Settlement patterns and rural development: a human geographical study of the Kaonde, Kasempa District, Zambia
Jaeger, D.

Citation for published version (APA):

General rights
It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations
If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: http://uba.uva.nl/en/contact, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.
Fig. 1.1

ZAMBIA

LEGEND

- Roads
- Provincial Boundaries
- District Boundaries
- International Boundaries
- Railway
- Kasempa and Chizela District
1.1. ZAMBIA AND RURAL DEVELOPMENT

The Republic of Zambia has two major geographical disadvantages: its situation as a landlocked country with long distance communication lines to the coast (1500-2000 km.), and a large internal regional imbalance due to the contrast between a highly industrialised and well developed agricultural zone in the central region and extensive underdeveloped rural areas in the north, east and west of the country (fig. 1.1).

The Zambian population is around 6 million (1981) and lives spread over an area of 752,614 km² (an area equal to France and Western Germany combined). About 40% of the population lives in an urbanised zone (Livingstone-Lusaka-Kitwe) of 40 km. on both sides of the 'line of rail', which gives a density of 35 people per km²; the rest of the country is very thinly populated, averaging 2 persons per km². Historical and geographical causes for the regional imbalance and high urbanisation of the country are the construction of the railway line early this century, from southern Africa via the higher central and tsetse fly-free plateau of Zambia towards the coppermines of Zambia and Zaire, the rapid development of the copper exploitation in the 'Copperbelt', and the settlement of white farmers on the fertile soils along the railroad.

Today Zambia is one of the most urbanised African countries south of the Sahara (Simmance 1974) with an urban population which has greatly increased especially since independence in 1964 (cf.tabl.1.1.).
Table 1.1. - Growth of Rural and Urban Population 1963-1980

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1963-69</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1979-80</td>
</tr>
<tr>
<td>rural</td>
<td>2.8 mil.</td>
<td>2.9 mil.</td>
<td>3.0 mil.</td>
<td>3.2 mil.</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.2</td>
</tr>
<tr>
<td>urban</td>
<td>0.7 &quot;</td>
<td>1.2 &quot;</td>
<td>1.7 &quot;</td>
<td>2.5 &quot;</td>
<td>8.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6.6</td>
</tr>
<tr>
<td>total</td>
<td>3.5 mil.</td>
<td>4.1 mil.</td>
<td>4.7 mil.</td>
<td>5.7 mil.</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.1</td>
</tr>
<tr>
<td>% urban</td>
<td>20.5</td>
<td>29.4</td>
<td>35.6</td>
<td>43.0</td>
<td></td>
</tr>
</tbody>
</table>

Zambia is the world's fifth largest producer of copper and the national economy is heavily dominated by this export commodity. Nearly 95% of the country's export consists of refined copper and some other metals (zinc, lead, and of fast increasing importance: cobalt) which are responsible, with fairly large variations over the years, for about one third of the G.D.P. (Gross Domestic Product) and over half of government income. Fluctuations on the world metal market strongly influence the economy. In the 1960's Zambia was one of the richer developing countries. Because of the slump in copper prices, rising loan costs and inflation, the oil crises, and the geographical and political problems of copper export, the country has suffered economic decline in the 1970's. The agricultural sector counts only for about 13% of the G.D.P. Since independence it remained about on the same level and it is one of the lowest for the whole of Africa.

The G.D.P. per head in 1979 was K.454 ($570). (1 Kwacha = $1.25). Compared with the situation in the early seventies a considerable decline (about 40%) in real purchasing power per head took place over the last five years.

The national income is unequally distributed and during the last decennia the gap has widened between the urban sector and the rural sector (Simmance 1974; IBDR, 1977, ILO 1977). Of the about one million households in 1972, approx. one-tenth had an income above K. 1,500 and are located mainly in the urban areas. This is in contrast to about two-thirds of the population largely situated in the rural areas with a per household income below the minimum basic income set by the ILO of K. 480 (ILO 1977,41).
The Zambian agricultural sector can be divided into three categories:

a) a thousand farmers, operating on a large commercial scale who produce about one-half of the total agricultural marketed products; b) a growing group of small and medium commercial farmers (about 160,000) who live mainly, in the from an agricultural point of view more favourable central, southern, and eastern regions of the country; c) the large majority of traditional subsistence farmers (500,000) with a low production and limited market sale.

The marketed volumes of most agricultural crops in Zambia increased during the 1960's and early 1970's, but have stagnated or declined since. The marketed production of maize, the main staple food, which in 1976/77 amounted to 8.3 million bags (of 90 kg.) and 6.8 million bags in 1977/78, sufficient for internal consumption and some export, fell dramatically to 3.7 million bags in 1978/79. The early 80's show an increase again to the level of around 7 mil. bags (Food Strategy Study, 1983).

The sad situation exists that a large country, with a relatively limited population and a reasonable crop and livestock potential, must import a considerable amount of food for its urban dwellers and even for an increasing part of its rural population. The National Development plans therefore strongly emphasise increasing agricultural production and improvement of rural standards of living by providing better services as well as improved communications. An important objective is also to stem the flow of migration towards the urban centres.

Seen over a longer time span changes since Independence in 1964 have been substantial, such as improvement of infrastructure, diversification of industry, attainment of a good coverage of health facilities and improvement of the educational level of the population. Even so, as President Kaunda, in his introduction to the Third National Development Plan (TNDP 1979, iii) says: 'The response of the people to the call of the Party and its Government to increase agricultural production with a view to reducing our dependence on copper has been inadequate.'

The National Plan for the period 1979-1983 again emphasises
higher farm production and expansion of the agro-industrial sector and stabilisation of the rural-urban population ratio. A main target is to be self-sufficient in the field of important food commodities, such as maize. Important investments are scheduled to extend agricultural extension work and credit facilities and to improve marketing services all over the country. In order to promote the marketing output of the small farmers the 'lima' extension programme has been recently launched. An agricultural extension method which through appropriate inputs (seed and fertilizer) and credit tries to stimulate the small farmer to cultivate small areas (¼ ha.) of various cash and food crops.

To speed up national production targets, the plan 'Operation Food Production' was launched in 1980. With the help of foreign aid from various donor countries, the plan is to establish huge State Production Farms (20,000 ha. per farm) in each of the nine Zambian provinces to produce the main staple food maize and to cope with the rising imports of that commodity in the last years. This programme typically aims at macro national goals. The question can be asked if the small subsistence farmers in the rural areas will be helped much structurally by this large scale and capital intensive approach, which will demand much of government management capacity and mechanical service availability.

The constraints to be overcome particularly in the isolated rural district with long communication lines and meagre marketing facilities are, however, immense. The inhabitants, especially in large parts of the north, northeast, and north-west of the country, thinly spread over huge areas, with soils of low fertility, do not have a long-standing tradition of permanent agricultural practice and are often not familiar with cattle-keeping. During the colonial period labour migration to the urban centres dominated the focus of change and the provinces functioned as a cheap labour reservoir, whereas agricultural production for the market was not at all, or only barely, stimulated.

From this geographical as well as historically difficult starting point, a process of change is being enacted by the government in Zambian rural areas through numerous programmes for rural development which are being overseen and stimulated.
Fig. 1.2 ZAMBIA LANGUAGES

LUBA

LUNDA

SANGA

YEKE

LUNDA

BEMBA

USHI

SENGA

BISA

CEWA

AMBO

NSENGA

BISA

NEPSENGA

LAMB

LENJE

ILA

NYANJA

LUVALE

LUZHAZI

NKOSA-

MBWELA

LOZI

TONGA

NYANJA: OFFICIAL ZAMBIA LANGUAGES
LAMB: POPULATION GROUPS MENTIONED IN TEXT
Fig. 1.3 NORTH-WESTERN PROVINCE, DISTRICTS, LOCAL COPPER MINES, TSETSE ZONE

- Mwinilunga
- Kansanshi
- Solwezi
- Kasempa
- Chizela
- Kabompa
- Kalengwa
- Jifumpa
- Zambezi
- Western Province
- Central Province
- Copperbelt Province

Legend:
- Int. boundary
- Prov. boundary
- District boundary
- Coppermines
- Tsetse zone
with varying degrees of success (cf.Chpt.4-6). In this introductory chapter attention will be paid to the Kasempa region situated in the North-Western Province - its environment, and aspects of the social and economic organisation of the Kaonde population.

