5 Km. to the east of city center and immediately to the northwest of Naguru estate.

ORIGINS: Katali originated at the same time and in similar manner as the Kiswa estate but was meant to be of higher standard than Kiswa. Roads, streetlights and water mains with stand-pipes every 200 yards were included with 12m x 33m plots which were allocated to poor people at a premium of 600/= ($90) and an annual ground rent of 15/= ($2). The African Housing Department provided loans of corrugated iron sheets and doors. Yet the poor people could not develop the plots and soon sold them to richer Africans in top managerial positions.

The reason for this kind of universal phenomenon are quite clear. The original plot allocatees at that time (1957) were earning only 92/= ($13) a month or 844/= ($140) a year and yet were required to develop instantly a dwelling costing 4000/= ($370) a year and this in addition to land premium, ground rent, and food and clothing for their families. On the other hand richer Africans found it much cheaper to pay a 49 year lease premium of 600/= for 0.1 Ha. (0.25 acres) instead of a 99 year lease premium of 10,000/=.
LOCALITY POPULATION GROWTH

1969 Pop. Census: 850

LOCALITY AGE DISTRIBUTION

Male: 52%
Female: 48%

1969 Census

LOCALITY INCOME DISTRIBUTION

1969 Estimate

SERVICES

LOCALITY CIRCULATION PATTERN

LOCALITY LAND USE PATTERN

1:10000
to 45,000/= ($1,430 - 6,430) for the same size of land area in high-class areas such as Kololo and Mbuya.

LAYOUT: The controlled settlement is looped by a murram-surfaced road and is now composed of dwellings of Grade I and Grade II.

POPULATION: In 1969 there were about 850 people living on the estate. All dwellings are occupied by families with an average of 4 people.

LAND USE: More than 80% of the land is used for residential purposes. A few institutions such as a church, schools and a social security fund building are located on the fringes of the locality.

INCOMES: Katali is rapidly becoming a high income residential area. Only about 5% of the families earn less than 500/= per month. About 70% earn over 1,000/= while more than 10% earn well over 2,000/= (.290) per month. Two big slums per-
CASE STUDIES: KATALI ESTATE (79)

LAND USE PATTERN

- Public
- Semi-Public
- Semi-Private
- Private

LAND USE PERCENTAGES

<table>
<thead>
<tr>
<th>Area (Ha) %</th>
<th>Public</th>
<th>Semi-Publ.</th>
<th>Semi-Priv.</th>
<th>Private</th>
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</thead>
<tbody>
<tr>
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<td>0.32</td>
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<tr>
<td>Total</td>
<td>1.00</td>
<td>100</td>
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</tbody>
</table>

DENSITIES

- Lots: 11
- Dwelling Units: 14
- People/Ha.: 84
- 20 people

NETWORK EFFICIENCY

- \( N = \) network length (circulation) = 300
- \( A = \) area(s) served (circulation, lots)
- \( = \) block area \((10,000 \text{ m}^2) = 1 \text{ Hectare}\)
- \( R = \frac{N}{A} = \frac{300}{1} = 300\)

Locality block studied is 100 meters by 100 meters (1 Hectare).

LOCALITY BLOCK STUDY

LOCALITY SEGMENT PLOT STUDY
TOP LEFT: View of Katali Estate from Kira Road.

BOTTOM LEFT: Site and Service Self-Help scheme. Mud/wattle houses with cement plaster and bag-wash paint.

BOTTOM RIGHT: Mud/wattle thatched houses and concrete block glazed houses stand side by side and usually belong to the same family.

Haps built by the original plot allocatees, are located in the banana plantations in the valley bordering the planned project.

CIRCULATION: No public transport reaches the estate but it is a short walk up to the bus stop in adjacent Naguru. The estate has a relatively high percentage of car-ownership.
The chart shows (1) approximate percentage of each construction type within the total number of dwellings; and (2) building group that generally produces each type.

**TYPICAL DWELLING**

**PHYSICAL DATA**

**SOURCES:** CITY COUNCIL  
**QUALITY OF INFORMATION:** ACCURATE, APPROXIMATE

**DWELLING UNIT**
- **Type:** HOUSE  
  - **Area (m²):** 139.4 (1500ft²)  
  - **Tenure:** OWNERSHIP

**LOT/LAND**
- **Utilization:** PRIVATE  
  - **Area:** 360 (3880ft²)  
  - **Tenure:** LEASE

**DWELLING**
- **Location:** INNER RING  
  - **Type:** DETACHED  
  - **Number of Floors:** 1  
  - **Utilization:** SINGLE FAMILY  
  - **Physical State:** NEW, MODERN

**DWELLING DEVELOPMENT**
- **Mode:** INSTANT  
  - **Developer:** PUBLIC/Private  
  - **Builder:** ARTISAN/SMALL CONTRACTOR  
  - **Construction Type:** MASONRY/WOOD  
  - **Year of Construction:** 1967

**MATERIALS**
- **Foundations:** R.C. CONCRETE  
- **Floor:** CEMENT/SCREEN  
- **Walls:** CONCRETE BLOCK  
- **Roof:** G.I.SHEETS

**SOCIO-ECONOMIC DATA**

**SOURCES:** STANLEY  
**QUALITY OF INFORMATION:** ESTIMATE

**GENERAL: SOCIAL**
- **User's Ethnic Origin:** UGANDAN  
- **Place of Birth:** KAMPALA  
- **Education Level:** HIGH SCHOOL

**NUMBER OF USERS**
- **Married:** YES  
- **Single:**  
  - **Children:**  
    - **Total:** 8

**MIGRATION PATTERN**
- **Number of Moves:** 1  
  - **Rural-Urban:** 1  
  - **Urban-Urban:**  
  - **Urban-Rural:**  
  - **Why Came To Kampala:** WORK

**GENERAL: ECONOMIC**
- **User's Income Group:** MEDIUM  
- **Employment:** BUSINESS  
- **Distance To Work:** 4 MILES  
- **Mode of Travel:** BUS

**COSTS**
- **Dwelling Unit:** $3,000  
- **Land - Market Value:**

**DWELLING UNIT PAYMENTS**
- **Financing:** LOAN/SAVINGS  
- **Rent/Mortgage:**

% Income For Rent/Mortgage:
10. **KISWA KAMPALA** Low Income Site and Services Government Suburban Project

**LOCATION:** Kiswa estate lies about 4.5 km. east of the city center just south of Nakawa housing estate and between Kampala-Jinja-Mombasa railway, Spring road and Port-Bell Road. Immediately to the south is the Bugolobi prefabricated Housing Scheme.

