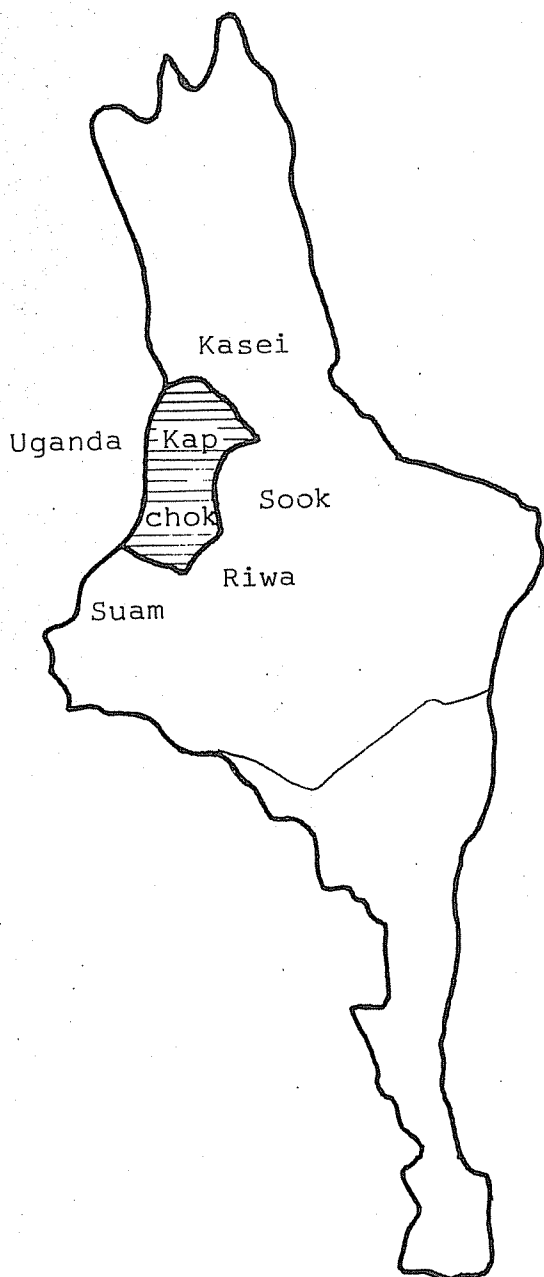


LOCATIONAL DEVELOPMENT PROFILE

KAPCHOK LOCATION WEST POKOT DISTRICT KENYA



Regional Development Research
West Pokot Elgeyo Marakwet
P.O.Box 287, Kapenguria

TON DIETZ and
ANNEMIEKE van HAASTRECHT

University of Amsterdam,
department of Human Geography and
University of Nairobi, Institute for
Development Studies

MIRJAM SCHOMAKER

University of Amsterdam,
department of Physical Geography and
Kerio Valley Development Authority

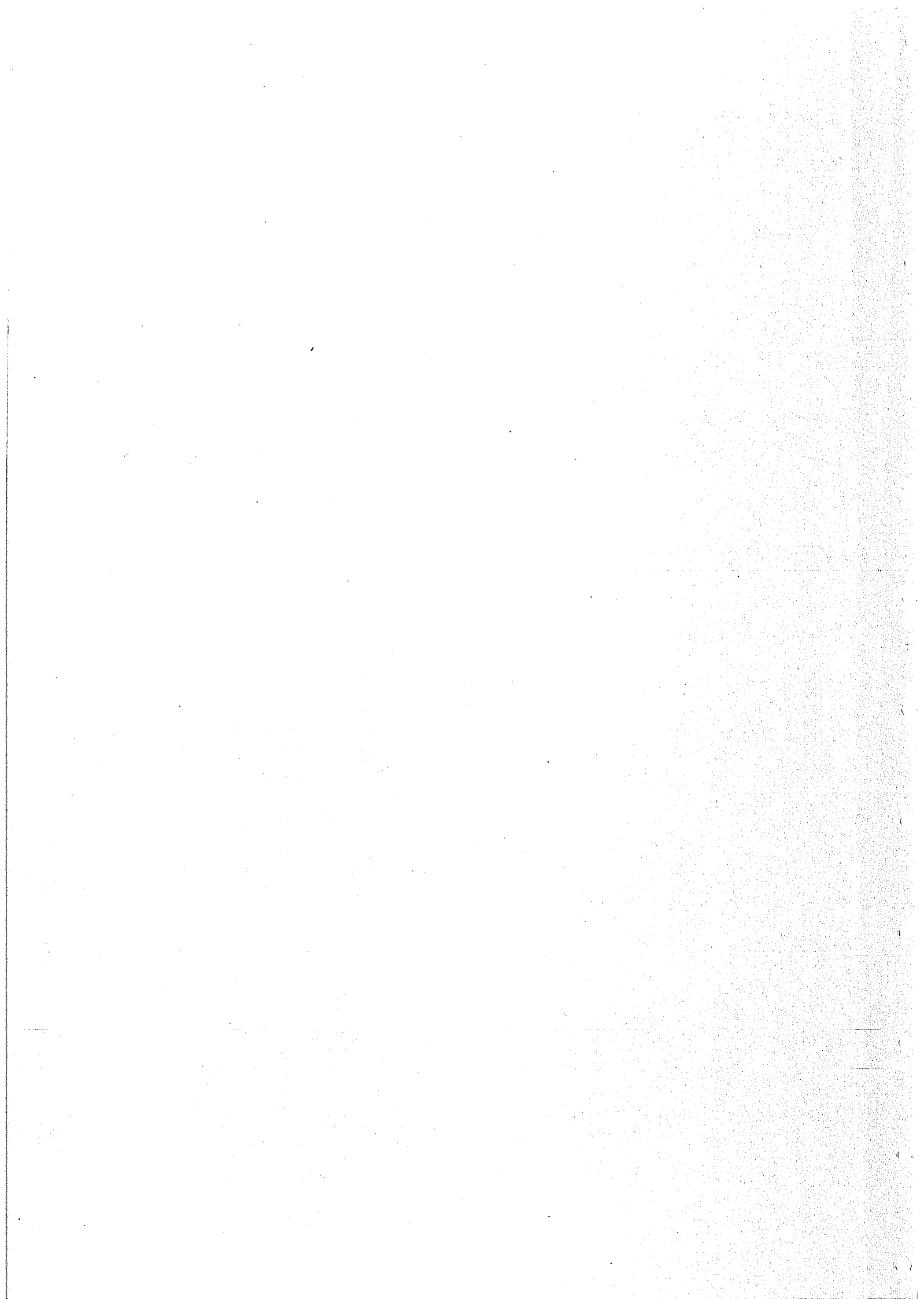
Assisted by
SIMON LOPEYOK

in cooperation with
HUBERT HENDRIX

Programme Coordinator Arid and
Semi - Arid Lands,
West Pokot Elgeyo Marakwet

with permission from the office of
the President and the Ministry for
Regional Development, Science and
Technology and from West Pokot
District Commissioner

May 1983



0 INTRODUCTION AND SOURCES

As far as we know there has never been a research project in or about Kapchok location, with the exception of some agricultural experiments by a U.S. Peacecorps volunteer around 1981. The only written information we could use were government reports:

- the District Development Plans 1974-78, and 1979-83
- the Karapokot Proposed Development Plan (written around 1976)
- files in Kacheliba Divisional Headquarters
- District Annual Reports

We can add the results of our own interview research in the Kodich-Nakwijit area in Nov-Jan 1982/3. The 28 household interviews were done by Simon Lopeyok.

The physical geographical information comes from a number of national and KVDA reports (KVDA=Kerio Valley Development Authority).