1.2. NORTH-WESTERN PROVINCE

The North-Western Province is one of Zambia's largest provinces. In past days it was known as the 'cinderella' province, characterised as one of the least developed and most thinly populated regions in the country (Central African Ex. 1960, Hellen 1968, 220). It has a population of 302,000 (CSO 1981), widely dispersed over 125,800 km.² (half the size of Great Britain). Administratively, it is divided into 6 districts with Solwezi as provincial capital (cf.fig.1.3).

Extensive studies of the province have not been made; not much research has been done, either, and there are many gaps with regard to knowledge of human and natural resources. A first summarising exploratory study is the Handbook North-Western Province (Zambia Geographical Association 1980); in the introduction to the handbook Johnson writes:

'From the writer's own experience, and in his own purely subjective estimation, North-Western Province is the most interesting of all Zambia's nine provinces and has the most to offer the geographer. To the casual visitor and traveller prepared to leave the beaten track and explore, the Province has many delights - unspoiled scenery, impressive landscapes, unique vegetation systems, and village life, largely unaffected by the hustle and bustle of life nearer the line-of-rail. To the geographer, the Province proffers contrasts: stark contrasts within its bounds and stark contrasts with the rest of the country.'

From behind this somewhat lyrical description a picture emerges, however, of a province coping with many internal problems of economic development.

Economically, the province contributes little to the national economy. The inhabitants are largely subsistence farmers; only in the last years has some surplus production of maize, groundnuts, and fruit begun. In the centre of the province large areas are infested with tsetse fly which prevents keeping large livestock (cf.1.3.3.). The western districts,
Kabompo and Balovale, are free from tsetse fly and, traditionally, the populace raises livestock there (fig.1.3).

The population is made up of more than seven lingual and cultural groups of which the three main groups are: the Kaonde, Lunda, and Luvale. The western and northern inhabitants of the province are culturally closely connected to people living in Angola and Zaire (fig.1.2).

For decades, considerable labour migration has taken place to the towns of the Copperbelt, which, especially since independence, has evolved into permanent migration to the urban areas. Having an estimated annual growth rate of 2.5-3%, the provincial population decreased relatively from 1963 to 1969 by 6.5%, and from 1969 to 1975 by 5.4% (CSO 1975, Mwanza 1978). Only 14% of the male population of working age is employed in the province. They are nearly all concentrated in the district centres and mainly personnel of governmental or parastatal organisations.

A large number of locations of copper, iron, gold, uranium, and other metals are found spread over the country, especially in Kasempa, Solwezi, and Mwinilunga Districts. Most of these mineral deposits are small and their exploitation is not (yet) economically viable (Parkin 1980). In line with the industrial diffusion policy, the government has, however, begun copper ore exploitation at some places in the province which had been worked in the colonial period but had been found to be unprofitable after a few years. The best known of these is the Kansanshi mine near Solwezi, an old coppermine which had been worked for centuries. It was the first mine in the region to be worked on a modern commercial basis at the beginning of this century. After many years of being shut down, this mine was reopened again in 1978. The ore is transported to the Copperbelt for further processing (Findlay 1980). During the 1970's, for 10 years, copper had been won in Kasempa District at Kalengwa mine but this has been ended, as the richer and easily-reached ore veins are exhausted. Economic reasons as well played a role in re-closing the small Jifumpa mine, in the southeast of the Kasempa district, which was in operation from 1972 to 1974 (fig.1.3). The local industrial activities and the number of jobs associated with this sort of mining is very limited (Johnson 1980,127). They are enclaves
of little economical importance for the province, where
workers and goods from urban areas are for a short period
located in the bush.

The province, then, is especially directed towards
developments in agriculture and livestock production with
further possibilities in forestry, fishing, and subsidiary
activities such as bee-keeping and eventually game-cropping.
This is certainly attainable considering the present land
use as is evident from Schultz's (1976, 215) estimates for
Zambian provinces. For the North-Western Province, the fol­
lowing estimates for present-day land use are given.

Table 1.2. : Land Use North-Western Province

<table>
<thead>
<tr>
<th>Land Use Category</th>
<th>Area (km²)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total area:</td>
<td>125,800</td>
<td></td>
</tr>
<tr>
<td>of which:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>National parks and forest estates:</td>
<td>31,000</td>
<td>(25%)</td>
</tr>
<tr>
<td>Hilly areas</td>
<td>3,500</td>
<td>(3%)</td>
</tr>
<tr>
<td>Lakes</td>
<td>nihil</td>
<td></td>
</tr>
<tr>
<td>Areas liable to flooding and swamps</td>
<td>12,500</td>
<td>(10%)</td>
</tr>
<tr>
<td>Cropped area (incl. fallow land)</td>
<td>12,500</td>
<td>(10%)</td>
</tr>
<tr>
<td>Unused woodland</td>
<td>66,000</td>
<td>(52%)</td>
</tr>
</tbody>
</table>

More than half of the province is unused woodland and as such
this percentage is the highest of the Zambian provinces. Al­
though this land is extensively used by inhabitants for hunting
and gathering, and not all the land is of the best quality, the
summary does give an indication of present potential for ex­
pansion and intensification of agricultural and related activities.

While listing development constraints for the province,
Johnson (1980, 129) arrives at an 'unlucky' thirteen which can be
summarised as follows:

- The population is very small, widely dispersed, and population
  nucleations are few and far between, separated by vast
  areas of woodland
- the vigorous element of the male population has migrated
- many young men, especially those who have had the basics of
  formal education, do not want to farm
- the road structure is totally inadequate, especially during
  the rainseason.
the marketing infrastructure is inadequate to serve the whole province, equally inadequate is the provision of inputs such as seeds, fertilizer, farm implements, credit etc.
- there is a lack of technical and administrative manpower
- large parts are tsetse infested; high rainfall, especially in the north, contributes to highly leached soils
- last but not least, there is a common perception, already present in colonial times and still alive today, that the province is beyond the pale of and incapable of development.

Nevertheless, potential exists as Johnson says 'in the forests and woodlands, in the fish stocks of the many rivers and swamps, in the rolling plains across the Zambesi; and in the people of the province themselves'. What is said here on constraints and potential applies equally to the Kasempa District.

1.3. KASEMPA DISTRICT - PHYSICAL FEATURES

1.3.1. General

Kasempa District is approximately 41,600 km² (about the size of the Netherlands) and is situated at 12°45'-14°45' S latitude and 24°15'-27° E longitude. It is the largest district of the province. The north-south distance is ca. 200 km and the west-east 240 km.

The district is connected to the country's urban areas by three non-paved main routes (gravel roads, class II). The road distance to the provincial capital Solwezi is 190 km, to the national capital Lusaka 400 km and to the Copperbelt, 300 km.

In 1978 the decision was made to divide the district into two parts. About half of the land area will become the new Chizela District. For this publication, with data up to 1978, the district is considered as a whole.

The Kasempa and Chizela districts are the most thinly populated areas of the province. In Kasempa District live 29,839 people and in Chizela District 12,750 (CSO, 1981).

Half of the total area of both districts is taken up by the Kafue National Park, several game management areas, and forest reserves (fig.1.4). These areas are practi-
Fig. 1.4 KASEMPA DISTRICT, NATIONAL PARK, GAME RESERVES AND TSETSE ZONE

Approximate boundary with Chizela District.
Fig. 1.5 Schematic land section central part Kasempa District (not to scale)

**Miombo woodland**

- Sandstone hills
- Pockets of high and thick trees
- Yellow sandy clay loam soils
- Lateroid rigdes
- Sandy loam soils
- Alluvial black soils
- Dambo/streamside gardens
- Main staple food gardens
- Village sites
- Dambo/streamside gardens

**Grassplain**

- Large red/yellow 'anthills'
- Small grey 'anthills'
- Sandy loam soils
- Stream

**Ferralsitic plateau soils**

- Pockets of heavy to lighter red clay soils
- Lateroid rigdes
- Sandy loam soils
- Alluvial black soils
cally devoid of inhabitants so that the average population density for the settled areas of the district is two people per km.² ³). In the central area, around the District centre Kasempa, the density is 20 persons per km.².

The landscape is that of a gently sloping plateau. Elevation of the north and centre averages ca. 1200 m. with a few peaks up to nearly 1500 m. The District centre Kasempa lies at 1228 m. Elevation decreases to the west and south to ca. 1000 m. The land is cut by a river system which flows into the Zambezi River via the (East-)Lunga and Kafue river in the east, and, via the Kabompo and West-Lunga river in the west.