**ORIGINS:** In early 1956 when the former Kampala Municipal boundary was extended to the east, new areas such as Kiswa and Katali were brought under the control of the city council. The few people living in the areas at the time were encouraged to stay on while new streets, water mains along the streets, and 200 plots were laid out. Low income African labourers, especially immigrants from outside Buganda region were invited to build houses in traditional mud and wattle but of good quality and with a corrugated iron roof or asbestos roof specification (Grade II Building By-Laws). By the end of a thirty-year lease the buildings were intended to have been upgraded to Grade I standards by the owner, and for this reason the area was referred to as a "Temporary Housing Area". Nubian Moslems, descendants of Sudanese Emin Pasha's army which came to Kampala in the 18th. Century were particularly encouraged to settle in this area because they were more urbanised and were meant to
become a standard and example to the rest.

LAYOUT: The street pattern is regular and follows the slope of the hill.

POPULATION: As in most parts of Kampala the age–sex pyramid for Kiswa shows a fairly balanced ratio of men to women and adults to children. Again most of the population lies in the employable age group of 20 and 50. There are very few aged people because these keep to the "shambas" in the rural areas. The 1969 census indicated 2,600 for the estate and has been growing very fast.

LAND USE: 75% of the total area of 32 hectares (80 acres) are used for dwellings and shops. The rest is taken up by institutions: a school, a church, a community center, a youth hostel, and a cemetery.

INCOMES: The income distribution figure shows a very wide variation ranging from 150/= ($21) to over 2,000/= ($290) a month. According
CASE STUDIES: KISWA ESTATE (85)

LAND USE PATTERN

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>20%</td>
</tr>
<tr>
<td>Semi-Public</td>
<td>80%</td>
</tr>
<tr>
<td>Private</td>
<td>80%</td>
</tr>
</tbody>
</table>

LAND USE PERCENTAGES

<table>
<thead>
<tr>
<th>Area (Ha)</th>
<th>Public</th>
<th>Semi-Public</th>
<th>Semi-Private</th>
<th>Private</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>0.20</td>
<td>0.80</td>
<td>0.80</td>
<td>0.20</td>
<td>1.00</td>
</tr>
</tbody>
</table>

TOTAL: 100%

DENSITIES

<table>
<thead>
<tr>
<th>Type</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lots</td>
<td>17</td>
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<tr>
<td>Dwelling Units</td>
<td>16</td>
</tr>
<tr>
<td>People/ha.</td>
<td>96</td>
</tr>
<tr>
<td></td>
<td>20 people</td>
</tr>
</tbody>
</table>

NETWORK EFFICIENCY

N = network length (circulation) = 350
A = area(s) served (circulation, lots) = block area (10,000 m²) = 1 Hectare
R = \( \frac{N}{A} = \frac{350}{1} = 350 \)

Locality block studied is 100 meters by 100 meters (1 Hectare).

LOCALITY BLOCK STUDY

LOCALITY SEGMENT PLOT STUDY
to Mr. Butamanya, the estate manager, 60% of the people earn 500-1,000/= ($70-140) per month, while more than 15% earn over 1,500/= ($210) per month a salary higher than the official government salary for graduates.

CIRCULATION: Public service routes form two of the three boundaries of the locality. Many people prefer to walk to town and to the industrial area which is less than a kilometer away. The streets are wide and intensively used.
The chart shows (1) approximate percentage of each construction type within the total number of dwellings; and (2) building group that generally produces each type.

**TYPICAL DWELLING**

**PHYSICAL DATA**

**SOURCES:** KAMPALA CITY COUNCIL

**QUALITY OF INFORMATION:** RELIABLE

**DWELLING UNIT**

- **Type:** HOUSE
- **Area (m²):** 123.4 m² (1544 ft²)
- **Tenure:** OWNED

**LOT/LAND**

- **Utilization:** PRIVATE
- **Area:** 585.3 m² (6300 ft²)
- **Tenure:** LEASE

**DWELLING**

- **Location:** INNER RING
- **Type:** DETACHED
- **Number of Floors:** 1
- **Utilization:** SINGLE FAMILY
- **Physical State:** GOOD

**DWELLING DEVELOPMENT**

- **Mode:** INSTANT/INCREMENTAL
- **Developer:** PRIVATE
- **Builder:** SMALL CONTRACTOR
- **Construction Type:** MASONRY/WOOD
- **Year of construction:** 1966

**MATERIALS**

- **Foundations:** CEMENT/CONC.
- **Floor:** CEMENT SCREED
- **Walls:** 9"/6" CONC. BLOCK
- **Roof:** G.C.I. SHEETS

**Socio-Economic Data**

**Sources:** STANLEY

**Quality of Information:** ESTIMATE

**General:** SOCIAL UGA

- **User's Ethnic Origin:** UGANDAN
- **Place of Birth:** JINJA
- **Education Level:** H.SCHOOL

**Number of Users**

- **Married:** YES
- **Children:** 5
- **Total:** 7

**Migration Pattern**

- **Number of Moves:** 2
- **Rural - Urban:** 2
- **Urban - Rural:** 2
- **Why Came To Kampala:** WORK

**General:** ECONOMIC

- **User's Income Group:** MIDDLE-HIGH
- **Employment:** CLERICAL
- **Distance To Work:** 2 MILES
- **Mode of Travel:** CAR

**Costs**

- **Dwelling Unit:** $6900.00
- **Land - Market Value:**

**Dwelling Unit Payments**

- **Financing:** YES
- **Rent/Mortgage:**
- **Income For Rent/Mortgage:**
11. NAKAWA KAMPALA
Low Income Government Suburban Project

LOCATION: Nakawa lies to the south of Jinja-Port-Bell junction about 4 Km. (2.5 miles) from the city center and less than 1 Km. from Naguru estate. It was started in 1949 and is now composed of 850 dwellings.

