K. COMMUNITY, FARMERS' ORGANIZATION AND RELATED SUPPORTING SERVICES

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K.1 Rural Communities of the Study Area

K.1.1 Rural Communities and Their Livelihoods

The community of the Study Area consist of two main sub-groups i.e. the Tugen who are mostly settled on the hill-slopes around the rim of Lake Baringo basin and the Il Chamus who are concentrated on the flat flood plains. In the recent past, these communities were largely dependent on livestock for their livelihood. However, considerable diversification has occurred over the last thirty years and the basis of the community's economy now include:

- Livestock keeping (goats, cattle, sheep and donkeys),
- Rain-fed and irrigated farming
- Fishing on Lake Baringo
- Bee-keeping
- Off-farm employment (public, NGO's, private sector)
- Self employment (hawking, grocery shops, honey collection, refining & marketing and burning of charcoal etc)
- Making handicrafts (mats, baskets, bead neck-laces, decorated beads)

Since the turn of the century, the two main groups have engaged in trade either among themselves or with outside communities including Uganda-bound travelling caravans. Such trade involved exchange of livestock for grain (internal trade) or exchange of these two commodities with outsiders for cloth, salt and other modern articles. Today, both internal and external trade activities are still significant as demonstrated by livestock auctions at five livestock auctions within the Study Area, regular cross- border trade between the Study Area (Arabal, Mukutani) and the neighbouring Laikipia District as well as the quantity and variety of goods available in Marigat Town.

K.1.2 Homestead and Settlement Patterns

Within the Study Area, the pattern of homesteads and construction materials used depend on tradition as well as household income. The most common pattern is likely to feature the following structures:

- One roomed circular main house for wife, husband and young children
- One smaller circular house for an unmarried son or guests
- An outside circular kitchen with an adjoining drying rack for utensils
- An elevated circular granary for storing grain and other produce as well as farm tools
- Two circular or semi-circular thorn enclosures one for cattle and the other one for goats
- Chicken are normally housed under the granary where the supporting sticks are reinforced with smaller sticks to form a protective enclosure

The wall and roof framework of an individual house unit is constructed from sticks and twigs (men's work) while grass is used for thatching (women's work). In the case of a dwelling house, both sides of the wall and the floor are plastered with a mixture of mud and cow-dung

(women's work). The final look of the dwelling house is a reflection of the combined expertise and artistic skills of the husband and wife.

This homestead configuration as well as building materials may vary depending on the preference or income status of the household head. For instance, wealthy households prefer rectangular structures made of timber and iron sheets for walls and roof. Some household heads also like to enclose the entire homestead with a thorn bush fence thus giving it some measure of security. This is particularly true in Ilchamus settled areas.

Although homesteads are not grouped together in a village pattern, in the case of the Tugen community, people who are related by blood (kinship group) tend to settle in one neighbourhood. Members of this kinship group know the approximate extent of "their communal land". While outsiders may graze on this land, only members of the kinship group are accepted to erect a homestead within this communally owned land. The situation in the II Chamus areas is more inclusive. Until very recently, a member of the II Chamus community could readily get consent of local elders to settle on any unoccupied space within what was recognized as II Chamus land. With increase in population, such consent is nowadays difficult to get.

Although the name village is commonly used, it refers to a scattered settlement of separate homesteads that form a neighborhood. The physical demarcation of one neighborhood from the next is, however, not always visibly obvious. Nevertheless, the village neighborhood has crucial significance in the governance of the country since the "village" represents the lowest administrative unit that stretches to the sub-location, location, division and finally to the district.

In the past, the communities were able to practice typical nomadic pastoralism and periodically moved homesteads in search of new pasture and water. However, over the last thirty years, increased human and livestock population has forced a sedentary or semi-sedentary lifestyle. Nevertheless, during the dry season (September-October and January to April), some members of the household (mostly young man with wives) move with cattle from a homestead base to the hills in search of water and pasture. Apart from water, the other main concerns of the rural community are food shortage during the dry season as well as incidence of human and livestock diseases.

K.1.3 Food Habits of the Community

The staple food of the study community's is " ugali" made from maize or millet flour or a mixture of both and is eaten with sour milk, meat stew or vegetables. When harvest is satisfactory or off-farm income adequate, such a meal may be eaten twice a day. During the period January-May food is usually in short supply and the number of meals may be reduced to once a day particularly if there are no alternative sources of income. In times of severe drought, both the amount and frequency of meals is curtailed further. At such a period, the Government, with support from donor agencies, supplies famine relief food to the communities, most often in the form of two to five kilogrammes of maize per household, every two weeks.

Meat is eaten when there are traditional ceremonies (circumcision, wedding or, in case of Il Chamus, during graduation of warriors to elders). In the past, when cattle were plentiful, blood drawn from bulls was also taken either on its own or mixed with sour milk. This practice has now declined.

K1.4 Household Composition and Living Conditions

In both the Tugen and Il Chamus community, a household consists of a nucleus family (husband, wife and 5-7 children) as well as members of the extended family who include parents, in-laws, brothers, cousins, nieces and nephews. The point of reference for the household is the three-stone common cooking point normally managed by the wife. Where the husband is polygamous, the wives occupy different homesteads that are usually located far apart in the case of a Tugen husband. An Il Chamus husband has, however, the option of locating the wives either together in one homestead or a distance apart in separate homesteads. Each wife therefore operates as a separate household.

To maximize pastoral benefits from communal range resources, a husband treats the wives' homesteads (preferably located on different grazing areas) as semi-independent livestock management units. He then provides overall control and co-ordination of herding activities. This arrangement is particularly important during seasonal migration of livestock between different grazing areas.

Some members of the extended family may make short visits while others may come for a longer attachment to the nucleus family. While on a visit, members of the extended family have the same rights and obligations as other members of the household.

In the past, the communities were able to practice typical nomadic pastoral movements in search of new pasture and water. However, population growth within and around the Study Area has resulted in a sedentary or semi-sedentary lifestyle. Nevertheless, during the dry season, some members of the household (mostly young man with wives) move with cattle from a homestead base to the hills in search of water and pasture. This normally takes place during the period September-October and January-April.

K.1.5 Household Division of Labour in the Study Area

The current household division of labour reflects roles as prescribed by tradition as well as by the requirements of a modernizing society halfway between subsistence and commercial production. Hence, household labour is provided on the basis of age and sex. Boys tend to concentrate on herding while girls help in both herding and carrying out domestic chores. Adult women are concerned with production, processing and distribution of food. Male elders are involved in administration and overall management at both the domestic and community level. Young males ("moran", in the case of Il Chamus) help with herding of livestock, look for new sources of pasture and water and defend local community from outside threats.

The outlined household division of labour has somewhat changed owing to modernizing influences such as education of children and engagement in wage employment. Such influences have generated new roles for both men and women. In particular, women members of the household are having to take an increasing share of the household tasks such as herding as a result of boys enrolling in school and young men being employed. Thus what on the surface appears desirable from a society's point of view (increased schooling and formal employment opportunities) will be achieved at the expense of unbearable hardship for the woman of the house.

Using the results of the PRA workshops, the division of labour among different members of the household is as illustrated in Table K.1-1.

Activity	Adult Active Women	Adult Active men	Young Women	Young Men	Old Women	Old Men
Purchasing domestic	XXX	X	X	X		
requirements						
Fetching water	XXX		X			
Setting hives on trees		XXX		X	· · · · ·	
Herding	XX	XX	X	XXX		1
Milking	XXX			XX		
Fetching firewood	XXX		XX		X	
Processing and cooking food	XXX		XX		X	
Constructing house frame		XXX		XX	-	
Plastering house	XXX		XX			
Cleaning house and compound	XXX		X			
Making or mending clothes and utensils	XXX	X	XX	Х	Х	Х
Health care for livestock		XXX		XX		XXX
Caring for the young	XXX		XX		XXX	X
General household		XXX		X	X	X
Supervision						
Traditional Education and Counseling	XX	XX			XXX	XXX

Table K.1-1Household Division of Labour

Key: XXX= Mainly Responsible; XX= Active Participation; X= Modest Participation

It is clear from the table that women have a disproportionately large share of household chores. In this regard, evidence obtained during the field survey indicated that women have to operate a 15 hours day in order to tackle their busy schedule. The division of labour has

considerable implications in the design of the master plan. Given the state of the household economy, women are more likely to support proposals that light their work. On the hand, they will shy from projects that increase their work load unless accruing benefits to them are considerable.

K.1.6 Minority Rural Communities

There are minority communities who migrated into the Study Area for a variety of reasons. Such minority groups include the following:

1) The Pokot Community

The Pokot are settled on the fringes of the Study Area (Mukutani and Salabani locations) as well as in Marigat location. They came from their original home in the adjoining Nginyang and Tangulbei divisions in search of Pasture, water or new employment opportunities. Although engaging in some limited irrigated farming (Mukutani, Perkerra), the community has a deeper attachment to animals than other communities within the Study Area and therefore relies largely on livestock for its livelihood. Their livestock mix is also more diversified and include cattle, sheep, goats, donkeys and camels.

In general, the Pokot homestead is similar to that of other indigenous communities apart from two differences. The typical Pokot homestead lacks such modern items as chairs and utensils. In way of compensation, however, the homestead is rich in a wide variety of traditional artifacts such as spears, decorated gourds, beadwork, and portable head-rest/stools as well tanned skins. It may also be worth noting that the entire work of constructing a dwelling house (wall and roof framework, thatching and plastering) is the responsibility of the wife. The husband concentrates on acquisition and herding of livestock.

2) The Turkana

Presently, the Turkana are settled at "Kampi Turkana" and "Kampi ya Samaki" within Marigat and Salabani locations respectively. As the names suggest, the community has settled in "camps" or villages consisting of small temporary houses made from sticks, mud and grass thatch but lacking the refined finish of either a Tugen or Il Chamus house. Although neighbouring houses are based on the settlers' relationships at their original home in Turkana district, the pattern is not visible to outside observers. Indeed the settlements are similar to slums in other urban centers of the country.

The Turkana community has been migrating from their home district of Turkana (Kapedo, in Lumelo division) into the Study Area over the last 20 years in order to escape from persistent raids by the neighbouring Pokot community. It was stated that such raids resulted in loss of livestock and

extensive killing of male members of the Turkana Community. Uprooted from their traditional home setting, the community has no land and virtually no livestock. For its livelihood, it depends on:

- Casual farm labour (cultivation, weeding, harvesting in Perkerra Irrigation Scheme), herding, night-watching as well as any other menial tasks within and around Marigat town
- Hand-outs from the government and charitable organizations
- Self employment including breaking stones to make ballast for sale to builders

3) The Luo Community

This community is concentrated at Kampi ya Samaki where, in the past, Lake Baringo offered attractive fishing opportunities. Originally coming from around Lake Victoria where fishing is a traditional occupation, members of the community earn their livelihood through fishing and providing tour-guide services around the lake.

K.1.7 Property, Its Ownership, Right of Use and Rights of Disposal

Ownership of property within the two main groups of the Study Area may be viewed at two levels. First, there is property ownership at the household level. Then there is ownership within the broader context of community as a whole. At the household level, ownership of major assets (cattle, goats, and sheep) rests with the husband while the wife normally owns small stock such as chicken and contents of the granary. All members of the household may use household resources. However, as the head of the household, the husband makes most asset disposal decisions with or without consultation with the wife.

Apart from a few places on the elevated areas of Loboi and Kimalel (where demarcation is envisaged), land is owned by the community and normally cannot be disposed. A household has, however, exclusive use of the homestead area as well as trees near the homestead. A household that has fenced out a plot for rain-fed or irrigated cultivation also has nominal ownership of such a plot. Members have access to all those grazing lands recognized as belonging to their community subject to use guidelines set out by elders on swamps and other dry season reserves. The pattern of property ownership is summarized in Table K.1-2

Type of property	Ownership	Right of Use	Right of Disposal
House	Husband/wife	Family members	Husband
Furniture	Wife/husband	,,,	Husband
Utensils	Wife	,,	Wife
Cattle	Husband		Husband
Goats/sheep	Husband/wife	,,,	Husband
Chicken	Wife/Children	>>	Wife/children
Land	Communal	Community	None

Table K.1-2 Property Ownership Pattern at Household and Community Level.

Trees &pasture	Communal	>7	Anybody
River &pan water	Communal	,,,	None
Stored grain	Wife	Family members	Husband

The above pattern is an over-simplification since there are significant exceptions. For instance at the time of marriage, the young bride is usually given gifts of livestock (cows or goats) by her in-laws which can only be disposed with her consent. However, the dominant position of a husband in the control of household resources is quite clear. This fact was further endorsed during discussions with members of the women groups. They indicated that the husband was often consulted regarding monthly group contributions and items to be bought with the such contributions.

K.1.8 Categorization of Households on the Basis of Sex of Household Head

In each of the seven PRA workshops, the local community was facilitated to understand itself and its resource environment and thereafter to prepare a community action plan. One of the activities carried out by the participants was to categorize the households of the village on the basis of the sex of the household head. The results of this analysis for the seven sites are given in Table K1-3. It may be noted that overall, some 29 percent of the households are headed by women while in two villages i.e. Ntepes and Noosukuro more than a third of the households are women-headed. This is somewhat unexpected since existing traditional value systems in the Study Area indicate limited space for female leadership. Several reasons were given for having a woman as a household head and included: never married, husband died, deserted, divorced or went far away to look for a job and never returned home. As the head of the household, the woman therefore makes most key decisions regarding time and resource use with the occasional assistance of a close male relative (father, brother, uncle).

i	PRA Village Site															
нн	Ndar	nbul	Chen ngior	noro- 1	Noos ro	uku-	Kam	aech	Kapk	cole	Ntep	es	Mart	i	Over	all
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
M	83	83	61	68	63	63	60	74	66	83	47	60	66	67	446	71
FM	17	17	29	32	37	37	21	26	14	17	31	40	32	33	181	29
Tot	100	100	90	100	100	100	81	100	80	100	78	100	98	100	627	100

Table K.1-3 Categorization of Households on the Basis of Sex of Household Head

Key: HH = Household Head; M = Male; FM = Female; Tot= Total

K.1.9 Social Differentiation on the Basis of Wealth

Although members of the community have equal access to natural resources (grazing land and water) there is nevertheless considerable stratification on the basis of wealth. In each of the PRA workshops, participants listed households comprising the village and assessed each against a basket of wealth indicators (number of cattle, goats and sheep). The households were then grouped into four main categories as shown in Table K.1-4

							PRA	Site								
	Ndambul		Chen ngior	noro- 1	o- Noosuku- ro		Kamaech		Kapkole		Ntepes		Marti		Over	all
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
R	7	7	8	9	20	20	3	4	3	4	10	13	8	8	59	9
Μ	77	77	40	44	24	24	43	53	65	81	21	27	23	23	293	47
Р	13	13	32	36	24	24	35	43	12	15	24	31	28	29	168	27
PP	3	3	10	11	32	32	0	0	0	0	23	29	39	40	107	17
Tot	100	100	90	100	100	100	81	100	80	100	78	100	98	100	627	100

Table K.1-4 Socio-economic Differentiation of Households in Seven PRA Sites

Key: R = Rich; M = Medium; P = Poor; PP = Poorest of the Poor

Overall, households classified as poor or poorest amount to 43 percent of all the households covered by the PRA survey. However, at Noosukuro and Marti, the incidence of those classified as poor or poorest exceeds 50 percent. This category owns few or no livestock and earns its livelihood working for other households either as farm workers or herders. It is also interesting to note that the contradiction in Noosukuro where the second highest incidence of poverty (56%) co-exists with the highest incidence of rich households (20%). Further investigations revealed that at Noosukuro, members from poor households were often employed as herders by rich households.