Vegetation is characterised by an extensive monotonous open woodland of deciduous evergreen trees known as 'miombo' woodland. The most numerous species are those of Brachystegia, Isoberlinia, and Julbernardia trees. These are tough, fire resistant types of a poor quality wood. They grow to a height of ca. 15-20 m. and have a thin branch and leaf canopy. In general, the ground is lightly covered with low grasses (Trapnell 1957; Hellen 1968; Fanshaw 1972).

Conspicuous features are missing in the landscape of the district, except in the very south where the Busanga plains provide a fine vista.

Numerous larger and smaller grass plains, often linear in form, are distributed over the country. Many streams originate at these so-called dambos. These dambos are shallow depressions within the plateau surface into which run-off and seep-age waters collect. They are swampy during the rainy season, but in the dry season many of the dambos dry up, although water is present immediately under the surface. Along the edges of streams and dambos vegetation is thick. It consists of a large variety of trees and shrubs, 'chipya' vegetation merging into the open treeless grassland of the dambo surface itself.

Large 'anthills' (Termitarium) built by termites (Termes Bellicosus) are a noticeable characteristic of the landscape. These large rounded or conical hills of 3-8 m., consist of a very dry hard ground, and, depending on the soil, are from yellow to red in colour and sometimes partially overgrown. A smaller sort of termite hill, grey, and ca. 50-100 cm. high,
is found in the dambos 4). Termite hills do not occur on the sandy soils in the west of the district.

Banks of laterite are found a few metres under the ground and often surface as ridges especially where the plateau slopes in the direction of a stream.

Fig. 1.5 gives a rough schematic overview of the landscape as it occurs in the central part of the district.

1.3.2. Climate

The climate is particularly determined by the humid Congo air stream which brings rains from the equatorial regions from October till April giving an average of ca. 1200 mm a year (Davies 1971,29). Three seasons can be delineated: a relatively warm rainy season followed by a cool dry season and a warm dry season. The most important climatological data are given in tab. 1.3. which is based on observations taken at the meteorological station at Kasempa, the only station in the district (Atlas of Zambia, 1967). Because of the elevation, the climate is relatively moderate, with little temperature fluctuation. Rainfall is considerable but is mainly confined to a few months of the year (Dec.-Feb.) although the whole period over which rainfall is recorded averages 160 days. The number of days with rain is ca. 100 in the north and ca. 80 in the south. Rain falls in heavy storms which means that, aside from the high evaporation rate, water is only partially absorbed and causes considerable erosion especially where man has interfered with the landscape. There is a substantial variation from year to year in the amount of rainfall, this variability is about 15-20% (Davies 1971,20). The seasonal distribution of rainfall also varies considerably and there are years when the rains are late, sometimes beginning in noticable quantities only in January.

Late rains as well as limited rainfall in a season influence heavily grain crop yields. Large fluctuations in the sorghum and maize harvest occur regularly and are strongly determined by this climatological factor.
Table 1.3.: Climatic data Kasempa District

<table>
<thead>
<tr>
<th>period</th>
<th>rainfall and humidity</th>
<th>temperature</th>
<th>remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>rainy season (Nov.-Mar.)</td>
<td>mean annual rainfall in the North of the district: 1200 mm., in the centre: 1100 mm., in the south: 1000 mm.</td>
<td>mean daily max. temp. January: 27°C</td>
<td>first showers arrive usually in October; followed by a dry spell of some weeks. Most rain falls in December and January. Heavy thunderstorms occur often in this season. Little wind (4 knots) mainly from the north.</td>
</tr>
<tr>
<td>cool dry season (Apr.-Jul.)</td>
<td>relative humidity: 50-30% (at 2 p.m.)</td>
<td>mean daily max. temp. July: 25°C</td>
<td>Nightfrost occurs in the open field, average number of frost days at Kasempa: 4 (at 1.20 m. above ground level). Moderate wind (9 knots) mainly from the east and north-east.</td>
</tr>
<tr>
<td>warm dry season (Aug.-Oct.)</td>
<td>relative humidity: 30-25% (at 2 p.m.)</td>
<td>mean daily max. temp. Oct.: 32.5°C</td>
<td>Trees change leaves; flowers and fresh green grass in the dambos. Little wind (6 knots) mainly from the east.</td>
</tr>
</tbody>
</table>
1.3.3. Soil types

Detailed information on soil types and location is not available. The soil map of Zambia (Atlas of Zambia 1967) gives only a very rough approximation. Further soil survey has only been done around the centre of Kasempa (at Mpungu, Mushima and Nkenyauna; Kasempa Land Survey 1965). The inhabitants ingeniously use the various soil types in their traditional farming practices (cf.1.4.2. and Trapnell 1957). The following is a short summary of the most numerous soil types. (Hellen 1968; Indicative Dev. Plan North-Western Prov. 1974).

a) Barotse sands
These sandy soils, also referred to as Kalahari sands or Kalahari contact soils, cover ca. 25% of the region occurring in the west and southwest. They are loosely structured soils, having a very low clay and silt content, are yellow to red-brown in colour, well-drained, and relatively acidic (pH5). Formed over quartzite in the Pleistocene, the sands were especially influenced by wind erosion during a dry period when the Kalahari Desert extended over a much larger area. Even though these soils are not very fertile and lack a humus layer, they are still suitable for production of maize, cassava, groundnuts, tobacco, and cotton, under extensive agricultural practices.

b) Plateau soils
About 50% of the district is covered by ferralitic 'sandveld' soils. This covers much of the northern plateau of Zambia and is the major soil type of the country. The fertility is low, the soils are fairly leached, sandy-loams to loamy-sands (pH5-5.5) usually yellow-brown in colour. These soils are more extensively leached in areas of higher rainfall, i.e. the north, than in the south. The plateau soils are suitable for extensive cultivation of grains such as sorghum, finger-millet, and maize.

The underlying rock is limestone and dolomite of the Katanga-Kundulunga formation. Granite intrusions are occasionally present in the formation and numerous mineral deposits occur, such as the eastern Lunga, the Dongwe-Musondweji and Kabompo groups, which are areas where high concentrations
of copper and gold are present in small quantities (Geurnsey 1951, 61; Parkin 1980).

c) Red clays
Within the plateau soils smaller and larger pockets of red clay soils occur. These soils are well-structured, clay to clay-loams, with a low sand content, rich in iron and magnesium, well-drained, and less acidic (pH 5-6) than the sandveld soils. These red earths are considered the best available class of Zambian soils and it is the dark red type (C1) which has the heaviest structure and highest clay component. The soils are very suitable for various grain crops (especially maize) as well as potatoes, sunflower and other crops which can be cultivated under intensive management on these well structured soils. The soil map of Zambia (1967) indicates that these soils occur at only a few places in North-Western Province. But the Indicative Development Plan North-Western Province (1974), estimates that it is to be found at least over 14% of the district area. Personal observation confirmed that areas of red to dark red soils are frequently found in the centre, north, and east of the region. These areas lie generally somewhat higher than the surrounding sandveld ground and are often far from a river or dambo. The groundwater table is low (20-25 m.).

The vegetation cover is more dense than on the sandveld soils, many thick and tall Julbernardia-paniculata trees grow there and termite hills are also larger and higher.

The denser vegetation on these soils and the fact that these heavier clay grounds are more difficult to work with a hoe than the lighter sandveld soils, are reasons that the soils have not been generally used by the population in the traditional agricultural system (Palmer 1970). Also the distance to a water source plays a role here. Exceptions are found when the red clay areas are not far from a stream or dambo.

d) Dambo and flood plain soils
These permanently or temporarily saturated soils of the dambos are grey or black clays to sandy clay soils together with peat.

Apart from the countless dambos all over the region, the largest swamp is found on the extensive Busanga Plain in the southeast of the district. The vegetation of these soils
consists of Hyparrhenia grass species. During the dry season, these dambos are suitable for grazing livestock. Along the dambo edges and stream banks, very fertile strips are occasionally present of alluvial clay rich in humus. These are the areas which are brought under cultivation by inhabitants during the dry warm season and which then produce early maize and vegetables during the rainy season.

e) Hillsoils, rock, and rubble

The landscape consists finally of ca. 6% useless ground such as sandstone hills, a few granite outcrops, uneven gravelly surfaces, and laterite ridges.