ORIGINS: Like Naguru, Nakawa was started by the Protectorate Government African Housing Department to meet the influx of big numbers of Africans flocking into the urban centers for work opportunities following the boom in economic and commercial and industrial development in Uganda after the second World War. The estate was originally intended to provide rooms and small housing units for low-income labourers on subsidized rents.

LAYOUTS: Nakawa was planned around rectangular court-yards which contain service and utility blocks serving about 20 dwellings. There are no clearly defined semi-public and public areas.

POPULATION: Nakawa population is difficult to assess and to control due to constant over-night visitors who sometimes stay for months due to changing of tenants who pass their room or dwellings to friends without informing the administration. Extracts from the 1969 Census show the total population at about 7,000.

LOCALITY AERIAL PHOTOGRAPH

LOCALITY PLAN
LAND USE: The area is predominantly residential. Shopping is done in Nakawa market just outside the estate.

INCOMES: More than 50% of the population earns less than 350/= ($30) per month which is the average income of the locality. Less than one percent earns over 1,000/= per month.

CIRCULATION: The estate is inadequately served with vehicular traffic. There are very few car-owners on the estate and most houses cannot be reached by car. The estate is well connected by a bus route to the city center.
CASE STUDIES: NAKAWA ESTATE

LAND USE PATTERN

Public
Semi-Public
Semi-Private
Private

LAND USE PERCENTAGES

<table>
<thead>
<tr>
<th>Area(Ha)</th>
<th>%</th>
</tr>
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<tbody>
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<tr>
<td>Semi-Priv.</td>
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<tr>
<td>Semi-Publ.</td>
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<tr>
<td>Private</td>
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<td>Total</td>
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</tbody>
</table>

DENSITIES

<table>
<thead>
<tr>
<th>No/Ha.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lots</td>
</tr>
<tr>
<td>Dwelling Units</td>
</tr>
<tr>
<td>People/Ha.</td>
</tr>
<tr>
<td>20 people</td>
</tr>
</tbody>
</table>

NETWORK EFFICIENCY

N = network length (circulation) = 170
A = area(s) served (circulation, lots)
= block area (10,000 m²) = 1 Hectare
R = \(\frac{N}{A}\) = 170

Locality block studied is 100 meters by 100 meters (1 Hectare).

LOCALITY BLOCK STUDY

LOCALITY SEGMENT PLOT STUDY
TOP LEFT: Semi-detached concrete block houses for low-middle income government employees.

BOTTOM LEFT: Note the poor maintenance of the communal compound. Lack of individual responsibilities over the land surrounding dwellings leads to careless littering and abandonment of articles and garbage.

BOTTOM RIGHT: Communal Compound.
The chart shows (1) approximate percentage of each construction type within the total number of dwellings; and (2) building group that generally produces each type.

**TYPICAL DWELLING**

**PHYSICAL DATA**

**SOEIO - ECONOMIC DATA**

**QUALITY OF INFORMATION:** ACCURATE/APPROXIMATE

**SOURCEs:** CITY COUNCIL

**Dwelling Unit**
- **Type:** Room/House
- **Area (m²):** 30.38 (327ft²)
- **Tenure:** Rental

**Lot/Land**
- **Utilization:** Semi-Public
- **Area:** Undefined
- **Tenure:** Public

**Dwelling**
- **Location:** Inner Ring
- **Type:** Semi-Detached
- **Number of Floors:** 1
- **Utilization:** Family/Single
- **Physical State:** Fair

**Dwelling Development**
- **Mode:** Instant
- **Developer:** Public
- **Builder:** Large Contractor
- **Construction Type:** Masonry/Wood
- **Year of Construction:** 1957

**Materials**
- **Foundations:** R.C. Concrete
- **Floor:** Cement/Screed
- **Walls:** Concrete Block
- **Roof:** Corrugated Asbestos

**Socio-Economic Data**

**Sources:** Stanley

**Quality of Information:** Estimate

**General: Social**
- **User's Ethnic Origin:** Ugandan
- **Place of Birth:** Teso
- **Education Level:** Primary

**Number of Users**
- **Married:** Yes
- **Single:**
- **Children:** 3
- **Total:** 5

**Migration Pattern**
- **Number of Moves:** 2
- **Rural - Urban:** 1
- **Urban - Rural:** 1

**Why Came To Kampala:** Work

**General: Economic**
- **User's Income Group:** Low
- **Employment:** Labourer
- **Distance To Work:** 4 Miles
- **Mode of Travel:** Bus

**Costs**
- **Dwelling Unit:** $900
- **Land - Market Value:**

**Dwelling Unit Payments**
- **Econ. Rent:**
- **Financing:** $8 per month
- **Rent/Mortgage:** Subs. Rent
- **Income For Rent/Mortgage:** $3

**Plan**

**Diagram:**
- LR - Living Room
- DR - Dining Room
- BR - Bedroom
- K - Kitchen
- L - Laundry
- T - Toilet-Bathroom
- C - Closet

**Scale:** 1:200
12. NAGURU KAMPALA Middle/High Income Government Suburban Project

LOCATION: Naguru estate, with 182 dwellings lies on the southern slopes of Naguru Hill to the north of Kampala-Jinja Road about 4 Km. (2 1/2 miles) from the city center. The estate which was begun in 1950 is about 1.6 Km. (1 mile) from the main industrial area of Kampala.

ORIGINS: Together with neighboring Nakawa, Naguru is one of the oldest estates in Kampala. It was established in the early 1950's by the colonial "African Housing Department", primarily to cater to the housing needs of the middle and high income African city dwellers who were unable to build their own houses.

LAND LAYOUT: Designed for rent and built instantly on a planned layout, the estate is based on a rectangular grid. In common with all public centrally administered housing projects Naguru has no clearly defined semiprivate and private areas.

POPULATION: Naguru has a total population of about 3,500 mostly of the middle income and are primarily middle aged. Exact figures are difficult to obtain even for the city council because tenants keep changing very often without informing the estate management.
CASE STUDIES: NAGURU ESTATE (95)

**LOCALITY POPULATION GROWTH**

- Horizontal: dates
- Vertical: population

1969 Pop. Census: 3,500

**LOCALITY AGE DISTRIBUTION**

- Horizontal: percentages
- Vertical: ages

1969 Census

**LOCALITY INCOME DISTRIBUTION**

- Uganda Sh. p.m.
- US $ p.a.