K.1.10 Poverty from a Gender Perspective

With a view to getting a more focussed understanding of poverty, the category of the poor households (poor and poorest) were further split into male and female headed sub-groups. The results are presented in Table K.1-5

Table K.1.5 Breakdown of Poor Households on the Basis of Sex of Household Head

							PRA	Site								
нн	TTT				Noosuku- Kam ro		Kam	aech	ech Kapkole		Ntepes		Marti		Overall	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
M	13	81	22	52	25	45	23	66	7	58	26	55	41	61	157	57

FM	3	19	20	48	31	_ 55	12	34	5	42	21	45	26	39	118	43
Tot	16	100	42	100	56	100	35	100	12	100	47	100	67	100	275	100
Kow	ШΤ _	House	hald I	land. B	5 35	-1 17		1		······						

Key: HH = Household Head; M = Male; FM = Female; Tot= Total of poor households

It may be seen from the table that female-headed households account for about 43 percent of the poor. At Noosukuro, Women-headed households constitute 55 percent of those households categorized as poor in the village. From a gender perspective this situation is worrying because even in those poor households that are male headed, it is the wife who still has the responsibility of providing for the children and the husband as well.

Turning attention exclusively to women-headed households, this group is analyzed in Table K.1-6. It is clear from the table, that almost two thirds of the female-headed households are classified as poor or poorest of the poor. Hence, as a distinct social category, this is a marginalized group that has important implications in drawing of the Study Area Master Plan.

 Table K.1-6
 Socio-economic Differentiation among Female-headed Households

							PRA	Sites		-						
	Ndambul		Chemoro- ngion		Noosuku- ro		Kamaech		Kapkole		Ntepes		Marti		Over	all
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
R	3	17	_ 2	7	2	6	0	0	0	0	1	3	0	0	8	4
<u>M</u>	11	65	7	24	4	11	9	43	9	64	9	29	6	19	55	30
Р	1	6	13	45	11	29	12	57	5	36	8	26	7	22	57	32
PP	2	12	7	24	20	54	0	0	0	0	13	42	19	59	61	34
Tot	17	100	29	100	37	100	21	100	14	100	31	100	32	100	181	100

Key: R = Rich; M = Medium P = Poor; PP = Poorest of the Poor

K.1.11 Probable Causes of Poverty

During informal discussions with members of the community, possible causes of poverty were discussed. The following factors were seen as influencing the position of a household in the poor/rich continuum:

- Death of livestock during a major drought
- Inadequate herd management skills of the household head (timely disease diagnosis and treatment, herd relocation to better pastures and water sources, timely disposal prior to drought etc)
- Insufficient labour for livestock and crop management
- Death of a husband or wife implying loss of management skills and labour
- Husband becomes a drunkard and quarrelsome (loss of labour, loss of management skills)
- Husband divorces wife or simply runs away from home (loss of management skills, loss of labour)

- Weakened community ties that nowadays fail to assist kinship members to rebuild lost livestock through loaning or out-right gifts

The above factors are not necessarily independent of each other and in most cases tend to be inter-linked.

K.1.12 Social Organization and Leadership

1) Social Organization

Traditionally, the social organization of the main communities within the Study Area (Tugen and Ilchamus) was based on clans. Although to a lesser extent, this is still true today. A clan itself is composed of lineages or kinship groups that arise from families related by blood. The clan acts as a social point of reference providing identity to an individual, a family and a kinship group.

Both the kinship group and the clan provide a framework for mutual assistance when organizing weddings, funerals, initiation ceremonies, births as well as in contributing towards hospital and education expenses. In particular, the kinship group provides a social insurance mechanism during times of major adversity such as drought and animal disease epidemic. Those members of the kinship group who have survived the adversity with some livestock are expected to loan some to those who lost out. Co-operation in managing livestock or in mobilizing labour for crop production is also more likely to be based on kinship linkages. As the community is getting increasingly sedentarised, it is within the kinship and clan framework that access to land will be recognized.

The mode of transmitting kinship and clan identity is through the male offspring. However, socialization of a member of the community is an on-going process from birth to the time of death. This socialization is aimed at defining an individual's place in the wider community including roles, rights and expectations. In the past, an individual was expected to undergo rites of passage that marked transition from one social stage to the next. The more important rites of passage were circumcision, elevation to an elder status and marriage. These rites were public events which were accompanied by elaborate ceremonies including slaughter of animals, dancing and merry making. In the case of marriage, two families were bonded together through recognition of mutual obligations that included payment of bride pride (in cows, goats and sheep) in exchange for a wife. Hence polygamy was seen as an indicator of wealth and added status.

Today, the influence of Christian churches as well as modern state and private institutions has modified the nature and importance of these rites of passage. For instance polygamy is now losing favor with the young generation because of the current difficult economic situation. At the same time, girl circumcision is being discouraged by Government and women organizations. "Maendeleo ya Wanawake", which is a national women organization, is already active within the more elevated areas settled by members of Tugen community.

Community members within the Study Area are therefore facing a similar dilemma as the majority of Kenyans with regard to their identity. While still holding on to some traditional cultural values and practices, they are at the same time yielding to the pull of modern innovations and way of life.

2) Leadership Patterns within the Study Community

a) Traditional Leadership Patterns

In the past, leadership roles within the community were organized at various levels from the family head to the council of clan elders as illustrated in Figure K.1-1

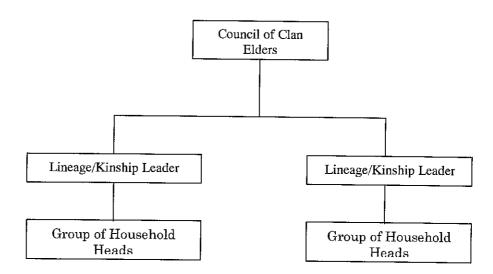


Figure: K.1-1: Traditional Leadership Pattern

Typically the council of elders would be localized and its structure and mode of conducting meetings would be informal. Since there was no single supreme elder, decisions of the council would be by consensus. The council of elders, whose membership would range between 10-20, was responsible for the following tasks:

- Defining traditional cultural norms, behavior and roles of different community members in accordance with age and sex
- Arbitrating over major family disputes which kinship groups were unable to solve
- Adjudicating disputes between clans and tribes
- Trying and punishing major crimes such as stealing of livestock and killing of human beings

- Defining and enforcing rules for using range resources including grazing, livestock movements and use of watering points
- Preparing strategies for war and livestock raiding expeditions

In parallel with the clan system, there were leaders whose authority derived from their age group (men circumcised at the same time) and age-set (men circumcised during the same period). The age-set system cut across clan boundaries and required male members of the same age-set to know, respect and help one another. Men recruited through initiation into an age-set then progressed together through age grades that included warriors, junior elders and up to senior elders.

With the onset of Christian influence and exposure to modern life (education, trade, commerce and urban life), loyalty to the age set is waning. However, even today, the age group is an important basis for networking and forging of mutual assistance among the community.

In case of the II Chamus community, the "Laibon" is a spiritual leader from a specific family whose his main responsibility is to prophesy and give fore-warnings on issues of strategic importance to the community e.g. epidemics, drought, invasion or raiding strategies. Apart from the Laibon whose position was hereditary, all other leaders, including the elders, were chosen by consensus. In an interview with the study team, the Laibon at Kiserian location saw his function today as that of occasionally advising the government-appointed chief on community affairs, providing advice to individuals on their lives and blessing community's assets.

b) Current Leadership Pattern

With the on-set of modern government institutions, leadership at the community level reflects a combination of the old with new administrative structures. The chief and assistant chief are government appointees whose main task is to maintain law and order and promote general development activities among the community. While still accorded respect, elders now discharge their roles as mere attachments to the new administrative structure. For instance, in each village or neighbourhood, there are five to six elders who help the assistant chief in local conflict management and general maintenance of law and order. The elders are elected by the local community except the village headman who is appointed by the assistant chief. To qualify for election or selection, the elders should be persons who command respect within the community as demonstrated by their general conduct, stable family life as well as their counseling skills.

At the same time, there is an elected councilor who represents each location in the Baringo County Council. As an elected leader, he is mandated to represent his location on matters that affect the local community. He therefore takes a keen interest on development issues within the location. Furthermore, the Study Area's Member of Parliament usually keeps himself abreast of development events that affect the community.

Apart from the existing administrative framework, there are opinion leaders who contribute towards shaping the local community's attitudes and behaviour towards new innovations. This group of opinion leaders includes teachers, businessmen as well as people employed in the formal sector (government, commercial firms and NGO's). The majority of such opinion leaders are normally living within the community. However, there is a handful of such opinion leaders who are living away where they hold important positions in government or private sector and yet are able to project their influence into the community. Indeed, such people who are living away are occasionally looked upon for guidance and support in major community-based initiatives.

K.1.13 Decision Making and Conflict Management

Apart from personal quarrels, conflicts within the Study Area mostly relate to access, use or damage of other people' resources. The main causes of conflict and mechanisms used for conflict resolution are summarized in Table K1-7.

	Cause of Conflict	Decision making/ Conflict Resolution Mechanism	Examples of Decisions Made
1.	Livestock damaging or injuring neighbor's crops, clothes, furniture or children	Village elders, head-man, assistant Chief, Chief, Police	Replace crops, fine, pay money to complainant.
2.	Encroachment on individual boundaries	Village elders sitting as a tribunal	Decision is made for or against the complainant; however both have to pay arbitration fees to the elders.
3.	One community (Pokot) using grazing lands of another without permission (IlChamus)	Provincial Administration i.e. D.O. Chief, Asst. Chief, Elders	Provincial administration imposes fines against offending community in terms of livestock ranging 5-20 cows.
4.	Fighting among individuals in the village, adultery, theft of neighbour's livestock	Village elders, assistant chief, chief	Guilty party pays compensation to complainant and additional money as elders' fine.
5.	Recurring dispute over inter- community boundaries and use of grazing land	Provincial Administration, Elders from both communities	Offending community removed from disputed lands
6.	Cutting somebody's tree without permission	Village elders, Assistant Chief, Chief	Offending party is warned, and complainant advised to put a mark on trees next to his homestead
7.	Competition for river water between irrigation farmers and livestock downstream during the dry season	Chief, Village elders	Allocation decided between the parties in dispute on timing and amount
8.	Dispute over grass for thatching (women) and grass for livestock (morans)	Village Elders	Women advised to take smaller loads of grass and leave sufficient grass for livestock

Table K.1-7: Conflict and Conflict Management at Community Level

K.1.14 A Comparative Overview of Communities in the Study Area

The Study Area is not uniform and displays considerable contrast in physical as well as socio-economic features. In order to obtain a comparative overview of the community of the Study Area, the eleven administrative locations may be separated into six clusters whose socio-economic characteristics are summarized in Table K.1-7.

Cluster of	Main Socio-economic Characteristics of the Settled Community
Locations	
Kimalel Location	 Economy is based on goats, cattle and rain-fed farming and area is bisected by tarmac road Community is homogeneous (Tugen ethnic group) and is actively participating in such modern institutions as churches, schools and other government agencies Human population is located on the hill slopes where land ownership is nominally communal although settlements are more or less permanent
Marigat & Salabani Locations	 Economy highly diversified: livestock (goats and cattle), irrigated farming, fishing, beekeeping, crafts, tourism and general commerce; Area is well served with main tarmac road, telephone, electricity, school, health centers Sedentary settlements are dominant with the exception of areas bordering the hills where limited semi-nomadic lifestyle is practised The community is already exposed to considerable outside influence (education, churces, tourism, commerce etc) and is hence more inclined to adopt change; however, presence of several ethnic groups (Tugen, Il Chamus, Turkana, Pokot) partcularly around the main towns makes group formation and cohesion difficult but not impossible
Sandai, Loboi & Kapkuikui Locations	 Economy is based on livestock (goats, cattle and donkeys), irrigated farming, bee-keeping limited craft-making and tourism and some parts have fair access to tarmac road, telephone and electricity Community is homogeneous (Tugen ethnic group), largely sedentary and well exposed to education and other modernizing factors
Ngambo, Eldume & Kiserian Locations	 Livestock is the dominant component of the community's economy (cattle and fewer goats but more sheep) and is supplemented by limited irrigated farming, bee-keeping and craft-making; quality of access road range from fair in Ngambo and Eldume to poor in Kiserian With increased human population, community is more or less sedentary Main ethnic group is Il Chamus who, in spite of a fairly long exposure to education and other modernizing influences, still cling strongly to some traditional values and practices (e.g.early girl marriage, female initiation etc)
Arabal Location	 Economy is based on livestock (cattle, goats, sheep), irrigated and rainfed farming, beekeeping; road access to Marigat town is difficult while education and other social facilities are few Area was relatively newly occupied by Tugen ethnic group and settlement pattern is mainly sedentary although semi-sedentary movements do occur Traditional attitudes and practices such as girl initiation rites are prevalent and education participation is relatively low

Table K.1-8: Comparative Overview of Rural Communities in the Study Area

Mukutani Location	 Economy is based on livestock (cattle, goats and sheep) as well as limited irrigated and rain-fed farming; the only access road to Marigat is poor, and there is no telephones or electricity while other social infrastructure such as health and education facilities are poor developed The community is homogeneous (II Chamus) and sedentary and semi-sedentary settlement tendencies co-exist The community's remote location and high loyalty to traditional cultural values has lead to the lowest participation in education (particularly girl-child education) as well as in other modern institutions
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K. 2 Farmers' Organizations

K.2.1 Justification for Farmers' Organizations

The Study Area is characterized by a harsh ASAL ecology where rain-fed agriculture is risky, drought and famine frequent and complete loss of livestock, from diseases and drought, not unknown. In addition, social infrastructure is inadequately developed. As part of its mechanism for coping with this difficult environment, people of the Study Area often resort to formation of community-based organizations and groups. These organizations have been formed with the aim of marshalling collective efforts for confronting specific constraints or problems such as inadequate rainfall, scarcity of surface water, lack of credit facilities and poor marketing structure for crops and livestock.

K.2.2 Types of Farmers'/Community Organizations

During the field study, the Study Team identified a variety of community-based organizations whose scope reflected specific needs and priorities of the local community. Hence, the organizations may be grouped into the following six categories:

1) Organizations Dealing with Irrigation Water Distribution

These organizations include semi-formal organizations such as "Water User Associations" which are registered with the Department of Social Services. They normally operate in a geographically distinct irrigation scheme with a permanent or semi-permanent intake and a fairly well defined water distribution system. There is normally a standard organization and management structure consisting of an elected management committee of 9-15 members including four office bearers i.e. chairman, vice-chairman, secretary and treasurer. In addition they have written by-laws which are supposed to guide how the scheme is operated and maintained. Examples of these semi-formal organizations are found at Sandai, Eldume and Kapkuikui irrigation schemes.

Also included in this group are the informal groupings of 3-8 people who collaborate to construct a temporary weir of sticks and mud for diverting water into their fields. The weir lasts only for one season and has to be reconstructed prior to onset of the following irrigation season. Typically, the groups do not have a defined organization structure, registration, written operation rules or formal meetings. However, there is usually one member who takes the lead in mobilizing the group. Such groups may be formed and disbanded fairly quickly depending on availability of water in the rivers. At the time of the field survey, such groups were estimated to be 20 in number. Examples of these informal groups are located all along the four main rivers (Perkerra, Molo, Arabal and Mukutani) as well as along several seasonal rivers draining into Lake Baringo.

2) Organizations Dealing with Livestock Health and Production

This category includes 16 cattle dip groups, "Marigat Pastoralists Association" and 9 dormant "Group Ranches". All these organizations possess a standard semi-formal organization structure and are registered with the Department of Social Services.

3) Water Supply Organizations

This category of organizations features community groups set up with the purpose of facilitating water supply to the community. The actual mechanisms for supplying the water include installation of pan/dam, piped system or bore-hole. The organization structure is semi-formal and registration with Department of Social Services is required before implementing project works.

