
LOCATIONAL DEVELOPMENT PROFILE

RIWA
AND LOWER MNAGEI
LOCATIONS

WEST POKOT DISTRICT
KENYA

Regional Development Research for
the Arid and Semi-Arid Lands Programme
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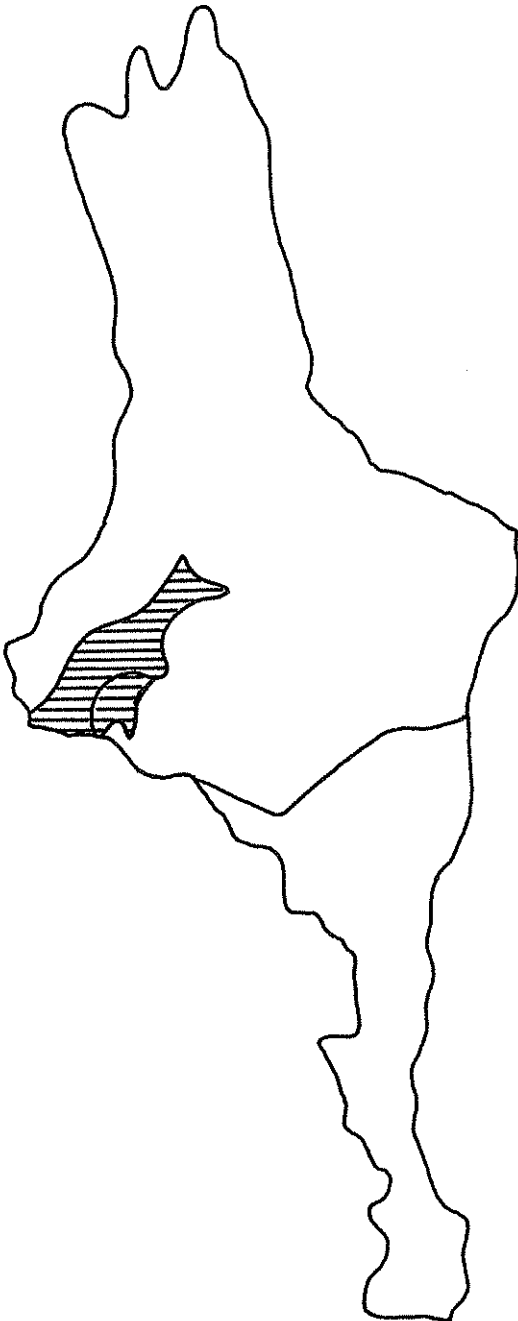


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INTRODUCTION AND SOURCES

This Locational Development Profile is part of a group of profiles about locations in West Pokot and Elgeyo Marakwet Districts. They give a summary of the history and situation of administration, population, physical geography, economy and social geography. The various profiles are written for people working in the location and for government employees at the divisional and district level.*

The information presented will not be 100% complete nor 100% reliable. Readers are asked to use the text as a work edition and to make as many additions and corrections as they like. It will be very useful if you present your comments to the ASAL Programme Coordinator. P.O. Box 287, Kapenguria.

Sources

We used various sources to write this document. We visited most of the area, used 1:50.000 maps and had discussions with the assistant-Chief of Kongelai sublocation, the chairman of the Kongelai Group Ranch and two of the other Committee members, the ex-area coordinator of the SRDP-Kapenguria, the range management officer for Kongelai Group Ranch, the AIC evangelist in Kanyarkwat and a number of other local informants. One of our research assistants, Simon Lopeyok, interviewed 32 heads of households in Kongelai Sublocation; 11 near the river and 21 in the dry area. This was done in September and October 1982. The households were chosen in a way that a variety of environmental and socio-economic situations were covered. Also in Kongelai Centre the shopowners were interviewed.

We were not the first ones to do research in this location. We used literature written by researchers before us. For the physical geography we could use:

- Migwi and Kigori, Ministry of Water Development: Hydrogeological report, Kongelai; Oct. 1975.
- H.F. Gelens, H.C.K. Kinyanjui and R.F. van de Weg (ed), "Soils of the Kapenguria Area", 1976.
- Kenya Soil Survey, Report No. R2.
- Aerial photographs of part of the area, 1976.
- Rainfall figures obtained from TNO Groundwater Assessment Project, that used data from the Meteorological department of Kenya.
- Landuse-figures from the Ministry of Agriculture in Kapenguria.
- HVA (proposal): 'Kongelai Irrigation Project', Nairobi 1982 and comments by ASAL PC and PIU Nakuru.

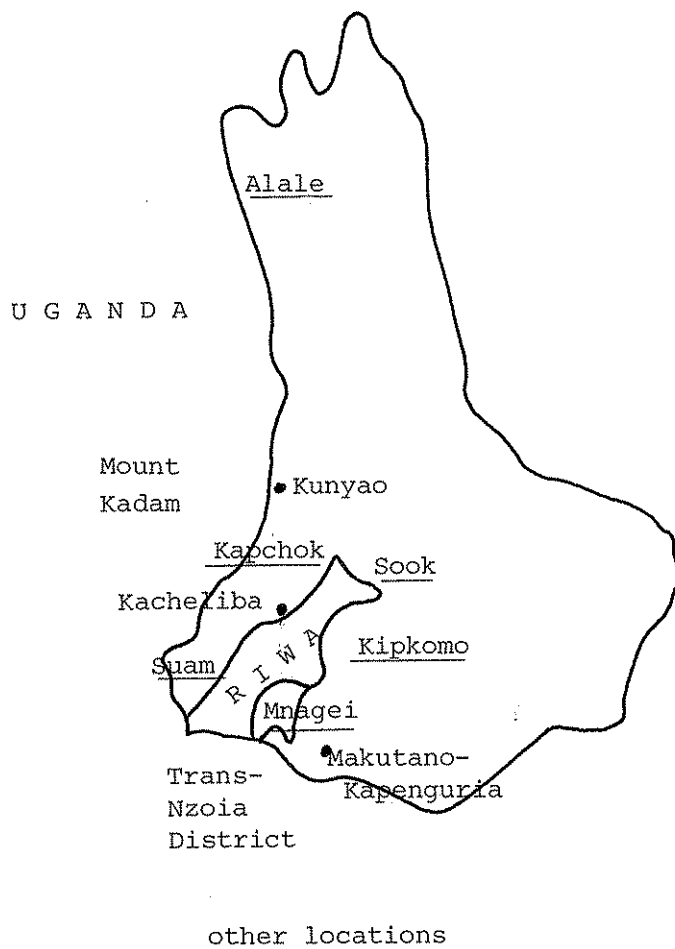
For the population figures we used the various Census publications. For the socio-economic information we used a number of articles written after the 'research boom' between 1972-1975, a period when Kongelai Group Ranch was an important project within the Special Rural Development Programme, Kapenguria Division. These articles are:

* A preliminary edition of the Riwa part of this profile was written in September 1982 and a summary in December 1982. Comments were gathered from various people.

- Widstrand C.G.G. 'Pastoral peoples and rural development, a case study', Uppsala 1973.
- Institute for Development Studies: SRDP Evaluation 1 and 2, Nairobi 1973 and 1975.
- Livingstone Ian: 'Cowboys in Africa: the socio-economics of ranching in Africa' IDS WP 220, Nairobi 1975.

Also we used the District Annual Reports 1912-1982 and District Agricultural and Livestock Reports, as well as files on group ranches and the 'proposed Development Plan 1979-83' of the Range Management Division. Data about education were collected by Romanus Partany Chizupo using files of the District Basic Education Officer.

Map: Riwa and Lower Mnagei within West Pokot District



A RIWA

1. THE AREA OF RIWA LOCATION

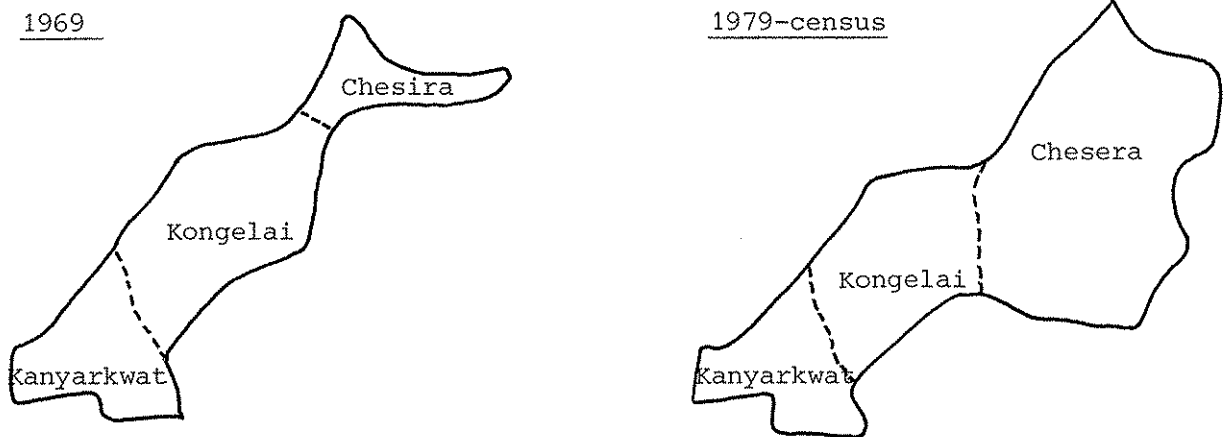
1.1 ADMINISTRATIVE HISTORY

Riwa location exists since 1930. Before it was administered together with Suam as Riwa-Suam Location. Its boundaries are the Suam River in the northwest, the Pkopoch Hills in the east, the foot of the Escarpment in the southeast and the top of the Escarpment in the south.

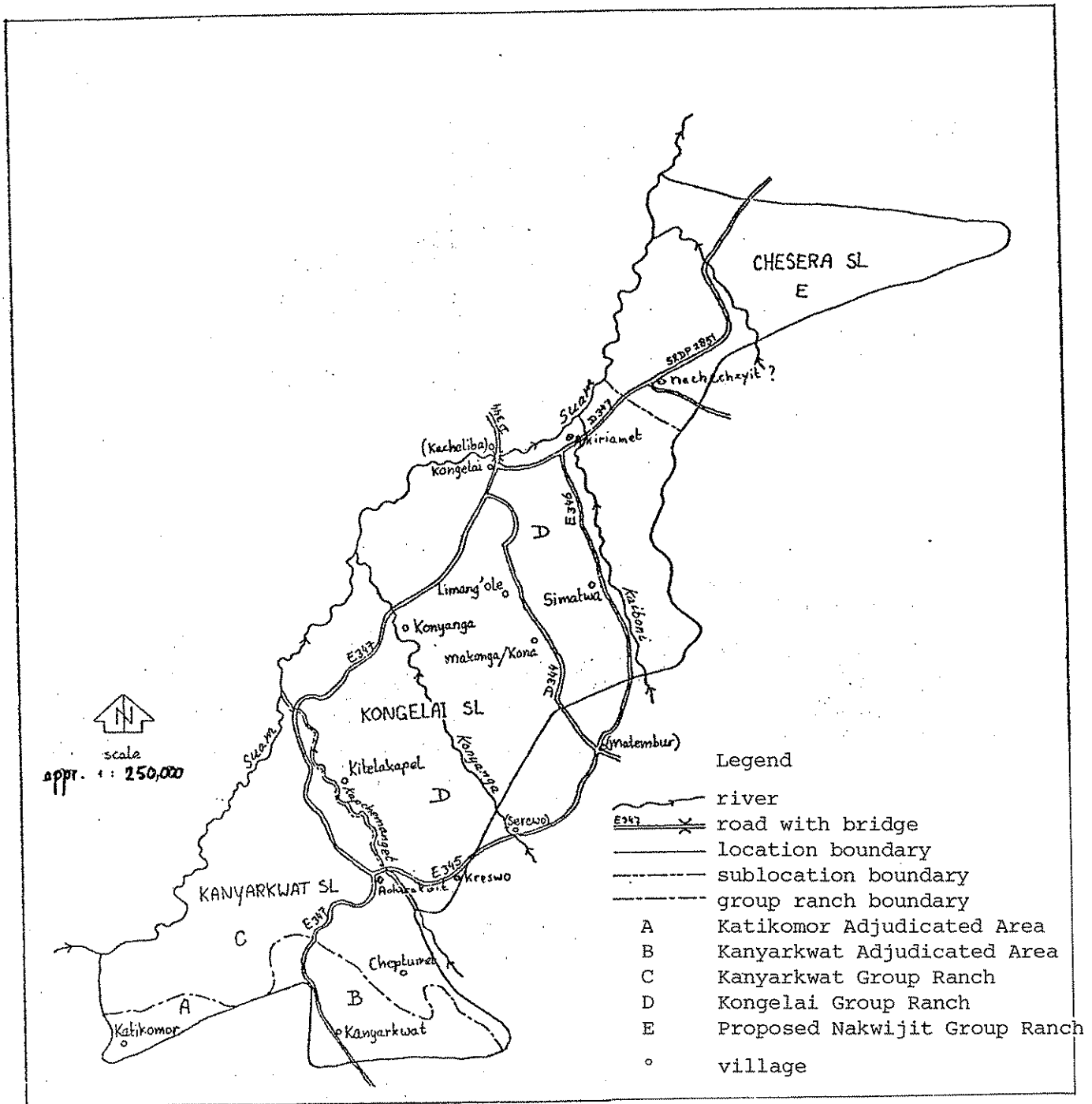
In the Census of 1962 three sublocations were distinguished: Kanyarkwat in the south, Kongelai/Konyanga in the centre and Kongelai/Kaiboni in the north. In 1969 Kongelai/Konyanga and part of Kongelai/Kaiboni were merged to form the Kongelai Group Ranch Sublocation. The most northern part was called Chesera Sublocation. In the 1979 Census Kanyarkwat remained the same, but Kongelai was smaller and Chesera SL was much bigger, also including part of Sook (Nakwijit SL) and Kipkomo (Chesera). Probably this was a mistake, because the actual boundaries are still the 1969 ones. In the Chesera SL the proposed Nakwijit Group Ranch is situated.

Map 1 shows the administrative situation in 1969, 1979 and 1999.

Map 1 Administrative boundaries of Riwa Location and its sublocations



1.2 A MAP OF THE AREA

Map 2: RIWA LOCATION, WEST POKOT DISTRICT

2. NATURAL RESOURCES

2.1. Geology

The area is occupied by the oldest rocks found at the earth's surface all over the world: the Precambrium Basement System Rocks. The rocks are metamorphic: formed during a situation in which existing 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 geological map hardly gives any differentiation in mineral composition. In the northern half of the location the rocks contain biotite and at some places hornblende (if weathered these minerals give soils with a moderately good natural fertility); in the southern part no differentiation is made. Nothing is mentioned about mineral deposits of significant economic interest, though in the 1950's some asbestos mining has taken place near Cheptumet in the SE of the location. Along major rivers loose material has been (and still is being) deposited during periods of flooding (alluvial deposits).