1. THE AREA OF KAPCHOK LOCATION

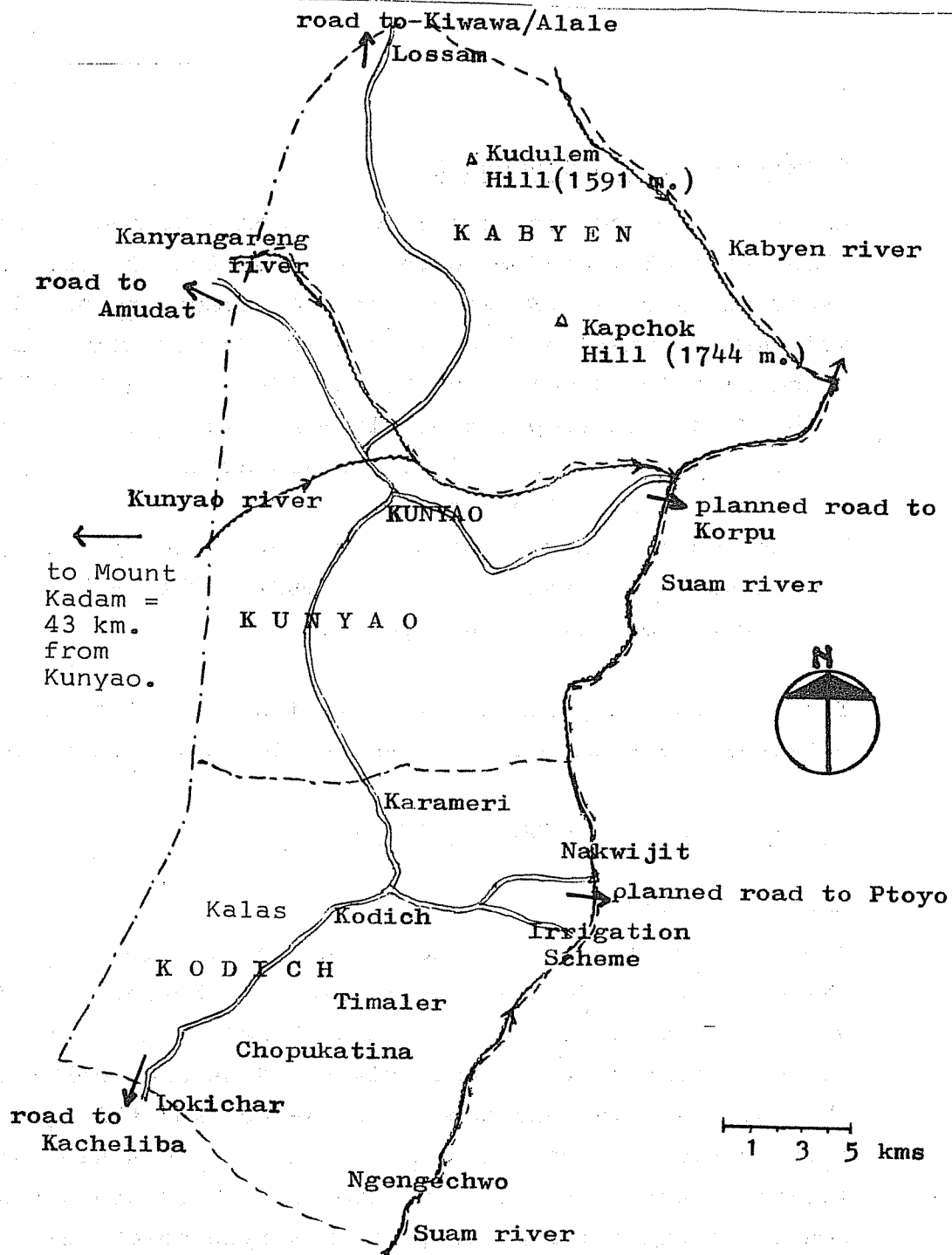
1.1. SITUATION

Kapchok Location belongs to Kacheliba Division situated in the western part of West Pokot District. It borders Uganda in the west, Suam Location in the south, Kasei Location in the north and - separated by the Suam river - Riwa and Sook Locations in the east. A main road comes from Kacheliba, through the two main centres Kodich and Kunyao to Kiwawa and Alale. Within the location, north of Kunyao Centre, a road branches towards Amudat in Uganda: a policepost in Kunyao checks all traffic (which needs a permission from the District Officer in Kacheliba or the DC in Kapenguria if they want to proceed to Uganda).

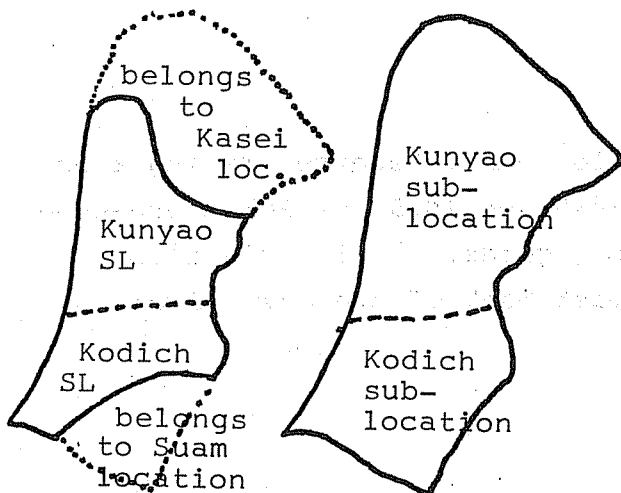
1.2 ADMINISTRATIVE HISTORY

In 1890 the area of Kapchok Location was a reserve grazing area used by the Karamojong. Between 1890 and 1925 the Pokot expanded their grazing towards Mount Kadam (Uganda) and in 1925 also a few hundred people lived on the west bank of the Suam River.

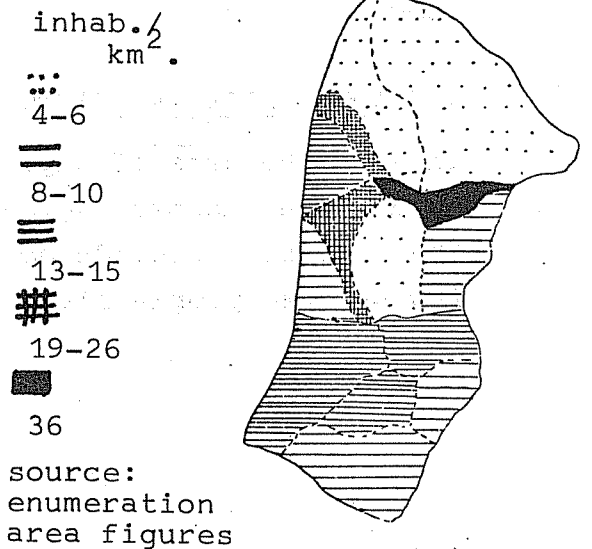
MAP 1:
Kapchok
Location



MAP 2: Boundaries 1969 and 1979



MAP 3: Population density 1979



From 1915 onwards the British Colonial administration tried to establish itself in the area, but due to the high mobility of the nomadic Pokot that was not very successful. Taxation and labour recruitment were very difficult. In 1930 the area of 'Karasuk' (to which Kapchok belonged) was given to Uganda for a more effective administration. There was a Pokot Chief in Amudat, governing Karasuk and Upe, a vast area. Ugandan administration was not very effective either. When the Kenyan government took over the administration again, in 1970, very few services existed and those few were mostly initiated by external organizations: UNICEF (boreholes in the 1940s and 50s), and churches (in 1970 there were two very small schools in Kunyao and Kodich). For the population of the area, migrating from the Suam to Mount Kadam and back, Amudat - in Uganda - was the service centre. Most probably some livestock inoculation took place there and also a small hospital existed.