4) Credit, Marketing and Input Procurement Organizations

This category features the only three co-operative societies that are known to have ever been initiated in the Study Area. These are the Marigat Co-operative Society and the now dormant Mogoswok and Lake Baringo Fishermen's Co-operative Societies. Although having an organizational structure similar to associations, co-operatives are formal, have to be registered with the Department of Co-operatives and are subject to direct taxation by the Central Government.

Also included are semi-formal organizations engaged in handling of commodities such as farm produce or procurement of farm in-puts. The organization structure has a typical semiformal pattern similar to irrigation water users' groups. The only available example of an organization dealing with inputs and farm produce is Sandai Water User's Association, which is dedicated to procurement of maize and horticultural seed and is planning to market maize and other farm produce on behalf of its members. Despite its name, however, the Sandai Water Users' Association does not deal with water use

5) Multi-purpose Women and Youth Groups

Included in this category are a relatively big number of groups whose organization structure range from informal to semi-formal. It is a requirement, however, that women and youth groups, be registered with the Department of Social Services before commencing their activities. Women and Youth groups are engaged in a wide variety of activities such as mobilization of savings and implementation of income generation projects. Characteristically, the groups have a short term-horizon and once the short-term objective is realized, they tend to disintegrate.

Some of the groups already operating on the ground are not registered while a majority of those registered have been dormant or dead for many years. For instance out of 138 registered

women groups only 58 or 42 percent were stated to be active on the ground as summarized in Table K.2-1.

	Nun	nber Registe	Number	Ø	
Type of Group	Marigat Division	Mukutani Division	Total	Number Active	% Active
Women Group	128	10	138	58	42%
Youth Group	58	24	82	23	28%

Table.K.2-1 Number of Women and Youth Groups in the Study Area

The instability of women and youth groups may also be explained by the approach of past support programmes. Between 1985 and 1997, women and youth groups were favoured targets of donor and government support programmes. During the field survey, it was indicated that formation of some women groups were, in the past, promoted by people outside the group membership with the sole purpose of attracting available funds even when no activities were on the ground or contemplated. Two instances were cited where two influential persons (both men) promoted formation of two women groups including assisting them to open a bank account and realize an initial target financial contribution. Having satisfied conditions set out by the funding agency (bank account and target contribution), the women groups then received matching funds into their bank account. Thereafter, the women groups convened a meeting and agreed to withdraw all the money from their account (initial contribution and donor agency's contribution) and divide it among themselves. The groups then ceased further operations although they are still registered in the books of the Department of Social Services.

Similar stories were told in respect of youth groups. There is, at present, a general belief that formation of a group is likely to attract donor funding in spite of having no on-going activities. However, in directing support to women and youth groups, funds would be better utilized in facilitating specific activities that are part of a viable economic undertaking.

6) Summary of Organization Types and Associated Activities

A summary of the types of farmers' organizations and related activities are presented in Table K.2-2.

Table K.2-2 Types of Farmer's Organizations and Associated Activities

Category of	Main Justification	Main Organization Activities
Organization - Irrigation Water Users' Association - Informal Irrigation Water Group - Cattle Dip Project	 Past crop failure as a result of inadequate and poorly distributed rains Ineffectiveness of individual effort Death of livestock 	 Seeking external assistance in planning and installing irrigation facilities Mobilizing community resources (labour, materials and money) Operating and maintaining irrigation system Planning and construction of dips
Groups	 through tick-borne diseases Individual initiative costly 	 Operating and maintaining dipping facilities
- Pastoralist's Association	- High cost of veterinary drugs	 Bulk buying & stocking of drugs Selling drugs to members at an affordable price
 Pan/Dam Group Bore-hole/Well Group Piped Water Group 	- Lack of nearby water supply for livestock and human consumption	 Mobilizing community resources Seeking external assistance in planning and installing pan/dam, bore-hole or pipes Operating and maintaining water facility
 Marketing/In-put Association/Group Co-operative Society 	 Low produce prices High input prices Poor marketing/Input procurement arrangements Lack of credit facilities, 	 Contacting and bargaining with buyers and input suppliers Installing and maintaining storage facilities Providing credit facilities to members
- Women Group - Youth Group	 Inadequate capital/income Ineffective out-put when operating alone Lack of employment opportunities 	 Pooling of labour and investment capital Procurement of domestic items e.g. utensils and productive assets such as livestock Initiation of income generating activities such as irrigated farming, rental housing, craft making, buying &sale of commodities, honey harvesting and marketing etc Mutual help during farm labour peaks and in meeting expenses in an emergency or during special occasions
- Informal Council of Elders	 Scarce pasture and water resources in relation to population increase Conflicts within and between communities 	 Defining grazing rules and arbitrating disputes Awarding of fines

K.2.3 Assessment of Selected Farmers' Organizations

1) Co-operative Societies

To gain an insight of the operational situation of co-operatives in the Study Area, case profiles of two co-operative societies are given below;

Observation Item	Comments		
Objective:	- To give members loans for farming, school fees and emergencies		
Current Status:	- Operational		
Membership	- 420 tenant farmers within the Perkerra Irrigation Scheme		
Strengths:	- Stock of physical assets i.e. Buildings, 2 tractors, 3 lorries and petrol station		
	- Loans are recovered by NIB and remitted to Co-op society free of charge		
	- Inadequate organizational and management skills		
	- Poor accounting systems		
	- Low share capital base		
Weaknesses:	- Presently lending volume is low and some member are resigning		
	- Poor corporate strategies including carrying out too many services		
	- Insufficient understanding of roles, rights and obligations by management and		
	ordinary members and annual general meeting has not been held for 2 years		
	Downsize current operations to only two activities i.e. tractor hire service and provision		
Recommendation	of loans; dispose lorries and petrol station; increase members' share capital in order to		
	enhance lending capacity; take on additional operation of stocking agricultural in-puts for		
	sale to members on credit and on cash to non-members		

Case Profile I: Marigat Co-op	erative Society

Marigat Co-operative Society is important since it constitutes the only farmers' organization in the highly centralized irrigation system of Perkerra. Should a policy decision be made to introduce participatory irrigation management (PIM) into Perkerra Irrigation Scheme, the Society has potential of offering crucial services such as credit, cultivation and agricultural inputs.

However, for the Society to perform this expanded role, it will need a more dedicated leadership as well as better informed and active ordinary members. The society may therefore benefit from structured support aimed at improving corporate planning processes and improving operational skills of management committee members.

Case Profile II: Mogoswok Co-operative Society

Observation Item	Comments			
Objective	To collect, refine, package and market honey on behalf of its members			
Current Status	Dormant			
Membership	About 1,000 members scattered all over Marigat and Kabarnet Divisions			
Strengths	Physical facilities that include two buildings, storage tank, honey processing machinery, some furniture			
Weaknesses	 Past deficient and dishonest management that ran the co-operative down in 1992 History of poor pay-out to farmers thus losing their confidence Membership too large thus making group cohesion weak Poor management structure with no provision for accounting, marketing or quality control services 			
Recommendation	 Initiate a programme for renewing members confidence and building capacity of management committee through structured training Raise members share capital contribution from the present Ksh 100 to 800 Pay outstanding Co-operative Bank loan estimated at Ksh 300,000, sell land-rover, and arrange for farmers to deliver honey to factory Recruit professional management team including quality control, accounting and marketing supervisors Pay farmers a fair price for delivered honey 			

Mogoswok Co-operative Society is a good illustration of how things can go wrong even with the best of intentions. As part of its BSAAP programme, the World Bank installed the society's buildings, honey refining equipment as well as perimeter fencing. SIDA, on its part, provided solar heating panels and associated plumbing. Apart from the nominal membership and share contribution, the farmers' contribution and involvement was negligible.

An irresponsible management committee misused society's resources, paid farmers low honey prices and failed to cultivate markets through contacts and quality management. The membership number was large (in excess of 1,000) and spread out and did not take active participation in the affairs of the society. Hence, honey refining and marketing operations ground to a halt, four years after initiation. Revival of the society will require building of farmers' confidence and a highly dedicated management committee must therefore be in place while support of the Departments of Social Services and Co-operative Development will be essential.

K.2.4 Assessment of Other Types of Organizations

Assessment of other types of farmers' organizations is summarized in Table K.2-3.

Type Of	Organization Assessment		Recommended Interventions
Organization	Current Strengths	Current Weaknesses	
- Irrigation Associations	 Irrigation Infrastructure already installed Existence of irrigation by- laws 	 Low capacity for planning allocation and distribution of irrigation water No provision for maintenance fund Irrigation water rights not secured through water permit renewals 	 Strengthen water associations through planning support Train in organizational and leadership skills, irrigation water management and maintenance of irrigation system Provide support in securing water rights
- Informal Irrigation Groups	- Fewer members who know each other well	- Unsecured water rights	-do-
 Input/Marketing Associations Sandai Water User's Association Marigat Pastoralist Association 	- Ready market for inputs	 Low capital base Poor management and organization skills e.g. Marigat Pastoralists' Association. 	 Community mobilization to create wide awareness about the organization Expand membership beyond the current 50 founder members Strengthen organization by training in book keeping and technical understanding of drugs
 Cattle Dip Group/Water Pan/Water Groups Women Groups /Youth Groups 	 Often facility is already in place Members in most cases 	 Deficient leadership and organization skills Operational procedures not well understood by members and even management committee Leadership and organization skills low 	 Create community awareness on need for dipping and use of correct dosage when dipping or spraying Train management committee on leadership and business management skills Prepare operation manual for each facility Strengthen groups through training in organization and management skills
	know each other well	 Poor record keeping Interest limited to short term objectives Infrequent meetings Groups too large leading to lack of cohesion 	 Train in records and book-keeping skills Train in quality control as well as marketing Promote formation of "Study Area Association of groups" where exchange of knowledge and experience can take place

Table K.2-3 Assessment of Other Types of Farmers Organizations

K.2.5 Underlying Reasons for Poor Performance of Farmers' Organizations

K.2.5.1 Incomplete Adaptation Old Social Organizational Norms to New Organization Requirements

Community organization and group action have long traditional roots within the Study Area as illustrated by:

- Traditional ceremonies which often required pooling of resources from kinship, lineage or clan members
- Installation of indigenous irrigation activities (in the 1890s and 1930s) which required a certain level of localized community organization and mobilization for group action
- Organization of livestock raiding expeditions which were based on meticulous planning and group co-ordination

However, the nature of such traditional organization was mainly ad hoc and lacked formal structures and processes geared to continuous action. Indeed, organization operational goals were limited in time (a few days or months) or in space (the immediate neighbourhood, village, or next community).

However, community organization that have emerged over the last 20-30 years (cooperatives, water users associations, women & youth groups) are theoretically expected to endure indefinitely. They all have a formal organizational structure consisting of ordinary members, management committee of 9-15 members and four office bearers i.e. chairman, vice chairman, secretary and treasurer. As in other parts of the country, the transition from the informal organizations (for pursuing limited objectives) to formal organizations (geared to achieving more ambitious objectives in time and space) has not been successfully made. Incomplete adaptation of old social organizational norms to the requirements of new organization may partly explain the disappointing performance of many of them.

Because of this incomplete adaptation, the performance of these new organizations has depended much on the style and charisma of their leaders (chairmen) as exemplified by two contrasting dip groups viz: at Kapkuikui (success) and Ngambo (resounding failure). A change in the quality of leadership (same person or different persons) is therefore likely to be accompanied by an appreciable response in organization performance.

However, long term viability of these new groups should depend less on a single leader and more on internal dynamics of the group. In particular, sustainability of the group must be based on cohesive forces that pull members together because they have:

- A shared experience
- A common vision
- A mutual responsibility towards each other.

K.2.5.2 Individual Interests Versus Group Interests

Traditionally, a person's preferences were always placed below the interest of the group and any attempt to subvert group interests was regarded as anti-social. An individual displaying such behaviour was severely punished in terms of fines or exclusion from further social contacts with members of the group. With the onset of the capitalist market economy, by the turn of the century, these traditional sanctions have been progressively eroded while modern legal processes have proved inadequate. Consequently, community members are becoming increasingly selfcentered and persons elected to positions of group leadership have tended to convert group assets to their own benefits. In the course of field survey, this was stated to be the case in respect of Mogwosok co-operative Society and Marigat Women Group. In the country as whole, the prevalence of individuals gaining advantage at the expense of the group underlies the current troubles facing the co-operative movement today.

If a farmers' organization is to become and remain strong, individual interest must be placed lower than those of the group as a whole. This can only be achieved if the members have:

- A clear understanding of their rights as well as obligations
- Appreciated the role of the leadership they elect including its performance standards
- Acquired the courage to use social as well as legal sanction against members (including management committee) who subvert the collective interest of the group

K.2.5.3 The Way Forward in Strengthening Farmers Organizations

A strategy for strengthening farmers' organizations must consist in defining fairly simple processes (step-wise activities) that improve organization formation, enhance group participation and identity as well as promote transparency in the conduct of group-related activities.

K.2.6 Forthcoming Scenario of Farmers' Organizations without Intervention

1) Co-operative Societies and Irrigation Groups

Without intervention, the only functional co-operative society within the Study Area i.e. Marigat Co-operative Society, is likely to decrease its capacity to provide loans and other services. Members will then become disillusioned and, as indicated in an interview with one of the employees, continue to resign from the organization. The situation could become unbearable and lead to physical confrontation between ordinary members and the management committee as is happening in the co-operative coffee sector. In the end, Marigat co-operative society could become dormant just like Mogoswok Co-operative society. With regard to irrigation groups, lack of positive intervention is likely to lead to the following scenario:

- Areas currently under irrigation will display increased incidences of water disputes and conflicts
- The conflicts will occur within each scheme, between schemes as well as between irrigators and livestock keepers
- Rise in water table and associated salinity problems will become significant as a result of inappropriate irrigation techniques
- Secure of water rights will continue to be disregarded and some water groups will soon or later be forbidden by law to use water for irrigation.

2) Dip Groups and Marigat Pastoralist Association

Livestock diseases are already endemic within the Study Area. Hence without intervention, more dips are likely to cease operation while those that remain will continue to be poorly operated and maintained. In turn, this will lead to increased incidence of tick borne diseases, high livestock mortality and ultimately reduced level of community's livelihood.

At the same time, operation of Marigat Pastoralists' Association will cease operations and pastoralists' will miss an alternative source of more affordable drugs. This decline is already much in evidence as shown by the Association's trading turnover that has fallen from Ksh 327,000 in 1997 to a projected Ksh 90,000 this year.

3) Women and Youth Groups

Operation of these groups is likely to decline since short time objectives will still dominate their planning perspective. The number of active groups (women and youth) can be expected to be reduced by half from the present 81 to a projected 40 in 5 years' time. In addition, performance and turnover of these groups will remain unclear because the standard of record keeping will still be poor.

K.3 Gender Issues

K.3.1 Policy Environment

The Kenya Government is a signatory to the U.N Women Conferences in Nairobi (1985), and in Beijing (1995) as well as to the 1995 Commonwealth Plan of Action on Gender and Development. Hence, the Government is committed to taking positive action aimed at empowering women to play a more meaningful role in development. More specifically, the government has put in place mechanisms for addressing women's economic marginalization and social vulnerability. The establishment of the "Women's Bureau" within the Department of Social Services (DSS) and a "Gender Management Unit" in the Ministry of Agriculture and Rural Development is an indication of this commitment.

K.3.2 Conceptual Framework on Gender Issues

Over the last five years, the conceptual focus has shifted from "women in development" (WID) to "gender and development" (GAD). WID policies aim at integrating women into existing structures and at addressing women specific needs and concerns. The emphasis in WID is on how women must change to fit into a man-made world. GAD, however, aims at integrating gender awareness and competence into mainstream development in order to account for different gender roles and different impacts of development projects on men and women. GAD emphasizes that all development activities affect men and women differently and calls for incorporation of a "gender perspective" when planning development projects. It is understood that the Government is now geared towards pursuing the more ambitious GAD policy.