2.2. Relief

The major part of Riwa location is situated on a vast, old peneplain at an average altitude of 1200 to 1500 m. above sea level; it shows little variation in landforms. A peneplain is a landscape with very faint relief and is the result of long lasting erosion/denudation (the old stage of an erosion-cycle); scattered over the area minor relict mountains are preserved. In the South and NE long footslopes have been formed along the Escarpments (Pkopoch Hills in the NE and the escarpment north of Katikomor and Kanyarkwat in the South). Fig. 1 ,p.9 , shows a schematic crosssection, which gives a general picture of the landscape and its processes. Along the larger rivers, narrow flat zones exist: the alluvial floodplains and possibly river terraces.

See p.8 for an altitude map (Map 3).

2.3. Hydrology

The location is part of the Suam catchment area which finally drains into Lake Turkana. The Suam itself (the NW boundary of this location) is a perennial river, though discharges vary considerably (much less water in the dry periods). Its tributaries only carry water in the wetter periods. Also the latter seasonal rivers can cause flooding during exceptionally high peak discharges. About one cubic metre per second*1 is available for irrigation in the Suam river near Kongelai (driest mth). The high variation in discharge through the year is due to the high run-off percentage/low retention rate, caused by the scarce vegetation cover and often severe erosion. This all results in low infiltration- and storing capacities of the soils.

2.4. Erosion

As mentioned before erosion is a severe problem in the major part of this location. Huge gully-systems have been formed (several to more than ten m. deep) in the gently sloping areas (see cross-section on p.9). If the vegetation cover on the flatter areas is disturbed, surface sealing can easily be the result and then surface sheetwash occurs. Map 4, p.8 gives a rough indication of the actual erosion status in the area (Landsat interpretation).

2.5. Vegetation

In general it can be said that at many places the natural vegetation has been severely damaged. These areas often correspond with heavily eroded surfaces. Often grass cover (perennial or annual) is poor, so all that is left for livestock is the Acacia spec. bush/shrub.

2.6. Soils

Following the Exploratory Soil Map of Kenya, 1980 (scale 1:1 million) from the Kenya Soil Survey, 6 soil groups occur in the area: see map 5, p.9 ; the first symbol in the code stands for a certain agro-climatic zone (see p.11), the second symbol gives the soil group number (see below). Within one mapping unit different soil groups can be found locally. A descriptive characterization is given below, for which also general literature is used, applicable to Kenya as a whole.

*1 From HVA, Kongelai Irrigation Project, Nairobi, 1982

The official classification (soil group code), also used by the Kenya Soil Survey, is added, in case someone wants more information. The given soil depth refers to the effective soil depth for plant roots.

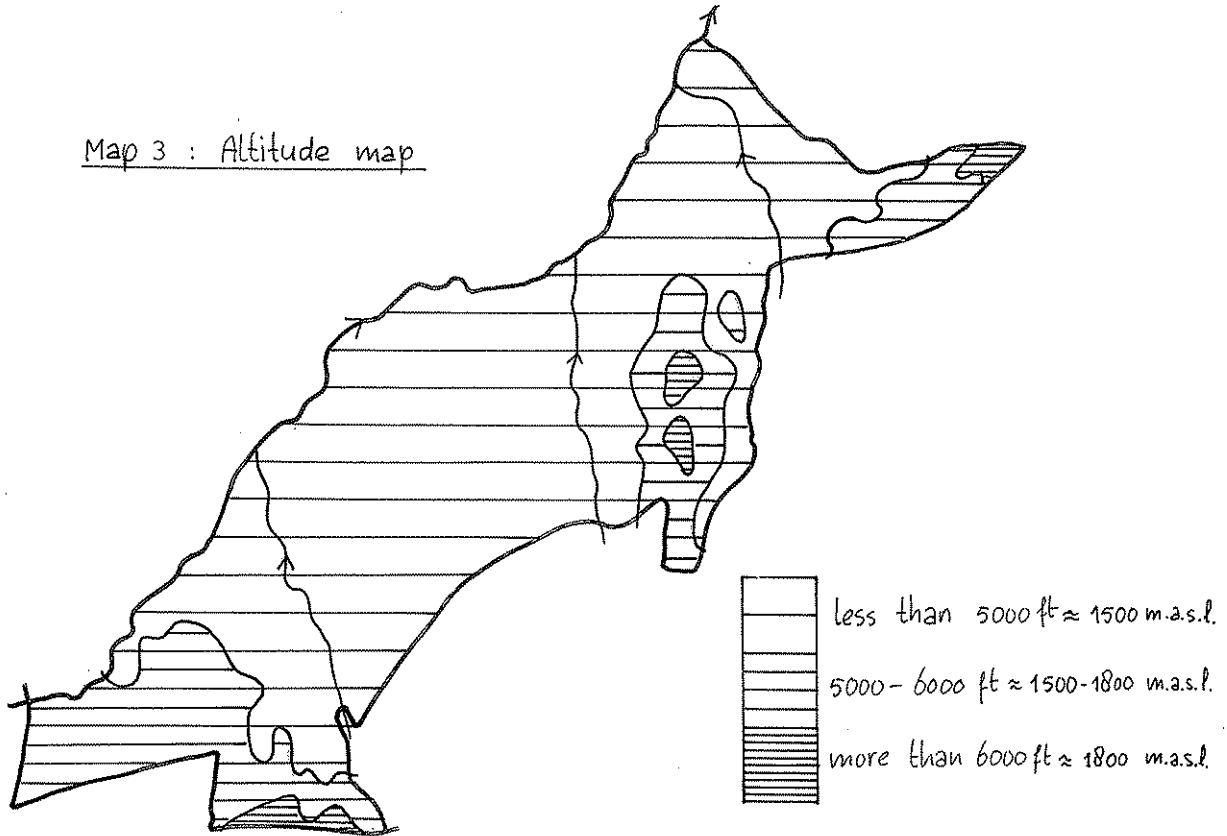
Soils nr. 3, 8, 9, 18, 21 and 24 occur in this area. The other numbers are found elsewhere in West Pokot and/or Elgeyo Marakwet.

3) Soils developed in the mountainous areas. They are somewhat excessively drained, which means that water is removed from the soil rapidly. The amount of water available for plant growth (in the soil) can become a problem. The soils are shallow (less than 50 cm.): this usually is a problem for plant roots. The soils are rocky and stony: this can cause difficulties while working on them with simple tools. The soils are young, little developed. The natural fertility is moderately good (mainly depending on the mineral composition of the parent material). Sufficient fallow periods are required in order not to impoverish the soils. The soils itself are not very susceptible to erosion, but on sloping areas (more than 7%) conservation practices are recommended (strip cropping, contour ploughing, bench terracing etc.)
Classification: MUbe.

8) Soils developed on the footslopes (slope angles 1°-4°). The soils are well drained which means that water is removed from the soil readily but not rapidly. These soils commonly retain optimum amounts of moisture for plant growth after rains or addition of irrigation water. The soils are very deep (more than 120 cm.). The structure is rather loose. Natural fertility is moderate (sufficient fallow periods). Erosion can be a problem on these surfaces, especially when the vegetation cover is poor.
Classification: FUlc.

9) Soils developed on footslopes. They are well drained and moderately deep to deep (50 to 120 cm.) so problems can occur for deep rooting plants. The structure of these soils is firm and textures vary from medium to heavy. On the heavier textured soils drainage and waterlogging may become a problem, while these soils have deep cracks in the dry periods; all negative factors for the workability of the soils. Waterlogging also causes a shortage of oxygen for the plant roots (of vital importance for plant growth).

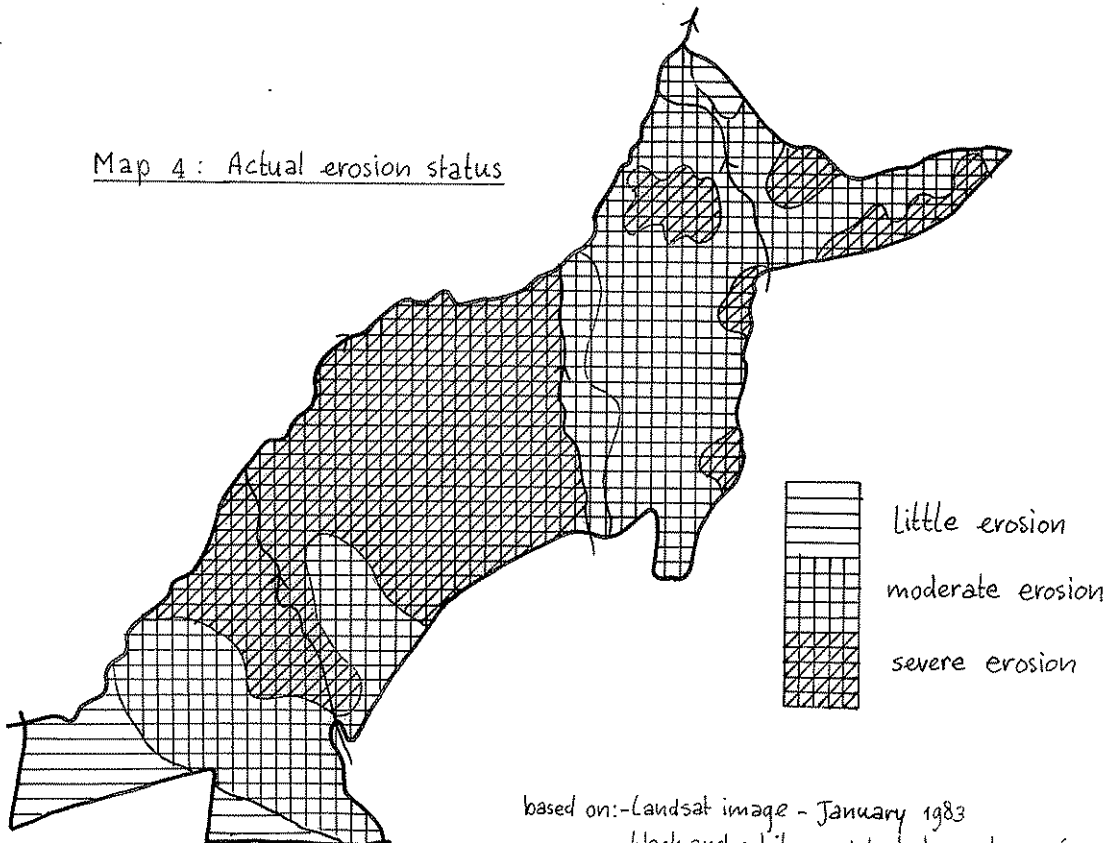
Map 3 : Altitude map



from topographical map sheet NA-36-12, Survey of Kenya.

0 6 12 18 km.

Map 4 : Actual erosion status



based on:-Landsat image - January 1983
 -black and white aerial photographs - 1967
 appr. scale 1:66,000

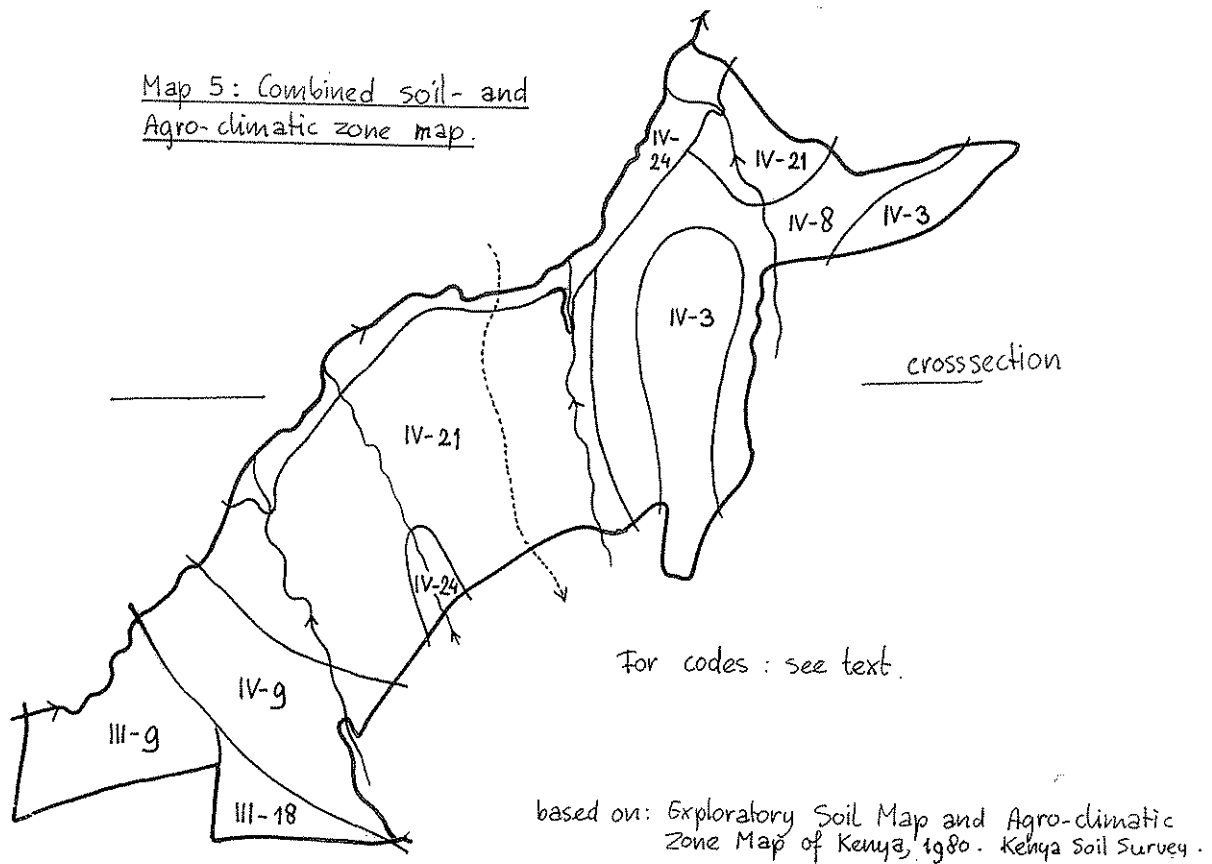
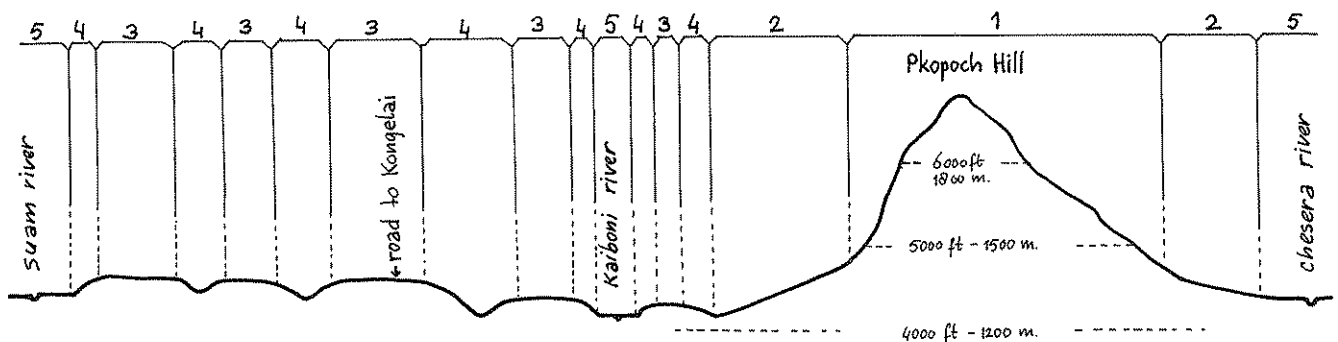


Figure 1: Cross section



- 1) Mountainous area: severe erosion hazard, very shallow soils
- 2) Gently sloping footslopes: locally erosion is extreme
- 3) Almost flat to slightly convex interfluvies: little erosion, though severe surface sealing (and eventually high erosion hazard) on bare surfaces
- 4) Convex/concave areas: heavily eroded (huge gully-systems)
- 5) Flat alluvial areas: little/no erosion; accumulation of fresh material during exceptional high peak discharges causing flooding.