This summary of the natural conditions of the district would not be complete without mentioning the swampy plains suitable for the extraction of salt, due to the occurrence of hot springs with a high sodium and magnesium content, the most important being that at Kaimbwe in the centre of the district.\textsuperscript{6)\textsuperscript{6}} Hot springs are also found in the very southeast of the district in the area of the confluence of the Lunga and Kafue rivers (Parkin 1980,15).

1.3.4. Tsetse flies and sleeping sickness

A natural feature that in the past, as now, has strongly hindered development possibilities is the tsetse fly. Tsetse flies infest large parts of west, central, and east Africa. These ca. 1.3 cm. brown flies cause various types of trypanosomiases (sleeping sickness) and make it impossible to raise livestock in large parts of tropical Africa (estimated at ca. 7 million km.\textsuperscript{2}). Use of the plough pulled by traction animals and the ox-cart remained unknown in these areas. This has been very detrimental for agricultural development up until today (Knight 1971). The presence of tsetse fly was in past centuries also a barrier for groups such as Moslims migrating into the area. These groups who relied on the horse as means of transport were prevented from penetrating areas south of the Sahara. White colonists with their ox-drawn carts were similarly restrained in extensive areas of southern Africa.

About one-fourth of Zambia is infested with two species of tsetse fly: \textit{Glossina morsitans}, the most frequently occurring, and \textit{Glossina pallidipes}, (Atlas of Zambia 1967). In one-half of
this area the infectious form - *Trypanosomia rhodesiense* - occurs, which is more acute and deadly since it affects the central nervous system more quickly than the form - *Trypanosomia gambiensis* - predominant in West Africa.

Nearly 70% of Kasempa District is plagued by *Glossina morsitans* in varying degrees (Stjernstedt 1980). This fly is the vector carrying trypanosomiasis from a number of wild animal species to humans and livestock and also functions as carrier between livestock and from humans to humans. Wild animals such as antelope, buffalo, warthogs, and bush pigs serve especially as reservoirs of trypanosomiasis.

The fly's habitat is the low shadow-rich underbrush along rivers. The flies require a relatively constant temperature and the presence of water; they are most active during the humid warm season (Nash 1969). Elevations above 1400-1500 m. are generally devoid of tsetse fly. For this reason the north of the province and also the central part of the District, are free from tsetse fly (cf.fig.1.3). The fly also avoids the more open areas, with greater temperature fluctuations, as is the case in the extreme south of the District (Busanga swamp). The percentage of flies carrying trypanosomiasis which infect humans is limited (0.001%-0.01%) but can rise to 40% in foci of human sleeping sickness (Atlas of Zambia 1968). Habitation in tsetse fly areas is possible since the fly is not generally found in the villages and surrounding open garden plots. Infection occurs especially during trips through the bush in connection with hunting and fishing and, therefore, occurs more often among men. Research has shown that inhabitants living in or near infested areas have a stronger resistance than people first arriving in infested areas although they are certainly not immune to the infection process (Foulkes 1970).

Considerable fluctuations in numbers of tsetse flies and distribution have been noted over the years and can be correlated to changes in the wild game stock, alteration in climatological factors and human activities. Between 1930 to 1955, a decline was observed in tsetse fly distribution in Kasempa District with a subsequent increase from 1955 to 1966 (Clarke 1969). A spread in foci of human sleeping sickness caused the colonial administration in the 1950's to move village groups out of the Luswishi sleeping sickness area on
the east of the Lunga River to the west bank.

The reported cases of sleeping sickness in Kasempa District varied from 19-84 between 1953 and 1977, with an average of 40 per year (Kasempa Land Use Survey 1965; Stjernstedt 1980 and information Mukinge Hospital, 1978). Cases ending in death totaled 10% - an average of 4 per year 7). The whole of Zambia averages ca. 150 sleeping sickness cases per year.

The Kasempa area belongs, therefore, along with the Luangwa valley, to the most infected area of the country. About half of the treated cases in Zambia are registered in the Mukinge Hospital at Kasempa (Foulkes 1970).

Regions only lightly infested with tsetse fly do have small livestock such as goats and sheep. Keeping larger animals in tsetse-infested areas is possible in principle through regular immunisation. This, however, is costly and does not offer 100% certainty.

Therefore, in order to keep large livestock to any economical extent, areas must be free of tsetse and in adjacent areas, tsetse fly must be controlled and combatted as much as possible. The immediate area around Kasempa is not infested. This area is surrounded by 'consolidation zones' which are controlled regularly by the Department for tsetse fly control. People and vehicles coming from infested areas along the main routes must pass through 'smoke rooms' to catch accompanying flies. Combating tsetse flies in the consolidation zones is accomplished by cutting down underbrush along the streams and by cutting wide swaths through the forests. The most effective combat method is considered to be permanent location of farming activities in addition to this control (Knight 1971). Areas cleared of tsetse fly which are not permanently inhabited are quickly infested again so that combating the fly in such cases is not very productive.

Continued presence of tsetse fly cannot be avoided in a district surrounded by large game reserves such as Kasempa. A system of zoning is a necessity for further development whereby tsetse-free areas with permanent farming and livestock, are surrounded by securely controlled zones without livestock, bordering on the heavily infested tsetse areas (cf. also chpt. 7.4.4.).
1.4. THE KAONDE SOCIETY

1.4.1. The Kaonde among other population groups in Zambia

Kasempa District is inhabited primarily by a Kaonde-speaking population 8). The 1969 census shows that 111,600 people speak this language in Zambia, ca. 3% of the population. Together with Bemba, Lozi, Lunda, Luvale, Nyanja, and Tonga, Kaonde is one of the seven official national languages (fig.1.2). These, along with English, are used in primary school teaching, on the radio, and for spreading official information.

Resemblance between the Kaonde and the group of Bemba languages (eg. Bemba, Lamba, Lala, Lima, Ambo) is close. These languages share 50% of their vocabulary (Kashoki 1978, 55). Affinity to this group of languages, which are spoken to the east of North-Western province, is even greater than with other languages in the province such as Lunda, Luvale, and Chokwe.

There is a very slight difference between the Kaonde spoken in Kasempa and in Solwezi District. In adjacent areas, much mixing of languages occurs so that Kaonde-Lamba, Kaonde-Ila, and Kaonde-Lunda can be delineated. Kaonde is also spoken in the bordering province of Shaba in Zaire and shares close affinity with Sanga. In 1959, the number of Kaondes in Zaire was estimated at 21,000 (Boone 1961,66).

Culturally, the Kaonde are part of the large group of matrilineally organised Bantu societies. This group inhabits an area which reaches from Malawi via eastern and northern Zambia to central and western Zaire. They inhabit areas which are largely correlated to tsetse fly infestation (Aberle 1961, 668).

The presence of tsetse fly made it impossible to keep livestock. The material culture is poor and subsistence is based on hunting, fishing, and shifting cultivation. Use of the plow is unknown, and agriculture, mainly of a horticultural type is largely done by women. Villages are often moved and substantial population concentrations do not exist. Within this very large group of matrilineal societies, the Kaonde can be considered part of the so-called group of Bemba and related people with regard to aspects of social organisation such as residence after marriage, small lineages, the instable character of the village, and dispersed clans (Whiteley 1951; Richards 1950; White 1960).
It must be noted, however, that the Kaonde have a distinctive position within this group. Belonging to the western-most flank, they were influenced by the Lunda, and their establishment in a rather inaccessible region contributed to a long, relatively isolated, and autonomous existence.

Not much anthropological research has been carried out among the Kaonde. The most extensive study was done by F.H. Melland. Melland was a magistrate in the Kasempa District from 1911 to 1922 and stationed in Solwezi. His study gives a good picture of Kaonde society ca. 1920, with an especially comprehensive look at religious and ritual customs (Melland 1923, reprinted 1967). In addition to this and Watson's study of generation divisions in the Kaonde villages, there are only very few references on the Kaonde (cf. bibliography).

Based on this literature and on personal observation, the sections below will deal firstly with the means by which the population makes use of the 'scarce' natural resources. Following the Kaonde village and aspects of social structure are examined, which serves as basic information for the next chapters.