Gender Perspective Defined

A gender perspective looks not at women alone but at the relationship between women and men and how societies are structured along gender lines. It is focused on four broad areas:

- Women involvement, concerns, needs, aspirations as well as those of men
- Outcomes of projects on women, men and children
- Assessment regarding how project benefits are distributed within a household and within the community

Gender Needs and Gender Planning

Because men and women have different capabilities and responsibilities, they also have different gender-specific needs. If gender roles and gender needs are clearly understood, planning is more effective. Hence programmes and projects are more likely to be designed with different needs of the people, who are supposed to benefit, explicitly being taken into account. Women tend to perceive their needs as being practical and will focus on ways to make their day to day work easier. In trying to meet practical needs, the underlying strategic needs should also be identified so that progress can be made towards changing women status in society.

Practical Gender Needs

Practical gender needs relate to what is required to perform current roles more easily, effectively or efficiently. In this regard, projects can be designed to meet the practical gender needs of both men and women without necessarily changing their relative position in society.

Examples of actions that address women practical needs include:

- Reducing their work load e.g. convenient location of a water supply point; provision of grinding mills; developing fuel efficient cooking stoves
- Improving health e.g. primary health centers, clean water supply
- Improving services e.g. primary schools, transport facilities and housing
- Increasing income e.g.income-generating activities skills training, credit groups, access to markets

Strategic Gender Needs

Some cultural and legal structures place women on a subordinate position in society. Hence strategic gender needs are concerned with changing the relative position of women in relation to men. Specific interventions must therefore be formulated and implemented with the aim of improving women's position in society. Examples of actions that address women's strategic needs include:

- Improving education opportunities e.g. adult literacy classes, female teachers provided as role models, gender neutral textbooks
- -
- Improving access to productive assets, e.g. legal status on land ownership, rights to common property, bank accounts
- Allowing women to take part in decision making e.g. local committee on development projects, participation in elections, establishment and support to women groups
- Allowing equal opportunities for employment, e.g. access to jobs traditionally done by men; equal pay for comparable jobs even if there is a gender division of labour
- Allowing equal access to education, health ,nutrition and freedom from sexual and physical violence

The above actions take time to bear results. This is so because the actions require (a) change in a community's attitude towards women and (b) drastic review of cherished traditions and cultural practices.

Area of Special Interest to Women

On the basis of RRAs, PRAs and PCMs conducted in the Study Area, women practical and strategic needs are likely to met by the following interventions:

- Establishment of income generating activities tailored towards women e.g. handicrafts, poultry rearing, honey refining &packaging, vegetable and fruit growing as well as small business enterprise and cottage industries
- Introduction and promotion of labour saving tools and devices e.g. hand-held maize shellers, grain-milling devices, improved cooking stoves, improved water supplies & sanitation, nutrition and food production
- Improved methods and approaches for adult literacy including civic education
- Improvement of water and health services
- Setting up of a gender unit and women information center at district or divisional level

K.3.3 Status of Women in the Study Area

1) Traditional Status of Women

In the past, communities within and around the Study Area often engaged in livestock rustling aimed at enlarging or re-establishing the respective community's livestock resources. These raiding missions were executed by young warriors thus making the male-child to be a comparatively more valued asset. Furthermore, communities within the Study Area are both patri-lineal and patri-local implying that family lineage and inheritance are traceable through the male-child. Again, a family's projection into the future is through the male offspring. For instance, when a man died, his property was inherited by the sons usually the first son taking a bigger share. On the other hand, if a woman died, her assets were inherited, not by the daughter, but by her last son. A man who did not have a son was therefore facing a dead end since he could not guarantee his family lineage into the future.

It is against this background that the present status of women within the Study Area may be discussed.

2) Present Status of Women in the Study Area and Related Implications

Past traditions and cultural practices still shadow the present. In comparison with male counterparts, a female has less social standing and has fewer opportunities for accessing education, productive resources (land and livestock) as well as employment. At the same time, she is regarded as a junior partner in a marital relationship and during her lifetime she is likely to face some form of physical violence.

As a result of their status, women of the Study Area control fewer economic resources than men and have less access to market information, credit as well as technical advice. They have less say in decision making on important domestic or community level issues even about issues that directly affect them (e.g. marriage, initiation rites, deployment of their labour etc).

Yet women within the Study Area are responsible for a wide range of tasks that support and sustain life in the household and the community as a whole. Among other tasks, women are responsible for fetching firewood and water, procuring and processing food, as well as caring for the young and sick. Women relationships with key aspects of the household economy are not, however, matched with their considerable responsibility. Although expected to deliver crucial services within very tight deadlines (food at early morning and early evening), she has limited control of the family budget and even less on the land on which food crops are grown.

The relationship between women and key aspects of the household economy is outlined in Table K.3-1, while the pattern of asset ownership and decision making is presented in Table K.3-2.

Aspects	Comments
Access to agricultural Land	Access through father, husband or other male relative.
Land /Crop management	Limited decision making capacity; most of the decisions are made by
	husband except in female-headed households.
Livestock	Has access to livestock products but husband retains ownership and
	disposal of large livestock; may own goats but disposal must be agreed
	with husband; can own and freely dispose chicken and eggs.
Relative contribution to	Responsible for the bulk of household tasks: reproduction, water, fire-
household labour	wood, food processing, milking, cooking, house thatching, house-
	plastering, herding small livestock, planting, weeding, harvesting, cloth
	& utensil making and mending, caring for the young, old and the sick.
Food crop	Has control of stored produce for home consumption and of vegetables
	for home use sale and use the accruing cash; husband controls crops that
	generate significant amounts of cash.
Share of household benefits	Takes a low share in relation to her large labour contribution.
Precedence in eating	Wife eats last after husband and children have eaten.
Relative level of education	In most instances, less educated than husband; high level of female
	illiteracy (estimated at over 80%) in Study Area.
Access to Education	Low enrolment compared to males.
Access to Health facilities	Given the existing cost sharing arrangements, women have less access
	to quality health care since they possess limited disposable income.

 Table K 3-1
 Women Relationships to Key Aspects of the Household Economy

Household	Ownership		Decision Making		Trung of desisions	
Item	Husband	Wife	Husband	Wife	Type of decisions	
House	XX	XXX	XXX	XXX	- Moving house; Construction and renovation	
Cattle	XXX	X	XXX	X	- Grazing;Restocking; sale and slaughter	
Goat	XXX	XX	·XXX	X	-do-	
Sheep	XXX	XX	XXX	X	-do-	
Chicken	X	XXX	XX	XXX	- When to restock, sale, or slaughter	
Furniture	XX	XXX	XX	XXX	- When to replace or repair	
Radio	XXX	X	XXX		- When to open or repair	
Bicycle	XXX		XXX		- When to buy, use and repair	
Utensils		XXX		XXX	- When to replace or discard	
Handicrafts				XXX	- When to make and sell	
Tools	XXX	XX	XXX	XX	- When to restock, repair or discard	
Stored Grain		XXX	XXX	XX	- When to process for food or sell	

 Table K.3-2
 Asset Ownership and Household Decision Making in the Study Area

Key: XXX = Main Responsibility; XX = Some responsibility; X= Limited Responsibility

3) Organizations Implementing Activities Relevant to Uplifting of Women Status

Within the Study Area, there are a number of organizations carrying out activities that contribute towards uplifting of the status of women in the Study Area. Such organizations and relevant activities are summarized in Table K.3-3

Table K.3-3Organizations Involved in Uplifting Women Activities

Name of Organization	Activities Relevant to Up-lift of Women Status	General Assessment
1. Department of Social Services	 Promotes and registers women groups Trains women group leaders on operation and management aspect 	 Handicapped by low budgetary provision and inadequate staff Staff not fully trained in appropriate participatory methods
2. Women's Bureau	 Formulates national policy on women Represents women issues to higher GOK authorities 	 Lacks direct representation at the district level and is inadequately funded Appears not sufficiently aggressive or independent
3. Catholic Church	 Promotes and supports women groups Avails credit facilities for income generation activities and supports schools 	- Does not take a strong stand on cultural practices detrimental to women e.g. female genital mutilation (FGM)
4. African Inland Church	 Initiates and supports schools Takes a firm stand on cultural practices harmful to women including FGM 	- Insufficient funds
5. World Vision Kenya	 Initiates and supports educational institutions Sponsors education of children from poor families 	- Limited budgetary provisions

6. CCF	-do-	-do-
7. Maendeleo ya	 Takes an active role in fighting FGM Undertakes general education of women	 Inadequate funds and out-reach staff Poor linkages with other organizations
Wanawake	leaders on development matters	supporting women development
8. Ministry of Agriculture and Rural Development	 Has a gender sensitization unit as part of its extension services Advises inclusion of women in farmers organizations supported by the Ministry of agriculture 	 Gender sensitization unit not known at the grass-root level Women extension officers very few compared to male counter-parts
9. Ministry of	 Supports initiation and operation of	 Inadequate funds Not sufficiently aggressive in taking
Education	education facilities	affirmative action in female education

The above organizations are contributing towards change in social attitudes in respect of women and their status in society. Given the entrenched value systems, particularly within the II Chamus community, this change is likely to take some time. A vision should, nevertheless, be upheld when men and women of the Study Area will have equal rights and opportunities and when women will be respected and valued as equal partners in the development process.

K.4 Agricultural Supporting Services

K.4.1 Agricultural Extension

The District office of Agriculture and Livestock Extension the Ministry of Agriculture and Rural Development(MARD) have two offices for District Agriculture/Livestock Extension Officer and Veterinary Officer. In the District Agriculture Extension office, there are several officers who take in charge of crop and horticulture, soil conservation, farm management, marketing, irrigation, home economy, rural youth, coffee, animal production and range management. The Marigat divisional office of MARD for agricultural sector covers two divisions of Marigat and Mukutani. The office has two subject matter specialists, respectively irrigation and soil conservation officers. As for extension workers in the field, three Technical Assistants, three Junior Technical Assistants and five Technical Field Assistants are assigned for Marigat division For Mukutani division only one Junior Technical Field Assistant is staying. Thus twelve extension stuff cover about 6,080 farmers in Study Area, namely a worker per about 500 farmers (refer to Figure K.4-1 to K.4-3).

If veterinary assistants stuff are taken into account about 300 farmers are covered by either extension stuff or veterinary assistants. The coverage of farmers per extension stuff is quite inadequate, taking into account the special conditions that there are 178 villages, which are scattered in remote area. No transportation facilities are available for these extension stuff. Thus the activities of extension stuff and veterinary assistants are disturbed particularly by poor transportation facilities (refer to Figure K.4-4).

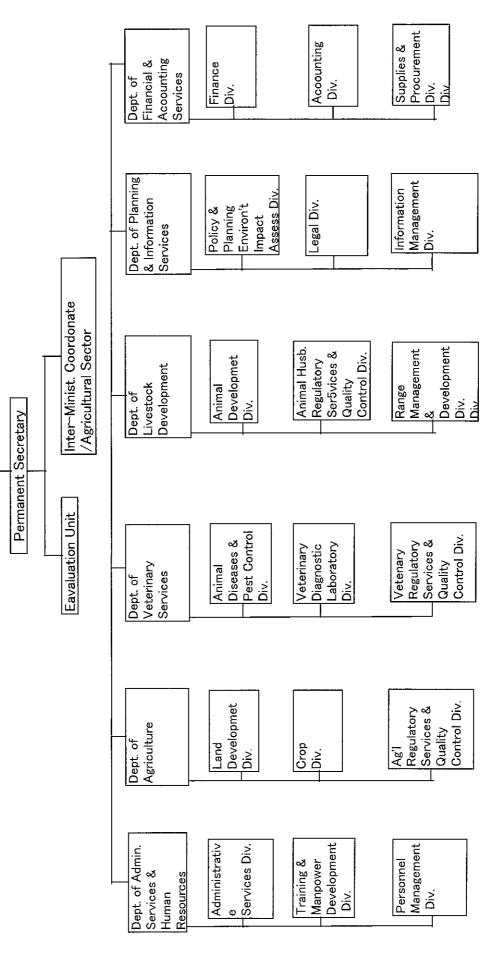
K.4.2 Research

A Regional Research Center Perkerra is located in Marigat Division under Ministry of Science and Technology, which will be transferred to MARD. The center has four research divisions for Livestock, crops, soil and water, and a division of research extension linkages. This center covers the ASAL areas including Baringo, Koibatek ,Keriyo, Marakwet and Samble districts.

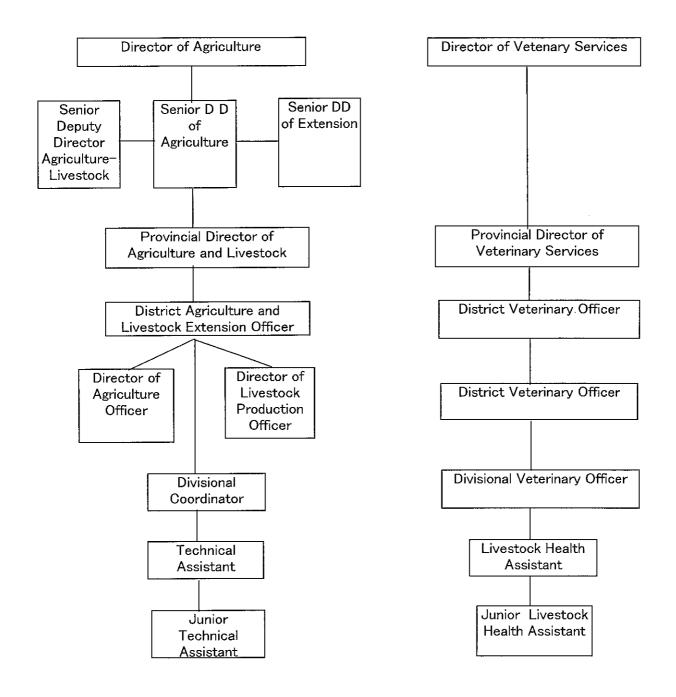
The provincial office sends a staff for the strengthening of linkages between research and extension. The monthly meeting between the center and MARD is hold for the Center Research Advisory Council which is organized in the center. Also Regional Extension Advisory Committee is organized to have coordination activities between the center and the agricultural sector in the above said districts. The building facilities are renovated in 1994 under the "National Agricultural Research Program" which is assisted by World Bank. However the necessary equipment of soil and plant analysis laboratory, meteorological and audio-visual aid and office are not available. Therefore the research activities regarding to semiarid area are limited. For example even basic meteorological data are not collected properly at the station.