Chemical fertility is moderate and on the (gently) sloping areas erosion can easily become a problem.

Classification: FYUlc+lv.

18) Soils developed on sloping areas (old peneplains). The soils are well drained, moderately deep (50 to 80 cm. → problems for most plant roots), have a firm structure and medium texture. In places an impermeable layer may occur near the surface which can cause problems with drainage and waterlogging and consequently with workability and oxygen-supply for plant roots. Chemical fertility is moderate and the soils are rather susceptible to erosion.

Classification: UmNlo.

21) Soils developed 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 easily. The soils are shallow on the convex and concave slope parts bordering streams (20 to 50 cm.) and moderately deep (50 to 80 cm.) on the flatter and slightly convex interfluvies. They can be rocky and stony to non-rocky and non-stony. In some cases a hardened layer of ironstone or a layer with iron-concretions can give problems for cultivation. Natural fertility is moderately low (long rest-periods required). The top-soil structure is not very good, so that after heavy rains a strong sealing (thin hard impermeable layer) may be formed on the surface. This leads to severe run-off and consequently to severe soil erosion on slopes of even a slight slope angle (only a few degrees).

Classification: UlUao.

24) Alluvial soils on the flat areas along the larger rivers. They are well drained to imperfectly drained, very deep 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 and have a moderately good soil fertility (new fresh material is accumulated regularly). The fallow periods on these soils can be rather short.

In real arid areas the soils can be too saline to be cultivated. Erosion is no problem, flooding may damage young plants.

Classification: AAjc.

2.7. Climate

The ecological 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 (the latter is mainly determined by temperature and turbulence). Unfortunately there is only one climatological station (only rainfall data) in the North-West of the location (Kongelai).

The long term mean for this station is 950 mm. a year (graph 2 p. 12). A high figure, but due to high temperatures the actual amount of available water will be much lower. The monthly variation for a range of 25 years is shown in graph 1.

These figures are obtained from the Ministry of Agriculture in Kapenguria. The HVA report on a proposed Kongelai Irrigation Project (1982) mentions 500 to 600 mm. per year (falling in two peak periods as well). This figure seems more realistic but the source is unknown.

Like in the whole district annual rainfall reliability is low. Also the distribution within one year can vary considerably: the peaks can easily be in March and July or in May and September.

According to the Agro-Climatic Zone Map of Kenya (1980, scale 1:1 million, Kenya Soil Survey), the location is mainly situated in the semi-arid zone IV. Only in the South a minor part is covered by zone III. The schematic (and theoretic) boundaries of this map have been adapted to the more detailed boundaries of the soil map (see map 5, p.9). The general characteristics of the agro-climatic zones are listed below.

Fig. 2 Agro-climatic zones

	Zone III	Zone IV
rainfall/potential evaporation in %	50-65%	40-50%
climatic designation	semi-humid	semi-humid to semi-arid
mean annual temperature	14-20 °C	20-22 °C
number of average growing days	235-290	180-235
major limitations to maximum production	1 fertility 2 farm management 3 rainfall	1 farm management 2 rainfall 3 fertility

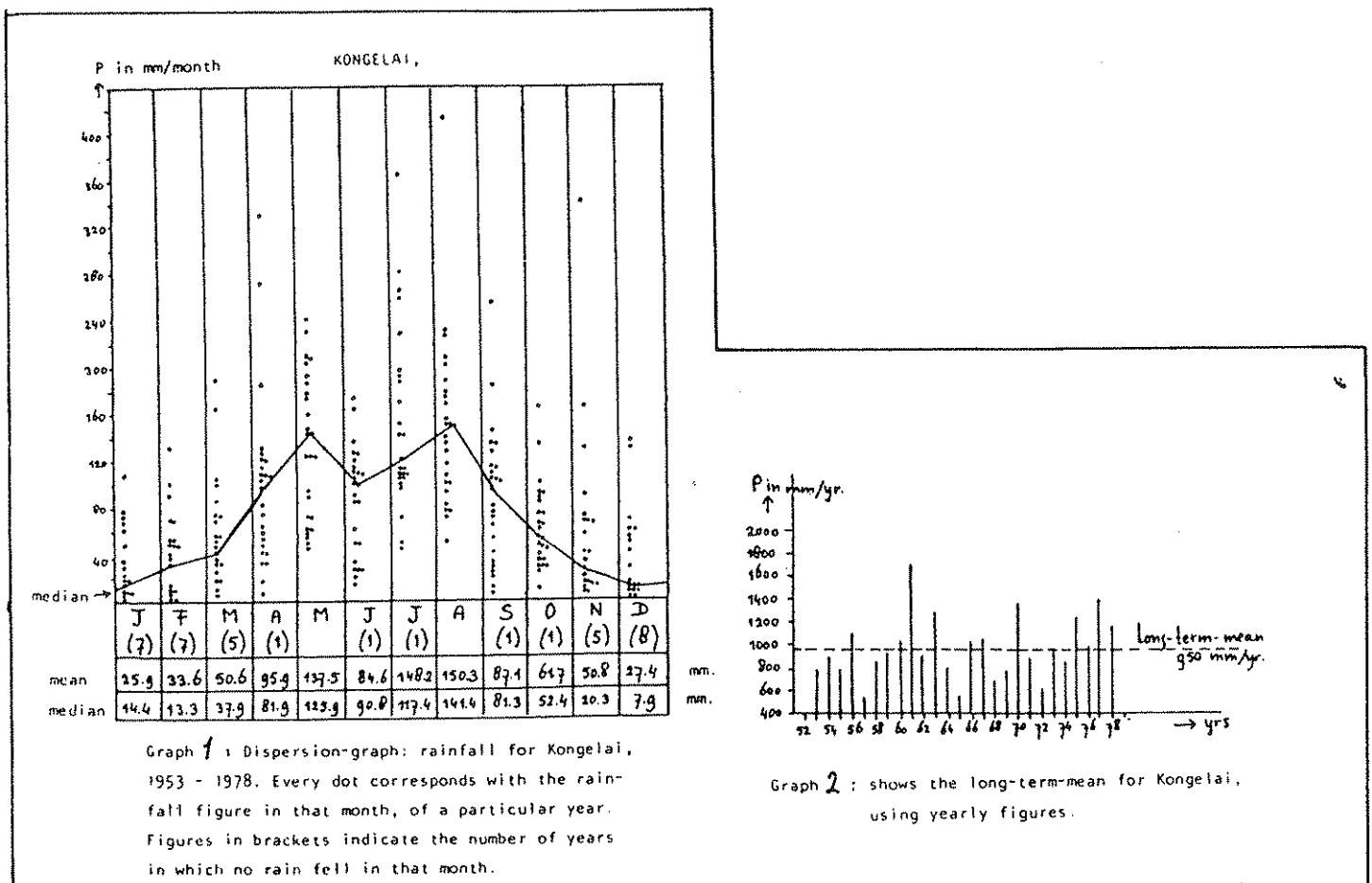


Fig. 3 Rainfall data for Kongelai station (a range of 25 years).

2.8. Suitability of the soil/agro-climatic zone units for agricultural activities

Using the information of the combined soil- and agro-climatic zone map of the Kenya Soil Survey (map 5, p.9) and of the Farm Management Handbook (1) we made an evaluation for the various mapping units of their suitability for agricultural use. Within the units quite some variation may occur as they are derived from the 1:1 million soil map (2).

- (1) Ministry of Agriculture: Farm Management Handbook Part II, Rift Valley Province, West Pokot (German Agricultural Team; R. Jaetzold), Nairobi, 1983.
- (2) Exploratory Soil Map and Agro-climatic Zone Map of Kenya, 1980, scale 1:1 million. Kenya Soil Survey Report Nr. 1, Nairobi.

III-9 and III-18: are moderately suitable for smallholder rainfed arable farming with a traditional technology. The requirements of the cultivated crops should suite the climatic conditions: wheat, maize and sunflower. Especially in unit III-9, bordering zone IV, drought resistant maize varieties are necessary. On the (gently) sloping areas the erosion hazard is high though (locally erosion has already gone very far; these surfaces are now unsuitable for arable farming), so conservation measures are necessary: strip-cropping, bench terracing, avoid bare surfaces and trampling and zero-tillage might be wise (though tillage improves the soil-structure it also increases erosion rates). If all these management improvements are applied the units become more suitable for arable farming.

If overstocking is avoided (good ranching management) the areas are suitable for extensive grazing. For unit III-18 at the top of the escarpment, the livestock carrying capacity is probably higher than on the footslopes (III-9), but arable farming with good management is more profitable there.

Still existing natural forest should be kept intact, because they are of vital importance for the water supply in the entire catchment area. Controlled firewood and charcoal production is advisable.

IV-3:

This mountainous area is not really suitable for arable farming nor for any form of livestock keeping because of the high erosion hazard on the steep slopes. Some cattle and goats/sheep might not be too dangerous, but stocking rates must be kept very low. Locally some more flat surfaces may occur. There some arable farming may be practised (drought resistant varieties). But conservation management is very important. See above.

IV-8 and IV-9:

These footslopes are only moderately suitable for arable farming, due to the erosion hazard and soil characteristics (waterlogging etc. in unit IV-9). Also locally erosion has gone very far yet; these badlands cannot be used any more. Cultivated crops must be drought resistant. Good management (see III-9 and III-18) would make the area more suitable.

Provided that a good livestock management is practised (correct stock-ratio's, enough drinking places/dips etc. spread over the area, sufficient rest periods to restore the vegetation cover) the area is suitable for extensive grazing.

IV-21:

These undulating peneplains are not or only moderately suitable for rainfed arable farming with a traditional technology, depending on the erosion status of the surface. Heavily eroded areas cannot be cultivated (too shallow, degraded soils) while on less/not eroded, almost flat surfaces Dwarf- and Turkana sorghum, Bullrush Millet, drought resistant maize and sisal (on deep soils) could be cultivated. Bare surfaces should be avoided though, because of the rather high susceptibility of these soils to surface-sealing which easily causes surface run-off and consequently erosion of soil-material. In most cases soil fertility is not very high, so sufficient fallow-periods are necessary.

Only with a careful livestock management the ecological degradation hazard could be reduced; then the area would be suitable for extensive grazing.

IV-24:

Along the major rivers rainfed arable farming is well possible, though again drought- and high temperature resistant crops should be cultivated (see IV-21).

Irrigation seems possible along the Suam river. The HVA-report (see chapt. 2.3, p.6) mentions a potential irrigation area in a strip of 2 - 3 kms wide along the Southern bank of the Suam-river near Kongelai (some 1000 ha). Irrigation brings more costs and far more work though and can easily become a social disaster.

3.

POPULATION DEVELOPMENT

Population figures for Riwa should be interpreted with caution. Before 1948 the figures are based upon taxation and after 1948 upon censuses and both methods are not completely reliable. Table 1 is presenting the figures for Riwa Location as a whole.

Table 1 Population Development Riwa Location

	<u>Adult Males</u>	<u>All Adults</u> (= 15yrs)	<u>All People</u>	<u>AD.M</u> <u>AD.F.</u>	<u>AD.</u> <u>TOT</u>
1936	484	1101	1835	0.78	0.60
1948	634	1165	1837	1.19	0.63
1962	1119	2457	4645	0.84	0.53
1969	1406	3167	6104	0.80	0.52
1979	2492	5281	9619	0.89	0.55

AD.M/AD.F = Adult males/Adult females

These figures suggest a stationary population until 1948 and a very rapid growth afterwards: 15-17% per year. Because 1948 could well give a figure that is too low, the situation until 1962 might be less dramatic but the growth after 1962 is really spectacular. Even if we take into account that the 1979 figure is for a larger area (see 1.1) we estimate the recent growth rate at 14% per year. In 1984 the total population might be above 15.000 people. From 1979 to 1981 the area of Kongelai, especially near the Suam River became a refuge for Pokot refugees from Uganda, Karapokot and Kanyarkwat.

Within the location there are big differences in growth. Kanyarkwat saw its population grow slowly between 1962 and 1969 and diminish between 1969 and 1979 (from 2.600 to 1.700). After 1979 there even was a real population exodus: towards Kongelai but also towards a number of ex-large farms in nearby Trans Nzoia. Kongelai SL almost tripled its population between 1969 and 1979: from 2.000 to 5.500 (around 25% per year). The actual population might be above 12.000. Chesera SL has only a small population, which changes continuously.