This section does not presume to be more than a general description of the 'traditional' situation as present in the last decennia and partially today. It should be noted that the society has undergone constant change in past centuries and during recent times, which is a reason why the term 'traditional' certainly does not apply to a static and fixed situation.

1.4.2. Subsistence activities and modes of production

The traditional economic situation is typified by a large variety of activities which are carried out daily and seasonally and a wide variety of food products which are grown using very dissimilar methods (cf. also Appendix I).

The population makes optimal use of the natural environment and has a broad knowledge of its possibilities. The forest contains all the products necessary for food, building materials, and tools, etc. A noticeable characteristic of the physical milieu in general is that the products to be gathered are found only in rather small concentrations. There is nothing approaching a natural abundance: distribution of plants, trees, flowers, suitable pieces of farm land, pools appropriate for
fishing, and so forth, are limited and are widely dispersed over a large area. This allows for only a limited and dispersed population, although, on the basis of the traditional agricultural methods, a higher density is possible (cf. 4.3.). Production is carried out only when immediately needed. Fibres, firewood, and material for structures are gathered at the moment when the material is actually to be used and only in those quantities necessary. In farming, an area somewhat larger than that strictly needed is cultivated to allow for crop failures and for a surplus for brewing beer. Surplus production for sale or barter hardly existed and a system of markets was unknown. The three main modes of production are:

a. gathering forest products
b. hunting and fishing
c. shifting cultivation

Besides these, there are many other daily activities such as gathering firewood, building or repairing huts and constructing objects such as small chairs ('kipona'), mortars ('kina'), mats ('mukeka'), etc. Iron working and repairing implements were activities done in the past more than today. In former centuries, the Kaonde were adept in iron and copper-winning as well as smelting, using a simple process (Chaplin 1960; Roberts 1976, 253). Many locations spread over the district are evidence of this. Salt, an old local product, is still won on a small scale at the Kaimbwe salt pans, found along the route from Solwezi to Kasempa. In the dry season, the grass is burned off the plain and the ash scraped together and distilled to produce salt which is sold in small cylindrical packs wrapped in leaves. This salt was, in the past, traded over long distances and presently, it is sold to inhabitants of the surrounding area, travellers, and at the market in Kasempa. Efforts to win salt on a large scale, proved uneconomical in the 1950's when a simple factory was established for obtaining salt directly from the hot water sources.

a) Gathering forest products

Gathering a supply of forest products is primarily the task of women and children. A variety of products are gathered; although often of limited quantity, they supply a varied diet and are an important vitamin source. Diverse edible leaves, tubers, wild fruits, and mushrooms are collected but these sources are often available only for a short period of the year. A fruit gathered in larger quantities in October and November is the loquat ('makusu'). Mushrooms ('bowa') are an important food from December through February. Caterpillars and small animals, such
as mice and cane-rats, are painstakingly caught by children.

An important task for the men is the collecting of honey in May-June. The bees are smoked out of their tree nests or simple bark hives are set out. Beekeeping activities are done especially by the inhabitants of the southwestern part of the district. All over the district, however, honey-beer is made in small quantities and is considered a treat and is sold to other villagers for a high price. Gathering forest products such as roots and bark for medical purposes has greatly decreased and nowadays the uses are known to only a few old men.

Nearly every village has some banana plants ('makonde') which bear fruit once a year. This is not a major food source. One can see by the height of the banana plants if a village has been located at a site for some years. Other fruit trees like mango and guave are rarely found in the villages, with the exception of Chokwe and Luchazi, villages in the western part of the district, which have remained at the same place for a longer period of time.

b) Hunting and fishing
The hunt is the best-loved activity of Kaonde men. It is highly esteemed and, especially in the past, was a means of attaining high prestige. A good hunter received the honourable title of 'Muyanga'. Hunting used to be paired with much ritual (Melland 1967,91,256) accompanied by considerable singing and dancing (Bantje 1978). At the end of the dry season (September) the men went out hunting for large game in particular for long periods. Meat was dried on the spot and transported back to the village.

Before the introduction of firearms, hunting was done by means of bows and arrows, spears, traps, and pitfalls (cf. Appendix II). At the end of the 19th century, the muzzle loader came into use, and is still used occasionally. By the beginning of this century, hunting activities were increasing due to the availability of more firearms so that meat was very frequently available in Kaonde villages (Melland 1967, 256; Fox 1971). Game depletion due to both local hunters and hunters from town took place to such an extent during the last decades that the government has placed heavy restrictions on hunting by creating game parks and reserves, and by requiring
rifle and ammunition permits as well as separate permits for shooting certain types of large animals. Hunting activities are now limited and meat on the menu is an exception rather than the rule. Obviously, poaching exists in areas bordering on game reserves. Living in these areas then is attractive for some of the population. Poaching for commercial reasons done by townsmen is, however, most threatening (Johnson 1980,125). Fishing is done by men, women, and children. For the largest part of the district, fishing is an incidental activity. The catch is never large and no special long fishing trips are organised. Various fishing methods are used; aside from the more modern hook and net method, earlier means were stream-damming, fish-traps and the use of fish poison ('buba'). (This last is done with a mixture of finely ground leaves, thrown over the water. This stupefies the fish which are then speared by the men or collected in baskets by the women) (MacLaren 1958).

Fishing is not nearly as developed by the Kaonde as among the neighbouring Luvale where fishing is a very important source of subsistence. The only area where fishing is to any large degree possible in the district is at the Busanga swamps, which border on and are partially a part of Kafue National Park. It is noteworthy that a number of Luvale villages have located there. Dried fish is exported from the area by bicycle to Kasempa and from there to the Copperbelt. After the creation of the National Park and displacement of its inhabitants, the villagers who traditionally fished the swamps retained fishing rights for the dry season. This still takes place to some extent.

c) Shifting cultivation
This type of agriculture has been defined as an economy of which the main characteristics are rotation of field rather than of crops; clearing by means of fire, absence of draught animals and of manuring, use of human labour only, employment of the dibble stick or hoe, and short periods of soil occupancy alternating with long fallow periods (Clark 1967,35). It is known the world over in many variations, and is also termed 'slash and burn agriculture' and 'ladangsysteem'. It is an extensive farming method by which a temporary increase in the
soil fertility is achieved by chopping down the forest
and burning the debris (forest-fallow) or firing grassland;
in this manner, the ash serves as fertilizer. As Trapnell
says (1957, 47): 'There is an increase of phosphate and potash,
acidity is reduced and the general soil condition improves
by the fact that the freshly burnt soil is more highly
saturated with calcium.'

This method is termed 'chitemene' in Zambia, a word bor-
rowed from the Bemba.

There is much variation within the system. One can de-
lineate several types of plots, where diverse crops are grown
and various techniques are used such as a crop sequence,
intercropping, and even simple forms of irrigation. The various
population groups in Zambia cultivate different staple foods
under this system - such as maize, finger and bulrush millet,
sorghum or cassava - depending on natural circumstances and
cultural influences (Hellen 1964, 84). Sorghum ('mevele'), also
known as Kaffir, corn is the main food crop of the Kaonde and
neighbouring Lamba. Besides sorghum, maize is an important
food crop (Schultz 1976, 62). In the west of the Kasempa and
Solwezi districts today, cassava is the staple food, due to
the sandier soils and contact with the Lunda and Luvale.

Among the Kaonde the following kinds of gardens can be
distinguished. These are related to the soil and seasonal
conditions.

c.1) Staple food garden
The Kaonde use the system of 'blockchitemene' (Trapnell 1957,
47; Schultz 1976, 61). A nearly rectangular piece of ground is
cleared, the wood being placed in rows across the field and
burned; almost the entire cleared area is then brought under
cultivation. This is in contrast to the 'chitemene' system
of the Bemba, where the chopped wood is placed in piles over
a smaller area than had been cleared (the large and small
circle 'chitemene' systems) (Richards 1961, 288; Kay 1964, 35).

Fields are selected by men who take into account factors
such as the presence of certain types of grasses, reasonably
large trees with abundant leaves, and the colour of the soil.

As mentioned, preference is given to the lighter soils
which are more easily cleared and worked, despite the fact
that these are exhausted more quickly. This results in a more frequent change of field than if a red clay soil had been chosen (Allen 1967,87; Palmer 1970). The Kaonde cut the trees down, leaving ca. 75 cm. high stumps. This is done directly after the rainy season and gives a six-month period for the wood to dry. The fields are burned off during October just before the first rains. This system is known as 'late' and 'hot' burning as opposed to 'early' and 'cool' burning in the season May-July.