In 1969 the administrative area of 'Kunyao SL' and 'Kodich SL' was smaller compared to 1979. The area south and southeast of Kodich belonged to Kacheliba SL and the area north of the Kanyangareng river belonged to Kasei SL (see map 2). From 1970 onwards Kunyao was a Chiefs' centre. In 1982 Kunyao SL was split into two: Kunyao SL and Kabyen SL. For the people of Kapchok the border between Kenya and Uganda became a reality only very recently: they regard the area west of the border as very dangerous since 1980 (the only year when raids also reached the outskirts of Kodich). Before 1980 everybody lived both in Uganda and in Kenya, migrating between dry and wet season pastures. How unclear the whole situation was can be illustrated by referring to a Kapchok Councillor in the West Pokot County Council who resigned in 1978 to become Chief in the Uganda Upe territory.

1.3. NATURAL RESOURCES:

Geology:

The area is occupied by the oldest rocks found at the surface all over the world: the Precambrium, Basement System Rocks. The rocks are metamorphic: formed during a situation in which existing sedimentary rocks are changed, because of high temperatures, high pressures and chemically active fluids. This occurs during tectonical movements within the earth's crust. Metamorphic rocks have a relatively high resistance to erosion/denudation - more than their originating rocks- and are characterized by flowing layers.

The mineral composition varies considerably, depending on the composition of the preexisting rock. Geological maps of this area hardly give the distribution of this variability. The mineral composition has a great influence on the fertility of the soils which develop on the rocks.

Scattered over the area, loose material is deposited by larger rivers -the alluvial deposits-.

Relief:

There is little variation in landscapes: apart from some minor hilly areas in the North, the location is situated on extensive erosion surfaces -peneplains-. A peneplain is a landscape with very faint relief and is a result of long lasting erosion/denudation -the old stage of an erosion cycle-. Scattered over the plain minor relict mountains are preserved.


Along the larger rivers flat, alluvial areas are formed.
See for relief also the crosssections on page 8.

Hydrology:

Only the Suam river carries water all through the year -a perennial river-. The Kanyangareng river has water for a large part of the year: in the beginning of December 1982 the river could only be crossed with great difficulty, while it was dry in the beginning of January.

All the other rivers and their tributaries only carry water in the wet season -seasonal rivers-.

Erosion:

Erosion is severe at many places. Deep gullies -several meters deep- and gully systems -badlands- are very common, especially on the faint sloping, concave -  - areas.

From a Landsat -satelite- image we made an interpretation which shows the spatial distribution of the actual erosion areas. Three classes are distinguished: low-, moderate- and severe erosion. See map 5, page 8 .

Soils:

Following the "Exploratory Soil Map of Kenya, 1980", scale 1 : 1 000 000 (Kenya Soil Survey) 4 soil-group-units can be distinguished. See map 4, p. 8. A descriptive characterisation is given below, for which also general literature is used, applicable to whole Kenya.

It should be stated explicitly that this information is not based on a local survey and should be interpreted with care. The official names used by the Kenya Soil Survey are added, in case people want more information.



1. Soils in the hilly areas. They are somewhat excessively drained, which means that water is removed from the soil (deeper into the earth) rapidly. The amount of water available in the soil for plant growth can be a problem. The soils are shallow (less than 50 cm. deep) -this can^{be} a problem for plants with a deep root system- and rocky and stony -it can become difficult to work on these soils with simple tools-.

The fertility is moderately good, though fertilizers are necessary when the soil is used every year.

On the steeper slopes erosion often is severe.

Name -or classification-: H_Ure, eutric Regosols-lithic phase, with Rock Outcrops and calcic Cambisols.

2. Soils on the peneplains. They are well drained, which means that water is removed from the soil readily but not rapidly; the soils commonly retain optimum amounts of moisture for plant growth after rains or addition of irrigation water.

The soils are shallow on the concave -  -, eroded slopes and deep on the convex -  - interfluves (or gentle crests).

Fertility is moderately good, but again, additional fertilizers are necessary if the soils are used constantly.

The structure of the top soil is not very good, so that after heavy rains a strong sealing -hard layer- can be formed on the surface. This leads to low infiltration rates and hence to run-off. The off-running water causes severe erosion on the gentle (and steeper) slopes.

Classification: UmUlc+li, chromic Luvisols and dystic Cambisols-lithic phase.

3. Soils on the peneplains. They are well drained (see above) to imperfectly drained, which means that water is removed from the soil slowly enough to keep it wet for significant periods. This can result in a shortage of oxygen in the soil, while oxygen is of vital importance to plant life.

The soils are shallow on the concave slopes and moderately deep on the convex interfluves. They can be rocky to non-rocky and stony to non-stony. In some cases a hardened layer of ironstone or a layer with iron-concretions can give problems for eventual cultivation.

Fertility and erosion susceptibility characteristics are about the same as for unit 2.

Classification: UlUao, orthic Acrisols-pisoferric phase, with chromic Luvisols and eutric Cambisols-lithic phase.

4. Alluvial soils on the flat areas along the rivers. They are well drained to imperfectly drained, very deep -no problems for deep rooting plants- and they show stratification due to sedimentation-processes (finer and coarser silt/sand is deposited in layers on top of each other, by the flooding river).

The soils are calcareous -contain lime- which is favourable for cultivation - on many other soils lime has to be added- and have a moderately good fertility, though, as said before, additional fertilizers are necessary if intensively used.

In the real arid areas the soil can be too saline to be cultivated.

There is no erosion in these flat areas. Flooding and consequently accumulation of new material can cause problems; good soil material is covered and/or young plants can be damaged.

Classification: calcaric Fluvisols.

Climate:

Land use potential depends, apart from soil- and relief characteristics and erosion status, largely on the prevailing climatic conditions; particularly on the annual and seasonal balance between rainfall and evaporation.

Unfortunately there are hardly any climatological stations in the location. Making a rough estimation gives: the major part of the location has an average annual rainfall of less than 700 mm/yr.

Some figures: Amudat (Uganda), 1945-1955, mean of 680 mm/yr.

Kodich, 1981 without June, 650 mm, with peaks in March (163 mm) and July (153 mm). 1981 was a good year in West Pokot.

From District Annual Reports we found that 1970, 1977, 1981 and 1982 were good years (high rainfall) and that 1973, 1976, 1979 and 1980 were bad years (low rainfall).

Like in the whole district of West Pokot, rainfall reliability is low. Also the distribution within one year can vary considerably; the peaks in March and July can be in February and June or in April and August as well.

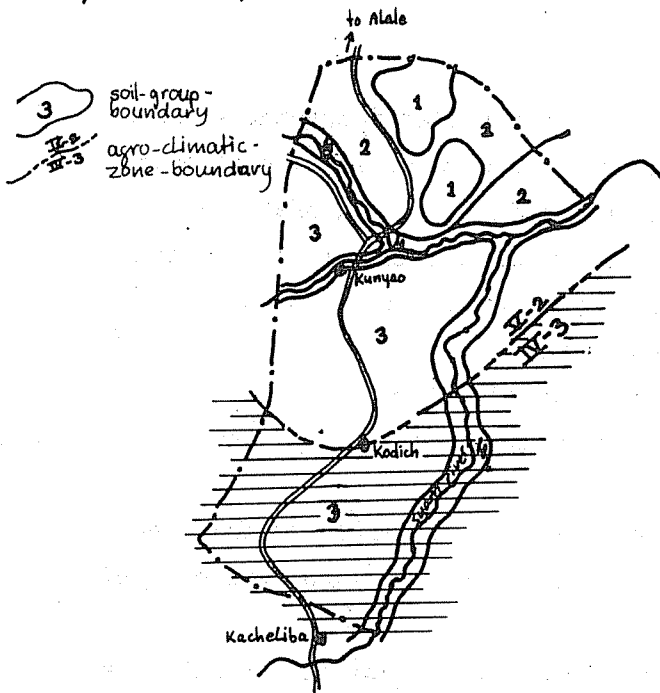
According to the "Agro Climatic Zone Map of Kenya, 1980", scale 1 : 1 000 000 (Kenya Soil Survey), the location is covered by two agro-climatic zones: IV-3 and V-2. The boundaries on this map, however, are theoretical and schematical.