1974 Estimate

**SERVICES**

- SCHOOLS
- HEALTH
- REFUSE COLLECTION
- PUBLIC TRANSPORT
- RECREATION
- FIRE
- POLICE
- UTILITIES

**WATER**

**SEWAGE**

**ELECTRICITY**

**PAVED ROADS**

**TELEPHONE**

**LOCALITY CIRCULATION PATTERN**

1:10000

**LOCALITY LAND USE PATTERN**
LAND USE: More than 90% of the locality is used for residential purposes. The rest is used for institutions: a community and social center, churches, etc. There is hardly any commercial activity within the locality. Nakawa market on Jinja Road provides the community with most foods.

INCOMES: Average income is 12,000/= ($1,850 dollars) p.a. or 1,000/= p.m.. About 40% earns less than 500/= per month while 7% earns 1,500/= and over.

CIRCULATION: Most of the community uses private cars. The estate is served by a regular bus connection to the city center. Most young people, especially students, prefer to cycle or to walk to the city.
CASE STUDIES: NAGURU ESTATE  

LAND USE PATTERN

Public
Semi-Public
Semi-Private
Private

LAND USE PERCENTAGES

<table>
<thead>
<tr>
<th>Area(Ha)</th>
<th>%</th>
</tr>
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<td>Semi-Publ.</td>
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<td>Total</td>
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DENSITIES

<table>
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<th>No./Ha.</th>
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</thead>
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<tr>
<td>Dwelling Units</td>
<td>27</td>
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<tr>
<td>People/Ha.</td>
<td>160</td>
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</tbody>
</table>

NETWORK EFFICIENCY

\[ R = \frac{N}{A} = \frac{145}{1} = 145 \]

Locality block studied is 100 meters by 100 meters (1 Hectare).

LOCALITY BLOCK STUDY

LOCALITY SEGMENT PLOT STUDY
TOP LEFT: Community social hall.

BOTTOM LEFT: Semi-detached concrete blocks with cement plastered houses with Mangalore roofing tiles.

BOTTOM RIGHT: New walk-up apartments. Foreground shows single storey row-houses in precast concrete panel models. In the background is Kololo high income locality.
The chart shows (1) approximate percentage of each construction type within the total number of dwellings, and (2) building group that generally produces each type.

**TYPICAL DWELLING**

**PHYSICAL DATA**

**SOURCES:** CITY COUNCIL  
QUALITY OF INFORMATION: ACCURATE/ESTIMATE

**DWELLING UNIT**

Type: HOUSE  
Area (m²): 35.2 (379ft²)  
Tenure: RENTAL

**LOT/LAND**

Utilization: SEMI-PUBLIC  
Area: UNDEFINED  
Tenure: LEASE/PUBLIC

**DWELLING**

Location: INNER RING  
Type: SEMI-DETACHED  
Number of Floors: 1  
Utilization: FAMILY  
Physical State: FAIR

**DWELLING DEVELOPMENT**

Mode: INSTANT  
Developer: PUBLIC  
Builder: LARGE CONTRACTOR  
Construction Type: MASONRY/WOOD  
Year of construction: 1953

**MATERIALS**

Foundations: R.C. CONC.  
Floor: CEMENT/SCREED  
Walls: CONC. BLOCK  
Roof: CLAY TILES

**SOCIO - ECONOMIC DATA**

**SOURCES:** STANLEY  
QUALITY OF INFORMATION: APPROXIMATE

**GENERAL: SOCIAL**

User's Ethnic Origin: UGANDAN  
Place of Birth: UGANDAN  
Education Level: PRIMARY

**NUMBER OF USERS**

- Married: YES  
- Single:  
- Children:  
- Total: 5

**MIGRATION PATTERN**

Number of Moves: 3  
Rural - Urban: 1  
Urban - Urban: 2  
Urban - Rural:  
Why Came To Kamala: WORK

**GENERAL: ECONOMIC**

User's Income Group: LOW  
Employment: CLERICAL  
Distance To Work: 4 MILES  
Mode of Travel: BUS

**COSTS**

Dwelling Unit: $2,000  
Land - Market Value:

**DWELLING UNIT PAYMENTS**

ECON. RENT  
Financing: $ 21  
Rent/Mortgage: MORTGAGE: $5

**DWELLING**

LR Living Room  
BR Bedroom  
K Kitchen  
DR Dining Room  
D Dining  
T Toilet-Bathroom  
C Closet  
1:200
13. NSAMBYA RAILWAY LINES

LOCATION: This Railway Housing Estate - one of many built by the Corporation for its employees - lies within the inner 5 Km ring less than 3 Km from the city center, on the northern slopes of Nsambya Hill. It is defined on the north by Kibuli Road and Railway Club Sports grounds. To the east and with no clearly defined boundary lies neighbouring Nsambya Police Lines. To the south lies Nsambya Catholic Missionary church of Mill Hill Fathers and Nsambya Hospital.

ORIGINS: The East African Railway line originally started as The Uganda Railway to develop the rich fertile shores north of Lake Victoria did not reach Kampala until the 1930's. Nsambya Housing Estate was the first large-scale housing estate the company built for its employees in the 1940's.

LAYOUT: In common with colonial designs of low-income African and Asian residential localities the design of this estate has a monotonous linear layout of dwellings with unimaginative use of open spaces.

POPULATION: The estate has the highest density in Kampala with over 500 people per hectare. It appears that the dwellings were originally planned for use by Asians in the low and middle income
CASE STUDIES: NSAMBYA RAILWAY LINES

LOCALITY POPULATION GROWTH

1969 Pop. Census: 8,000
1974 Estimate

LOCALITY AGE DISTRIBUTION

1969 Census
1974 Estimate

LOCALITY INCOME DISTRIBUTION

SERVICES

SCHOOLS
HEALTH
REFUSE
COLLECTION
PUBLIC
TRANSPORT
RECREATION
FIRE
POLICE

UTILITIES

WATER
SEWAGE
ELECTRICITY
PAVED ROADS
TELEPHONE

LOCALITY CIRCULATION PATTERN

LOCALITY LAND USE PATTERN
groups of the company. It is now occupied by Africans in the lowest income groups of the Corporation.