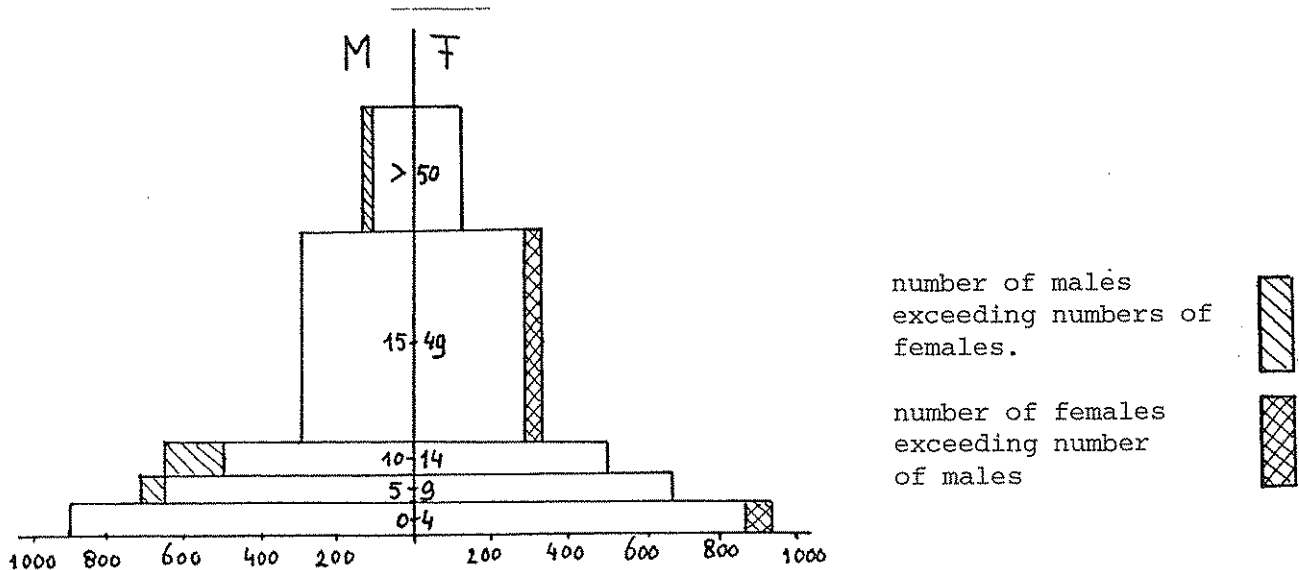
The recent population explosion (in Kongelai) was caused by mass immigration. First the drought of 1972-4 forced many inhabitants of Karapokot and Pian-Upe (in Uganda) to look for an economic refuge. Growing 'ngoroko' activities in the beginning of the 1970's chased away the population of Katikomor in southwest Kanyarkwat. After 1979 the 'ngoroko' activities expanded following the fall of Amin in Uganda and the plunder of the arms depot in Moroto. Cattle thieves were armed with guns now instead of spears. Sebei invaded the Kanyarkwat area in 1979. Karamojong invaded Karapokot and the area of the Ugandan Pokot. Many inhabitants fled towards Kongelai. But not only 'ngoroko' was responsible for that. There was a very serious drought in 1980-81, a goats'disease in 1979 and cholera in 1980. Many of the victims had lost all their livestock and they are the ones who expanded riverside cultivation along the Suam, stimulating members of the Kongelai Group Ranch to do the same. Onethird of the households we interviewed in 1982 arrived in 1979 or later.

Table 1 also gives some more information. The percentage of children (under 15 years old) grew from less than 40% some 40 years ago to more than 45% recently.

With the exception of 1948 the number of adult females has always been higher than the number of adult males. The fact that the female dominance is only in the age groups of 15-49 (and of 0-4) is suggesting a migration process which is sex-specific on top of the general process of mass-immigration. We think that labour outmigration is only very marginal and that the female dominance is mainly caused by the fact that especially women fled from the northwest and southwest and settled permanently along the Suam.

The population situation can be seen in Figure 2, showing the population pyramid.

Figure 2: Population pyramid Riwa, 1979



4. ECONOMIC DEVELOPMENT

4.1. UNTIL 1950

Riwa was a sparsely populated grazing area with a lot of cattle, sheep, goats and donkeys. The animal census of 1947/48 found 4,800 head of cattle, 4,000 'shoats' and 300 donkeys indicating an average herd of 8 cattle and 7 'shoats' per adult man (but probably more because of the habit to move people and animals across the Suam at the time of any census). Animal censuses were seen as very threatening because of the 'destocking issue': around 1935 the government tried to discuss that but unsuccessfully. Afterwards all government actions were suspect because of this destocking fear.

Probably there was no crop cultivation yet, although an early colonial officer already saw possibilities: "Eleusine grain can be grown on the hill sides. After peace (with Karamojong) possible cultivation on the river Kaiboni.... and the Suk could be induced to cultivate the East Bank of the Turkwell (=Suam) river". (Annual Report Suk, 1919-1920).

At the end of this period a small asbestos mine started to operate at Cheptuimet (Annual District Report West Suk 1950).

4.2. 1950-1963

This was a period of expanded government attention. Enemy number one, soil erosion and land degradation, had to be fought. In the period 1949-1955 this problem was tackled by grass planting (1949-50), grazing control (1952-54) and monthly cattle and goats sales at Kongelai by the Livestock Marketing Division (since 1952).

In 1954 the 'Riwa Grazing Scheme' was started under ALDEV** as the main effort on grazing control in West Pokot. Until 1956 the scheme area was between the Konyanga and Kaiboni rivers; 10452 ha. Using paid labour, four traces were cut parallel with Suam River to get four equal blocks. The animals of the scheme could graze four months in each block and after that the block would rest for one full year. (The 'Sehemu-system'). Also the manyatta's had to be moved every four months but the system was forced using some 'administrative orders'. The area to be closed was described as being in a 'shockingly bare condition'. In 1956 the scheme area was extended (to 19296 ha) to include land more to the southwest - up to Kapchemanget river - and to the northeast - to the low parts of Pkopoch hills. ALDEV funds (1954-57:96220 shs) were used to pay for the administrative staff - also the 'grazing guards' - and to build three water dams (Kitelakapel, Limang'ole and Kona). In 1958 the scheme was 'smoothly' working and 'fairly accepted' according to the (white) agricultural officer. A committee of Kokwa elders was appointed and grazing fees were going to be collected by the African District Council (50c. per stock unit per year), to make the scheme self financing. In 1956 already a 'definite improvement of the grass cover' was mentioned in the reports. Although the 'destocking issue' was brought up in the beginning - in 1956 a destocking quatum of 100 stock units per month was set for Riwa Grazing Scheme - it was realized that this could easily spoil the success of this 'pilot scheme' and Riwa was excluded from the forced destocking. However the problem of 'overstocking' grew. Table 2 is indicating that.

Table 2 - Riwa Grazing Scheme: Stock owners & stock No.

	Stock Owners	Cattle	Shoats	Stock* Units	ha/st. Unit
1955	75	2500	± 4000	2,650	7.3
1957	133	3564	4124	2.890	5.8
1959	167	4031	5553	3.380	5.8
1960				3.500	5.6

* We used: 1 Stock Unit = 1.5 head of cattle = 8 'shoats'. In the 1950's other Stock Units were used.

Table 2 shows that in four years time the number of settled stock owners more than doubled, their stock grew by 50% and the space available per animal decreased considerably. Worse still, in the dry season there was a lot of 'grass poaching' from cattle owners coming from Karapokot. In 1958 for instance 100 Karapokot with 4000 head of cattle were moved out and fined because of 'trespassing'.

Traditionally they had a right to do this, although in the dry season most Karapokot - and also Riwa cattle owners - moved their animals towards the dry season pasture near Mount Kadam in Uganda. When the grass cover in Riwa became relatively good, part of the dry season migration was to the east of Suam river instead of to the west. To find and fine trespassers the local grazing committee had to be issued with some judiciary powers

** African Land Development Programme, 1946-1962

(the traditional fine was usually one steer, now trespassers were fined only 30 shs) and the Riwa scheme cattle had to be branded with a separate brand (this was started in '56). Apart from this problem a political problem was rising: local KANU- politicians encouraged the Pokot since 1961 not to pay the fees. (KADU supported the schemes). About the area outside Riwa Grazing Scheme not much is known. In the south Kanyarkwat area was started to be seen as a possible area for smallholder agriculture: in 1957 land registration was proposed there. In 1951 in the lower Kanyarkwat area a waterdam was built (but no grazing scheme was proposed there).

In the north in 1960 the Nakwijit Grazing scheme was in preparation, also covering part of Sook Location (total: 22,512 ha) and described as an area of 'utterly devastated and gullied bare land'.

Finally we can say that the Riwa population was very mobile at the time. From 'Tax Return figures' of 1957 we can conclude that out of 912 living, registered Riwa inhabitants 78 (or 9%) were working in Trans-Nzoia; 82 were living somewhere else in West Pokot and 345 or 38% were in Uganda!

4.3. 1963-1974

It seems that 'political agitation' was only a minor factor in threatening the schemes. As long as there was enough rain, the schemes seemed to work well. But a number of bad years in the 1960's were enough to undo most of the gains of the 1950's. First in 1960 there was drought, followed by an army worm invasion in 1961 and floods in 1962. Then in 1965 there was a serious drought and also in 1968/69 it was very dry. Nakwijit Grazing scheme never really got off the ground: rotational grazing was not fully observed and in 1969 the whole scheme collapsed and the area was deserted in the dry season.

Riwa scheme managed to continue: in the dry years there was some grazing left, because rotational grazing was maintained. But there was a continuous problem of 'infiltration' from Karapokot who also 'constantly agitated the abandonment of the schemes'. To cope with the infiltration the grazing committee fell back upon its traditional fine system (one steer for the committee, which was a high price and probably a good income for the committee members. It was also a way to regain 'functional income' because they had lost their 300 shs/yr honorarium for 'grazing control' in 1964-5 according to Widstrand).

In Riwa overgrazing was a huge problem now. Some parts were completely eroded again. When the grazing scheme members requested to form a group ranch within the boundaries of the scheme - in 1971 - the group ranch adjudication in 1972 made clear that there were 334 families applying, with 7323 head of cattle and 15,964 shoats, together 6, 878 stock units. The number of families and the number of cattle was twice the 1960 situation (and there were only 2.8 ha per stock unit left).

In 1971 the rotational grazing system was changed from a four paddock system into a two paddock system due to the 'downward trend of the range and the overstocking'.

The service situation was not very encouraging too: the three water dams were silted in 1973. However, a positive point was the Harambee fund raising to construct two dips (1968: Kitelakapel; 1969 Limang'ole, completed in 1971)

Two points can be made in addition here. First the rotational grazing system indeed improved the quality of grazing considerably but the growth of the bush in the resting paddocks also meant a growing threat of tsetse. In the Riwa scheme some experiments were done with bush fires and also it was discovered that goats were very important in keeping the area free from bush (so it might be wise to exclude them from the rotation). In Nakwijit scheme however bush growth was considerable and tsetse posed a growing threat. In 1971 part of Nakwijit was even completely abandoned due to tsetse presence. It is not completely clear if this was one of the unforeseen consequences of the scheme policy but it must be interpreted as a warning.

The second point is dealing with a recent debate about the man-animal ratio. In the 1950's an average cattle owning household in Riwa Scheme had some 30 cattle and some 50 sheep and goats. In the 1970's this had decreased to 20 cattle and 50 sheep and goats. In 1969 there were 483 adult males in Kongelai. Most of them (402) applied for membership of the Group Ranch in 1972 (there were also 10 women applying) but not everybody owned cattle.

A household that only consumes herd products needs between 60 cattle or cattle equivalents in the rainy season and 600 in the dry season according to Dahl and Hjort. Widstrand estimates that a herd of at least 100 stock units is necessary to give the required food (milk, blood and some meat). These researchers assume a household of six persons and they also assume a very low milk production of 0.5-2.5 liter per day per cow. Because of the relatively good grass situation in Riwa this last estimate might be too low. Even so we must conclude that it was impossible for the Riwa Scheme inhabitants to use only animal products as their food. Most of them have to get additional food in the form of grain products. Most households therefore grew some millet and sorghum; especially near the Kaiboni river. But the harvest probably only lasted for 3 months. So in the dry period many households had to buy food. Some did this with money sent by labourers in Trans Nzoia; others by selling goats and hides and skins. So economically there was a need for some market integration. But as long as there were goats to slaughter or to sell there was not much need to sell cattle. Because of their much faster reproduction rate goats were a good insurance against disaster while cattle were especially used as a form of wealth storage (and of course milk production) and not as a source of meat and money. Cattle as a means of exchange was especially used (a) to acquire women - as bride-wealth, according to Widstrand 10-15 cattle per woman; according to Livingstone 12-25; many local people mentioned 30 animals to us in 1982. (b) to establish relationships with other Pokot through 'tiliantan'; the dispersal and sharing of animals, with a possibility to claim stock after a disaster.

4.4. 1974-1982

After the adjudication in 1972 of Kongelai, in 1974 a group ranch was established of 22,221 ha. In 1979 Kanyarkwat Group Ranch was registered (10,024 ha, 268 members) and in 1981 Katikomor (600 ha).

In 1982 the registration of Nakwijit (12.112 ha) and of the smallholder area of Kanyarkwat 'B' (1500 ha) was in progress, although in Nakwijit there was a lot of opposition, esp. in 1979. A group ranch is meant to bring all the animals under one collective management. The animals serve as mortgage to acquire loans for the group ranch. Every member could get a 'share' according to the number of animals brought in. Therefore a good system of animal registration is necessary for the whole group and for each household's stock. To become a member one must descend from the area or one must be approved by the elected group ranch committee (but it was not necessary to bring in animals). The committee of at least 3 and maximum 10 members must meet every three months and should be elected every year. At least once a year a members general meeting was to be convened. If a member dies, the wife, son or daughter are the heirs of the herd-share and become member after 'committee' approval. Although individual land ownership was not allowed part of the ranch could be set aside for individual cultivation. The rest should be subdivided into paddocks for rotational grazing.

The idea behind the group ranch was different for planners and participants: planners combined the idea of good ecological management with the idea of commercial integration. The participants idea was mainly to get finances for water and dipping facilities (IDS Evaluation 1975).

Looking back, the participants ideas' were much more materializing than the planners idea's. We will analyse the Kongelai experience.

4.5. THE EXPERIENCE OF THE KONGELAI GROUP RANCH

The facilities

Kongelai Group Ranch was the largest single project within the Kapenguria Division Special Rural Development Programme (1971-1976). An amount of 150.000 shs. was set aside for bush control, making of two dips (Simatwa and Kitelakapel) and (re-)construction of four dams. In 1979 six dams were all in good condition and two of the existing three cattle dips were operating. Also under SRDP (and later the Rural Access Roads Programme) 12 kms of road were upgraded and 37 kms of new roads were built within the Ranch.

The idea of ecological management

In 1975-76 - when funds were available - some 500 ha of tsetse infested bush were cleared near the Suam river, grass reseeding experiments were started and the four paddock rotational grazing system started again. A difference with the 'scheme' of the 1950's was that the manyattas did not have to move every time and that goats were excluded from the rotational system. Things seemed to work well. Nature helped a bit to reduce the number of animals in the beginning as the result of the 1973-74 drought. But in 1979 the whole system collapsed completely. The ngoroko menace in Karapokot and Uganda, following the breakdown of Amin's regime and the widespread distribution of arms among Sebei, Karamojong and Pokot, caused many people to flee and look for refuge within Kongelai Group Ranch.

As you can see from the population figures the Kongelai population increased 250% between 1969 and 1979. Two other problems accompanied this: a goat disease caused a lot of goat deaths in 1979 (threatening the bush control 'system' by goats). And secondly the 1979-81 drought reduced the number of animals drastically but brought more refugees to the area; this time from as far as Alale. The system of rotational grazing collapsed and the cut lines are very bushy now.