Ministry of Agriculture and Rural Development(Except Dept. of Rural Development) Figure K.4-1

Minister

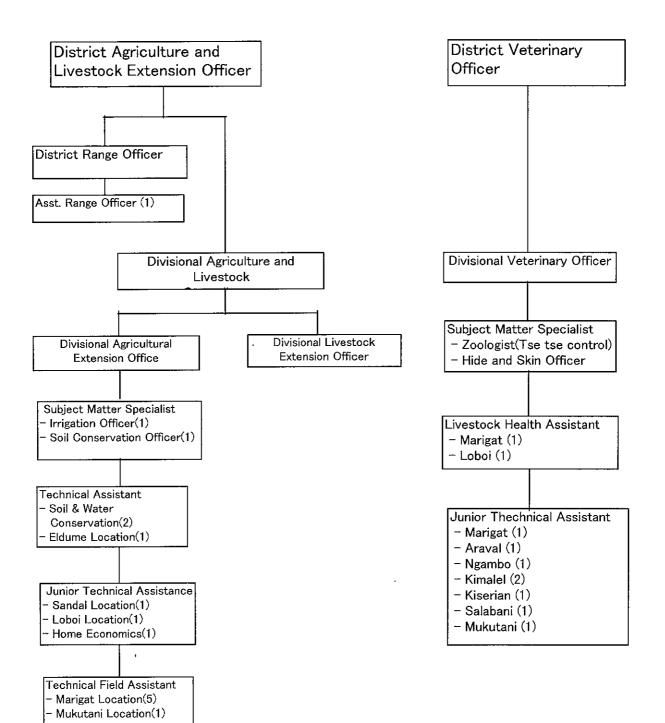


Source: MARD

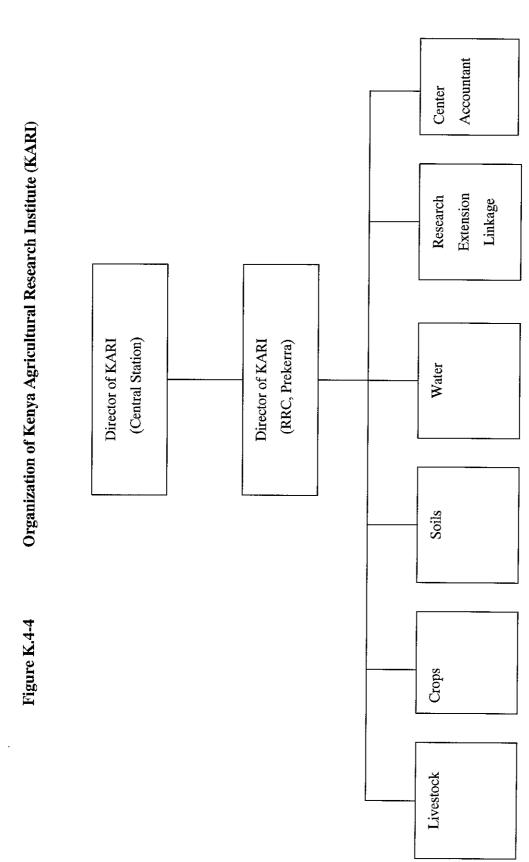


Source: MARD, Baringo District

Figure K.4–3 Organization of Ministry of Agriculture and Rural Development(Excluding Dept. Rural Development)



Source: MALR, Marigat



Source :Regional Research Institute, Perkerra, KARI

L. ECONOMIC CONDITIONS

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L.1 Overview of the Country

Year	1976	1986	1996	1997
GDP (US\$ billions)	3.5	7.2	9.2	10.2
Interest payments/GDP (%)	1.5	2.6	2.6	1.8
Total debt/GDP (%)	43.0	63.4	74.6	67.7
Balance of payments (US\$ miliiions)				
Exports of goods and services	1,106	1,871	2,973	3,154
Imports of goods and services	1,104	2,164	3,401	3,790
Resource balance	2	-293	-428	-636
Current account balance	-127	-475	-221	-336
Structure of the Economy				
(% of GDP)				
Agriculture	37.9	33.0	29.5	28.8
Industry	18.6	18.6	16.1	15.5
Manufacturing	11.3	11.9	10.2	10.1
Services	43.5	48.4	54.5	55.6
Private consumption	61.6	59.7	68.2	71.7
General government consumption	17.5	18.3	15.5	16.9
Imports of goods and services	31.8	25.6	37.0	37.0
Year	<u> </u>	1976-86		1987-97
Average annual growth (%)		· · · · · · · · · · · · · · · · · · ·		
GDP		4.3		2.5
GNP per capita		0.6		-0.2
Exports of goods and services		1.0		5.0
(GDP by sector)				
Agriculture		3.4		1.2
Industry		4.2		2.6
Manufacturing		5.6		3.3
Services		5.7		3.9
Private consumption		2.7		3.2
General government consumption		3.1		9.5
Gross domestic investment		-0.3		1.2
Imports of goods and services		-4.5		9.4
Year	1970-75	1980-85	1990-96	· · · · · · · · · · · · · · · · · · ·
Annual population growth rate (%)	3.6	3.8	2.6	
Total fertility rate (births per woman)	8.1	6.9	4.6	
Access to safe water				
Total	17	27	53	
Urban	100	61	67	
Rural	4	21	49	
_ife expectancy at birth				
Total	51	52	58	
Male	49	50	57	
Female	53	54	60	
nfant mortality (per thousand live births)	98	64	57	

Table L.1-1 Economic and Social Indicators at Long-term Trends in Kenya

Source: World Bank, "Country Assistance Strategy", 1998

1996–2000
Indicators
and Social
Economic a
1-2 Key
Table L

Item	Unit	1996	1997	1998	1999	2000 *
Population	million	26.3	27.1	27.9	28.7	29.3
Growth of GDP at constant prices	%	4.6	2.4	1.8	1.4	-0.3
GDP at current prices	Ksh mn	528,740	623,235	690,842	740,330	788,917
Trade balance	Ksh mn	-50,286	-70,228	-76,608	-83,842	-113,277
Money supply (M3)	Ksh mn	267,828	294,052	303,750	312,116	314,686
Total domestic credit	Ksh mn	279,235	327,412	350,629	371,366	381,325
Balance of payments (current account)	Ksh mn	-4,200	-26,829	-28,688	-6,875	-18,145
Coffee marketed production	'000 tonnes	103	68	51	64	98
Tea marketed production	'000 tonnes	257	221	294	249	236
Maize marketed centrally	'000 tonnes	296	205	218	224	201
Wheat marketed centrally	'000 tonnes	130	124	177	53	71
Milk sold centrally	mn litres	257	197	126	180	137
Manufacturing output	Ksh mn	576,400	675,240	703,000	742,500	661,200
Construction output	Ksh mn	32,220	33,140	37,800	43,214	47,103
Cement consumption	'000 tonnes	11,612	1,137	1,072	1,014	846
Petroleum consumption	'000 tonnes	2,231	2,175	2,199	2,312	2,448
Electricity consumption	GWH	3,488	3,672	3,602	3,685	3,321
Tourism earnings	Ksh mn	25,600	22,640	17,509	21,367	19,593
Wage employment	000,	1,619	1,647	1,665	1,674	1,677
Education-primary enrolment	000,	5,598	5,677	5,920	5,792	5,883
Education-secondary enrolment	000,	658	688	701	639	652
Education-post secondary enrolment	000,	86	89	76	11	06
Hospital beds and cots	number	49,331	50,909	52,186	54,378	57,416
GDP per capita at Current Price	Ksh	17,096	19,788	21,267	22,208	22,943
	US\$	311	316	344	305	296
GDP per capita at Constant Price	Ksh	3,732	3,708	3,665	3,613	3,528
	US\$	68	59	59	50	46
Exchange rate (to US\$)	Ksh	55.021	62.630	61.830	72.931	77.485
Consumer prices (1982=100)		517	575	613	635	674
Annual inflation rate (%)		9.1	11.2	6.6	3.6	6.1
<u>Real wages (1982=100)</u>		113	108	112	111	109
Source: Economic Survey 2001, Statistical Abstract 2000, Leading Economic Indicators Aug. 2001 * Provisional	al Abstract 2000, Le	eading Economic	Indicators Aug.	2001		

Constant Price (1982=100)

							,		(Unit: Ks	(Unit: Ksh million)
	1000		Current Prices		. 0000	1000	Consta	Constant (1982) F	Prices	- 0000
	1990	1881	1 2 2 0	1 3 3 3	* 0002	1330	1881	1220	6661	* 0007
A NON-MONETARY ECONOMY						0001		0 1 1		
Forestry	1,688.0	1,/24.2	1,800.4	1,831.0	1,8/4.2	0.221	/42.0	8.10/	102.3	1.011
Fishing	111.2	136.6	135.0	135.4	137.6	28.4	29.4	29.6	29.7	29.5
Building and Construction	2,431.4	2,492.0	2,528.0	2,599.8	2,667.4	1,598.2	1,617.4	1,619.0	1,620.4	1,628.5
Water Collection	1,354.4	1,437.8	1,518.4	1,612.0	1,711.0	573.8	594.6	619.0	634.4	650.3
Ownership of Dwellings	7,410.2	8,089.2	8,261.0	9,022.0	9,870.0	2,492.2	2,579.4	2,656.8	2,710.0	2,747.0
TOTAL NON-MONETARY ECONOMY	12,995.2	13,879.8	14,242.8	15,200.8	16,260.2	5,415.2	5,562.8	5,676.2	5,756.8	5,826.0
B MONETARY ECONOMY										
1 Enterprises and Non-Profit Institutions										
Ariculture	124.660.0	137.999.0	148.018.0	139,936.0	124,411.0	24,507.0	24,751.0	25,121.6	25,425.0	24,813.0
Forestry	4,477,0	5.093.8	5.361.6	5,639,4	5.922.0	1.300.0	1,339.0	1.380.8	1,415.4	1.387.6
Fishing	1 367.4	1,688.8	1.638.2	1.636.4	1.664.8	284.8	304.0	309.0	312.4	305.8
Mining and Disruing	741.9	8154	893.9	903.8	1 142 9.	240.2	243.4	246.8	252.0	254.2
	A7 759 A	FI ADA O	65 070 7	78 534 7	87 073 G	131526	12 408 8	12 506 6	137395	125266
			1010.00		0.010,10	2 400 X	0.0001.01	0.500.0	0,102.0	0 409 0
Building and Construction	11,383.2	10,17,01	Z1,404.0	24,470.0	20,400.2	2,423.4	2, 2, 0, 0 7	1.100,2	2,000,2	2,432.0
Electricity and Water	4,400.0	4,840.0	5,443.6	5,755.8	5,912.9	9/4.4	1,013.8	1,038.8	1,054.4	1,011.2
Trade, Restaurants and Hotels	82,895.2	109,804.0	123,452.6	137,316.4	150,253.0	11,933.6	12,407.4	12,693.4	12,947.2	13,077.4
Transport, Storage & Commuications, Finance,	35,471.2	41,816.0	43,255.2	45,616.8	49,892.0,	5,931.6	6,047.4	6,118.0	6,202.0	6,326.0
Insurance										
Real Estate and Business Services	55,718.6	68,747.0	75,009.8	76,078.0	69,750.0	9,843.1	10,360.8	10,690.3	10,904.1	10,945.0
Ownership of Dwellings	18,722.0	20,968.6	22,352.6	24,368.8	27,177.6	5,406.4	5,593.8	5,705.6	5,796.6	5,877.8
Other Services	16,372.0	19,973.8	23,721.2	27,790.4	33,151.6	3,367.0	3,438.8	3,499.6	3,569.6	3,587.8
Less: Imputed Bank Service Charges	-36,107.2	-39,296.2	-47,126.6	-42,178.0	-30,758.0	-3,826.7	-3,972.1	-4,099.2	-4,195.1	-4,245.6
Total	374,059.0	445,828.1	489,324.9	525,958.5	552,959.6	75,544.4	77,411.7	78,809.0	79,946.4	79,358.8
2 Private Households										
(Domestic Services)	5,683.4	6,174.8	6,710.2	7,293.6	7,928.6	2,496.4	2,641.2	2,793.0	2,920.4	2,990.0
3 Producers of Government Services										
Public Administration	13,515.6	15,635.8	17,897.6	14,792.6	15,929.4	I	I	I	I	1
Defence	1,295.4	1,379.9	1,395.4	1,718.3	2,122.6	ł	ı	T	I	1
Education	31,046.4	40,598.6	50,264.2	56,532.3	60,300.6	I	ı	ł	I	I
Health	5,205.2	6,187.2	6,493.8	7,465.6	7,513.6	I	I	I	I	ŀ
Agricultural Services	2,010.8	2,236.4	2,026.8	2,950.6	3,851.0	I	1	ŀ	I	I
Other Services	3,810.4	4,343.6	4,997.0	5,449.3	5,353.6	I	ı	ı	I	I
Total	56,883.8	70,381.5	83,074.8	88,908.7	95,070.8	14,695.8	14,857.2	14,974.5	15,077.9	15,181.9
TOTAL MONETARY ECONOMY	436,626.2	522,384.4	579,109.9	622,160.8	655,959.0	92,736.6	94,910.0	96,576.5	97,944.7	97,530.7
TOTAL MONETARY AND NON-MONETARY ECONOMY	449,621.4	536,264.2	593,352.7	637,361.6	672,219.2	98,151.8	100,472.8	102,252.7	103,701.5	103,356.7
ESTIMATED POPULATION	26.3	27.1	27.9	28.7	29.3	26.3	27.1	27.9	28.7	29.3
GDP PER CAPITA	17,095.9	19,788.3	21,267.1	22,207.7	22,942.6	3,732.0	3,707.5	3,665.0	3,613.3	3,527.5
Source: Economic Survey 2001 * Provisional										

.

Table L.1-3 Gross Domestic Product (GDP) 1996-2000

	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	1998 1999 1.4 1.1 0.3 -0.7	
04 03 <th03< th=""> 03 03 03<</th03<>	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		9 2000 +
0.4 0.3 0.3 0.3 0.3 0.3 0.7 1.3 0.0 0.0 0.0 0.0 0.0 0.3 0.7 1.3 0.7 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.7 0.7 0.7 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.7	0.4 0.3 0.3 0.3 0.3 0.3 0.3 2.7 0.5 0.5 0.0 0.0 0.0 0.0 35 0.5 0.5 0.5 0.4 15 14 15 35 stitutions 1.6 1.5 1.4 1.4 1.5 3.3 stitutions 2.7 2.9 2.6 2.4 2.4 2.7 1.6 1.5 1.4 1.4 1.5 3.3 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.6 3.7 2.4 2.7 2.7 2.7 2.7 2.7 2.7 2.7 2.7 3.5 3.5 3.6 3.0 3.0 3.0 3.0 3.0 3.6 3.7 2.7 2.7 2.7 2.7 2.6 2.1 1.9 1.9 1.9 1.9 1.9 2.6 2.6 2.7		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		1.1 2.2
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Table L.1-4 Contribution by Sector and Growth of Gross Domestic Product (GDP) 1996-2000

As at 31st Devember	1994	1995	1996	1997	1998	1999	2000 *
Central Bank of Kenya							
	17.90	20.90	21.61	26.36	12.56	20.47	13.47
Advances against Tresury Bills	20.50	23.50	26.88	21.26	17.56	26.47	19.47
Bills and Notes under Crop Finance Scheme							
Discounts	21.50	24.50	26.88	31.26	17.56	26.47	19.47
Advances	21.50	24.50	26.88	31.26	17.56	26,47	19.47
Other Bills and Notes:							
Discounts	21.50	24.50	26.88	31.26	17.56	26.47	19.47
Advances	21.50	24.50	26.88	21.26	17.56	26.47	19.47
Advances against Kenya Government Securite	21.50	24.50	t	I	Ι		
Kenva Commercial Banks							
3 months -less than 6 months	1.20-15.87	0.48-18.07	13.26-18.05	17.27	14.84	10.27	6.29
6 months –less than 9 months	1.35-15.79	0.65-14.27	12.85-17.24	15.52	13.34	8.63	6.65
9 months -less than 12 months	1.80-16.82	0.12-13.47	12.44-16.64	13.85	13.93	9.25	5.91
Sh 2 million and above Savings Deposits	8.56-15.73	6.89-12.09	17.95-14.49	9.77	7.89	6.15	4.51
Loans and Advances (maximum)	30.93	33.14	34.60	30.43	27.13	25.19	19.60
Other Financial Institutions							
Kenya Post Office Savings Bank Deposits	10.00	6.00	6.00	6.00	6.00	5.00	5.00
Agriculture Finance Corporation Loans							
(a) Land Purchase	20.00	20.00	20.00	20.00	20.00	20.00	20.00
(b) Seasonal Crop loan	20.00	20.00	20.00	20.00	20.00	20.00	20.00
(c) Other	20.00	20.00	20.00	20.00	20.00	20.00	20.00
Hire-purchase Companies and Merchant Banks					1		
Deposits (time)	8.00-17.50	8.00-18.50	8.00-23.00	8.40-24.00	7.76-12.43	6.0-15.25	6.01-10.36
Loans	9.00-27.00	3.00-33.50	8.00-36.50	33.70	28.55	25.51	22.42
Building Societies							
Deposits	1.50-30.00	4.00-30.00	4.00-28.00	6.20-19.10	5.94 - 19.84	8 25-12 00	563-1150
Loans	29.00	26.00	31.00	25.00	24.90	21 47	10.00

Table L.1-5 Principal Interest Rates, 1994-2000

L-7

* As of December 2001

	Visitors in	Holiday	Business	Other	
Year	Transit	Visitors	Visitors	Visitors	Total
1996	56,200	820,800	103,700	22,300	1,003,000
1997	72,300	804,800	101,700	21,800	1,000,600
1998	101,900	686,900	86,800	18,700	894,300
1999	107,400	746,900	94,400	20,600	969,300
2000 *	138,500	778,200	98,300	21,500	1,036,500
Source: Ecol	Source: Economic Survey 1999		An and a management of the second		
* Provisonal					

Table L.1-6 Total Reported Arrivals 1996-2000

Table L.1-7 Percentage Increases in Nairobi Consumer Prices* 1996/95 - 2000/99

12.0 e.4	5.8		2000/99
Kα		2.6	5.9
+.5	9.3	6.1	7.1
10.9	9.1	6.0	7.7
11.2	6.6	3.5	6.2
	irobi Upper Income Index 8.9 10.9 /eighted Average Increases 9.0 11.2 for 12 Months (Inflation 9.0 11.2 rates)***		9.1 6.6

Tigures are derived from Nairobi Consumer Price Indices

The Income Groups were defined as: **

1. The lower income group comprises households with monthly earnings below Ksh 2,000.

2. The middle income group comprises households with monthly earnings between Ksh 2,000 - Ksh 7,999.

3. The upper income group comprises households with monthly earnings of Ksh 8,000 and above.

The Indices for the three income groups are weighted as 0.768 for lower income group, 0.209 for middle Income group and 0.023 for upper income group. ***

L.2 Overview of the Study Area

Baringo district, where the Study Area is located, is the threshold of ASAL areas with comparatively higher population density of 44 people per sq. km, to that of 16 in total ASAL areas. The pastoralists from the northern part of the country find firstly here to migrate and shift their lives to agro-pastoralism. People in south were forced to move toward north by the invasion of white settlers in early 1900s and found somehow the resources to live on in the entrance of the ASAL.