LAND USE: The locality is predominantly residential. The large green area containing sports clubs and sports grounds is also considered part of the locality. There are no industries within the locality but immediately to the north of the green belt lies the major light industrial centre of the city.

INCOMES: The estate is for people in the low income groups earning less than $70 (500/=) a month. The dwellings were formerly provided free to the employees but they are now rented out to them at very heavily subsidized rents of about $12 a month for the kind of dwelling shown in this study i.e. Grade 5. The lowest dwelling group is Group 8.
**CASE STUDIES: NSAMBYA RAILWAY LINES**

**LAND USE PATTERN**

- Public
- Semi-Public
- Semi-Private
- Private

**LAND USE PERCENTAGES**

<table>
<thead>
<tr>
<th>Area (Ha)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>Semi-Publ.</td>
<td>0.75</td>
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<tr>
<td>Private</td>
<td>0.18</td>
</tr>
<tr>
<td>Total</td>
<td>1.00</td>
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</tbody>
</table>

**DENSITIES**

- Lots: N/A
- Dwelling Units: 90
- People/Ha.: 540
- 20 people

**NETWORK EFFICIENCY**

- N = network length (circulation) = 130
- A = area(s) served (circulation, lots) = block area (10,000 m²) = 1 Hectare
- R = \( \frac{N}{A} = \frac{130}{1} = 130 \)

Locality block studied is 100 meters by 100 meters (1 Hectare).

**LOCALITY BLOCK STUDY**

**LOCALITY SEGMENT PLOT STUDY**

Scale: 1:2500
TOP LEFT: Bukoto rental housing project. A walk-up apartment project by the National Housing Corporation for government civil servants.

BOTTOM LEFT: Nsambya Railways housing. Group 7 is the lowest income group of the corporation.

BOTTOM RIGHT: Concrete block single storey row housing.

CIRCULATION: Internal circulation is nearly all pedestrian. Very little vehicular access has been provided. There is a bus connection to the city but most people prefer to walk the short distance across the green grounds.
CASE STUDIES: NSAMBYA RAILWAY LINES

CONSTRUCTION TYPES

<table>
<thead>
<tr>
<th>Construction Type</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shacks</td>
<td>0</td>
</tr>
<tr>
<td>Adobe</td>
<td>0</td>
</tr>
<tr>
<td>Wood</td>
<td>0</td>
</tr>
<tr>
<td>Masonry Wood</td>
<td>0</td>
</tr>
<tr>
<td>Masonry Concrete</td>
<td>100</td>
</tr>
<tr>
<td>Concrete</td>
<td>0</td>
</tr>
</tbody>
</table>

The chart shows (1) approximate percentage of each construction type within the total number of dwellings; and (2), building group that generally produces each type.

TYPICAL DWELLING

PHYSICAL DATA

SOURCES: CHIEF ENGINEER
QUALITY OF INFORMATION: ACCURATE/APPROXIMATE

DWELLING UNIT
Type: APARTMENT
Area (m²): 60.95 m² (655 ft²)
Tenure: SUBSIDISED RENTAL

LOT/LAND
Utilization: SEMI-PUBLIC
Area: UNDEFINED
Tenure: LEASE

DWELLING
Location: CITY CENTER
Type: WALK-UP
Number of Floors: 3
Utilization: SINGLE FAMILY
Physical State: OLD

DWELLING DEVELOPMENT
Mode: INSTANT
Developer: INSTITUTION
Builder: LARGE CONTRACTOR
Construction Type: MASONRY/CONCRETE
Year of construction: 1961

MATERIALS
Foundations: CONC. STRIP
Floor: CEMENT/SCREED
Walls: 6" CONC. BLOCK
Roof: ASBESTOS CEMENT

SOCIO - ECONOMIC DATA

SOURCES: STANLEY
QUALITY OF INFORMATION: ESTIMATE

GENERAL: SOCIAL
User's Ethnic Origin: EAST AFRICA
Place of Birth: VARRIES
Education Level: PRIMARY

NUMBER OF USERS
Married: YES
Single: -
Children: -
Total: -

MIGRATION PATTERN
Number of Moves:
Rural - Urban: -
Urban - Urban: -
Urban - Rural: -
Why Came To Kampala: WORK.

GENERAL: ECONOMIC
User's Income Group: LOW
Employment: RAILWAYS
Distance To Work: 1/2 MILE
Mode of Travel: WALKING

COSTS
Dwelling Unit:
Land - Market Value:

DWELLING UNIT PAYMENTS
Financing: -
Rent/Mortgage: $12 per month.
1 Income For Rent/Mortgage: -

ELEVATION

SECTION

PLAN

LR Living Room  K Kitchen
DR Dining Room  L Laundry
D Dining        T Toilet-Bathroom
BR Bedroom      C Closet
V Verandah
URBANIZATION IN DEVELOPING COUNTRIES

14. BUGOLOBI PREFABRICATED

The National Housing Corporation has built a number of estates in Kampala, some of which include Bukoto Medium-High estate; Kiwafu High Income estate; Nakasero High Income estate; Bugolobi High Income estate; Wandegeya High Income estate; Mulago Low-High Income estate; and Kireka Low Income estate.

LOCATION: Bugolobi Hill is located about 5.5 Km. (3.5 miles) east of the city center and about 1.6 Km. (1 mile) south of Kampala-Jinja Road.

ORIGINS: The project was started in 1970 by three joint investors; The National Housing Corporation; The Department of Water and Natural Resources; and Solel Boneh Contractors (representing the government of Israel). It was started as an experimental project hoping it would lead to increased use of prefabricated component systems in solving the ever-increasing housing problems in the urban centers.

This project illustrates the kind of problems which go with financial and technical aid from developed to developing countries. The Israel Government and the Solel Boneh Contractors were asked to withdraw from the project in 1972 when it was only two-thirds completed. It was possible to continue with construction, however, because the program had allowed for training of African technicians who later assumed management of the project.

LAYOUT: Long apartment blocks are arranged along a central spine ring road.

POPULATION: The project contains 1,400 dwelling units each designed for about 6 people. Total population will eventually be about 8,500 to 10,000. The project is mostly occupied by young families.