The idea of commercialization of animal production

One of the aims of SRDP was to strengthen the commercial ties between the lowlands, selling animals (esp. cattle) and the highlands, selling grain. Also the integration into the national economy should grow: esp. after 1979 the people were more or less forced to buy clothes and to do away with their traditional clothing made of hides and skins. It seems that the idea of Lowland - Highland integration failed almost completely: hardly any animals were sold. On the other hand grain was not imported so much from the highlands but Kongelai inhabitants started to cultivate themselves along the Suam River. Especially the 'refugees' do that, but also many members of the group ranch nowadays have a small plot along the river to cultivate (hybrid) maize, beans and cow peas. In fact the growing of maize near Suam River ousted the cultivation of millet and sorghum near the smaller rivers. In 1979 the Range Management Division estimated the cultivated area at 172 ha. It will be twice that nowadays. Most of the grain requirements are probably produced locally now. For most households however the food stored is not enough to feed the family during the whole year. From January or February until June food must be bought. One of the ways to get money is still through the sale of goats. Also many households acquire this money by working as harvest casuals in the Highland-small holder farms near Kapenguria. Some 30 households also have an income out of regular work in the Rural Access Roads programme.

4.6. PROBLEMS OF THE KONGELAI GROUP RANCH

a. The formal status of the ranch

Although the registration of the ranch took place in 1974 and the adjudication of the area in 1972, it took until 1979 when the Ranch got a title deed (this was burnt in 1981 and a copy is not yet issued). But a land certificate can only be acquired after payment of the Registration fee, a considerable sum of money.

b. The organization of the group ranch

The committee which was elected in 1974 consisted of ten group representatives with an average age of about 45 years. The effectiveness of the committee was considerably hampered by the threat and fear of witchcraft. The first chairman was even murdered in 1981 following allegations of witchcraft. In 1982 a new committee was elected, with much younger members, but they feel themselves not very powerful to start the ranch again. Also there were not many meetings and it was very difficult to get any formal meeting because for this 60% of the members should be present.

The Harambee collection of money for the maintenance and construction of facilities was very meagre, too. After the Registration of members in 1972/74 (412 members) nobody seems to have bothered about the registration of new members or even the registration of the heir to the deceased members. In 1981 for the first time there was a head count of members: 20% (or 90) of the original members had died (and their heirs were not yet formally registered) and another 35% had left following the drought and cholera in 1980.

In 1982 only 182 members were remaining. At the elections of 1982 it seemed that some people who thought they were a registered member in fact had been omitted in the 1972 registration exercise. On the other hand hundreds of heads of households were immigrants in the area without being a member. Many of them do not have any cattle and are regarded as 'squatters'. We will deal with them later. Not only the registration of people was a problem; also the registration of the animals. This was never done. Nobody can tell the number of animals in the Ranch and the estimates are between 4000 and 9000 head of cattle in 1982. People are very reluctant to tell the number of their cattle. This has not only to do with the fear of forced destocking. There is another problem too. During the rinderpest campaigns the animals were branded with a West Pokot Brand. Adult animals which have no brand or which have a Uganda brand might have been 'illegally' acquired, due to the continuous cattle theft. Although the area of the ranch itself has never been raided, the cattle owners still move their cattle towards Uganda (the Mount Kadam dry season grazing areas) and there a lot of raiding and counter raiding took (and takes) place. So part of the herd is not 'legally' owned and owners avoid to have this part of their herd inoculated, or registered. It seems that this is also hampering 'legal' cattle sales: especially these animals are smuggled towards TransNzoia butchers.

It might well be possible that the 'official' figures about the (very low) cattle sales are marking the reality. The smuggling of cattle can be considerable and also part of the raided animals are finding a ready market in Uganda butcheries. It can even be said cynically that the ngorokos succeeded in forced destocking where the government had failed.

There is one question here that needs to be answered. Why do the animals move over the boundaries of the group ranch in the dry season? Widstrand suggested that the area of the ranch was not big enough and should include the Pkopoch hills and part of Serewa. In the dry season these area's could be used as a reserve pasture. There is a lot of confusion about the actual boundaries of the ranch. As far as we know the eastern boundaries are at the foot of Pkopoch hills but the assistant chief considers the top of the hills as the boundary and the committee chairman even includes the whole of the hill area. This is one problem. But the other is the fact that the remaining pasture in the dry season (a result of the rotational grazing system until 1979) was 'poached' on a large scale by herds of non-members. If the grass is finished - as was the case in 1979 - part of the herd is moved to the traditional dry season pastures of Mount Kadam. In 1980 the reduced herds (due to ngoroko and drought) were no longer moved towards Uganda out of fear for ngorokos but they were partly moved towards the highlands around Kapenguria (if there were relatives) or they were fed with branches cut off the trees near Suam River and near the small rivers. Although we should know more about the food capacity of these trees we think that it is very low and it only extends the starvation period of the cattle, not really avoiding their death. Still it is worthwhile to look into the possibilities for the plantation of drought resistant trees that produce cattle feed for the dry period. If the group ranch system has to succeed a solution should be found to the need for cattle feed in the dry season in dry years. The only viable solution seems to be the deliberate production of additional cattle feed that can be stored properly within the ranch area. In fact the ranch should be made self supporting in cattle feed production. One problem is remaining however. Within the Pokot tradition of good herd management the system of herd dispersal is basic ('tiliantan').

Part of the Kongelai herd is only partially owned by the group ranch members and in fact it is only a 'right of usufruct'. To sell a steer or - worse - a cow that is also partly owned by someone far away (in Sook or Alale) can only be done with the consent of the owner(s) and with compensation to them. On the other hand a Kongelai Group Ranch member has various rights in animals elsewhere. After the problems of 1979-81 members who lost all their goats and cattle could go and ask for animals with their tiliantan-relatives who were not hit as much. This is a way to start a new herd and also young people without tiliantan-relatives can start this kind of relationship. Of course if a tiliantan - relative is in trouble (as many were in 1979-81) you accept him to share your pasture, your water, your land and even your household. It is completely unthinkable for the near future that the Kongelai Group Ranch members will be willing to abolish this system which proved to be their rescue so recently. Until the whole of West Pokot lowlands are organized as viable and functioning group ranches - which is not very likely in this generation - the solution seems to be either forced adherence to the rules and extradition of all non-registered inhabitants and their cattle or the acceptance of the existing practices. The first option will be fought ruthlessly by the people.

c. The problem of the 'carrying capacity' and destocking

During its existence the ranch hosted everything between 2500 and some 10,000 head of cattle and an additional 4000-16,000 'shoats'. Livingstone calculated the stock unit as 600 lbs live weight of bovine and so he found 5200 stock units of cattle and 1600 stock units of shoats in 1971. According to him the Kongelai Group Ranch needed 4 ha per stock unit and can only host 5226 stock units. The obvious conclusion was that the ranch had to be destocked. Two possibilities are suggested by him: either the destocking of cattle or the destocking of goats and sheep (the latter method is especially affecting women who are the main owners and users of the shoats). Destocking could be forced by a percentage of offtake per year for the ranch as a whole (e.g. 10% for cattle and 25% for shoats, as suggested in SRDP proposals). This method will mainly affect the poorer families, as the experience of the 1950's proves. Another method is a ceiling per cattle owner which is mainly affecting the rich families. It is not surprising that all the destocking proposals were met with a 'solid wall of opposition'. Nature and Ngorokos worked hand in hand to postpone this type of fargoing policy measures. If it is true that a rich man nowadays owns only 20 head of cattle and the average is below 15; if there are also relatively few goats; and if we assume some 300 herd owners, Livingstone's 'optimum' situation is reached nowadays. But with good rains - as in 1981 and 1982 - it will take only four years to rebuild the herd and to pose a problem again. What to do? It seems a good time now to start the herd registration and to impose a ceiling per household. Destocking is not the issue now and a ceiling of, say, 30 head of cattle per family is probably not threatening anybody now. Further it is important to avoid the destocking issue of cattle and to take care for enough grass and feed (see above). It might be worthwhile to study the possibilities to sell goats. Not as a means of destocking but as part of a programme of goat herd management (especially veterinary measures, bush control techniques, goat reproduction policy). This could be tried as part of a womens group programme within the ranch and as a means of additional income for the women especially.

d. The problem of the 'squatters'

In the Kongelai Group Ranch there are more non-members than members nowadays. Many non-members are cultivators near the Suam River. The group members are not against their presence. In fact they do not pose a threat to anybody. The Range Management Division estimates the available land potential for cultivation at almost 900 ha. We estimate at least 900 ha near Suam. Only part of it is used now, and there is room for extension. Policymakers seem to contemplate various unfortunate measures. They suggest that non-members (squatters) should look for registration as a ranch member in the newly planned Kacheliba Ranch. But many have no herds and along that Western side of the Suam there is not so much room for cultivation. So what can they do, even if they are registered as Kacheliba Group Ranch members? Another suggestion is to bring the eastern Suam-shore under a Kongelai Town Council and then to subdivide the area among individual land owners. But since the Survey Department is busy with other things now, it will take another five or ten years before this plan is materializing. The idea only is enough to start 'landgrabbing' along the river as is the case already, not because people need the land for subsistence but because of the quest for (future) profit. The best thing to do is to keep things as they are or to transform the Ranch into a combined livestock and agriculture venture registering all the actual inhabitants as members.

The agricultural extension services can be brought in to upgrade the cultivation practices and especially to cope with the labour constraint problem of cultivators who also have livestock and who live far away from the river. This can be combined with soil conservation, cattle feed production and beekeeping.

Along the Suam River maybe small-scale irrigation is possible, which might be developed slowly. Most people concerned were convinced that a large irrigation project (e.g. 1000 ha) in the area - as proposed by a consultant in 1982 - would be a disaster.

e. The problem of the facilities

It is important to form a maintenance unit for cattle dips, boreholes and waterdams as there already is a maintenance unit for the roads. Too many social investments are ruined because of non-maintenance. One problem is especially big: the growing population has a growing energy demand. The firewood and charcoal production causes a lot of destruction of the vegetation. The only thing that has been done is to prosecute the burners (especially 1978-81) but this is not the solution. Also here the Ranch should be selfsupporting and this can be done by a planned programme of reafforestation for timber, firewood and charcoal production to be sold in the area itself.

4.7 MARKET INTEGRATION IN 1982

Integration in the labourmarket is not a widespread phenomenon in this area. In earlier times always a few hundred people from (south) Riwa went to work on farms in Trans Nzoia.¹⁾ This lasted until around

1) In the 1950's some 60 (?) labourers worked in an asbestos mining area in Cheptumet in the south.

1965. Permanent jobs in the area itself are very few. In 1982 there are 41 teachers, around 25 policemen, 6 administrative officers and some 4 evangelists. (In our household interviews we found four permanent jobs in 32 households). Very important for the area is the Rural Access Roads Programme, since 1978. Besides the people engaged in building the new roads, there are some 30 labourers from Riwa who work on the maintenance programme (3 days a week; 180 Shs per month).

Together the 80 permanent jobs bring around 700,000 Shs in the area per year. But most jobholders are non-Pokot, stationed in Riwa by the Central Government. Part (or most?) of their salaries will be sent to their homeareas. If we estimate some 8,000 adults in Riwa now, these 80 are only 1%. Out of the ca 1,600 households only 5% have a regular income out of a paid job.

An important source of income in kind is helping to harvest maize on farms in Mnagei. Usually this work is paid in bags of maize grains (ca. 10 kg/day). Work is possible from December until March but many women work only 10 days or one month.

Production for the market is a marginal activity in Riwa. There are a few farmers in Kongelai area who produce maize with the intention to sell it and in Kanyarkwat the number of commercial maize and sunflower growers is a bit bigger, but in most normal years the big majority of the cultivators produce only what they need for their own home consumption. Small quantities of goats and skins, milk and honey are sold when cash is needed. Official sale of cattle is very meagre but probably some cattle are sold 'illegally' to Trans Nzoia butchers. Also there is a lively exchange of cattle between the Pokot themselves. Some of it is paid in cash, most of it follows the old 'tilia' principle: the making of 'economic relatives' through the gift of cattle. Also bridewealth is still paid in the form of cattle and goats (20-30 head of cattle per woman still seems to be normal although recent marriage contracts accept a payment in future, a kind of loan).

We must say a few separate things for the extreme south of the location: the area around Kanyarkwat Centre. Here the production of maize and sunflower for the market was expanding rapidly during the first half of the 1970's. But following the rapid depopulation of the area, especially since 1979, also the sales dropped considerably. The maize is marketed through the Kolongole Cooperative in Trans Nzoia District. The sunflower is bought by a Kitale trader. Around 1972 the Kanyarkwat market was one of the most thriving in the district (with hundreds of buyers and sellers twice a week). Now only 20 to 30 women are coming there on the marketdays.

Agricultural inputs are few. Fertilizer is not used nor insecticides. There are only a few tractors operating in the area, used by only a small minority of the cultivators. But many farmers use hybrid maize seed, which they buy. Livestock inputs are not bought. Even acaricide chemicals to dip the cattle is not used for some years now. Along the river Suam a land market is almost non-existent.

Household inputs are gradually becoming more commercialized. We estimate that the 11 shopowners/butchers/hotelowners in Riwa have an annual turnover of 220,000 Shs (and a profit/income of 90,000 Shs). But this is a very rough estimate. Posho, salt, sugar, cooking fat and soda's are the most important products bought. Clothing is

becoming more widespread but it is bought outside the location. Houses are almost all built without money used. Since the rapid expansion of education, school uniforms are an important item to buy, but 'in exchange' the children get free lunches (maize and beans, cooking fat and milk), obtained from Kitale. Beer brewing for money is still an important activity although the busaa clubs are closed since 1979.

We will illustrate this regional economic picture by presenting the results of a small household survey carried out in September and October 1982. We present two 'average household profiles', one for the river-side and one for the dry area, both in Kongelai area.

A. Households along the Suam 1982 Sample size 11
(near Kongelai) see page 24

Average size of household 7,3 persons no polygamy



4 adults



3,3, children (under 15)

Most of them arrived along the Suam in the beginnings of the 70's. To get water they have to walk 28 minutes in the rainy season to and fro and 55 minutes in the dry season.

AGRICULTURE (average per household), 1982

<u>Input</u>		<u>Output</u>
40 shs casual labour		3150 kg of maize (10 bags per acre)
3 bags of hybrid maize seed	7,4 acres claimed	Sale 1981 by four households in total 42 bags
Family labour, both husband and wife + group labour	3,5 acre planted	The need for starchy food for an average family is 1300 kg/yr
No fertilizer or tractor used		

LIVESTOCK

<u>Before 1979</u>			<u>Lost 79/81</u>			<u>1982</u>		
cattle	sheep	goats	cattle	sheep	goats	cattle	sheep	goats
11	11	41	7	9	33	5	4	10

In 1981 4 households sold in total 17 goats.