IV-3: semi-humid to semi-arid; fairly warm (average annual temperatures of 20°-22°C); rainfall/potential evaporation ratio is low (0.4-0.5 or 40-50%) → dry.

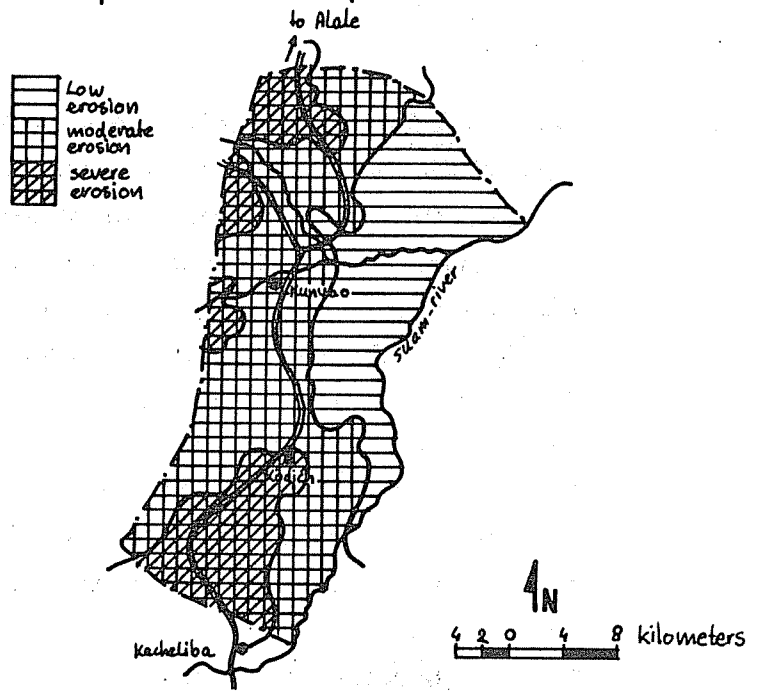
V-2 : semi-arid; warm (average annual temperatures of 22°-24°C); rainfall/potential evaporation ratio is very low (0.25-0.40 or 25-40%) → very dry.

In general one can say that the area has a low carrying capacity and a low potential production capacity. The major limitation is RAINFALL (followed by soil fertility). If irrigation practices are applied along the larger rivers, possibilities will become much better.

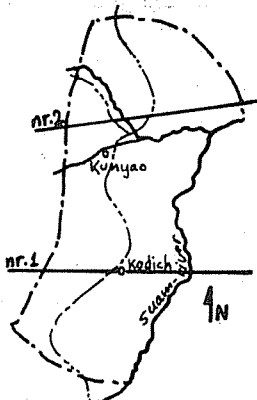
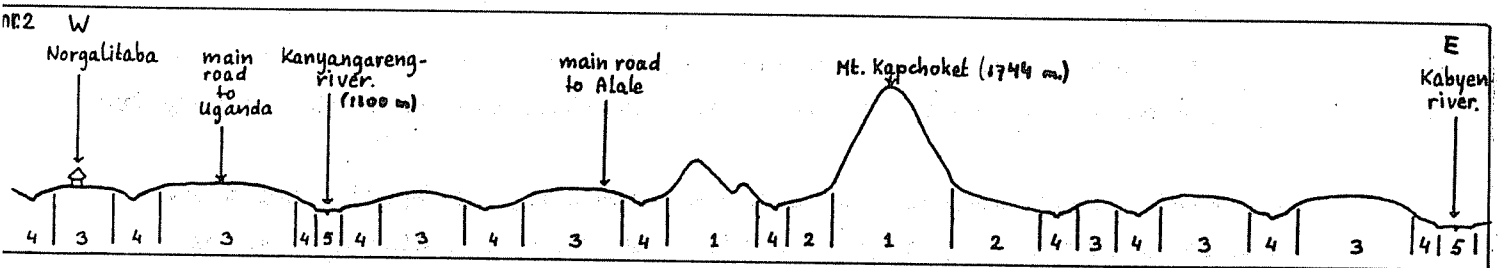
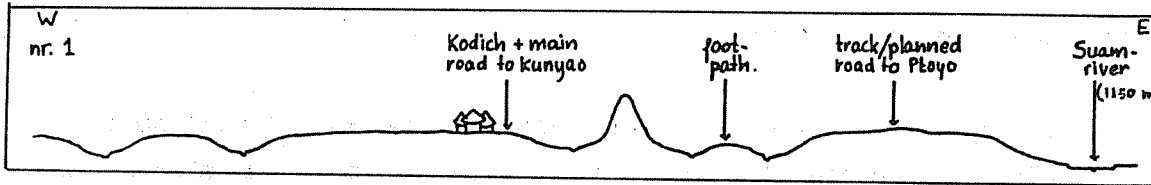
Map 4: soil-map





Map 5: Erosion-map



Crosssections:



- 1 relict mountain; in time doomed to disappear as a result of continued erosion/denudation. (Will become like unit 3)
- 2 footslope (will disappear together with unit 1)
- 3 low interflue with a convex =  profile; little erosion
- 4 faint slope with a concave =  vertical profile, often strongly dissected by gullies
- 5 flat, alluvial areas along the larger rivers

2. POPULATION DEVELOPMENT

Until 1980 the people living between the river Suam and the Mount Kadam area were very mobile. The men were herding their animals in the plains during the rains (April-September, sometimes later) and they gradually moved to the river valleys during the dry season. When it was very dry, they went to the higher areas of Mount Kadam. The women lived a more settled life, living in the homesteads which were outside the malaria areas alongside the rivers. During the rainy season they cultivated some patches of land near the rivers of Kunyao and Kanyangareng (probably not much along the Suam River). But also the women moved their homesteads regularly.

A population census in this type of area cannot be more than an accidental inventory at a certain point in time and probably not a very accurate one. However, with some fantasy some conclusions can be drawn from the census figures of 1969 (by the Uganda administration) and of 1979 (by the Kenya administration).

First the 1979 results. 7452 people were counted in August 1979: 3686 men and 3766 women. Especially in Kodich Sublocation there were more women than men (between 15 and 49 years old there were even 5 women for every 4 men). Most probably this means that in the southern part of the Location quite some men were spying on the Uganda side: in August 1979 the area west of the boundary was already regarded as a very dangerous "ngoroko" area. If this is the case some 300 men should be regarded as 'uncounted'. The total area of Kapchok Location is 724 km². On average the area has 10 people per km². If we use enumeration area figures, however, we can see a big difference within the Location. See map 3. Along the Kunyao and Kanyangareng rivers the highest densities were measured (19-36 inh./km²). On the other hand the area north of the Kanyangareng and the area in the centre-south of Kunyao were rather empty. Also along the Suam River low population densities existed.

If we want to compare these results with the 1969 figures, we first have to adjust the figures of 1979 to the other 'shape' of the sublocations in 1969 (see map 2). If we compare 'old'

Kunyao 1969-1979 we find that the population more than doubled: from 1409 to 3100 (area: 227 km²; density from 6 to 14 inh./km²). We think that a lot of herders who used to herd their animals west of the border in the census month of August, now stayed on the Kenyan side. If we compare 'old' Kodich 1969-1979 the increase is less dramatic: from 2354 to about 2500 people, and many men must have been in Uganda still (area: about 290 km²; density from 12 to 13 inh./km²).

Most probably the natural increase must have been very low: health facilities were absent in the area, although sick people sometimes went to Amudat (Uganda) and in 1979 also to Kacheliba to get treatment.