L.2.1 Land

The Study Area covers an area of 1,224 sq. km, the whole area of Marigat and Mukutani divisions. Marigat division is administratively divided into eight locations and is Mukutani division into three locations. The locations are further divided into sub-locations of 18 in Marigat division and six in Mukutani division. (Refer to Table L.2-1)

The lands are used for animal grazing, irrigation and rain-fed agriculture and residential area. About 85 percent of the land in the study Area are utilized for animal grazing. The cultivated lands with irrigation and rain-fed count only 1,900 ha (1.5 percent of the Study Area) and 590 ha (0.5 percent) respectively. The water and swamp areas occupy about 11 percent including lake Baringo with 113 sq.km (about nine percent of the Study Area). The towns and forest each count only one percent of the Study Area.

In terms of land holding system, most of the lands in the Study Area are communal lands (trust lands), except for the area of 20 sq. km in Perkerra Irrigation Scheme, which is an estate owned by National Irrigation Board (NIB). The territory of communal land is based on the locations and the community members can build their homesteads anywhere in their locations and graze animals free. The cultivated lands are demarcated individually to the community members but without title deed, while in the vicinity of the Study Area such as the high land, Koibatech, Nakuru cultivated lands are privately owned with title.

The community of Loboi location in Marigat division has been going through the procedure of acquisition of title deed. There is a community managed irrigation scheme in the location and the community regarded having title as a good thing in terms of clarifying the responsibility of each person so as the people to be intensified for better farm management and soil conservation.

L.2.2 Population

The population in the Study Area in 1999 is estimated at 54,200. Among them 42,500 live in Marigat division and 11,700 in Mukutani division. The population density is 44 people/sq.km. The average family size is 5.5 persons and the number of households is

estimated at 9,850. The number of households is based on a definition of household in the Kenya population census (members who eat together). Regarding social aspects, the family size related to blood and marriage can be bigger by the tradition of polygamy and extended family system. The definition of household in the Kenya population census is shown at Box L.2-1. There are 178 villages in the Study Area and the average population of a village is 305 (55 households). The annual growth rate from 1989 to 1999 is estimated at 5.5 percent. (Refer to Table L.2-1 to Table L.2-3)

There are two market centers in the Study Area, namely Marigat and Kampi Ya Samaki. According to the Baringo District Development Plan, the population and number of households in Margat market center is 5,582 and 1,197 respectively.

There are several ethnic groups living in the Study Area. The major ethnic groups are Tugen and Il chamus. There are also a certain number of Turukana, Pokot and others. The populations of Tugen, Ilchamus, Turukana, Pokot and others in the Study Area in 1999 are estimated at about 23,970, 21,500, 5,130, 2,500 and 1,100 respectively.

L.2.3 Living Conditions

According to the series of survey and the RRA, the living conditions of the people in the Study Area are described as follows;

- Major economic activities are herding animals such as cattle, goats and sheep, irrigated and rain-fed cropping such as maize, beans, kale, watermelon, bee-keeping, and also casual labor.
- The staple food is ugali and milk. Especially milk is important for those who do not have cultivated land. The people tend to have meal twice per day. Milk tea is the major breakfast and people eat goat meat but not often. Having beef seems rare.
- The most popular house is a round one-room semi-permanent house with wall made of wood, mud and cow dung, and a grass thatched roof. Homestead is demarcated by fencing with tree branches and the house for kitchen is built detached from the main house. Better-off households tend to have a house with iron sheets. There are still very few houses with toilets and piped water except for the township.
- Women and children take water from rivers, canals, lakes and pan dams. They go to fetch water everyday and the amount is 20 to 40 liters. The need for clean water is prevailing. Boiling water or putting chlorine in drinking water is practiced but not so common, since the boiling water is a heavy burden and the chlorine costs. Digging riverbed to silt the river water is also practiced.
- Firewood is the main fuel for cooking. In the rainy season charcoal is also used for it. Women go to fetch firewood. Once they go to fetch the firewood, it lasts three days on average. For the lighting, kerosene lump is popular, since most of the houses in the villages are not electrified.
- Educational status is low, as the primary school enrollment ratio for the age of six to 14

year-old children is about 43% in the Study Area. The 1989 census of Baringo district shows that the literacy ratio is 37 % and the ratio for male and female is 43%, 31% respectively. The literacy ratio in the Study Area would be higher than that of Baringo district.

L.3 Household Economy

L.3.1 Major Income Sources

The household economy survey was conducted to 84 households, who are engaged with irrigation and rain-fed farming, at the seven villages (12 households in each village) where the PRAs were conducted. The PRA sites were selected in order to represent the major region of the Study Area. Therefore the results of the household economy survey can reflect the major region of the Study Area and the outputs of the PRAs allow evaluating the survey results. The outlines of the survey are as follows (and see Figure L.3-1 and Table L.3-1).

The seven villages are located in Marigat, Sandai, Eludume, Salabani, Arabal, Mukutani and Kimalel locations. Irrigation scheme has been practiced in Marigat (NIB Perkerra), Sandai, and Eldume, while the other locations are more dependent on rain-fed farming. Average cultivated area in each location is from 1.4 acres to 3.3 acres for irrigated land and from 0.3 acres to 3.0 acres for rain-fed land. The amount of residential land and farming land depends on the community understanding and the ability of the individual to utilize the land, but earlier settlers tend to have bigger lands. Major crops are maize, millet, beans and some vegetables. Because of severe shortage of water, the rain-fed farming sometimes completely fails.

Livestock is a major asset of the households. The average ratio of animal kinds kept in a household is 2:5:1 to cattle : goats : sheep. Arabal location got the largest number of livestock as the surveyed households keep 15 cattle, 48 goats and 5 sheep on average, followed by Sandai, where there are well managed communal grazing lands, with 17 cattle, 32 goats and 10 sheep per household. The surveyed households in Mukutani keep the smallest number of livestock with 9 cattle, 6 goats and 2 sheep. They take their livestock as far as 6.0 km from their homes from April to November.

The major income sources of the households are farming in irrigation area and livestock (selling a few animals annually and one to four liters of milk daily) in each location. Honey and fishery are also important income sources. The estimated monthly income on average basis in 1998 is from 1,200 ksh/month to 5,500 Ksh/month. This numbers include the value of home consumption. The real cash income is estimated at from 900 Ksh/month to 3,800 Ksh/month. In the areas except for Marigat and Sandai locations, most of agricultural produce is consumed at home. The income level is high in Marigat and Sandai because of considerable income from the irrigated farming. To the

contrary, the income level is low in Mukutani and Kimalel locations. Especially low yields in the rain-fed farming due to drought affected the household income of the locations where there is no irrigated farming. Although there is irrigation in Eldume, the yields are low due to the water shortage of their dependent river Molo. It seems, therefore that they in Eldume supplement their income by fishery. (Refer to Table L.3-1 to Table L.3-4 and Figure L.3-2)

According to the PRA results, the above income levels are of the middle class households in each location. The criteria of classification are such as the number of livestock, farming land, number of wife and children etc. The PRA results are summarized in Table L.3-5 to Table L.3-19.

L.3.2 Other Income Sources

There are various income sources apart from the above said major incomes in the Study Area. According to the results of PRAs and RRAs, the rich households may run business such as kiosk, or shops, while the poor households are much more dependent on casual labor. There are several means to earn as;

- Making charcoal. Charcoal can be sold at 100 to 150Ksh/50kg. However this produce are limited because it is prohibited by Chief Act to cut trees in the village.
- Collection of sap from Aloe plant for selling to a local processor (mainly Mukutani division, It can be collected as much as 5liter/day and sold with 15ksh/liter to middlemen.
- Tourism. Guiding tourists to the lake Baringo by boats. There is a group who runs this business.
- Bead work and gourd decoration (Mukutani location)
- Ballast making (Kampi Turukana). It can be sold with 15 to 20ksh/debe(20liters). They can make as much as one debe per day.
- Casual Labor: weeding, making basin, harvesting. It can make 40 to 80 Ksh/day in irrigation area.

L.3.3 Expenditure

Food is the biggest expenditure, although they consume their own produce from the farm and livestock. It is estimated that expenditure of maize and milk for eightmember family costs about 2,000Ksh (added value of home consumption). The second biggest expense is education. Although the school fee is free for primary school, it costs for uniform, textbooks, school building fund, examination fee, charge for cook etc. The secondary school costs more including school fee, for example, it costs about 20,000Ksh per year to go to secondary school. The other expenses are clothes, repairing houses, etc. Normally there is no direct tax unless running business or operating farms as business. To make balance between income and expenditure, there are some safety nets like Harambee (communal assistance), or extended family system (relatives help each other). There is also considerable amount of famine relief food supply into the Study Area by the Office of the President through National Cereal and Produce Board (NCPB). In Baringo district, about 4,000 sacks of maize per month is delivered to the community. The food is allocated through the meeting of chiefs. PRA results show that the villages received the relief food for five to 12 months per year in 1998. There is also a Catholic Missionary who provides maize, beans, sugars and sometimes cooking oil in the Study Area and a feeding program at school assisted by NGOs and United Nation's World Food Program through Office of the President. The PRAs found the people's survival strategies such as depending on famine relief, casual labor, eating the meat of dead cows or goats, eating natural grown tree fruits. (Refer to Table L.3-6 to Table L.3-19)

L.3.4 Savings and Credit

Livestock is their savings. They keep cows and goats, and sell for school fee, dowry, agricultural input, food purchasing, etc. Access to banks is limited because the banks are far and they require minimum deposit, which is rather a burden to have bank account. The animals are therefore literally considered as savings. Livestock as savings can be deserved by communal land that feeds animals free. There are mobile banks coming in Marigat town but few. Kenya Cooperative Bank comes to the town once a week. Standard & Chartered and Kenya Commercial Bank, whose nearest branches are in Kabarnet, come to the town but not so often.

There is a branch of Agricultural Finance Cooperation (AFC) in Kabarnet. To get loan from AFC, however, the collateral such as land is required although they have never taken the lands of borrower who got default. Since there are no titled lands, the farmers in the Study Area cannot access to the credit of AFC. There are some saving and credit societies organized by certain occupations such as teachers, and civil servants. The members can only save and get loan from their societies without collateral but with guarantees.

Other credit source is NGO's program. World Vision, CCF and Catholic churches have been providing revolving funds especially for small-scale enterprise. Their requirement is to loan to a group not to individual. The members of the group will become guarantees each other. By this group loaning, the accountability of the loan could be strengthened. The budget for the loan is limited, but the loan by NGOs is the most accessible credit scheme for the people in the Study Area.

The major credit organizations in the Study Area are as follows and the detail of the organizations are shown in Box L.3-1.

- Agricultural Finance Cooperation (AFC), Kabarnet (inaccessible without land title)
- Commercial Bank, Kabarnet (Kenya Commercial Bank, Standard & Chartered Bank, etc, need to be saving customer)
- NGO, Marigat (World Vision: Micro Enterprise Development Program)
- NGO, Marigat (Christian Children Fund (CCF): Small Scale Enterprise Development)
- Marigat Catholic Church headed by Dioces of Nakuru
- Marigat Co-operative (temporarily stopped)