CASH INCOME 1981	no of hh
less than 500 shs	6
1500-2000 shs	2
10.000 shs or more	3

The differences in cash income between the households are considerable. About half of the households have a cash income of less than 500 shs, while in three households there is a permanent income. In the households with a permanent income also high incomes are received from other sources. Other sources of cash income in this area mentioned were brewing beer (1), blacksmith (1), casual labourer (2), selling of honey (2), looking for gold (2) and working in Mnagei as harvester for 3 months for maize.

B. Households in the dry area of Kongelai 1982 Sample size 21
(3/4 have a plot along the Suam)

Average size of household is 9,6 persons

6 polygamous hh. with
a total of 15 wives



5,1 adults



4,5 children (under 15)

Most of them arrived after 1975

To get water they have to walk 45 minutes to and fro in the rainy season and 2½ hours in the dry season.

AGRICULTURE (average per household), 1982

<u>Input</u>		<u>Output</u>
15 shs casual labour		2340 kg of maize
	6 acres claimed	
1½ bag of hybrid maize		Sale in 1981 by 3 households
seed and left-over seed	2,5 acre planted	in total 3½ bag
Family labour and group labour	6 households claimed no land and 2 planted nothing	The need for starchy food for an average family is 1700 kg/yr
No fertilizer or tractor used		

LIVESTOCK (average per household)

<u>Before 1979</u>			<u>Lost 79/81</u>			<u>1982</u>		
cattle	sheep	goats	cattle	sheep	goats	cattle	sheep	goats
40	24	61	31	19	41	15	7	25

In 1981 16 households sold in total 52 goats

In 1981 56 skins or hides were sold

<u>CASH INCOME 1981</u>	<u>no of hh</u>
less than 500 shs	3
500-1000 shs	7
1000-2000 shs	1
2000-3000 shs	5
3000-5000 shs	4
10.000-20.000 shs	1

Half of the households have less than 1000 shs cash per year.
Besides the selling of maize, goats and hides and skins cash income

is received by selling milk in very small quantities by twothird of the households; by selling of honey by one third of the households; by working in Mnagei as harvester (half of the households) and by working on the rural access roads (half of the households). Three households own a grinding mill and one person has a permanent job.

C. KONGELAI as a whole
(some additional remarks)

Total sample 32

1. Access to use of land

Of the 9 households which arrived in the Kongelai area in 1980 or later, only one claims land along the Suam river. This household bought 3 acres of land from someone else for three steers. The other 8 households, who arrived in 1980 or later, either squat on someone else's land (4) or don't grow any crops (4). The above suggests that all the land along the Suam was already claimed by 1979. This certainly accounts for the area south of the Suam, between Konyanga R. and beyond Akiriamet.

The claims on land in the area are generally accepted by the population in the area. Land is sold for steers or money, although officially the title is hold by the Kongelai Group Ranch. Land is hired out to relatives; for this no reward is asked. In the area 9 interviewed households hire out a total of 26 acres of land.

There are claims on land which is still bush and was never cleared, but also these claims are accepted by the population.

Many households mention that before they arrived in the Kongelai area, they used land North of the Suam river or in Uganda, which they now left unused because of the "security situation".

2. Household economy

2A. Foodcrops

Some households in the dry area have small plots of land more landinwards e.g. along the Kaiboni river. There they usually grow millet and/or sorghum. Along the Suam the main crop is maize. Recently beans are introduced with success in the area. They are interplanted with maize. Some families grow a few vegetables or fruit in addition to maize, but the acreage is negligible.

The maizeseeds are usually bought. The result of hybrid maize became clear when in 1981 a number of farmers had better yields from the hybrid maize than the other farmers from local maize. There are still 7 households who only used left-over seeds and some of the farmers mix hybrid maize with left-over seeds. In total 3295 shs. was spent on seeds by the 32 interviewed households.

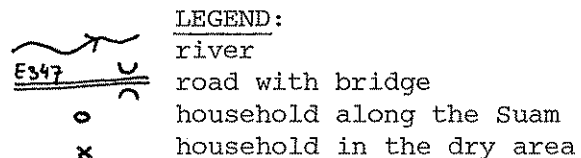
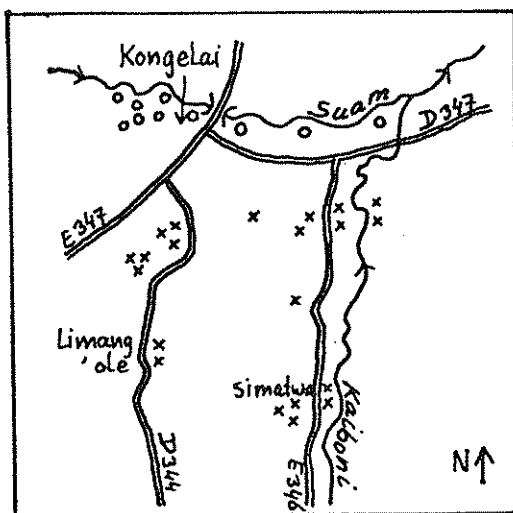
Because of the hybrid maize and the relative good climatic condition of the year, the harvest was very good in 1982. In the Kongelai area planting is based on the expectation of a partial failure of the harvest. This explains why in 1982 the households along the Suam produced two and a half times as much as they need for their daily use. The estimate of ten 90kg-bags per acre may even be low. Even the households in the dry area produced as much as they need for their family use that year. (We estimated the need of starchy food (carbohydrates) for an adult on 200 kg. per year and for a person under 15 on 150 kg. per year). Most of the surplus was not sold but given away to needy relatives.

2B Division of labour

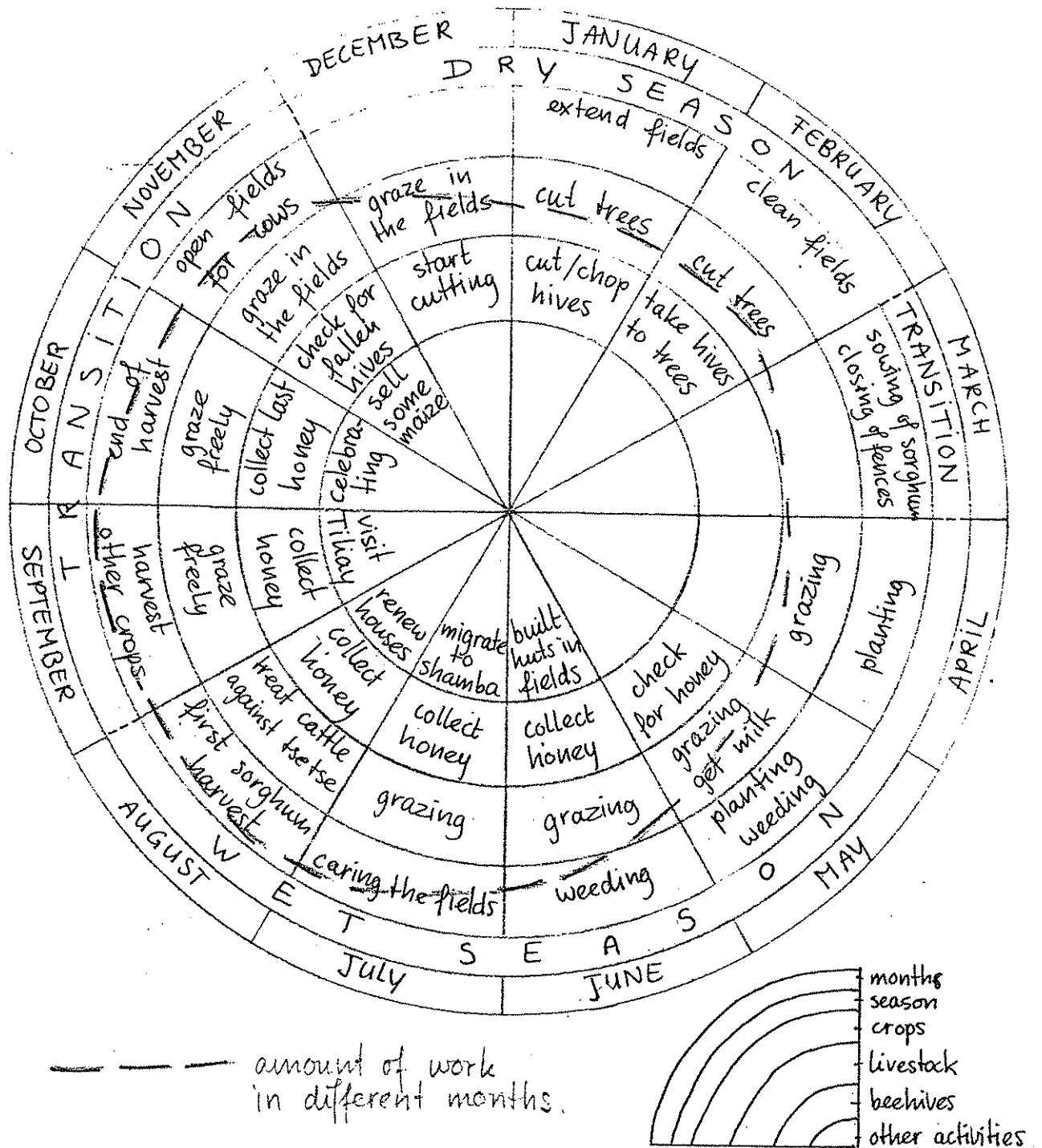
In general, preparation of the land is done by the whole family except when the man has a permanent job. For this task, group labour is usually not used. Group-labour is more important in sowing and very important, especially for the dry area families, in weeding. Harvesting is usually done by the family alone. Casuals don't seem to be very important in the area. In total only 700 shs. was spent by 8 families for the hire of casual labour. In several cases it was mentioned that the burden of work changed because now all the family-members work on the plot, while before the men spent their time on livestock. This work is now less important, as much livestock was lost, and also because they live in a safe place now, so spying against Ngoroko's is not necessary anymore.

Map 6

The location of our household interviews.



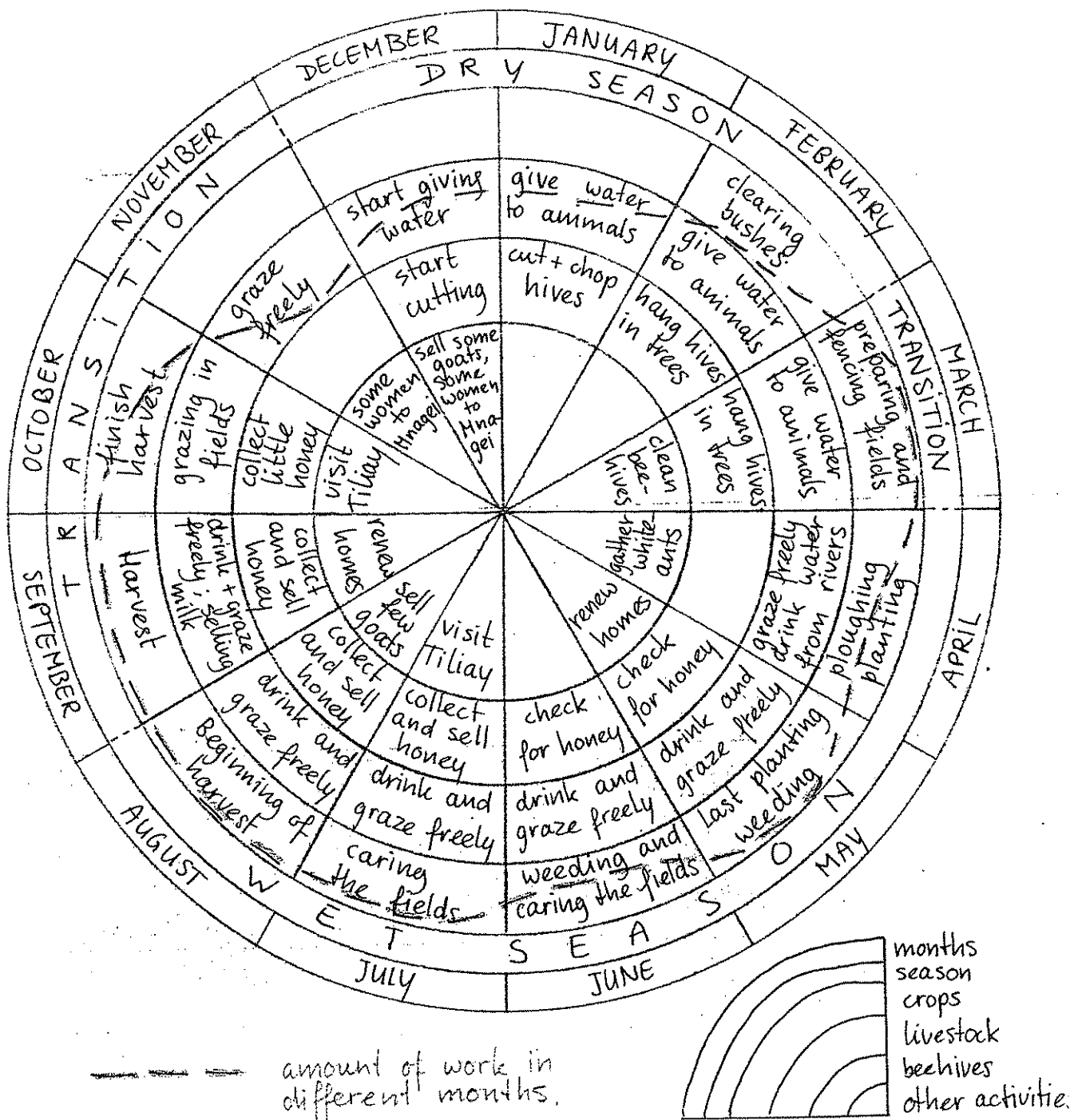
AGRICULTURAL ACTIVITIES DURING THE YEAR BY A FAMILY NEAR SUAM RIVER:



Division of tasks:

- Preparing land by men and sometimes their sons.
- Grazing by young boys.
- Caring the fields by husband and wife.
- Planting by the family as a whole.
- Weeding by the family as a whole.
- Harvest by the family as a whole.
- Beehives cutting, chopping, hanging in the trees, checking and collecting is done by the men.
- Selling of maize is done by women and girls.

AGRICULTURAL ACTIVITIES DURING THE YEAR BY A FAMILY FAR AWAY FROM THE SUAM:



Division of tasks:

- Giving water to animals by women and girls.
- Preparing fields by women and men.
- Planting and weeding by the whole family.
- Building small huts in the fields by women. Women move to the fields in July.
- Building, grazing and harvesting done by all family-members.
- Grazing animals done by young boys.
- Beehives are taken care of by the men.
- In Nov. - Dec. men rest at home and some women go to Mnagei to earn some maize grains by helping in the harvest.