After 1979 some dramatic changes took place which hit the population and caused some demographic changes too. Drought and famine as well as cattle diseases and cholera threatened the population between 1979 and 1981. On top of that more refugees from Uganda came to Kunyao, Lossam, Nakwijit and Timaler, the famine relief centres. According to missionaries from the Church of the Province of Kenya both in Lossam and in Timaler 250 families settled down to get relief food (in 1979-80). In 1980 many people went to Kunyao where Government Famine Relief and Freedom from Hunger gave food. In 1980 and 1981 the Church of the Province of Kenya also started Food for Work campaigns in Nakwijit and Kodich. In 1981 and 1982 a group of families started to practice agriculture along the Suam: in Kodich-Nakwijit and in Ngengechwo. East of Kunyao the Chief started a farm with Sudanese-Ugandan refugees(?).

During the disasters some families fled to Kongelai and to Mnagei and only part of them returned.

As a result of a higher than average death rate and on the other hand probably a slight immigration saldo we estimate the actual population in Kapchok in 1983 at 8,000 people. Compared to 1979 there will be more people in the eastern part of the Location (near the Suam, but outside the 3 km tsetse belt, where there is also a high malaria chance). Also there will be more people in the centres.

3. ECONOMIC DEVELOPMENT

Before 1980 the Pokot living in Kapchok were probably the most dependent on livestock products for their survival; animal products (milk, blood, goat meat, sheep fat and on occasions also cattle meat were the most important items of their diet). It does not mean however that no grain products were consumed: alongside the riverbanks of Kunyao and Kanyangareng some sorghum production always supplemented the diet, although the harvest was very meagre and in bad years completely failed. It was also not unusual to buy or barter grains. On many social occasion honey beer was consumed. Honey was in high esteem also as a present. Recently also maize was introduced.

Most households had a herd of at least 40 head of cattle; wealth was measured in number of cattle and a wealthy household had more than 60 head of cattle. Cattle were privately owned by the male head of the household but to avoid sudden loss of all the wealth (due to disease or cattle raids) the cattle were spread over a number of households all over Kacheliba Division and Upe and even far into the east of West Pokot District. On the other hand most households had to care for cattle belonging to others: a system of 'tiliantan' where rights of ownership and usufruct were very complex with the result that it was (and is) very difficult for a man alone to decide about the sale of cattle. Goats and sheep are much more regarded as money and part of it belongs exclusively to married women (bridegroom gift and their offspring). Cattle is regarded as an asset (and in fact only to be exchanged as bridewealth) and as a basis for production, although bulls are more easily eaten or sold.

When Kenya took over the administration again, in 1970, the Kapchok population could be regarded as almost completely self-sufficient. Food, clothing and shelter were produced by the households themselves. Only ornaments (esp. beads) were partly bought (for money, goats or hides/skins). The people used government facilities only for two needs: cattle inoculations and water (boreholes, but water was also used from rivers and wells).

After 1970 the Kenya administration proposed a number of new economic facilities, and through the chief and assistant chiefs some harambee activities started. We will follow the proposals and their implementation (or lack of implementation).

Table 1: Economic development proposals and their implementation

Water dams	<p>Proposed in a 1972 preliminary plan and built in 1974 in three places (Kodich, Karameri and Chebong'bong/Kangolenyang). In 1976 they still held water. In 1979 also a dam at Lokichar existed. The Kodich and Karameri dams needed desilting. A new dam in Kunyao was proposed. In 1982 Kodich dam was desilted (RDF (Rural Development Fund) money; we do not know whether also the others were desilted).</p> <p>Project costs: building of the 4 dams: 40,000 Shs (1974) desilting: 22,000 Shs (1982)</p> <p>In 1983 Kunyao dam was not yet built.</p>
Cattle dips	<p>In 1973 a harambee licence was acquired for a dip in Kunyao. In 1976 the Karapokot Proposed Development Pland (KPDP) proposed six dips: three plunge dips at Kunyao, Orchio and Lossam (costs 3 x 25,000 Shs) and three metal dip tanks at Asilong (S.E. Kodich?), Kodich and Nakwijit (costs 3 x 16,000). In 1979 a harambee group in Kodich existed to find some funds. In 1981 a dip was built there but it was never used yet because of lack of acaracide. The other dip proposals were not yet materialized.</p>
Group Ranch	<p>In 1976 the KPDP proposed to start three group ranches: Kunyao (20,000 ha for about 3000 head of cattle, with a borehole and a spray race), Kodich (30,000 ha for about 4,000 hd oc.) and Asilong (30,000 ha for about 4,000 hd oc). As a start a four paddock grazing system should be followed. Together it was rated at 400,000 Shs. But until now nothing has been done.</p>
Range Assistants	<p>To assist the people in grazing management the KPDP proposed to have one Range Assistant at Kunyao and one Junior Range Assistant at Kodich. During a short time in 1978/79 a JRA was posted at Nakwijit. In 1983: nobody.</p>
Land Adjudication	<p>To give the future group ranches a formal status (with the possibility to give the land as a loan mortgage) the District Development Plan 1974-78 also planned land adjudication. To start in 1976 in Kodich and 1977 (?) in Kunyao. In 1977 a land adjudication section came to Kunyao but the local population was very much opposed to its activities and it was withdrawn soon. In the second DDP (1979-83) the idea was proposed again but in 1983 nothing was done yet.</p>

Livestock
Marketing

In the beginning of the 1970s the Kenyan government wanted to use the range areas as suppliers of meat for the beef industry. Also West Pokot lowlands were given that task. The DDP 1 (74-78) planned a stock route from Alale via Kacheliba and Mwisho Farm to Kitale. In Kunyao a livestock sale yard was planned and in Kodich a holding ground. From north to south a stock route would be fenced. However, nothing was realized.

Beebreeding/
Cooperative

The KPDP planned a beekeeping and honey production station at Kunyao. Nothing was done there. However, in Kodich in 1980 a Cooperative Society was formed by the local people and their main activity was honey production. In 1982 they even changed the name into Kodich Beekeepers Cooperative Society. In 1983 machinery was installed and the search for markets started.

Inoculation

Very irregular inoculation teams visit the area. A big rinderpest campaign was organized in 1975 (inoculating ca 11,500 animals within Kapchok) and again a campaign in 1980 (ca. 13,000 animals inoculated). In 1981 a Contagious Bovine Pleuro Pneumonia campaign was organized but that was after many animals had died already. When in 1978/79 most goats died of heavy worm infestation the government did nothing.

Crop extension

The KPDP proposed two small crop demonstration fields in Kunyao and Kodich for napier grass and sweet potato demonstration. Also at Kunyao trial plots were proposed for maize and cotton production while also cassava and fingermillet should get some attention. Nothing happened however. In practice crop development was stimulated at Kodich and in two family rehabilitation centres (Timaler and Lossam) organized by the CPK 'Christian Rural Service' assisted by the Kenya Freedom from Hunger council. In 1979/80 at each of the centres some 250 families lived who were given tools to clear the land and who got food for work. In 1980 a few farmers in Kodich produced cotton.

Irrigation

KPDP already suggested that irrigation development alongside the Suam river was a possibility. When after the 1980-81 drought many people were forced to start cultivation without irrigation (famine relief was partly given under the condition that the people prepared the fields) the Church of the Province of Kenya launched the idea to dig an irrigation canal as part of the Food for Work Programme. A canal of 1 km was made, but unfortunately it was sited on a wrong place so that it proved to be useless. In 1981 the Provincial Irrigation Unit of the Ministry of Agriculture adopted the idea and a start was made with a new, better sited canal. Also a solar pump installation was planned as part of the programme. The European Economic Community promised 500,000 Shs for this Kodich Irrigation Scheme, to start in 1983. From 1980-82 an American Peacecorps volunteer was stationed in Kodich and Nakwijit to assist the agricultural development. Although nothing was irrigated yet the harvests of 1981 and 1982 were not

bad because of good rainfall (maize, sorghum, pulses and citrus & pawpaw) Phase 1 of the scheme is 30 ha. Potential area along the Suam: 3600 ha (MoA-est.)