Late burning means that the tree stumps are for the most part destroyed. The 'hot' burn has a positive effect on organic decomposition and nitrate production, especially when directly afterwards it is followed by the moisture of the first rains (Allan 1967,72). Firebreaks are made around the plots during the cool dry season to prevent the fields from catching fire too soon. During the early dry season, the high grasses around the villages are burned off. This is a necessary measure against vermin and snakes. Grass is burned off in the dambos as well for hunting purposes; shortly thereafter they are once again overgrown with fresh green grass.

The system of early firing in the cool period, which does not destroy the wood cover to any serious extent and the intensive firing of a limited land area at the end of the dry season is a balanced system which does not irretrievably harm the natural milieu when practised in areas with limited population pressure. In this context, it should be noted that most of the woodland in Zambia today no longer consists of primary forest, but is secondary forest with a tree cover of less variety and tree quality in the case of primary forest.

After burning the field, parts of the plot having no ash are lightly hoed; the whole area is then broadcasted with sorghum ('mevele'). In stretches with a high ash content maize, ('mataba') and pumpkins ('miungu') are planted. Sweet potato ('ntamba'), yams ('kilungu'), and cassava ('makamba') are planted along the edges of the field in mounds. In the second and subsequent years, the field is used for sorghum whereby fertile parts are sometimes planted with groundnuts ('nyemu') and pumpkins. Thus a system of crop rotation exists along with intercropping through planting higher and lower growing crops in one field.

The main field is about 1-2 ha. Depending on the quality of the soil and presence of adjacent plots, the field is shifted along over the years. Each year, an adjacent area of forest is cleared to compensate for those areas of the original field
which are exhausted and becoming overgrown with weeds, leading to resurgence of forest vegetation.

In the past, fields were often enclosed with hedges of branches and tree trunks to protect crops against wild animals such as hippos and wild pigs. This work is no longer done, due to the labour migration of men to the towns and, moreover, the decrease in wild game which makes it less necessary.

Weeding the fields is the task of women and children, although not much time is spent on this. When the weeds become too extensive, the field is simply shifted. Since villages have become more permanent, the use of the fields is gradually being lengthened through giving more attention to weeding.

Frightening birds away from the ripening crops is a time-consuming activity in the early dry season for women and children. At sunrise they sit on termite hills in the field, shouting and singing loudly and rattling objects for several hours a day. Harvesting takes place in June and July and is done by both men and women. Directly after the first harvest, the women begin brewing beer. Beer parties functioned in the past as payment for the (young) men who had worked for a few hours clearing fields by chopping and stacking the wood in rows. At present, the beer parties serve mainly as an important social function and also as a source of income for the women; cash earned by the men in the cities is thus circulated further in the villages.

Sorghum plots are used for 3 to 7 years, depending on the region - longer in the east of the district than in the west and south. Increasingly, fields that have been used for sorghum are put under cultivation for growing maize after addition of chemical fertilizers. This is part of the gradual tendency towards permanent land use whereby rotation of sorghum and maize sometimes occurs, followed by some years of bush-fallow.

Kaonde garden plots are situated relatively close to each other, separated by narrow strips of forest. If there is insufficient room for further field expansion, one relocates one's garden.

When the distance between village and field becomes too large for easy control, simple sleeping huts are built next
to the garden. This 'garden village' ('kumajimi') is inhabited from the time that birds become a nuisance till the crop is harvested (April-July). Sometimes separate small gardens for growing finger millet ('luku'), favoured in beer brewing, are cultivated. These small plots are often laid out around termite hills. They are small circular areas where the part around the hill is stacked with wood and burnt, producing an additionally fertile area in addition to that known to be present naturally around these hills. This method is very similar to the 'small circle chitemene' system of the Bemba. It can be assumed that it is an old system which was formerly important, but which is disappearing steadily.

c.2) Streamside gardens
The streamside gardens, situated along streams and dambos, are important for the Kaonde, especially those in the east of the district (Trapnell 1957, 28). The so-called 'pre-rain gardens' are planted at the end of the dry season (August/September) and are harvested during the rainy season. The period just before harvesting these gardens is known as the 'hunger-month' (January-February). It is the period when the stored staple food of the main gardens is finished and products from the streamside gardens are not yet available.

The main product of this type of garden is maize ('mataba'). Crops such as pumpkins ('miungu'), groundnuts ('nyemu'), beans ('nkunde'), melons ('namukondwe') and gourds ('nlawo'), and also newly introduced vegetables such as cabbage, tomatoes ('natamati'), and cucumbers ('makaka') are grown in small quantities.

On suitable pieces of ground, the grass is burned off, and shrubs cut down. Use is made of small strips of humic clay or clay-loams which are found in limited areas along the dambos and streams. These gardens are cultivated for some three to six years and vary in size from 0,1-0,5 ha. Women do most of the work involved in keeping these gardens. A differentiation exists between a larger type ('mapoka') where maize is mostly grown and very small gardens ('mashamba'), situated directly adjacent to the stream bank, where vegetables are grown in particular. These are sometimes irrigated by water from the stream, with a simple system of water diversion or by hand.
c.3) Kitchen and subsidiary gardens

Finally, there is a third type of garden, usually small (0.05 ha.), the so-called village or kitchen garden (Trapnell 1957, 28; Allan 1967,82). These are laid out in or very near to the village, where the main garden is situated some distance away. Kitchen garden products are incorporated into the main garden when this is nearby. This type is not characterised by soil type as in the other two cases. The most important products from a kitchen garden are cassava, pumpkins, yams, groundnuts, beans, and sweet potatoes, which serve to supplement the main crop, and, as in the case of cassava, can be harvested the year round. This type of subsidiary garden, of which there are sometimes several, is laid out on mounds, often made on areas of ground where a burned-down hut had stood or on patches in the forest where a fallen tree has been burned.

To conclude, we can say that although the systems are simple and extensive, ingenious use is made of natural resources in respect to available soil types as well as seasonal circumstances, and a supply of a range of products practically all through the year is obtained under normal climatological circumstances.

1.4.3. The Kaonde village and aspects of social structure

The most obvious point of departure for studying the society is the village. This forms a bounded unit in social as well as spatial terms.

When travelling through the country, the most conspicuous aspect of human presence is a small group of houses which together form a village. Often a number of these villages are situated next to each other constituting a cluster of villages. The next village cluster is then located several kilometres away. The Kaonde village can be characterised by the description given by Gluckman for Central African villages in general (1963,147):

"The village is a discrete group of people who reside in usually adjacent huts, who recognize allegiance to a headman, and who have a corporal identity against other similar groups. Most of the inhabitants are related to the headman and to one another, some may be related to the headman indirectly through other members of the"
village. A few strangers are found in some
villages and in the past there were domestic
slaves who were ultimately absorbed as relatives
and who were generally treated as such. The vil­
lage is thus a corporate group of relatives.'

The village headman ('mwina muzhi'), the owner of the village,
is the pivot of the village and he is the representative of
the mainly matrilineal organised group of relatives in his
village. He is responsible for the course of events in the
village and in former days his ritual and political functions
were quite important (Melland 1923, Watson 1954, Cunnison
1956). Villagers still pay him proper respect and visitors
are expected to introduce themselves and greet him first.

The village has the family name of the headman and his
successor takes over this name. The village headman's name
and that of the village is therefore constant through time,
although spatially, the settlement relocates regularly (cf.3.2.).

The Kaonde village is very small in size. At the beginning
of this century, a village averaged c. 100 inhabitants; this
has declined to an average of 16 persons (cf.3.1.6.). As such,
Kaonde villages belong to the smallest-sized villages in Zambia.
There is still an ongoing process of settlement size decrease
whereby small family groups settle as separate spatial units.
These residential units are, however, still generally termed
a village ('muzhi'). People regularly change their place of
residence, but during the period that one is living in a
certain village one feels bound to it and considers that that
village is one's 'home'.

A typical characteristic of the settlement pattern is the
clustering together of a number of villages. These village
clusters ('kijiji') are made up of about 10 to 30 villages,
forming a total population of approx. 200 to 500 people.

One of the village headmen in the cluster of villages is
usually regarded as the regional headman ('kitumbafumu') of
that group of villages. This headman is the 'primus inter pares'
of the headmen in the group although he does not differ
socially or economically to any substantial degree from the
other village headmen of the area.