5. THE SERVICES

5.1. Situation in 1983

There are two central places in Riwa: Kongelai and Kanyarkwat, but also Kacheliba, although not located in the location, is an important service centre for the area. Six other places combine a few functions: Simotwo, Kitelakapel, Poole, Nachecheyit, Kreswo and Konyanga.

TABLE 2 SERVICES IN RIWA 1983

	C= Chief SC= Subc.	Prim. sch.	Health Church	Ho- tels	Shop	Cat- tle dip	Water damW Bore- holeB	Road works camp	Po- lice post	Women group	Nursery school
Kongelai	C SC	CPK		CPK Luth RC	2 4		B(RC)	+	+	CPK Luth	
Adurukoit		RCM		FH							
Limang'Ole						+	W				
Simatwa		RCM	MC (RCM)	RCM		+	B prop (ACCK/RCM)				
Konyanga		FH	MC (RCM)	FH							
Makanga/Kona							W				
Kitelakapel		RCM		RCM?		+	W B prop (ACCK/RCM)				
Katikomor											
Poole		FH		FH			W				FH
Lopongotum							W				
Cheparua							W				
Kanyarkwat	SC	FH 2x AIC 1)	D MC	RC AIC	2	Market Sh:3	W		+		RC
Kreswo		FH	MC	FH		Sh:1					
Morotome		FH									
Nachecheyit	SC?	RC		RC			B(RC)				
Akiriemet				Luth						Luth	
Meriese				RC							RC
Lodupup				RC							RC
Akwichapalon				RC							
Korelach				RC							

1) plus CPK and ACCK

CPK = Church of the Province of Kenya (Anglican)

RCM = Roman Catholic Mission

FH = Faith Homes

RC = Rock Church

Luth = Lutheran Church

ACCK = Associated Christian Churches of Kenya

Pent = Pentecostal Church

AIC = Africa Inland Church

5.2. The development of the roads.

The main road through the location is the road coming from Makutano and Matembur, passing through Kongelai and going via Kacheliba to Alale location. This road was built around 1920 and upgraded in 1977 (D344). The quality is not very good. Another road from Kongelai to Matembur along the Kaiboni river was built by SRDP*1 in 1977-78 but in 1982 it was not passable (E346). Two other roads were built with SRDP funds by Rural Access Roads Programme: Matembur-Serewa-Adurokoit (E345) (condition reasonable) and Kongelai-Kitelakapel-Adurokoit-Kanyarkwat (E347) (partly damaged).

A small relatively good road is going along the south shore of Suam river via Akiriamet towards Chesera Centre and SRDP (2051) towards Nakwijit. The Kongelai-Chesera-Chepareria road is maintained by RARP.

In Kongelai sublocation there are 49 km. of road,

in Kanyarkwat	"	"	"	18	"	"	"
---------------	---	---	---	----	---	---	---

in Chesera	"	"	"	17	"	"	"
------------	---	---	---	----	---	---	---

In Kongelai Centre there is a Road Works Camp and also a Rural Access Roads Maintenance Unit.

According to the 1984-5 Annex to the District Development Plan the following road upgrading is planned:

Keringet-Kreswo road (RARP 11), gravelling 7 kms. in 1983-84 for 582,000 Shs

Kanyarkwat-Kanyerus road upgrading. In July 1984 15.4 kms. were completed

for 80,000 Shs. In 1984-85 the section to the Suam River was planned.

Mtembur-Cheptumet road (RARP 1) 1984-85: 244,000 Shs for 3 kms. gravelling

Kongelai-Cheptumet road (RARP 2). In July 1984 1.18 kms was gravelled for

94,400 Shs. The target for 1984-85 is 15 kms. with a budget of

1,215,000 Shs.

The D344 road from Makutano to Kunyao was planned for reconstruction. Part of it is in Riwa. For the total length of 76 kms. 8.5 m. Shs are reserved for the period 1984-86.

(Annex pp. 25-30)

*1 SRDP = Special Rural Development Programme Kapenguria Division 1971-76

5.3. Other infrastructural works

The other infrastructural works are very much connected with livestock and water needs.

During the period of the African Land Development Programme in the 1950's four waterdams were built; in Kitelakapel, Limang'ole, Kona and Kanyarkwat. The first one was renovated in 1976. The Kanyarkwat Dam was to be desilted in the period 1982-84, using labour intensive methods. The rural Development Fund made a reservation of 66,000 Shs to complete the work. Some other dams were added recently: Cheparua (1976), Poole (1978) and Lopongotum (1979).

For a long time boreholes are proposed in the area but until 1983 not one was drilled, with the exception of two recent well type waterholes which only give water during part of the year. Those are in Kongelai and in Nachecheyit. In 1983 there were plans to drill boreholes in Kitelakapel and in Simatwa.

For Kanyarkwat the Rural Development Fund planned to 'rehabilitate- the water supply there (handpumps, cattle troughs and the fencing of the dam) in 1984-5 for 38,000 Shs.

In Kitelakapel, Simatwa and Limang'ole there are cattle dips, but in November 1982 none of them were used (partly damaged, no water, lack of acaricide, lack of organization).

5.4. Markets, shops, etc.

For a population of some 14.000 people surprisingly few shops exist. Only 4 in Kongelai Centre together with the two tea hotels, and only 3 in Kanyarkwat (+ 2 tea hotels). A weekmarket started in Kanyarkwat in 1955 and still exists. A smaller one in Katikomor ceased to function after the area was vacated (1975). Other shops or markets do not exist. However many people go to Kacheliba Centre where some 30 shops exist. Since 1952 (until ?) a cattle and goats-market existed in Kongelai but nowadays auctions are at Kacheliba holding ground, although very irregularly.

5.5. The development of education.

In Riwa location there are 13 schools (1982). One school in Kanyarkwat was already there in 1957, but it was then not a full primary. It was an outschool of Nasokol from the BCMS*1 (later AC*2 and then a CPK*3 school). In the 70's the number of pupils of this school increased from about 100 to roughly 500. 11 out of the 13 schools in Riwa started in 1980 or later. The number of pupils in the Kanyarkwat school dropped drastically since 1980. The school in Adurukoit started in 1977.

Now in 1982, the ex-BCMS school is still the only school with 7 standards. One school has 5 standards and the other ones have 3 standards or less.

As the number of schools, also the number of pupils increased dramatically since 1979. It rose from 605 in 1979 to 1343 in 1982. In 1979 there were 10 trained and no untrained teachers in the location. 8 of these were in the Kanyarkwat school. In 1982 there were 18 trained and 23 untrained teachers and 29 pupils per teacher.

year ¹⁾	No. of children 5-14	No. of children in prim.sch.	%age column 2 of column 1	teachers t ut	pupils per teacher
1979	2522	368 b 237 g	24	10 0	61
1980	2770	465 b 281 g	27		
1981	3000	631 b 404 g	35	10 15	41
1982	3300	796 b 547 g	41	18 23	29

- 1) The 1979-outcome is given by the population Census 1979. The 1980, 1981 and 1982 figures are estimated on the 1979 figures and an estimated yearly growth %age of the school age population of 10%.

*1 BCMS = Bible Churchmen's Missionary Society

*2 AC = Anglican Church

*3 CPK = Church of the Province of Kenya

5.6. The development of health facilities.

During the 1960's a dispensary existed in Kongelai. After the opening of a health centre in Kacheliba on the other side of the river Suam (Suam Location) and after the start of some health-care activities by the Roman Catholic Mission in Kacheliba, both in 1973, Kongelai dispensary was closed. In 1982 a new government dispensary was built *1 in Kanyarkwat in the south and recently also some mobile clinics started to operate in Riwa. Most people however (estimate 55%) live outside a radius of 6.4 km. (4 miles) from a static health care facility and one third of the population outside that radius form static and mobile facilities combined. Especially the population living around Adurukoit/Konyanga, around Makonga and in the north have to walk too long distances to reach a health care facility. The new Serewa dispensary will also be important for the inhabitants of Kongelai.

5.7. Churches and their activities.

Until 1973 the only church operating in the area was the Anglican Church around Kanyarkwat, sponsoring the primary school there. Recently they also started activities (school and women's group) in Kongelai centre. Nowadays there are five of their churches operating in the area. But they gave their Kanyarkwat church to the A.I.C.

In 1973 the Roman Catholic Mission started in Kacheliba and also started some activities in Riwa especially sponsoring primary schools and operating one mobile clinic.

Also Faith Homes started in that year, in Kongelai, but the church broke away to become Rock Church. Both churches still are very active in the area, sponsoring primary and nursery schools, while Rock Church even drilled two well-type boreholes. Boreholes are also proposed by the ACK/RCM as part of a large borehole-programme in north-west Pokot.

Finally the Lutheran Church started in 1980 (women's group). For their religious activities most churches use semi permanent buildings.

*1 This dispensary had cost 486,600 Shs. It was opened in August 1983.

6 Concluding remarks about the possible food production:
population supporting capacity estimates.

Based on the combined Exploratory Soil and Agro-climatic Zone Map of Kenya (1980) of the Kenya Soil Survey, we estimated the possible amount of ha, that can be cultivated with a traditional to intermediate technology, while appropriate fallow periods are applied in order to preserve the ecological potential of the soils. We used various estimates for yields, stock ratio, caloric value etc. The tables below illustrate our attempt. The numbers above the columns correspond with the numbers in the accompanying text.

Table 3 : estimated population supporting capacity for each unit from arable farming

unit ¹	area ² in ha.	% poss. ^{3a} arable l.	cult. ⁴ factor	arable l. in ha.	maize y. ⁵ in kg/ha.	maize y. in ton/yr	Cal/yr. ⁶ x 10 ⁸
III-9	1371	40	0.2	109.5	1500	164.3	5.26
III-18	3241	50	0.2	324	1500	486	14.98
IV-3	5173	15	0.4	310	800	248	7.94
IV-8	6357	40	0.2	508.5	800	406.8	13.02
IV-9	4861	40	0.3	583	800	466.4	14.91
IV-21	17326	20	0.25	866	800	692.8	22.17
IV-24	3989	60	0.8	1914.5	1200	2297.4	73.52

Calory production for the whole location per-year: 151.80 x 10⁸
(from arable farming)

7 Estimated population supporting capacity from arable
farming for the whole location (876000 Cal/yr/adult) 17330 adults

Table 4: Estimated population supporting capacity for each unit from
livestock keeping (cattle) in addition to optimum arable use

unit ¹	area ² in ha.	% poss. ^{3b} pure gr.l.	% fallow l. ⁸ for grazing	grazing l. in ha.	grazing l. ⁹ ha/zone	ha ¹⁰ SU	SU/ zone	milk y. ¹¹ /SU,l.	meat y. ¹² /SU,kg.	Cal/yr ¹³ x 10 ⁸
III-9	1371	30	32	850	2795	1.6	1747	300	15	3.67
III-18	3241	20	40	1945						
IV-3	5173	0	9	466						
IV-8	6357	30	32	3943						
IV-9	4861	30	28	2819	16700	4	4175	150	15	5.01
IV-21	17326	30	15	7797						
IV-24	3989	30	12	1675						

Calory production for the whole location per year
from livestock keeping

8.68 x 10⁸

Estimated population supporting capacity from
livestock for the whole location (876000 Cal/adult/yr.)

990 adults

Explanation of the numbers given in the columns in the tables above:

(1) Units as defined for the combined soil- and agro-climatic zone map (original scale 1:1 million, Kenya Soil Survey, 1980). See also chapter 2 :Natural Resources, p.9 , and Schomaker (1983): A qualitative land evaluation for the West Pokot and Elgeyo Marakwet Districts, Kenya. (University of Amsterdam/Regional Development Research - West Pokot and Elgeyo Marakwet, Kapenguria).

(2) We calculated the area of the units ourselves, based on the map mentioned above.

(3) Due to relief-, actual erosion- and erosion hazard constrains, only part of the units can be systematically used. Our estimates are listed below:

units III-9, IV-8 and IV-9:

we estimate that 30% of the area cannot (should not) be used for agriculture (infrastructure, badlands, ecological degradation hazard). Some 40% can be used for arable farming (including fallow land) and some 30% for grazing.

unit III-18: we estimate that some 30% of the area should not be used for agricultural activities (infrastructure, steep slopes along incisions, minor forested areas that should be kept 'in peace', heavily eroded areas, rock outcrops). Some 50% can be used for arable farming (including fallow land) and some 20% for grazing.

unit IV-3: due to the steep topography the major part of this unit cannot be systematically used. We estimate that only some 15% could be cultivated (including fallow land), mainly in the minor, less steep valleys, while grazing should be avoided (some cattle can be permitted on the fallow land).

unit IV-21: we estimate that because of the often already severe degradation of the area (overgrazing → erosion) only some 20% of the area can be used for cultivation. Some 30% for grazing seems a reasonable figure.

unit IV-24: these areas can be intensively used. We assume some 60% for cultivation (including fallow land) and some 30% for grazing, while the remaining 10% could be used for infrastructure etcetera.

(4) Cultivation factor $R = C / (C + F)$, where C is the number of years under cultivation and F is the years of fallow. With this factor (FAO, 1980, 'Land Resources for Populations of the Future') the possible number of years under cultivation can be calculated, so that the ecological potential of the soils will not be depleted.

The used figures are a bit lower than the original FAO figures because the latter are meant for a situation in which fallow land is not used as grazing land, while in this area cattle does graze on the fallow fields and so the fallow period should be longer.

- (5) We estimated the average maize yield in the various agro-climatic zones using figures from our own household interviews, from the Ministry of Agriculture (local government material and the Farm Management Handboo and from general literature on East Africa.
- (6) 1 kg. maize is equivalent to 3200 Cal.
- (7) 1 adult needs 2400 Cal. a day, or 876000 Cal./year.
- (8) Livestock does graze on the fallow fields. This percentage is calculated as follows: $(1-R) \times \% \text{ possible arable land (column 2a)}$.
- (9) We calculated the livestock carrying capacity (and consequently the population supporting capacity) for the individual agro-climatic zones as a whole, mainly because livestock migrates from one unit to another.
- (10) We applied the livestock carrying capacity rates for the different agro-climatic zones as defined by Pratt and Gwynne (1977, Rangeland Management and Ecology in East Africa), though the zone-boundaries had to be adapted to the boundaries of the Kenya Soil Survey Map. These figures, 1.6 and 4 ha/Stock Unit for zones III and IV respectively, are meant for areas with an average vegetation cover that is representative for the particular zone. In Riwa-location the vegetation cover is degraded severely locally though (due to overgrazing). Consequently the calculated number of stock units should be handled with care. The calculated number is only applicable for very good management practices like bush control, enough drinking places carefully spread over the area, sufficient rest periods for the vegetation etcetera.
- (11) We estimated the milk yield/SU 300 l./yr. for cattle in zone III and 150 l. in zone IV (more semi-arid and marginal).
- (12) The meat yield/yr/animal is calculated considering an off take rate of 10% and an average weight per SU of 250 kg. of which 150 kg. meat.
- (13) 1 l. milk is equivalent to 600 Cal.; 1 kg. meat is approximately 2000 Cal.