Grinding mill A grinding mill was started in Kodich recently. It still functioned in 1983.

Fisheries Proj. The DDP 74-78 proposed to start a fisheries project at Kunyao after the 'Korpu Gorge Project' was started (with an estimated production of 800 ton fish/annum). In 1983 the Turkwell Gorge Plan was not yet started and also the fisheries camp had to wait. The Turkwell Lake will extend up to Kunyao.

Reafforestation At Kunyao a reafforestation project was proposed in the second DDP 79-83 (5 ha, 17,700 Shs). Nothing was done.

Roads

Together with the irrigation activities the people around Kodich made a 4 km new road branching from the Kodich-Nakwijit road.

Recently the Rural Access Road Programme started to build the Kunyao-Korpu Road (proposed in the second DDP) from Kunyao to the Kanyangareng river. The 26,75 km under construction will cost 1,070,000 Shs of which half will be labour costs for local casuals. For maintenance another 38,520 Shs will be needed per year and 18 part-time labourers will be employed.

In the District Development Plan 1979-83 also a road was proposed from Kalemngorok via Songeleya and Cheptuba to Nakipenet, places unknown to us.

As can be seen from the table the dreams of some planners - to arrive at three nice group ranches, adjudicated and with group ranch committees, with dams, boreholes and dips, producing a lot of beef cattle for sale and with some additional honey income - were not really materializing. Ten years of plan implementation resulted in four dams and one - not operating - dip. In the plans livestock production received most attention. In practice hardly any plans were implemented. This was partly a result of the 1979-1981 disasters. Famine relief (Food for Work) and the loss of animals forced many people to change from livestock to crop production. The favourable rainfall of 1981 and 1982 encouraged them. With irrigation agriculture could be a reliable alternative. Also the commercialization of honey production is promising.

Compared to the situation before 1979 the population changed their diet considerably: grain consumption is much more important now. It is produced in the area, but quite a lot of the consumption needs is bought in the shops. Also part of the consumed grains is earned in kind by women who go to Mnagei (the highlands around Makutano) to do some casual harvesting work ('to collect some grains').

We will give more details now from our own interview results.

An economic household profile of the area (results of 28 inter-views around Kodich)

Average number of wives	2	
Number of adult women on the compound	2,8	
Children older than 15	2,8	(often not at home)
Children from 5 to 14	3,2	
Children under 5	2,5	

Average number of persons in the household 12,2

There were few other persons in the household.

On average 1,3 child is attending school. (For the whole location this means that two third of the eligible children are not attending school).

15 households lived in this area for a long time, 5 for "some" years and 8 arrived in the area in 1978 and after.

Crops

average per household.

Before 1980 on average 2,4 acre were under maize and sorghum. All households stated that they grew crops at that time but it was often not enough, reason why they regularly bought or rather bartered some food for goats, sheep or honey.

In 1982 on average 3.4 acre were cultivated. The land is not registered and use of land is obtained by clearing it.

23 households stated that they grew sorghum in 1982 (4 times it was a total failure)

20 households stated that they grew maize in 1982 (8 times it was a total failure)

8 households stated that they grew beans in 1982

1 household grew cowpeas and 1 pumpkins.

The yields are very low in this area: on average 3 to 4 bags of maize per acre and 3 bags or less of sorghum. Even total failures were not unusual. Nobody in the area sells crops, but often crops were given away: 12 times about one bag and 9 times an unknown amount.

Every household buys or barter grains, on average for about 300 shs.. Also women from the area go to Mnagei between

December and February to help with the maize harvest for which they get paid in maize. Crop production in the area is insufficient as can also be seen from the amount of famine relief distributed in the area. 27 out of 28 households got famine relief in 1980 and/or 1982. Sometimes some work had to be done to get relief: carrying poles and grass for a house for the assistant-chief, build this house and fence it, clear fields for the next season for the use of the household itself.

Seeds

A quarter of the interviewed households bought seeds in 1982, more than half got seeds free from the Kodich Cooperative. The rest of the seeds is left-over from the last harvest, sometimes "borrowed" from relatives. Often hybrid (bought) maize is mixed with the local left-over seeds. All sorghum seeds are local ones.

Casuals

Casuals paid with cash money are not a regular phenomenon in this area; it was recorded only three times during the interviews and in total 260 shs. were spent on them.

Work-parties of relatives and neighbours are very common and paid with beer and sometimes posho. In this area they are mainly organized for clearing and weeding.

Work on the irrigation canal

In half of the households some work was done on the irrigation canal. This varied from a few days to five months. It started as a food for work campaign.

Livestock

average per household

before 1980				lost			owned now					
c	g	s	d	c	g	s	c	g	s	d	c = cattle	lost = lost
43	52	13	3	18	20	6	22	39	6	3	g = goats	by disease/
											s = sheep	drought or
											d = donkeys	ngoroko's

Many animals were lost between 1979 and 1981 as a result of the drought and diseases which hit the area.

Ngoroko activities do not seem to be very important here, in total 200 cattle were stolen, 150 of one person and none of the cattle was stolen in the area itself but elsewhere in Pokot or Uganda, where it was herded by relatives. Although no real raids took place here the threat of it is very evident. 10 cattle were

given to relatives to buy a gun.

Livestock which is owned now was left over after the drought and illnesses of 1980 and 1981 and reproduced offspring. The rest was obtained as bridewealth and from tiliantan relationships (cattle temporarily grazing in other people's herds as a way of spreading risks). In this area cattle acquired by raiding might be minimal now; the enemy was too strong recently.

Milk

All the households received some milk from their cattle. It seems that on average milkgiving cows give about 1.5 liter per day in the rainy season and half a liter or even less in the dry season. A goat produces about half a liter in the rainy season per day and one quarter liter in the dry season.

Milkgiving animals form about one third of the total herd (a bit less in the dry season and a bit more in the rainy season), so that an average household gets about 15 to 20 liters of milk in the rainy season per day and about 7 liters in the dry season. (This is a very rough estimate).

Beehives

13 out of 28 households do have beehives, on average 20; not all hives have bees in them every year. The production of honey is roughly 17 kg. per household with hives. On average 7 kg. is sold to the cooperative in Kodich. (The Kodich Cooperative had 300 members at the end of 1982). The rest of the honey is used at home for ceremonies, work parties, or beer is made for selling. Sometimes the honey or honeybeer is bartered for a goat or some maize.

Water

Water is a big problem for the interviewed households. In the rainy season it took one person on average one hour and ten minutes every day to walk to a water place, to wait for one's turn, to get water and walk back. In the dry season it took three and a half hours on average per household.

In the dry period often fights took place near the borehole(s) in Kodich and it took often many hours before it was one's turn. In some periods no borehole was working.

Income

We estimated the cash income of the interviewed households for 1982. We included sale of milk (8 hh.), of animals (22 hh. mainly goats, 6 times cattle), of honey (10 hh.) and honeybeer (2 hh.),

food collection in Mnagei (7 hh.), paid jobs of members of the households (6 hh.) and money received from relatives or friends. There were three households with an income of 10.000 shs. or more (on average 11.500). If we include these the average income for all the households is 1950 shs.. If we exclude them the average income of the remaining 25 households is about 800 shs.

cash income	number of households
0- 499 shs.	13
500- 999 shs.	6
1000-1999 shs.	4
2000-3999 shs.	2
more than 1000 shs	3

The number of paid jobs was very low and with the exception of two the wages were also very low and two jobs were not even paid out after two months of work.