LAND USE: The locality is primarily residential with large open spaces. Two schools, super-market and the radio transmister station occupy about 10% of the land.

INCOMES: The estate was designed for middle income workers but is currently occupied by army personnel with average income of 600/= ($95) per month.

CIRCULATION: There is a lot of vehicular traffic especially in the older section of the locality which is mostly occupied by high income managerial civil servants. Pedestrian circulation is limited and generated mostly by domestic labourers.
Completed stage one of Bugolobi Prefabricated Scheme: a concrete panel experimental project. Mbuya and Kireka Hills - high income localities - in the background.
URBANIZATION IN DEVELOPING COUNTRIES

LOCALITY AERIAL PHOTOGRAPH

LOCALITY PLAN

1:10000
CASE STUDIES: BUGOLOBI PREFABRICATED PROJECT

LAND USE PATTERN

Public
Semi-Public
Semi-Private
Private

LAND USE PERCENTAGES

<table>
<thead>
<tr>
<th>Area (Ha)</th>
<th>%</th>
</tr>
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<tbody>
<tr>
<td>Public</td>
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</tr>
<tr>
<td>Semi-Publ.</td>
<td>0.62</td>
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<tr>
<td>Semi-Priv.</td>
<td>--</td>
</tr>
<tr>
<td>Private</td>
<td>0.18</td>
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<tr>
<td>Total</td>
<td>1.00</td>
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</table>

DENSITIES

<table>
<thead>
<tr>
<th>No./Ha.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lots</td>
<td>56</td>
</tr>
<tr>
<td>Dwelling Units</td>
<td>340</td>
</tr>
<tr>
<td>People/Ha.</td>
<td></td>
</tr>
</tbody>
</table>

20 people

NETWORK EFFICIENCY

\[
N = \text{network length (circulation)} = 280
\]

\[
A = \text{area(s) served (circulation, lots)}
\]

\[
= \text{block area (10,000 m}^2) = 1 \text{ Hectare}
\]

\[
R = \frac{N}{A} = \frac{280}{10,000} = 0.028
\]

Locality block studied is 100 meters by 100 meters (1 Hectare).

LOCALITY BLOCK STUDY

LOCALITY SEGMENT PLOT STUDY

1:2500

0 50 100 150m
TOP LEFT: New nursery school by the National Housing Corporation. Mbuya hill in the background.

BOTTOM LEFT: Apartments still under construction.

BOTTOM RIGHT: Precast concrete panels in stock.
The chart shows (1) approximate percentage of each construction type within the total number of dwellings; and (2) building group that generally produces each type.

TYPICAL DWELLING

PHYSICAL DATA

SOURCES: CITY COUNCIL
QUALITY OF INFORMATION: ACCURATE/APPROXIMATE

DWELLING UNIT
Type: APARTMENT
Area (m²): 107.5 (1160ft²)
Tenure: RENTAL

LOT/LAND
Utilization: SEMI-PUBLIC
Area: UNDEFINED
Tenure: PUBLIC

DWELLING
Location: PERIPHERY
Type: WALK-UP
Number of Floors: 4
Utilization: FAMILY
Physical State: NEW/MODERN

DWELLING DEVELOPMENT
Mode: INSTANT
Developer: PUBLIC
Builder: LARGE CONTRACTOR
Construction Type: PRECAST CONCRETE
Year of construction: 1972

MATERIALS
Foundations: R.C. CONCRETE
Floor: GRANOLITHIC
Walls: P.C. CONCRETE
Roof: CONCRETE

SOCIO-ECONOMIC DATA

SOURCES: STANLEY
QUALITY OF INFORMATION: ESTIMATE

GENERAL: SOCIAL
User’s Ethnic Origin: UGANDAN
Place of Birth: MBALE
*Education Level:

NUMBER OF USERS
Married: YES
Single: 
Children: 6
Total: 10+ DEPEND.

MIGRATION PATTERN
Number of Moves: 3
Rural - Urban: 1
Urban - Rural: 2
Why Came To Kampala: WORK

GENERAL: ECONOMIC
User’s Income Group: MIDDLE
Employment: MILITARY
Distance To Work: 5 MILES
Mode of Travel: CAR

COSTS
Dwelling Unit: 
Land - Market Value:

DWELLING UNIT PAYMENTS
Financing: 
Rent/Mortgage: % Income For Rent/Mortgage:

ELEVATION

PLAN
PROPOSED MODEL

The following proposals suggest possible strategies to be used in tackling the housing problem of low income people. They are based on recognition and acceptance of the following factors:

1. Most people would like to own their houses on their own pieces of land.
2. The involvement of the people in providing their own dwelling - whether monetary or physically - should be encouraged.
3. As the city spreads over rural areas it becomes more and more urgent to carry out immediate land subdivision reform which will facilitate easier provision of infrastructure service and utility lines. The present generation of local independent professionals and planners has the moral responsibility of creating an orderly city development so that future generations do not inherit from us square miles of unplanned settlements of the magnitude of Kisenyi, Mulago, Kibuli etc.
4. Urban settlements should promote a sense of group-responsibility, and social interaction.
5. Some people are not interested in owning a dwelling or have no necessary economic support to develop a site and dwelling and should therefore be provided with renting facilities.
I. PROGRESSIVE DEVELOPMENT:

SERVICED PLOTS in 6m.x16m. modules will be grouped in plot cluster units. Services will include water, sewer, electricity, and gas mains delivered to cluster courtyard.

INITIAL DEVELOPMENT and administration will be done by the City Council.

CLUSTER COURT responsibility is shared by all the plot owners served. It provides communal parking and recreational space.

COMMUNAL FACILITIES will be provided to cluster initially to serve those who may not be able to provide them in their private plot.

PLOTS WILL BE SOLD or mortgaged to users who will develop/build the dwellings for owner-occupation, rental or lease.

COMBINATION OWNERSHIP of more than one adjacent plots within a cluster is acceptable.

BOUNDARY WALLS will be in permanent masonry materials. The dwellings may be constructed in any materials the user can afford.

DWELLING USE anticipated will be complete family occupation; family occupation with subletting for residential and/or commercial/small home industry; or multifamily dwelling with shared facilities.