Over a larger area in which a number of village clusters
are situated, a chief ('mfumu') is present as traditional
representative of the population of that area. At present
Kasempa District includes four of these areas (cf. 3.1.2.). A division into wards has taken place since independence. Under this system a number of village-cluster inhabitants in an area together choose a representative from the UNIP party for the Kasempa Rural Council. In the Kasempa District the boundaries of these wards largely coincide with those of the chiefs areas.

a) Village Morphology

The average Kaonde village consists of a group of about six sleeping huts ('nzubo') and huts average about 2.5 inhabitants. There is, though, a great variation in village size. This ranges from one or two huts to twenty huts per village.

A village is built on a cleared forest area which has a slight slope for water run-off. A strip of forest between village and road or dambo is preserved so that the village is surrounded by trees. In the past villages were situated in the immediate vicinity of a dambo or stream. Today, location is determined by the road network and the location of windlass wells along the roads (cf. 3.1.5.). Villages are oval to rectangular in form. Influenced by colonial administration, the huts in the villages are more or less arranged in two parallel rows ('dandanda'), with doorways towards the central area. The mud hut is mostly only used for sleeping and storage and does not possess windows. Village life takes place primarily around the open meeting hut ('kinsanza'), in the centre of the village, and near the cooking huts. Only as an exception, during the rainy season, does one sit in one's sleeping hut.

The huts are at present rectangular and ca. 3x2.5 m. in size. Huts were circular and somewhat smaller at the beginning of this century. Melland (1967, 24) reports that in the 1920's the Kaonde huts in the east of the district were circular and those in the west, rectangular. Fox (1971), who travelled extensively through the district in the 1930's, notes that the huts were round. In the west of Zambia, the rectangular hut was introduced from Angola and since 1900 gradually adapted by the Lunda, Luvale, and Chokwe, and subsequently by the Kaonde (Ogilvie 1934).

Only recently have houses been built from sun-dried brick (Kimberley brick) or from burnt brick. These houses are sometimes fitted with windows and have, often because of status considerations, corrugated iron roofs.
These types of modern houses are still limited in the Kasempa District as compared to other parts of Zambia. (Davies 1972, 64).

In the village every household of man, wife, and children has its own cooking hut. Meals are eaten around this hut and sometimes under the sleeping-hut porch. In the past, men usually ate together in the central hut, but this custom has largely disappeared. If a man has more than one wife, these have their own huts and cooking places. Children under ca. 10 years sleep in the hut with their parents. The older, unmarried children sleep in a hut built for them or in an old decayed hut which has been put back in use. A bamboo bed is sometimes built in the hut, but women and children usually sleep on mats on the floor. A metal bed has sometimes been purchased (necessitating, moreover, the square form of the hut). Only a few other structures exist in a village. Simple racks are built next to the cooking huts for drying pots and pans. Further into the forest, a latrine and rubbish pit are dug. These are rules stemming from the colonial period which are only partially adhered to nowadays. Chicken coops are built on simple racks in the vicinity of the huts. With this review nearly all structures present in the village have been listed. If the village is situated near fields, round silos are built for grain (sorghum) storage. If the main village is further away from the fields, these silos are located near the garden at the site of the temporary garden village.

All the materials used in hut construction come directly from the forest, such as poles and bamboo stakes for the basic construction and fibres for binding it together. Clay is used for filling in the chinks of the structures and grey clay-loam is used for plastering the walls and floor. The long grass for the roof is found near the dambo. There is a definite division of labour in hut construction between men and women. Setting up the wooden framework is men's work and filling it up with clay and plastering is women's. Gathering the grass is women's work and thatching the roof is usually done by younger men. Huts are very seldom decorated. The door is made of bamboo or locally sawn planks and is one of the few things which is sometimes taken along when the hut is abandoned.

If properly maintained with well-finished walls, floor, and roof, a mud house can offer proper and hygienic sleeping quarters and a good appearance. Maintenance of houses and
village state in general is, however, extremely varied. Sometimes much attention is given to seeing that the village is neat and tidy. In a few cases, a hut may have an overhanging verandah which runs around the wall with a garden laid out in front having shrubs and flowers. In other cases, huts are dilapidated, and the general appearance of the village is one of neglect. Much depends on the attitude of the headman and the sphere in the village. Also, the absence of many men from the village in town is of influence. A mud hut can last up to about five years, after which a new hut must be built. If the villagers move, the huts decay rapidly and there are sometimes only banana trees to show where a village had stood. Moving village site and building new huts take place directly after the rainy season, in April and May. Generally, one first builds a temporary hut of branches and grass ('nkunka'/ 'mwimba'), followed by gradual completion of the permanent structures in the course of the dry season.

b) Kinship and succession

Each member of the society belongs to a clan ('mukoka') and one is regarded as being a descendant of his mother's clan. Clans are exogamous and today people will still not marry a fellow clan member, although clan members live very dispersed and it is not at all possible to trace kinship relations beyond three to four generations. Between clan members feelings exist of a common origin, common history and ancestors. Obligations concerning hospitality and attendance at the burial rites of nearby clan members are honoured. Because of clan-exogamy, various people are present in a village from different clans. But, even today, one clan is mostly in the majority within a village and within the village cluster often one or two clans are dominant (cf. Appendix V).

A preference for cross-cousin marriage (marriage with mother's brother's daughter - 'bavyala') existed in the past. This implied also that in the past certain clans in an area were very much connected through marriage. Cross-cousin marriage was, however, certainly not the only marriage bond. Marriage between an older man and his brother's or sister's grandchild was also frequent (Melland 1967, 63). At present, choosing a marriage partner is more of an individual matter,
but Melland had already noted this tendency in the 1920's. Leviratic marriage is also still practised by which it is preferred that a widow marries a brother of her deceased husband, or that she at any rate goes through a ritual marriage after which marriage with somebody else is possible.

Polygyny occurs, but not often. In the past, older headmen and chiefs had more than one wife, but today, due to having more material means, and being able to pay cash to parents, other men can also afford extra wives. A rough estimate of this type of marriage comes to 10% of all marriages.

Especially in the past every man aspired to become headman of a village. He could achieve this through succession to a headman position or by beginning his own village together with a few relatives. Succession is in the first place from brother to (classificatory) younger brother (adelphic succession). Next in line is the matrilineal nephew, mother's brother's son. Succession does not always occur automatically. Often more candidates are available, such as younger brothers, nephews, and grandchildren. Within the adelphic and matrilineal rule of succession, elections are held on the basis of popularity and capacity. Characteristics valued are those of wise decision-making and dispute-settling. Appointment takes place only after all are agreed within the group of direct relatives and with the other village headmen of the area. This process can sometimes last for years, moreover, as the deliberations on the succession are not begun directly after the death of the headman.

The system of 'positional succession' and 'perpetual kinship' is known, by which one receives the title and name of his predecessor which is then assumed as his own. In terms of kinship, the new appointee becomes (fictitiously) a direct descendant of the common clan ancestor of the lineage concerned (Cunnison 1959,110; Bantje 1971,67; Roberts 1976,85).

Installation of a new headman is officiated over by the chief of the region, but not before he is convinced that a 'communis opinio' has been reached 12). The same applies to appointing a chief whereby fellow clan members and particularly older village headmen of the same clan must be in agreement.
At present, formal elections, with ballots are held for important positions, as in the case of choosing a new chief Kasempa in 1976.

During the period when there is not yet a successor, the ceremonial objects of the position are watched over by a guard ('mumbelunga') who belongs to a different clan. As he is not considered an eventual successor, there is no danger of his taking the objects and therewith the title on his own accord. In some cases when a headman or chief is growing old or becomes sick, an acting leader ('swanamuni') takes over, and often later officially succeeds to the position.

c) Social and economic stratification

No large social or economic differences exist between headmen and villagers. Generally, there has been no class differentiation with disproportionate access to certain resources, since the abolition of slavery at the beginning of this century.

In matters of slavery, one must distinguish between commercial slavery which was actively participated in by certain chiefs, particularly in the last decade of the 19th century, contributing to their power position, and the older system of domestic slavery and pawnship. In this last, the difference between slaves and villagers was often not large because of ties by marriage (White 1957; Turner 1957,187; Roberts 1976,74). It was not a case of a fixed pattern of social classes and this is possibly the reason why distinctions in this field disappeared so quickly at the beginning of this century.