It Mariget Mariget Fertimate Facility Mariget Facility Fertimate Facility Household Fullume Fertimate 37.6 5.20 1,549 Facility 740.0 1,835 1,665 303 Facility 103.5 1,665 303 1,549 Facility 103.5 1,665 303 1,549 Facility 103.5 1,665 303 1,541 Facility 103.4 3,65 3,617 3,617 Facility 134.0 2,362 3,11 2,14 Loboi Nigembo 2,55 3,011 2,14 Kapkuikui Kapkuikui 3,17 1,666 3,03 Maritan 3,17 1,666 3,03 1,13 Kapkuikui Machuku 1,166 2,14 1,13 Kapkuikui Kapkuikui 1,166 3,17 2,13 Kapkuikui Kapkuikui 1,13 2,13 2,14 Kapkuikui Kapkuikui	Location Sub-Location	Land	Population	No. of	No. of	Population	Average	age
t Marigat Ferkerra 376 8520 Ferdan 1882 11.865 Edume 1882 11.865 Fridan 731 1.665 Fridan 731 1.665 Fridan 731 1.665 Fridan 731 1.665 Fridan 731 1.665 Fridan 734 3.368 Britaan 1134 6.830 Resemble 1134 6.830 Resemble 1146 9.899 Fridan 1134 6.830 Resemble 1146 9.899 Fridan 1134 6.830 Resemble 1146 9.899 Fridan 1134 6.830 Resemble 1146 9.999 Fridan 1147 9.939 Fridan 1148 8.30 Fridan		-	Estimate	Household	Village	Density	Village Size	Size
t Perkerra 37.6 8.5.0 Yatoi 103.5 1,665 1,665 Yatoi 118.65 1,665 1,665 Yatoi 118.65 1,18.65 1,18.65 Rambo 118.61 118.65 3,462 Ngambo Ngambo 13.4 3,462 Ngambo Ngambo 13.4 3,462 Ngambo Ngambo 13.4 3,462 Ngambo Ngambo 13.4 3,462 Napi-Nidege 11.1 6.8,30 3,011 Loboi Maji-Nidege 11.1 6.8,30 Creal Sandai 31.2 3,011 Kapkuikui Kapkuikui 1,24 1,217 Kapkuikui 1,24 1,213 1,217 Kapkuikui Kapkuikui 4,53 1,217 Kapkuikui Kapkuikui 1,24 1,353 Kaptombes 4,53 1,217 1,354 Kimalel Kaptombes 4,45 1,213		Km2	1999				(Population)	(No. of HH)
Yatoi 103.5 1,665 Fudure Total 11,1 1,667 Total 11,867 11,867 11,867 Total 11,867 11,867 11,867 Ngambo Ngambo 11,867 3,362 Ngambo Ngambo 11,873 6,303 Ngambo Ngambo 25,5 3,011 Total 11,1 6,830 1,516 Total 11,1 6,19 4,517 Loboi Majr-Nidege 11,1 6,79 Creal 31,7 1,217 6,79 Sandai Sandai 5,9 1,217 Kapkuikui Kaptumbes 4,5 1,217 Kimalel Koati 24,0 3,129 Kimalel Kosti 24,0 3,129 Kimalel Nukutani 11,1 6,79 Kaptombes 4,53 1,234 1,53 Mukutani 112,2 2,14 2,33 Mukutani	Perkerra	37.6	8,520	1,549	14	226	609	111
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Yatoi	103.5	1,665	303	12	16		25
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Ingerue 340 Nambo Total 3462 Total 164 555 301 Nambo Sintambo 555 301 Nambo Sintambo 13.4 6.830 1 Total 10.9 1.555 301 1.506 Nap-Widege 11.1 0.9 1.506 4.517 1.668 Chelas 11.1 5.9 1.217 9.99 1.217 Sandai Sandai 5.9 1.217 9.98 1.217 Kepkuikui Sandai 5.9 1.217 9.98 1.217 Kaptunkui Kaptunkui 4.5 4.55 1.217 Kimalel Kimalel 7. 1.048 1.217 Kantombes 4.5 4.5 2.4 1.234 Kaptunkui Kaptunkui 4.5 2.4 1.1 Kimalel Kimalel 2.1 2.34 1.1 Salabani Salabani 1.13 2.143	Eldume	79.4	3,368	612	11	42	306	56
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Total Total 31.7 1.668 Sandai Sandai 5.9 1.217 Mbechut 12.4 1.048 Tubechut 18.3 2.266 Kapkuikui 40.7 7.39 Kapkuikui 45.2 1.214 Kapkuikui 45.2 1.234 Kaptombes 45.2 1.234 Kaptombes 45.2 1.234 Kaptombes 47.0 3129 Kimalel Koriema 24.0 308 Salabani Korial 24.0 3179 Salabani Mukutani 111.3 2.824 1 Meisori 102.8 4.553 7. Mukutani Mukutani 115.6 3.317 Arabal Arabal 7.311 1.164 Arabal Neturen 1.165 2.143 Mukutani Rugus 2.152 3.317 Arabal Arabal 7.565 3.213 Arabal Arabal	Chefaba	17.1	679	123	0	40		PH I
Sandai Sandai Sandai 5.9 1.217 Athechut Total Total 18.3 2.265 Kapkuikui Kapkuikui 4.5 1.048 Kapkuikui Kapkuikui 4.5 1.234 Kapkuikui Kaptombes 4.5 1.234 Kimalei Kaptombes 4.5 1.339 Kimalei Kimalei 24.9 908 Sevor Total 45.2 1.234 Kimalei Salabani 111.3 2.824 Division Total Total 111.3 2.824 Mukutani Mukutani 117.3 2.823 Division Total Total 7.43.2 2.143 Arabal Mukutani 1.15.2 2.143 Arabal Mukutani 1.172.2 2.143 Arabal Mukutani 1.172.2 2.143 Arabal Mukutani 1.166.3 1.154 Arabal Kesnia 3.297 3.297 Kiserian </td <td>Total</td> <td>31.7</td> <td>1.668</td> <td>303</td> <td>, c</td> <td>53</td> <td></td> <td> L</td>	Total	31.7	1.668	303	, c	53		L
Mechut 12.4 1.448 Total Total 1.24 1.448 Total Total 8.3 2.266 Kaptunkui Kaptombes 4.5 4.95 4.95 Kimalel Kondel 8.3 2.753 7.39 Kimalel Kondel 24.0 90.0 9.1234 Kimalel Kondel 24.0 9.1234 1.234 Kimalel Kondel 24.0 9.129 1.753 Salabani Uttani 24.0 9.13 2.153 7. Mukutani Mukutani 111.3 2.824 1.154 1.154 Division Total 743.2 2.143 7.337 7. Arabal Mukutani 1.172.2 2.143 7.154 Arabal Total 215.2 3.317 7.154 Arabal Negelsaha 1.165.3 1.154 7.156 Kiserian Kiserian 1.32.3 1.154 7.133297 Kiserian	Sandai	5.0	1 71 7	100	5 14			
Total 12.4 1.040 Kapkuikui Total 18.3 2.265 Kapkuikui 4.5 4.5 1.234 Kaptombes 4.5 1.234 1.234 Kimalei Korema 24.9 2.753 1.234 Kimalei Korema 24.0 908 2.753 1. Kimalei Kimalei 95.9 6.700 1. 1.234 Kimalei Korema 24.10 3.129 1. 1. 1.234 1. 1. 1.234 1. 1. 1. 1.234 1.	Mhachirt	5.0 V 0 F	1171	177	0	202		44
Kapkuikui Iotal 18.3 2.265 Kapkuikui Kapkuikui 40.7 739 Kapkuikui Kapkuikui 45.2 1.265 Kimalel Koriema 24.0 908 Kimalel Koriema 24.0 908 Kimalel Kimalel 24.0 908 Savor 95.9 6,790 1 Salabarii 111.3 2,824 1 Division Total 743.2 4,553 7 Meisori 102.8 4,553 7 Division Total 743.2 2,143 1 Arabal Arabal 7,317 1 Kiserian 102.8 3,317 7,317 Arabal Arabal 215.2 3,317 1,164 Kiserian 102.8 48.9 1,154 1,164 Kiserian 102.6 3,217 3,297 1,164 Kiserian 1,087 3,293 3,297 1,1669 Kiserian <td></td> <td>12.4</td> <td>1,048</td> <td>181</td> <td>ŝ</td> <td>84</td> <td>210</td> <td>38</td>		12.4	1,048	181	ŝ	84	210	38
Kapkuikui Kapkuikui 40.7 739 Kaptombes 4.5 4.55 1,234 Kimalel Koriema 24.0 906 Kimalel Koriema 24.9 2,753 Kimalel Koriema 24.0 906 Kimalel Koriema 24.0 906 Savore 47.0 3,129 1 Salabani 111.3 2,824 1 Division Total Mukutani 111.3 2,824 1 Division Total 102.8 4,553 7 Mukutani Mukutani 111.3 2,163 7 Division Total 172.2 2,163 7 Arabal Arabal Arabal 3,297 1,154 Kiserian Nikutani 102.6 3,297 7 Kiserian Kiserian 103.6 3,297 1,154 Kiserian Ngelesha 103.6 3,297 2,143 Kiserian Kiserian 103.6	lotal	18.3	2,265	412	10	124	227	41
Kaptombes 4.5 495 Total Total 45.2 1.234 Total Kimalel Koriema 24.9 2.753 Kimalel Kimalel Koriema 24.9 2.753 Kimalel Kimalel Kimalel 80.908 908 Savor Total 24.10 31.29 91.19 Salabani Total 111.3 2.824 1 Division Total Mukutani Mukutani 111.3 2.824 1 Mukutani Mukutani 111.3 2.824 1 1 Mukutani Mukutani 111.3 2.824 1 1 Mukutani Mukutani 743.2 4.553 7 1 Arabal Arabal 743.2 2.163 7 1 Arabal Arabal Arabal 7.154 7 1 154 Kiserian Kiserian 108.7 3.213 1 1 1 1 1	Kapkuikui	40.7	739	134	3	18	246	45
Total Total 45.2 1,234 Kimalel Koriema 24.9 2,753 Kimalel Koriema 24.0 908 Kimalel Kimalel 84.0 908 Kimalel Kimalel 24.0 908 Savor 95.9 6,790 1 Salabani Balabani 111.3 2,824 Salabani Mukutani 111.3 2,824 Division Total 743.2 4,553 7 Arabal Mukutani 172.2 2,163 7 Arabal Arabal 743.2 42,533 7 Arabal Mukutani 172.2 2,163 7 Arabal Arabal 743.2 42,53 7 Arabal Arabal 761.3 1,154 7 Kiserian Kiserian 1,03.6 5,143 7 Kiserian Kiserian 1,03.6 5,143 7 Kiserian Kiserian 5,33	Kaptombes	4.5	495	90	4	110	124	23
Kimalel Koriema 24.9 2.753 Kimalel Kimalel 24.0 908 713 Savor 41.0 31.29 908 1 Savor 5avor 95.9 6,790 1 Salabani Total 111.3 2,824 1 Mukutani Mukutani 111.3 2,824 1 Division Total 102.8 4,553 7 1 Arabal Mukutani 112.2 2,143 1 1 Arabal Arabal 743.2 42,533 7 1 Arabal Mukutani 1,154 1,154 1 1 1 Arabal Arabal Arabal 59.8 2,143 1	Total	45.2	1,234	224	1	27	176	32
Kimalel 24.0 908 Savor 47.0 3129 Total 5avor 95.9 6.790 Total 111.3 2.824 Meisori 111.3 2.824 Division Total 111.3 2.824 Mukutani Mukutani 111.3 2.824 Division Total 172.2 2.163 Arabal Mukutani 172.2 2.163 Arabal Arabal 2.15.2 3.317 Arabal Arabal 73.0 1.154 Kiserian 108.7 3.297 7,137 Kiserian 103.6 3.297 2,143 Kiserian 103.6 3.297 2,143 Logumgum 59.8 2,143 3.297 2,143 Kiserian Total 108.7 3.297 2,143 Division Total 103.6 5,055 2,143 2,055 Division Total 1,240 5,055 2,143 2,055 2,143 <tr< td=""><td>Koriema</td><td>24.9</td><td>2,753</td><td>501</td><td>10</td><td>110</td><td></td><td>50</td></tr<>	Koriema	24.9	2,753	501	10	110		50
Salabari Savor 47.0 3,129 Total Total 95.9 6,790 1 Salabari 11.3 2,824 1 1 Salabari Salabari 11.3 2,824 1 Meisori 102.8 4,553 1 1 Division Total Mukutani 112.2 2,163 1 Arabal Mukutani 172.2 2,143 1 Arabal Arabal 215.2 3,317 1 Arabal Arabal 108.7 3,297 1,154 Kiserian 108.7 3,297 1,154 1 Kiserian 108.7 3,297 1,154 1 Kiserian 108.7 3,297 1,156 1 1,56 Division Total 108.7 3,297 3,297 2,143 2,055 2,143 Kiserian 103.6 5,055 3,297 2,143 2,143 2,143 2,143 2,143 2,143 2,1	Kimalel	24.0	908	165	5	38		33
Total 95.9 6,790 1 Salabani 111.3 2,824 1 Meisori 5alabani 111.3 2,824 1 Meisori 5alabani 111.3 2,824 1 Division Total Meisori 102.8 4,553 7 Division Total Mukutani 112.2 2,317 1 Division Total Mukutani 173.2 42,533 7 Arabal Mukutani 1743.2 2,143 7 Arabal Arabal 2,15.2 3,317 7 Arabal Arabal 2,15.2 3,317 7 Kiserian 108.7 3,297 1,154 7 Kiserian 108.7 3,297 3,297 7 Kiserian Kiserian 108.7 3,297 2,055 Division Total 1,056 5,055 2,143 Division Total 1,224.0 5,055 2,160 District 8,655 3,1900	Savor	47.0	3,129	569	6	67	348	63
Salabani Salabani 111.3 2,824 Nation Total 102.8 4,553 1 Division Total 102.8 4,553 7 Inductani Mukutani 214.1 7,377 1 Division Total 743.2 42,533 7 Inductani Mukutani 172.2 2,163 7 Mukutani Mukutani 172.2 2,143 7 Arabal Arabal 2,143 7 3,317 Arabal Arabal 2,152 3,317 3,297 Arabal Kiserian 108.7 3,297 3,297 Kiserian Kiserian 108.7 3,297 3,297 Kiserian Kiserian 103.6 3,297 3,297 Division Total 108.7 3,293 1,758 2,143 Arabal Kiserian 103.6 5,055 2,143 Division Total Kiserian 1,360 5,055 2,143 District 6round Tot	Total	95.9	6,790	1,235	24	71		51
Meisori 102.8 4,553 Total 7,377 1 Total 7,377 1 Division Total 7,43.2 42,533 7, Indukutani Mukutani 743.2 42,533 7, Indukutani Mukutani 172.2 2,163 7, Rugus 43.0 1,154 7, Arabal Arabal 2,143 3,317 Arabal Arabal 2,143 3,317 Kiserian 108.7 3,297 3,297 Kiserian 108.7 3,297 3,297 Kiserian 103.6 3,297 3,297 Division Total 103.6 3,297 3,297 Division Total 103.6 5,055 2,143 Arabal Kiserian 103.6 5,055 2,143 Division Total 156.9 5,055 2,143 2,160 69,160 Ground Total 13,868 6,959,457 1,160. 1,160. 1,160. </td <td>Salabani</td> <td>111.3</td> <td>2,824</td> <td>513</td> <td>5</td> <td>25</td> <td></td> <td>103</td>	Salabani	111.3	2,824	513	5	25		103
Invision Total Total 214.1 7.377 1 Division Total Mukutami 743.2 42.533 7, Mukutami Mukutami 172.2 2.163 7, Mukutami Mukutami 172.2 2.163 7, Rugus A3.0 1.154 215.2 3.317 Arabal Arabal 215.2 3.317 2.143 Arabal Arabal 215.2 3.317 2.143 Kiserian Total 108.7 3.297 2.143 Kiserian Kiserian 108.7 3.297 2.173 Division Kiserian 108.7 3.297 2.175 Caround <total< td=""> Total 108.7 3.297 2.175 Division Total 1.1569 5.055 2.175 Arabal Total 1.1224.0 5.4202 9.160 Obistrict 8.655 3.79100 69 2.160</total<>	Meisori	102.8	4,553	828	11	44		75
Division Total 743.2 42,533 7, mi Mukutani 172.2 2,163 7, Rugus 43.0 1,154 1,154 1,154 Arabal Rubus 215.2 3,317 2,143 Arabal Arabal 215.2 3,317 2,143 Arabal Netel 59.8 2,143 2,143 Arabal Netelesha 48.9 1,154 1,154 Kiserian Kiserian 108.7 3,297 3,297 Kiserian Kiserian 103.6 3,297 1,756 Division Total Total 108.7 3,297 2,143 Arabal Kiserian 108.7 3,297 2,175 Division Total Total 1,23.4 1,756 2,175 Arabal S.3.2 1,24.0 5,4202 9,160 6,95 District 8,655 3,79,100 6,93 2,160 1,160		214.1	7,377	1,341	16	34	461	84
mi Mukutami Mukutami 172.2 2,163 Rugus 43.0 1,154 Total Arabal 215.2 3,317 Arabal Arabal 215.2 3,317 Arabal Arabal 215.2 3,317 Ngelesha 48.9 1,154 Niserian Kiserian 108.7 3,297 Kiserian 53.3 1,758 Logumgum 53.3 1,758 Division Total 1,040 Cround Total 1,224.0 54,202 9,05 District 8,655 379,100 69 Nature 1,2368 6,959,457 1,160		743.2	42,533	7,732	128	57		60
Rugus 43.0 1,154 Arabal Total 215.2 3,317 Arabal Arabal 215.2 3,317 Arabal Arabal 215.2 3,317 Ngelesha 48.9 1,154 Ngelesha 108.7 3,297 Kiserian 108.7 3,297 Kiserian 108.7 3,297 Logungum 53.3 1,758 Division Total 103.6 3,297 Cround Total 1,56.9 5,055 Obistrict 8,655 379,100 Methods 1,224.0 54,202 Arbolictict 1,2368 6,959,457 1,160		172.2	2,163	393	13	13		30
Total Total 215.2 3,317 Arabal Arabal 59.8 2,143 Arabal Arabal 59.8 2,143 Ngelesha 48.9 1,154 Total Total 108.7 3,297 Kiserian 108.7 3,297 1,56 Division 53.3 1,758 2,055 Division 53.3 1,758 2,055 Division 53.3 1,768 2,055 Oround Total 1,224.0 54,202 9,8 Obistrict 8,655 319,100 69 Legund 1,3,863 6,959,457 1,160.	Rugus	43.0	1,154	210	5	27		42
Arabal Arabal Frabal 59.8 2,143 Arabal Ngelesha 48.9 1,154 Neerian Total 108.7 3,297 Kiserian Kiserian 103.6 3,297 Kiserian 103.6 3,297 1,758 Division Total 156.9 5,055 2,3 Oround Total 1,224.0 54,202 9,8 Obstrict 8,655 319,100 69,8 Iley Province 173,863 6,959,457 1,160.	Total	215.2	3,317	603	18	15		34
Ngelesha 48.9 1,154 Total 108.7 3,297 Kiserian 108.7 3,297 Kiserian 103.6 3,297 Logungun 53.3 1,758 Logungun 156.9 5,055 Division Total 1,224.0 54,202 9,8 Orbitrict 8,655 319,100 69,160 69,160	Arabal	59.8	2,143	390	10	36	-	39
Total 108.7 3,297 Kiserian Total 103.6 3,297 Kiserian Kiserian 103.6 3,297 Logungum 53.3 1,758 Division Total 1,758 5,055 Ground Total 160.8 11,669 2,1 Oistrict 8,655 379,100 69 lley Province 173.868 6,959,457 1,160	Ngelesha	48.9	1,154	210	9	24		35
Kiserian Kiserian 103.6 3,297 Logumgum 53.3 1,758 Logungum 53.3 1,758 Total 156.9 5,055 Division Total 480.8 11,669 Ground Total 1,224.0 54,202 District 8,655 379,100 lley Province 173,863 6,959,457 1,1	Total	108.7	3,297	600	16	30		88
Logumgum 53.3 1,758 Total Total 5,055 Division Total 480.8 11,669 Ground Total 1,224.0 54,202 District 8,655 379,100 lley Province 173,868 6,959,457 1,1	Kiserian	103.6	3,297	599	12	32		20
Total 156.9 5,055 Division Total 480.8 11,669 Ground Total 1,224.0 54,202 Olistrict 8,655 379,100 Iley Province 173,868 6,959,457 1,1	Logumgum	53.3	1,758	320	4	33		80
Division Total 480.8 11,669 Ground Total 1,224.0 54,202 Obstrict 8,655 379,100 Iley Province 173,868 6,959,457 1,1	Total	156.9	5,055	919	16	32		27
Ground Total 1,224.0 54,202 b District 8,655 379,100 lley Province 173,868 6,959,457 1,1		480.8	11,669	2,122	50	24		42
0 District 8,655 379,100 [left Province 5,959,457 1.1		1,224.0	54,202	9,854	178	44	3051	: 5
lley Province 6,959,457 1.1		8,655	379,100	69,238		44		
		173,868	6,959,457	1,160,827		40		
			30.400.000	5.049.522		6.9		