All those calculations arrive at a supporting capacity of 17,330 adults if the inhabitants use the area optimally for arable farming with traditional to intermediate technology. In addition there would be room for some 6,000 Stock Units. The milk and meat production of these animals would support another 1,000 adults.

Of course adults eat more than average children. Including children (using a multiplication factor of 1.3) our theoretical method arrives at a supporting capacity of some 24,000 people in Riwa Location.

In chapter 3 we have seen that there are probably some 14,000 people in the area now, which gives the conclusion that there is room for expansion and that there is food security in 'normal' years.

But immediately we must warn for too optimistic conclusions.

First: there are many years which are not normal. It would be very important too know the yields in a bad year, like 1984, and to make new calculations for this situation.

Second: almost 50% of the calculated optimum production comes from unit IV-24. This area is not yet fully utilized so the actual production will be much less in crop yields. On the other hand agricultural extension in this riverine area would give a lot of improvements. With 'real' intermediate technology yields might be quite a lot higher compared to our calculations. But, as we have seen in chapter 4 this asks for an integrated policy for the whole of Riwa location.

Third, although nature and ngoroko's worked hand in hand to diminish the herds and people were forced to concentrate on arable farming, most of the inhabitants still regard cattle herding as the optimum way of life. If the area outside the riverine unit IV-24 would be used for herding only there would only be room for some 1600 people there. An optimum arable use of the riverine zone would add a supporting capacity of another 11,000 people if they use traditional/intermediate technology and no irrigation. In that case we see that the actual population of the area already exceeds the potential.

It is clear that there is room for herding (combined cattle and goats) but with the actual population pressure it must be combined with optimum arable farming, mainly along the river. In our opinion any government or local activity to 'rejuvenate' the Kongelai and Kanyarkwat group ranches must be an integrated exercise including crop cultivation, cattle feed production and herding. Charcoal burning and honey production could be minor activities. Even then additional

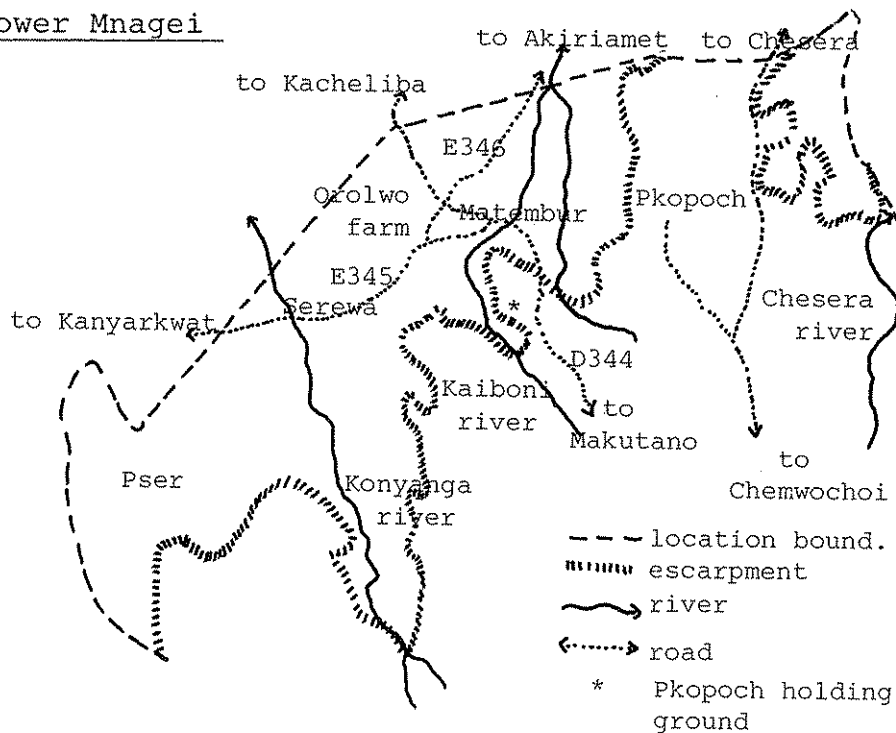
income from seasonal harvesting assistance in Mnagei or even Trans Nzoia will still be important to get some additional food, especially in drought years. The uncertain climatic conditions go on to require spreading risks: not only maize but millet as well; not only cattle, but sheep and goats (which are also very important to 'fight the bush') as well. And it does not seem to be very realistic to think that the herders will regard the artificial group ranch boundaries as 'real' boundaries, especially not in times of trouble.

B. LOWER MNAGEI

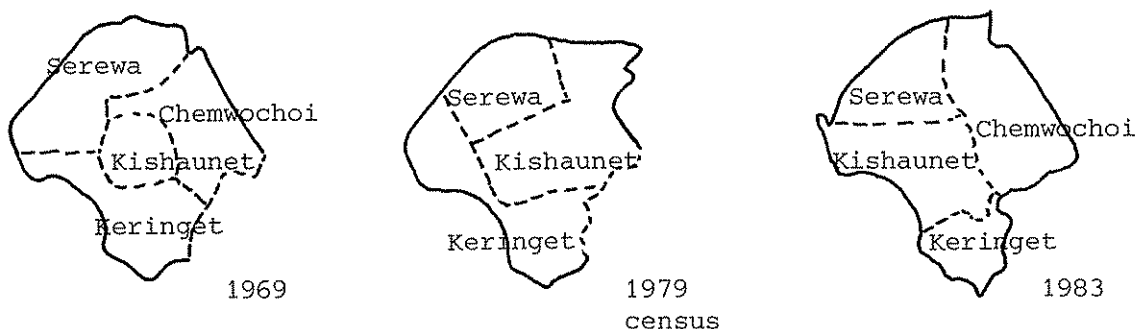
1. THE AREA

Southeast of Kongelai Sublocation of Riwa the lower area still goes on. To the south a steep escarpment arises and to the east the Pkopoch range forms a natural boundary, although to the east of this range some other lower areas can be found, extensions of the Chesera lowlands. Most of Lower Mnagei belongs to Serewa Sublocation. Also small parts of Chemwochoi and Kishaunet sublocations are "below the escarpment". We use the escarpment boundary as the boundary of Lower Mnagei as we want to describe it here. In practise most of our information will deal with the Serewa area. Map 7 gives the Lower Mnagei area as we define it. Map 8 gives the administrative boundaries of the whole of Mnagei in 1969, 1979 and 1983, excluding the part that is now a separate Central Location.

Map 7: Lower Mnagei



Map 8: Administrative boundaries of Mnagei

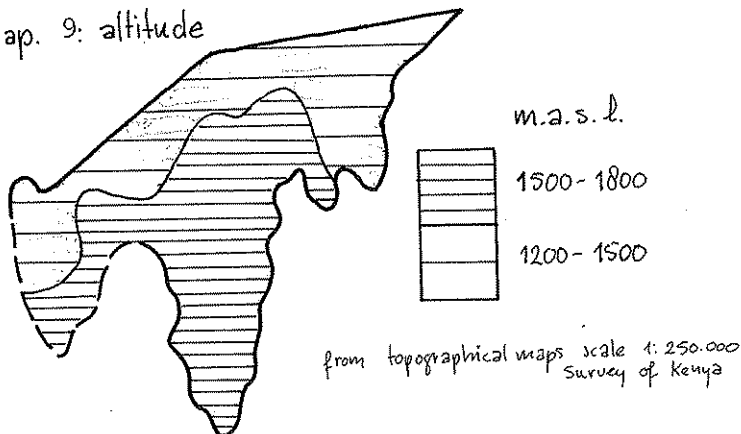


2. NATURAL RESOURCES

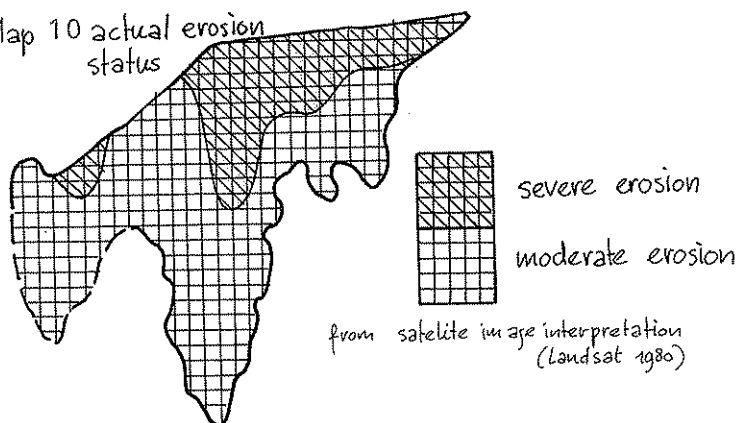
Map 11 shows that there are no other soil/agro-climatic zone units in this area than there are found in Riwa location. The lower part of Mnagei location indeed is very similar to Riwa-location. For this reason we only refer here to the chapter on Natural Resources for Riwa location (see p. 5), while we do give some maps of the area.

Though we don't have any additional information on climate/hydrology it seems probable that the amount of water coming into the area from the escarpments may be a little higher than in Riwa location. If soil conservation measures are taken this can be favourable for cultivation.

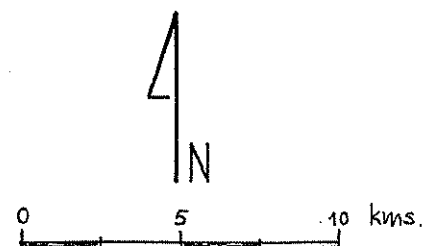
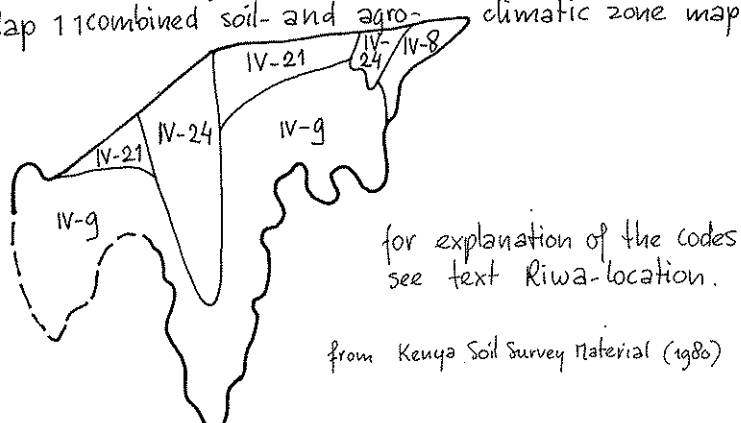
Map. 9: altitude



Map 10 actual erosion status



Map 11 combined soil- and agro-climatic zone map



3. POPULATION

In 1926 the whole of Mnagei had 1754 inhabitants, most of them mobile cattle herders who used the higher parts of the area for dry season grazing and who had their manyattas in the lower areas of Mnagei and of neighbouring areas. Only after 1936 people settled more permanently and started to have small shamba's along the seasonal rivers in the lower area and -later- in the higher parts. In 1948 the whole of Mnagei (including the Central Location of today, an area of more than 400 km²) had 7,315 inhabitants including 1762 'taxpayers', and there were 19,900 head of cattle, 5,700 sheep and 3,900 goats. Most of the inhabitants of those days already lived in the higher areas, but many livestock owners herded their animals in the lower areas, at least during the rainy season. In the 1950's it was already normal for the smallholder farmers in the higher parts to have their animals herded by people from the lower areas. (West Suk District Gazetteer, about 1956; Annual Reports during the 1950's).

In 1962 the Serewa Sublocation of those days included most of the lower areas of Mnagei. The 1962-census counted 603 men and 637 women there. In 1969 had grown only a bit: to 622 men and 708 women on an area of 97 km², which meant a population pressure of 14 people per km². There were more adult women than adult men (400 vs 331, a sex ratio of 0.82); probably a number of men were herding animals elsewhere and some will have been labour migrants at the Trans Nzoia farms.

In 1979 the Serewa area was smaller (69 km²) but the number of people had risen considerably: to 937 men and 951 women, forming 402 households according to the census. The population pressure had become rather high for a grazing area with some agriculture: 27 inhabitants per km².

Using the topographical maps for the area (1) and counting the symbols for 'huts' (more probably clusters of huts forming a manyatta or a home for one household) we found some interesting differences between 1967 and 1973. In the Serewa area there was some increase, some 20% more huts in 1973 compared to 1967 (in the area east of Serewa centre to the Pkopoch range). But in the lower areas east of the Pkopoch range, where some 60 households lived during 1967, the population decreased. In 1973 there were less than 20 households there. In 1983 this was almost a deserted area, tsetse-infested and the only area in Mnagei where raids were said to have happened during the 1970's.

(1) 75/1 Kongelai ed.4-SK, 1968, 1967 photography; ed.5, 1973, 1973 ground survey; Kanyarkwat 1961 (ed.3), photography 1958-59.

4. ECONOMIC HISTORY

4.1. Before 1969

Until the 1950's the lower Mnagei area was "loosely administered" as it is called. The Pokot living there were more settled than they had been in the 1930's; they herded a large number of cattle and they also had sheep and goats; some extra food was acquired from small fingermillet shamba's near the few seasonal rivers in the area. Mtembur was mentioned as a trading centre with probably one or two shops during the beginning of the 1950's. But government interference was restricted to taxation, law and order and maybe some labour recruitment via the 'headmen'. Also the road coming from the higher area and going to Kacheliba (built during the 1910's) was probably maintained under the authority of the headman, using local labour. But interference with production was nil.

When the ALDEV programme was launched in the 1950's the Riwa Grazing Scheme was one of the major projects in West Pokot, but no separate Serewa grazing scheme was formed. In 1954 a suggestion was made to move part of the Mnagei grazing land to Riwa, but at that time "a storm of protest" followed (AR 1958, also mentioned as "a minor dispute" in AR 1954) and this had to wait till 1958, when part of Serewa area and 50 households were moved administratively to Riwa location. We refer to the Riwa part of this Profile for more details.

But the remaining people in lower Mnagei also began to feel stronger government interference now, in the following fields:

- cattle sales (by the African Livestock Marketing Organisation, starting in 1951 at Keringet and also at Kongelai), in 1956 followed by stock sales minimum quota and in 1958 by compulsory destocking: a percentage of 10% of the cattle per year; more than 2000 head of cattle for Mnagei as a whole,
- water dams: in 1955-56 500 £ were available for dams in Mnagei
- a primitive form of grazing control established by chiefs and elders, closing areas for dry season grazing (mentioned in 1954 for the first time),
- soil conservation, especially reafforestation of the escarpment. (started in 1957 at a place called Tampalal).
- a road was built in 1956-58 from Chemwochoi to the Chesera area, northeast of Lower Mnagei, using paid labour,
- a primary school, was started at Serewa centre.