The material culture of the Kaonde is poor (cf.1.4.3.e.). Durable economic goods were scarce in the past, consisting, for example, of some ivory and copper, and have practically disappeared since the beginning of the century. Cattle is also unknown and in general no accumulation of durable wealth could be built up. There is, then, practically no wealth connected with taking over a position, except in some cases when objects such as fire-arms are inherited.

Land is available all over and can be considered an open resource. The chief is the traditional guardian of the land and it is through him that land tenure rights are given to those living in his area, but then only if they are going to put it to practical use. This really concerns a formal ruling which seldom leads to conflicts between villagers.
There are a few social categories within the society such as: chief and headman vs. villagers, seniors vs. juniors, and men vs. women. The contrasts between these groupings are not really very large, and as far as the first and especially the second are concerned, the boundaries are not fixed.

A chief enjoys social prestige but his position of authority does not allow him much extra access to resources. Only on a very limited scale do villagers work for him or give him substantial gifts. The difference between chief and headman is also not very great. This is also illustrated by their identical titles ('mfumu'; cf. 3.1.1.).

In the past, there is hardly any mention of the Kaonde chiefs having a court with various court dignitaries as was the case among the Bemba or Lozi. The development of a 'superior' chief or king having subordinate chiefs was in an initial stage within Kaonde society (cf. also Chpt. 2.4.2). It was possible, though, to gain control of a group of villages by individual initiative and ambition either through winning an appointment within the matrilineal system of succession or by splitting off a group of villages and building up an autonomous position.

A rigid political hierarchical division was only brought about in the colonial period when the chief position gained a formalised character because of his incorporation in the British administrative system (with a salary and a Local Court and Native Authority established in his village).

Status differences between village headmen are also small. There is no obvious rank order at meetings and older as well as younger headmen have their say. At most, some names are known to be older and more celebrated. The number of headmen regularly increases as a result of new village formation. It can be noted, though, that a headman's status grows as his village becomes larger; and for this reason the village headman strives to attract as many of his kin group as possible to his village. Popularity and individual initiative are important aspects of this. There is a difference between seniors and juniors within a village. The headman and his generation belong to the senior section and this group takes the lead in the village. The members of the generation older
and younger than the headman's belong to the junior section (cf.3.2.4; Watson 1954).

The junior generation is expected to lend help to the seniors by working in the village and by sharing hunt yield and other income. It is nowadays a matter of the headman's personal authority whether or not he can motivate the juniors to work for the village.

Because of the diminishing size of the Kaonde village, the division into sections is disappearing and losing its significance today.

The mode of production traditionally shows a definite differentiation in division of labour between men and women (cf. Appendix I). Today, especially among those villagers who produce crops for the market, labour division is less strict and several activities are undertaken in close cooperation between members of a single household.

Men and women still sit separately during common meetings in the village and at church and school. This does not mean, though, that women do not take an active part in discussions and consultations in the village. In addition, they do play an important role in village decision-making such as succession questions.

In conclusion, it should be noted that, in the past and today, mutual cooperation is slight between villagers. Hunting was and is still primarily an individual undertaking, whereby the hunter is at most assisted by a few young relatives; agricultural activities are largely a household affair. The society can be typified, aside from the modern economic distinctions which are emerging quickly at a few places in the district, by the absence of a strong social and economic differentiation and by a fairly limited degree of cooperation taking place only between small kingroups.

d) Ceremonies and religious aspects

Finally, a few words about ceremonial and religious aspects of daily life. Important stages in life, with which ritual is connected, are in particular, birth, puberty, installation to a position such as chief or headman, and burial.

The Kaonde have had no initiation of boys, such as is known from neighbouring societies such as the Chokwe and Luvale.
There were, though, in the past, elaborate puberty rites for girls ('kisungu') (Melland 1967,76). These rites extended over several months and were accompanied by celebrations in the village. Presently, this rite is only observed for one day (Bantje 1978,22). Marriage often follows this rite without much further formal ceremony. A small ceremonial gift is presented to the parents of the bride by the man, who is dutybound to live and work in his wife's village. The Kaonde are uxorilocal - i.e. the husband settles in his wife's village and works there. After a few years, man and wife can receive permission from the wife's parents to move elsewhere. There is then a wide choice of other villages available where relatives live and one can settle (cf.3.2.4.).

Divorce and remarriage are very common. Melland (1967,64) summarises a whole list of reasons for which a man or woman may justify a divorce. A large amount of the court's time is today taken up in deciding these matters in which rights to the children and small compensation payments play a part. In contrast to societies requiring a high bride price whereby whole families become involved in the divorce question, these payments are not usually an obstacle for divorce and mainly a matter of those directly involved. Changing marriage partners is then frequent among the Kaonde, just as among various other matrilineal organised groups in Zambia (CSO 1975) and certainly contributes to the unstable village relationships.

Burial rites are still elaborate and very important. Direct relatives as well as clan members are expected to attend the actual burial and the rites which take place several months after the death.

In regard to the diverse ceremonies having to do with the life cycle as well as to matters concerned with daily life, there has been an extensive complex of religious and magical practices. These probably formed one of the most elaborate aspects of the culture. Melland's study gives, in this respect, a detailed picture of the variety in magical practice and objects. Sickness and death, as well as success and failure in socio-economic aspects, are believed to be connected with intervening ancestors and manipulated magical powers. This has played an important part in village society and has been linked to many internal conflicts. Religion also strongly
influenced the redistribution process - not sharing profits of the hunt or other activities led to sanctions in the religious sphere.

Aspirations towards individual achievements or ambitions were discouraged and could lead to accusations of possessing magical means dangerous to the society, especially when younger members, who had no important social status, were concerned.

In the past, religion worked clearly as a societal equalisation factor and determined the boundaries for too much individuality. Many magical objects have disappeared. For instance, the decrease in the importance of hunting was accompanied by the disappearance of the extensive hunt ritual. Also, the village offer poles ('chipanda'), which were present in every village, have disappeared.

Missionaries as well as the British administration discouraged traditional religious practices of witchcraft, offers, affliction cults, and traditional medication and confiscated materials pertaining to these.

The Evangelical Mission of Zambia (ECZ) at Mukinge, stationed in the district since early this century, converted many to Christianity and did much in the field of education and medical care in the district 14). The Jehovah's Witnesses, active in the district since ca. 1920, have also attracted many followers.

This does not mean that traditional religious beliefs do not continue in many respects, although they are less obvious. It should be noted in connection with this that even today economic success is often regarded with suspicion and is accompanied by the danger that one will be accused of having supernatural powers and means not possessed by others.

The most important mechanism used in escaping these accusations and the general equalising distributive powers of the society is to leave the village and to settle in a smaller family circle or to migrate to an urban centre. With respect to the ambition for further personal achievement and economic progress the impact of Christianity plays an important role too, as will be discussed in chpt. 5 and 6. In general the religious factor is an underlying force that should not be underestimated, both for understanding traditional society as well as present changes.
e) Material culture

To end this review of aspects of Kaonde society, I will briefly give attention to the material culture. The material culture of the Kaonde is not extensive. In total, ca. 60 objects can be listed but these are by no means always present in the average Kaonde household. About 15 utensils are used for food preparation with, in addition, 10 other objects associated with housekeeping. Objects used in former days for hunting and fishing number around 15 and those needed for farming, only two - an ax and hoe! Some villagers possess musical instruments and a chief has a small number of ceremonial items. Appendix II gives a list of objects that traditionally, and for the larger part, are still in use today. Implements related to the cash economy which are becoming more frequent, such as bicycles, radio's, briefcases, suitcases, iron beds, and other furniture, are left out.

Remarkable is that the Kaonde have no tradition of woodworking, such as masks or figurines, which is developed to such a high degree among the related Luba in Zaire. Neither is weaving practised. The material culture was somewhat more extensive in the last century in connection with the extraction and smelting of copper and iron. There was also a greater variety in objects associated with magical/religious practices.

The scanty traditional culture certainly facilitates the numerous village relocations and the intensive geographical mobility of the people. Moving is done simply by the man carrying his gun, spear, and axe followed by wife and children carrying the rest of their possessions tied in bundles on their heads. The total weight is not more than ca. 35 kg. Sometimes not directly necessary items, such as a drum or chair, will be left with relatives to be collected later.