II. CORE SHELL:

SERVICED AND CORE SHELL dwelling units in 6m.x16 plot modules to be grouped in lot clusters. Units will include plot with toilet, shower, cooking area and one room minimum.

INITIAL DEVELOPMENT and administration will be done by the City Council.

CLUSTER COURT responsibility is shared by all plot owners served and will provide car parking and recreational space.

COMMUNAL SERVICES will not be provided.

PLOTS WILL BE SOLD or mortgaged to users who may expand and improve the minimum dwelling core provided.

COMBINATION OWNERSHIP of more than one plot within the same cluster should be discouraged.

BOUNDARY WALLS and all other dwelling materials will be permanent.

DWELLING USE anticipated are similar to those in the Serviced Plot Cluster in Progressive Development.

III. TENEMENTS:

TENEMENT UNIT PLOTS will be provided along major circulation routes in big sizes. They may be part of other system clusters.

INITIAL DEVELOPMENT and administration will be done by the private developer.

CLUSTER COURT: not applicable except where the tenement block is part of a cluster.

COMMUNAL SERVICES are an integral part of the tenement and will be provided by the owner developer.

PLOTS WILL BE SOLD to private developers or may be rented from the City Council. Individual units will be rented.

COMBINATION OWNERSHIP of more than one plot is acceptable.

ALL MATERIAL in the dwelling/shop/etc. to be permanent.

DWELLING USES ANTICIPATED will include family unit with commercial/small industry/transit lodging; multi-family units; markets.

IV. COMMERCIAL/SMALL INDUSTRIES:

SHOP/STALL DWELLING UNITS will be located along major circulation routes in big size plots. They may share cluster courts with other systems.

INITIAL DEVELOPMENT will be done by the private owner developer.

CLUSTER COURT: not applicable except where the plot is part of a cluster.

COMMUNAL SERVICES if needed will be the responsibility of the private developer.

PLOTS WILL BE SOLD to private developers or may be rented from the City Council. Individual units will be rented.

COMBINATION OWNERSHIP of more than one plot is acceptable.

ALL MATERIAL in the dwelling/shop/etc. to be permanent.
PLOTS: A plot in this study is defined as a piece of land with fixed boundaries and having direct access to public circulation routes. A module of 6m x 16m is suggested. More than one adjacent plots may be owned by an individual.

PLOT CLUSTERS: A plot-cluster is a group of plots grouped around a semi-private common court and owned by individuals in condominiums. The cluster used in this proposal is 48m x 75m.

CONDOMINIUMS: A condominium is a system of direct ownership of a single unit a multi-unit structure. The individual owns the dwelling unit and holds direct legal title to the unit and a proportionate interest in the common areas and the underlying grounds. A condominium structure is similar to a tenement.

LOCALITY BLOCK: A locality block is defined in this study as a combination of plot-clusters bounded by vehicular circulation routes. The block suggested in this study is 120m x 150m. The typical block is planned to minimise public ownership and public responsibilities on land and infrastructure services and to maximise private ownership and maintenance responsibilities.

URBAN UNIT: The urban unit is defined as a combination of locality blocks bounded by major vehicular routes and large enough to support a primary school. It contains at least one main commercial street and has a range of 3000-6000 population.

As illustrated in the urban unit drawing the unit is designed to encourage 2-3 storey developments along the main boundary streets where land values are high and one story dwellings in the interior of the unit where land values are considerably less.

NSAMBYA HILL MODEL:
The urban unit can be modified to suite specific site conditions as illustrated in the proposed development.

Nsambya hill was selected to illustrate this development principle because the land is owned by one organisation - the Catholic Church - and has possibilities of actual implementation.
GLOSSARY

Definitions of terms which are generally understood/accepted and not essential to the presentation/understanding of the text are included in the Glossary.

The criteria for the preparation of the definitions have been as follows:
Second Preference: definitions from technical dictionaries.
Third Preference: definitions from the authors, used when existing definitions did not satisfactorily agree with what meaning, extend and limit, terms were used.

COMMUNITY: The people living in a particular place or region and usually linked by common interests; the region itself, any population cluster.

DEVELOPMENT: Gradual advance or growth through progressive changes; a developed tract of land.

Dwelling: The general, global designation of a building/shelter in which people live. A dwelling contains one or more 'dwelling units'.

Dwelling construction types: Primary dwelling construction types and materials are grouped in the following categories:
- Shack: Roof: structure - rods, branches. Infill - thatch, mats, flattened tin cans, plastic or canvas sheets, cardboard, scrap wood, and/or mud. Walls: structure - rods, branches, poles. Infill - thatch, mats, flattened tin cans, plastic or canvas sheets, cardboard, scrap wood, and/or mud. Floor: structure/infill - compacted earth.
- Masonry/Concrete: Roof: structure/infill - poured reinforced concrete with tar and gravel, or terracotta tiles. Walls: structure/infill - murrain, stone, brick, block or tile masonry without columns, or with columns for multi-story dwellings. Floor: structure/infill - poured concrete slab on/off grade.
- Concrete: Roof: structure/infill - poured or precast reinforced concrete with tar and gravel, or terracotta tiles. Walls: structure - poured or precast walls or frame. Infill - metal, wood, masonry, plastic. Floor: structure/infill - poured or precast concrete slab.

Dwelling Builder: Four groups are considered:
- Self-Help Built: where the dwelling unit is directly built by the user or occupant.
- Artisan Built: where the dwelling unit is totally or partially built by a skilled craftsman hired by the user or occupant; payments can be monetary or an exchange of services.
- Small Contractor Built: where the dwelling unit is totally built by a small organisation hired by the user, occupant; 'small' contractor is defined by the scale of operations, financially and materially; the scale being limited to the construction of single dwelling units or single complexes.
- Large Contractor Built: where the dwelling unit is totally built by a large organisation hired by a developer; 'large' contractor is defined by the scale of operations, financially and materially; the scale reflects a more comprehensive and larger size of operations encompassing the building of large quantities of similar units, or a singularly large complex.

Dwelling density: The number of dwellings, dwelling units, people or families per unit hectares. Gross density is the density of an overall area (ex. including lots, streets). Net density is the density of selected, discrete portions of an area (ex. including only lots).