Expenditure per average Kodich household

grains	300 shs
household needs	140 shs
clothing	230 shs
animal drugs	120 shs
medicine/health	90 shs

Average expenditure per household was much lower than average income, namely 900 shs. Especially the "rich" households stated much lower expenditure than income.

4. SOCIAL DEVELOPMENT AND INFRASTRUCTURE

4.1. Overview of the services, 1983

Place	admin.	commerce	education	health	churches	other
Kunyao	Chief Police post Post Off Ass.Ch. Air Str. uc.	7 shops licensed (5 oper.) 2 hotels matatu stop	prim.board school (9 teach.) Ad. Educ (1 pt tea)	disp. u.c. visits by mob clin.	5: RC CPK BCFC FGCK FH	3 bore- holes funct.
Kodich	Ass. Ch. Pol.base	4 shops posho mill matatu stop	prim.board school (11 teach) Ad.educ (1 ft tea 1 sh tea) Village polytechn. (7 teach.)	visits by two mission mob.cl.	3: RC CPK FGCK	2 bore- (1 funct). Coop. Dip not funct.. Women Gr
Lossam	Ass.Ch. Pol. base	1 posho shop	prim.sch. (5 teach) ad. educ. (2 sh tea)	visits by gov. mob.cl.	2: RC CPK	WomenGr
Lokichar			prim sch. (4 teach) ad educ (1 sh tea)	visits by mission mob.cl.	1: RC	2 drill wells planned + dam
Karameri			prim.sch. (1 teach) ad.educ (1 pt tea)		1: RC	2 bore- holes
Nakwijit		1 shop	prim.board school ad.educ (1 sh tea)	visits by mob (mission)	2: CPK FGCK	
Kalas			prim sch (2 teach)			
Timaler			prim board school (5 teach) ad educ (1 pt tea)	visits by mob. clin (mission)	2: CPK FGCK	
Kapchok			prim sch. (1 teach)			
Auiskiong					1: RC	
Krimti					1: RC	
Chepukatina						1 bore- hole
Nyanga						1 bore- hole

pt = part time
ft = full time
sh = self help
tea = teacher

4.2 Plans and implementation

Also here we will follow the proposals from a number of plans.

Table 2: Social and infrastructural plans and implementation.

Chiefs Office Kunyao	In 1970/71 proposed as a District Community Development Project; in 1978 again as a Divisional Comm. Dev. Recommendation. In 1979 a self help group existed for the purpose. We do not know if something has been done.
Adm. Police houses Kunyao	Also a Distr. Comm. Dev. Proj. 1970/71. In DDP 79-83 mentioned again. In 1982 a Police post existed.
Airstrip Kunyao	Under construction in 1982 (In 1979 investigation planned).
Community Development Assistant house Kunyao	In 1975 a harambee was organized; in 1979 a self help group still existed for the purpose. As far as we know no house exists and also never a CDA was posted in Kunyao.
Dispensary Kunyao	Proposed in DDP 1974-78, in 1980 it was started/under construction. Some dispensary work was done however and the area was visited by a government mobile clinic (irregular).
Dispensary Kodich	For the first time mentioned in 1982; the Assistant Chief already had a house for the purpose.
Kunyao Primary Boarding School	A primary school existed already before 1970. In 1973 and 1974 extensions were proposed by the Distr. Comm. Dev. Committee. In 1975 a harambee group was formed, still existing in 1979. In 1978 the Divisional CD Committee decided to build more teachers houses. In the DDP 1979-83 proposal to use Kunyao as a School Storage Centre.
Kodich Primary Boarding School	A primary school exists before 1970. In 1974 a Distr. CD proposal to build dormitories, in 1976 to extend the school buildings and in 1977 to build more teachers houses. In 1977 the dormitory was built by a harambee group, the building of the teachers houses started. 1979 grant: 5,084 Shs
Village Polytechnic Kodich	CPK (Christian Rural Service) started it in 1980 (World Vision Int. gave 90,000 Shs). In 1981 5 teachers; in 1983 7; courses: Agriculture, Range Management, Masonry, Tailoring, Carpentry, Home Economics and Accounts (see education).
Wildlife Patrol Station Kunyao	Planned in District Development Plan 1979-83. Nothing realized.

Tourist Hotel Kunyao Planned in DDP 79-83. Nothing realized. We will now go into more detail about the development of water services, shops, education and churches.

4.3 The development of water services

Boreholes were the only infrastructural services built by the Uganda Government before 1970. In 1942 and 1945 the first two were drilled in Kunyao. From 1952 to 1957 UNICEF paid for the drilling of seven more boreholes. Most of them were no longer functioning in 1977, when MoW technicians repaired some of them. In 1980 some new wells were drilled during the anti-cholera campaign (e.g. two in Lokichar). In 1981 the Norwegian Red Cross gave 80% of the money for the restoration of a number of existing boreholes and the drilling of some new ones. 20% of the money comes from two missions: ACCK and the Roman Catholic Verona Fathers (resp. Kiwawa and Kacheliba). Before, Norconsult did a survey.

Table 3 gives some more information.

Table 3 Boreholes in Kapchok Location

nr.	place	depth	produc- tion	year drilled	situation 1981	rehabilitation 1982/83
CD 147	Kunyao-1	30 m	2614 li/h	1942	functioning	-
CD 268	Kunyao-2	30 m	3069 li/h	1945	functioning	-
CD1503	Kunyao	98 m	1818 li/h	1957	?	-
CD 814	Karameri	56 m	3800 li/h	1952	out of order	yes (1)
CD 825	Karameri	153 m	2618 li/h	1952	very poor	
CD 961	Nyanga	63 m	659 li/h	1953	?	
CD 987	Kodich	93 m	2528 li/h	1953?	unreliable	yes (2)
CD1521	Kodich	-	-	-	-	new
CD1548	Chepukatina	61 m	2046 li/h	1956	poor	yes (2)
-	Lokichar-1		well	1980?	poor	yes (3)
-	Lokichar-2		well	1980?	very poor	
-	Lossam		-		-	new (4)

- (1) Norconsult proposed rehabilitation + a new borehole + two river schemes. The borehole was part of the restoration by ACCK/VF 1982
- (2) part of the restoration by ACCK/VF and a new borehole was drilled (at the end of 1982 however again broken down and after some time repaired - Kodich)
- (3) Norconsult proposal: two wells to be drilled in alluvial terrain + subsurface cut off dam.
- (4) ACCK/VF plan.

4.4 The development of commercial activities

Commercial activities are rather unstable: although a shop building exists and although a license has been obtained from the County Council it does not mean that the shop really functions. The C.C. license figures must be seen as an indication only. Table 4 gives some details.

Table 4: CC commercial licenses Kapchok 1977-1982

Place	license						situation 1983
	1977	1978	1979	1980	1981	1982	
<u>Kunyao</u>							
shop	2	3	5	5	nd	7	5
hotel (tea)	1	3	0	0	nd	2	2
beer club			1				
bar						1	0
posho mill			1	1		0	0
tailor							1
<u>Kodich</u>							
shop	4	3	6	4	nd	4	4?
hotel				1			0
posho mill							1
<u>Lossam</u>							
posho sales						3	1
<u>Nakwijit</u>							
shop						1	1?
<u>Total</u>	7	9	13	12	nd	18	(15)

Between 1977 and 1982 the number of licensed shops more than doubled. In 1983 most of them were regularly open. Probably the amount of money circulating is also higher compared to 1977: in 1979 and 1980 (goat and cattle diseases) a lot of skins and hides were sold to non-licensed traders and in 1980-81 the famine relief (esp. posho) created a maize meal demand which was much bigger than before.