Dwelling developer: Three sectors are considered in the supply of dwellings:
- Popular sector: The marginal sector with limited or no access to the formal financial, administrative, legal, technical, institutions involved in the provision of dwellings. The housing process (promotion, financing, construction, operation) is carried out by the Popular sector generally for 'self use' and sometimes for profit.
- Public sector: The government or non-profit organisations involved in the provision of dwellings. The housing process (promotion, financing, construction, operation) is carried out by the Public sector for service (non-profit or subsidized housing).
- Private sector: The individuals, groups or societies who have access to the formal financial, administrative, legal, technical institutions in the provision of dwellings. The housing process (promotion, financing, construction, operation) is carried out by the Private sector generally for profit.

Dwelling floors: The following number are considered:
- One: single story; generally associated with detached, semi-detached and row/group dwelling types.
- Two: double story; generally associated with detached, semi-detached and row/group dwelling types.
- Three or More: generally associated with walk-up and high-rise dwelling types.
Glossary

 Dwelling Group: The context of the dwelling in its immediate surroundings.

 Dwelling Location: Three sectors of the urban area considered:
 City center: the area located within a walking distance (2.5 km radius) of the commercial center of a city; relatively high residential densities.
 Inner ring: the area located between the urban periphery and the city center (2.5 to 5 km radius; relatively lower residential densities.
 Paripheny: the area located between the rural areas and urban inner ring (5 or more km radius; relatively low residential densities.

 Dwelling Physical State: A qualitative evaluation of the physical condition of the dwelling types:
 Bad: generally poor state of structural stability, weather protection and maintenance.
 Fair: generally acceptable state of structural stability, weather protection and maintenance with some deviation.
 Good: generally acceptable state of structural stability, weather protection and maintenance without deviation.

 Dwelling Unit: A self-contained unit in a dwelling for an individual, a family, or a group.

 Dwelling Unit Area: The dwelling unit area (m²) is the built-up, covered area of a dwelling unit.

 Dwelling Unit Cost: The initial amount of money paid for the dwelling unit or the present monetary equivalent for replacing the dwelling unit.

 Dwelling Type: The physical arrangement of the dwelling unit:
 Detached: individual dwelling unit, separated from others.
 Semi-Detached: two dwelling units sharing a common wall (duplex).
 Row/Grouped: dwelling units grouped together linearly or in clusters.
 Walk-Up: dwelling units grouped in two to five stories with stairs for vertical circulation.
 High-Rise: dwelling units grouped in five or more stories with stairs and lifts for vertical circulation.

 Dwelling Utilization: The utilization indicates the type of use with respect to the number of inhabitants/families.
 Single: an individual or a family inhabiting a dwelling.
 Multiple: a group of individuals or families inhabiting a dwelling.

 Dwelling Unit Type: Four types of dwelling units are considered:
 Room: A single space usually bounded by partitions and specifically used for living; for example, a living room, a dining room, a bedroom, but not a bathroom, toilet, kitchen, laundry, or storage room.
 Apartment: A multiple space (room/sets of rooms with bathroom, kitchen, etc.). Several apartment units are contained in a building/shelter and share the use of the parcel of land on which they are built (open spaces) as well as some common facilities (circulation).
 House: A multiple space (room/sets of rooms with or without bathroom, kitchen, etc.). One house unit is contained in a building/shelter and has the private use of the parcel of land on which they are built (open spaces).
 Shanty: A single or multiple space (small, crudely built). One shanty unit is contained in a shelter and shares with other abodes the use of the parcel of land on which they are built (open spaces).

 Dwelling Development Mode: Two modes are considered:
 Incremental: The construction of the dwelling and the development of the local infrastructure, to modern standards by stages, often starting with provisional structures and underdeveloped land. This essentially traditional procedure is generally practiced by squatters with de facto security of tenure and an adequate building site.
 Instant: The formal development procedure in which all structures and services are completed before occupation.

 Financing: The process of raising or providing funds.
 Self Financed: provided by own funds.
 Private/Public Financed: provided by loan.
 Public Subsidized: provided by grant or aid.

 Land Utilization: A qualification of the land around a dwelling in relation to use, physical controls, and responsibility.
 Semi-Public: User: limited group of people (open spaces, physical controls: partial or total responsibility: public sector or user.
 Private: User: owner or tenant or squatter (dwellings, physical controls: complete responsibility: user.
 Semiprivate: User: group of owners and/or tenants (cluster physical controls: partial or complete responsibility: users.

 Land Utilization: Responsibility: The quality/state of being morally/legally responsible for the use and maintenance of land by the owners/users.

 Metropolitan Area: "an area in which economic and social life is predominantly influenced by a central city, to which it is linked by common interests though not often by common policies. The metropolitan area may have one city or more as well as outlying districts or satellite communities. No physical or legal boundaries mark its borders, but roughly speaking, these are the outer limits of commuting to or from the central city" (Abrams, 1971).

 Percent Rent/Mortgage: The fraction of income allocated for dwelling rental or dwelling mortgage payments expressed as a percentage of total family income.

 Infrastructure: The underlying foundation or basic framework for utilities and services: streets, sewers, water, network, storm drainage, electrical network, gas network, telephone network, public transportation, police and fire protection, refuse collection, health, schools, playgrounds, parks, open spaces.

 Land - Market Value: Refers to: 1) the present monetary equivalent to replace the land; 2) the present tax-based value of the land; or 3) the present commercial market value of the land.

 Usufruct: The right to profit from a parcel of land or control of a parcel of land without becoming the owner or formal lessee; legal possession by decree without charge.
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EQUIVALENTS

METRIC SYSTEM EQUIVALENTS:

Linear Measures

1 Centimeter = 0.3937 inches
1 Meter = 39.37 inches
3.28 feet
1 Kilometer = 3,280.83 feet
0.62137 miles
1 inch = 2.54 centimeters
1 foot = 0.3048 meters
1 mile = 1.60934 Kilometers

Square Measures:

1 square meter = 1,550 square inches
10.7639 square feet
1 hectare = 10,000 m² = 2.4711 acres
1 square foot = 0.0929 square meters
1 acre = 0.4047 hectares.

DOLLAR EQUIVALENTS

All income, cost and rent/mortgage data have been expressed in terms of the USA dollar. US$ = 7 Ugandan Shillings.