The main 'shopping centre' is Kunyao. In 1983 there were 3 Pokot shops and 2 Somali shops. Also there were 2 Pokot hotels and 1 Somali hotel. In August 1982 the Somali shops were heavily raided by local Pokot and 6 out of 10 Somali families left the area. Before the disturbances most of the shops and hotels were owned and managed by Somali traders. After August 1982 three of them were closed and some others taken over by local Pokot. Some other shop buildings were closed for a longer time already. The Somali traders (maybe not all of them) were and are very much engaged in the miraa trade, coming from the Mount Kadam area. The flourishing miraa trade (although between 1980 and 1983

in danger because of the insecurity along the Kadam-Kunyao route) was probably an important stimulan for a matatu service from Makutano to Kunyao (single fare 30 Shs, once a day). Around 1979 there was even a 'bus' service.

4.5 The development of education

Two schools existed in Kapchok before 1970, one in Kunyao and one in Kodich. During the 1970s they became boarding schools. In 1978 a boarding school started at Timaler and a day school at Lokichar and at Lossam. In 1980 a boarding school started at Nakwijit and day schools at Kalas; near the Kapchok Hill and another one at Karameri. The Kunyao school is directly managed by the District Education Board. Four schools are sponsored and initiated by the (Anglican) Church of the Province of Kenya and four by the Roman Catholic Mission. Table 5 gives detailed figures for each school. Table 6 gives a total picture of the development of education.

Table 5 The schools in Kapchok Location, 1971-1982

	<u>Kunyao (DEB, boarding)</u>					<u>Kodich (RCM, boarding)</u>					b = boys g = girls cl = class t = trained teach. ut = un- trai- ned teach.
	cl	b	g	t	ut	cl	b	g	t	ut	
1971	1-2	13	3	0	1	1-3	20	0	0	1	
1972	1-3	10	1	1	1	1-4	38	1	1	1	
1973	1	2	4	0	1	1-4	40	5	1	3	
1974	1-2	?	11	1	1	1-2	44	6	1	2	
1975	1-2	30	15	2	2	1-3	40	8	2	3	
1976	1-3	26	16	2	2	1-4	68	16	2	2	
1977	1-4	32	14	3	2	1-5	83	22	2	3	
1978	1-5	41	21	3	2	1-7	115	23	2	4	
1979	1-6	68	24	5	0	1-7	147	23	3	5	
1980	1-7	143	76	?	?	1-7	191	35	?	?	
1981	1-7	114	87	7	1	1-7	194	26	5	6	
1982	1-7	142	108	9	0	1-7	153	38	7	4	

	1979				1980				1981				1982				cl
	b	g	t	ut	b	g	t	ut	b	g	t	ut	b	g	t	ut	
<u>Timaler</u> (CPK, board)	30	4	1	0	37	12	?	?	62	24	2	0	97	33	4	1	4
<u>Lokichar</u> (RCM)	no data				52	2	?	?	60	0	1	1	72	0	3	1	4
<u>Lossam</u> (CPK)	20	7	1	0	31	19	?	?	59	35	1	1	67	34	1	4	4
<u>Nakwijit</u> (CPK, board)	-				no data				45	13	0	1	53	17	0	1	3
<u>Kalas</u> (RCM)	-				20	10	?	?	20	14	0	1	13	5	0	2	2
<u>Karameri</u> (RCM)	-				32	6	?	?	28	12	0	1	28	12	0	1	2
<u>Kapchok Hill</u> (CPK)	-				no data				no data				16	8	?	?	1

Table 6 Education development Kapchok Location 1971-1982

	1971	72	73	74	75	76	77	78	79	80	81	82
Pupils	36	50	51	?	93	126	151	200	323	666	793	896
Boys	33	48	42	?	70	94	115	156	265	506	582	641
Girls	3	2	9	17	23	32	36	44	58	160	211	255
% Girls	8	4	18	?	25	25	24	22	18	24	27	28
Teachers												
-trained	0	2	1	2	4	4	5	5	10	?	16	24
-untrained	2	2	4	3	5	4	5	6	5	?	12	24
Schools	2	2	2	2	2	2	2	2	4	9	9	9
										(7)	(8)	

As everywhere in West Pokot District the increase in the number of children going to school is remarkable, especially since 1978. The provision of school food after 1979 was an important incentive as well as the boarding facilities. Although it might be true that the drought (1980-81) forced many children to go to school to be able to have at least one meal in a day, it seems that the higher rate of schooling has stabilized after the drought.

In 1979 14% of all eligible children in Kapchok went to school but the participation of the girls was much worse: 5% of the girls (23% of the boys). We estimate that in 1982 50% of all the boys and 20% of the girls went to school.

Also adult education was started in the location: in 1976 in two places (Kodich, Kunyao), in 1982 also in Timaler, Lossam and Nakwijit. The attendance however is not very good. Two women groups exist, one in Kodich and one in Timaler, both CPK initiatives. In Kodich the County Council also started a day care facility (or preprimary).

Since 1980 a Village Polytechnic exists in Kodich, with seven courses and (now) seven teachers. In 1981 12 boys and 8 girls were trained; in 1982/83 20 pupils were in training. The capacity however is much bigger: the response of young people from Kacheliba Division (where it is the only VP) is still very meagre.

4.6 Churches and their activities

Within Kapchok five church groups are active: the most successful

one is the Roman Catholic Mission with church services in Kunyao, Kodich, Auiskiong, Karameri, Krimti, Lokichar and Lossam and with a total average attendance of 260 people every Sunday. They sponsor four schools, one a boarding school. The RC Mission mobile clinic from Kacheliba visits Kodich and Lokichar. Together with ACCK/Kiwawa the Kacheliba Verona Fathers now also take care of the boreholes in the area.

The CPK (Anglican) do have church services in Kunyao, Kodich, Nakwijit, Lossam and Timaler but the average Sunday attendance is only 75 people altogether. They sponsor four schools, two of them boarding schools and they sponsor the Kodich Village Polytechnic. During the drought the CPK was very active in famine relief/food for work programmes (at Kodich, Lossam and Timaler) and they stimulated crop cultivation and irrigation proposals. A number of school children are adopted by the World Vision Programme, which is administered by CPK Kacheliba.

The Bible Christian Faith Churches has one group in Kunyao with an attendance of 35 people.

Faith Homes of Kenya has ten members in Kunyao and also an average attendance of 35 people. They started a nursery school.

At last the Full Gospel Churches of Kenya visit the area with their mobile clinic (Kodich, Kunyao, Timaler and Nakwijit). During those visits they also do some evangelical work. They claim to have 10 members.

In the past some serious frictions were reported between Catholic and Anglican groups in Kodich and Kunyao.

5. Main development problems

The major natural problem in the area is the low and unreliable rainfall. This creates severe limitations for agricultural production. Dry farming is only possible along the main rivers, but good and reliable harvests can only be achieved after irrigation practices are applied. Soil fertility, though not extremely high, is not a constraint for agriculture.

The major part of the location is used as rangeland and with the

limitation of rainfall this is the only possible land-use there.

Agricultural production could be increased by modes modifications like: more use of adapted seeds, use of fertilizers, better tools, new crops suited to the area and better rangeland management.

According to the people interviewed there were a number of problems on which the government could take action.

The two most urgent problems mentioned were the lack of sufficient health facilities and the lack of enough water for household use especially in the dry season.

The high need of health facilities is proved by the number of attendances in the new Kunyao Dispensary (figures for four months in 1982 show an average monthly attendance of 1500 people). But people at Kodich do want their own dispensary as soon as possible. Also the borehole repair and the new boreholes drilled by ACCK/Verona Fathers activity recently were very much welcomed but good maintenance of the boreholes should have top priority now.

Other items mentioned were the need of irrigation, a cattle dip, water dams for animal use and a constant supply of animal drugs. Probably the most difficult problem to solve is the feeling of insecurity in the area.