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Table

Source: Land; measured fom land map and data from Location Offices Population; Estimated from 1989 Population Census, Baringo District Development Plan 1997–2001, Marigat Divisional Office, National Development Plan 1997–2001 No. of Household: Estimated from the average family size of 5.5 persons in reference to Welfare Monitoring Survey II 1996 No. of Village: Location offices in Marigat and Mukutani Division

	1989		1999	99
Division	Location	Sub-Location Location	Location	Divison
Marigat	Jemps	Ngambo	Ngambo	Marigat
		Eldume	Eldume	
		Salabani	Salabani	
	Marigat	Sabor	Kimalel	
		Koriema		
		Endao	Marigat	
		Perkerra		
	Loboi	Maji Ndege	Loboi	
		Sandai	Kapkuikui	
			Sandai	
	Mukutani	Mukutani	Mukutani	Mukutani
		Loiminang	Kiserian	
Mochongoi	Mochongoi	Arabal	Arabal	
Source: Dopula	ation Concrect0	Convee: Deputerion Censue 1989 and Baringe Distinct Office	Distingt Office	

Table L.2-2 Change of Administrative Jurisdiction (1989 to 1999)

Source: Population Census 1989 and Baringo Distirct Office

Table L.2-3 Estimated Population Growth in the Study Area (from 1989 to 1999)

	Year	Year 1989	Year	ear 1999		Year 1989			Year 1999		Annual G	Annual Growth Rate
Ngambo Ngambo<	Division	Sub-Location	Location	Divison	Area	Population	Pop.	Area	Population	Pop.	Population	Pop. Dens
Neambo Neambo<							Density	(km2)		Density	(%)	(%)
Eldume Eldume Eldume 48 2,146 45 113.4 6,830 Salabani Salabani Salabani Salabani 5,394 45 214,1 7,377 Sabor Kimalel 72 5,394 45 214,1 7,377 Sabor Kimalel 72 2,043 28 5,976 5,394 Koriema Marigat 72 2,043 28 11,852 11,852 Perkerra Loboi 119 1,771 15 31.7 1,668 Maji Ndege Loboi 119 1,771 15 31.7 1,234 Sandai Kapkuikui Mukutani Mukutani 24,7 1,519 6 2,533 Sub-total Arabal 117 2,206 11 166.9 5,055 Mukutani Mukutani Mukutani 2,1519 6 2,163 1,234 Sub-total Arabal 117 2,206 11 1,513 3,297	Marigat	Ngambo	Ngambo	Marigat	57	4,019	71	36.4	4,517	124		
Salabani Salabani 120 5,394 45 214.1 7,377 Sabor Kimalel 79 1,516 19 95,9 6,790 Sabor Kimalel 72 2,043 28 95,9 6,790 Koriema Marigat 103 5,976 58 11,852 11,852 Perkerra 103 5,976 58 11,711 15 31.7 1,668 Perkerra 103 5,976 58 1,771 15 1,234 Maji Ndege Loboi 119 1,771 15 1,234 1,234 Sandai Kapkuikui 752 25,253 34 743.2 42,533 Mukutani Mukutani Mukutani 247 1,519 6 216.5 1,234 Sendai Kiserian 247 1,519 6 215.2 3,317 Sendai Kiserian Mukutani Mukutani 247 2,606 11 1,524 5,5			Eldume		48	2,146	45	113.4	6,830	60		
Sabor Kimalel 79 1,516 19 95.9 6,790 Koriema Marigat 72 2,043 28 95.9 6,790 Koriema Marigat 72 2,043 28 11,852 11,852 Perkerra 103 5,976 58 11 188.2 11,852 Perkerra 119 1,771 15 31.7 1,668 Maji Ndege Loboi 75 1,549 21 45.2 1,234 Sandai Kapkuikui 247 1,519 6 74.2 2,655 1 Mukutani Mukutani Mukutani 247 2,516 1,519 6 215.2 3,317 Soub total Mukutani Zubutani Zubutani Zubutani 247 2,666 11 16,33 3,055 Loiminang Kiserian 2ub-total 1,771 15 3,215 3,317 Loiminang Kiserian Zub-total 1,73 2,165<			Salabani		120	5,394	45	214.1	7,377	34.		
Koriema Nation Nation			Kimalel		62	1,516	19	95.9	6,790	71		
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		Koriema			72	2,043	28					
Perkerra 103 5,976 58 Maji Ndege Loboi 1,771 15 31.7 1,668 Maji Ndege Kapkuikui 75 1,549 21 45.2 1,234 Sandai Sandai 75 1,549 21 45.2 1,234 Mukutani Sub total Nukutani Mukutani 247 1,519 6 215.2 3,317 Loiminang Kiserian 247 2,608 11 156.9 5,055 Goi Arabal Arabal 117 2,206 19 108.7 3,297 Sub-total Nukutani Mukutani 247 2,608 11 156.9 5,055 Jost Arabal Arabal 117 2,206 19 108.7 3,297 Sub-total Sub-total 1,73 3,796 2,165 3,796 3,297 Sub-total Sub-total 1,73 3,796 1,269 5,055 3,297 Obstr		Endao	Marigat		79	839	11	188.2	11,852	63		
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		Perkerra			103	5,976	58					
Sandai Kapkuikui 75 1,549 21 45.2 1,234 Nukutani Sub-total 752 25,253 34 743.2 42,533 2,265 1 Nukutani Sub-total 752 25,253 34 743.2 42,533 2,265 1 Vukutani Mukutani 247 2,608 11 156.9 5,055 3,317 Loiminang Kiserian 247 2,608 11 156.9 5,055 3,297 Loiminang Kiserian 117 2,206 19 108.7 3,297 Sub-total Arabal 511 6,333 10 480.8 11,669 Oistrict* Total 1,363 31,586 23 1,224,0 54,978 Oistrict* Total 1,363 31,586 21 1,224,0 54,978 Olstrict* Total 1,363 31,586 21 1,224,0 54,978 Ostrict* Total 1,347990		Maji Ndege	Loboi		119	1,771	15	31.7	1,668	53		
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		Sandai	Kapkuikui		75	1,549	21	45.2	1,234	27		
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$			Sandai					18.3	2,265	124		
Mukutani Mukutani Mukutani 247 1,519 6 215.2 3,317 Loiminang Kiserian 247 2,608 11 156.9 5,055 goi Arabal Arabal 117 2,206 19 108.7 3,297 Arabal Arabal 611 6,333 10 480.8 11,669 Sub-total 1,363 31,586 23 1,224,0 54,202 District* 1,0854 347,990 32 8,646 264,978 dy Area 12,4 9.1 14.2 20.5 ey Province 182,413 4,981,613 27 182,539 6,987,036			Sub-total		752	25,253	34	743.2	42,533	57	5.4	5.3
Loiminang Kiserian 247 2.608 11 156.9 5.055 goi Arabal Arabal 117 2.206 19 108.7 3.297 Arabal Arabal Arabal 611 6.333 10 480.8 11,669 Sub-total 1,363 31,586 23 1,224.0 54,202 District* 10.954 347,990 32 8,646 264,978 dy Area 12,4 9.1 14.2 20.5 20.5 ey Province 182,413 4,981,613 27 182,539 6,987,036		Mukutani	Mukutani	Mukutani	247	1,519	9	215.2	3,317	15		
goi Arabal Arabal 117 2.206 19 108.7 3.297 3.297 Rein Sub-total 611 6.333 10 480.8 11,669 13.656 23 12.24.0 54.202 54.202 24.0 54.202 24.0 24.910 32 8.646 264.978 20.5 2			Kiserian		247	2,608	11	156.9	5,055	32		
Sub-total 611 6.333 10 480.8 11,669 Total 1,363 31,586 23 1,224.0 54,202 District* 10,954 347,990 32 8,646 264,978 dy Area 12,4 9.1 14.2 20.5 ey Province 182,413 4,981,613 27 182,539 6,987,036	Mochongoi	_	Arabal		117	2,206	19	108.7	3,297	30		
Total 1,363 31,586 23 1,224.0 54,202 District* 10.954 347,990 32 8,646 264,978 dy Area 12,4 9.1 14.2 20.5 ey Province 182,413 4,981,613 27 182,539 6,987,036			Sub-tota		611	6,333	10	480.8	11,669	24	6.3	9.1
District* 10.954 347,990 32 8,646 264 dy Area 12.4 9.1 14.2 14.2 564			Total		1,363	31,586	23	1,224.0	54,202	44	5.5	6.7
dy Area 12,4 9.1 14.2 14.2 ev Province 182,413 4,981,613 27 182,539 6,987	Baringo Distric	t*			10,954	347,990	32	8,646	264,978	31	-2.7	
ey Province 182,413 4,981,613 27 182,539	% of Study Are	g			12.4	9.1		14.2	20.5			2
	Rift Valley Pro	vince			182,413	4,981,613	27	182,539	6,987,036	38	3.4	3.5
581,667	National				581,667	21,443,636	37	581,667	28.686.607	49	6	29

* Baringo district was subdivided after 1989.

Table L.2-4 Population Projection in the Study Area

Age-Cohorts	1989	1994		1999	2004	2009	2014	2019
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
0-4	20,419	26,750	1.244	35,819	47,294	62,444	82,145	108,143
5-9	19,385	25,396	1.105	33,277	44,559	58,834	77,680	102,188
10-14	16,346	21,414	0.988	28,063	36,771	49,238	65.012	85,836
15-19	12,324	16,145	0.836	21,157	27,726	36,330	48,647	64,232
20-24	7,860	10,297	1.192	13,497	17,687	23,179	30,372	40,669
25-29	7,153	9,371	1.030	12,274	16,088	21,083	27,629	36,203
30-34	5,625	7,369	1.092	9,652	12,642	16,571	21,715	28,458
35-39	4,691	6,145	1.039	8,047	10,540	13,805	18,096	23.713
40–44	3,722	4,876	1.062	6,385	8,361	10,951	14,343	18,802
45-49	3,016	3,951	0.998	5,178	6,781	8,879	11,630	15,232
50-54	2,298	3,011	1.019	3,943	5,168	6,767	8.861	11,607
55-59	1,787	2,341	1.125	3,068	4,018	5,266	6,896	9,029
60-64	1,534	2,010	1.043	2,634	3,452	4,520	5,924	7,758
65-69	1,221	1,600	0.904	2,096	2,747	3,600	4,714	6,179
70-74	843	1,104	0.951	1,446	1,895	2,483	3,254	4,261
75-79	612	802	1.801	1,050	1,375	1,802	2,361	3,095
80+	841	1,102		1,444	1,891	2,476	3,245	4,252
Total	109,677	143,684		189,030	248,995	328,228	432.524	569.657

(Population Projection (Male) in Baringo District)

⁽Population Projection (female) in Baringo District)

Age-Cohorts	1989	1994		1999	2004	2009	2014	2019
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
0-4	19,846	26,210	1.247	34,113	45,042	59,471	78,233	102,993
5-9	18,744	24,754	1.135	32,684	42,539	56,167	74,160	97,557
10-14	16,113	21,280	0.993	28,096	37,096	48,282	63,750	84,172
15-19	12,121	16,008	1.048	21,131	27,89 9	36,836	47,944	63,304
2024	9,615	12,698	1.146	16,776	22,145	29,238	38,604	50,245
25-29	8,346	11,022	0.892	14,552	19,225	25,378	33,507	44,240
30-34	5,640	7,448	1.069	9,832	12,980	17,149	22.637	29,888
35-39	4,566	6,030	1.023	7,962	10,510	13,876	18,332	24,199
40-44	3,538	4,672	1.135	6,169	8,145	10,752	14,195	18,754
45-49	3,040	4,015	1.000	5,303	7,002	9.245	12,204	16,111
50-54	2,301	3,039	0.980	4,015	5,303	7,002	9,245	12,204
55-59	1,707	2,254	1.387	2,978	3,935	5 197	6,862	9,060
60-64	1,792	2,367	0.914	3,126	4,130	5,458	7.208	9,518
65-69	1,240	1,638	0.982	2,163	2,857	3.775	4,989	6,588
7074	922	1,218	0.830	1,609	2,124	2,806	3.707	4,899
75-79	579	765	2.150	1,011	1,335	1.763	2,329	3,077
80+	943	1,245		1,645	2,174	2,870	3,790	5.007
Total	111,053	146,663		193,165	254,441	335,265	441.696	581,816

Estimate of the population from to 4 years old (sample)

<u>52,960 (Age 0-4 male&femal</u> 61,893 (Age 15-49 female in 19	= 994)	0.8557
81,725 (Age 15-49 female in	X =	0.8557 69,932
69,932 X 105/205 = 69,932 X 100/205 =		35,819 male 0−4 in 1999 34,113 female 0−4 in 1999

(Population	Projection	in the	Study	Area)

Year			1999	2004	2009	2014	2019
Total in Baringo*	220,730	290,347	382,195	503,436	663,493	874,220	1.151.473
Growth Rate(%)		5.64	5.65	5.67	5.68	5.67	5.66
Study Area			54,202	71,412	94,132	124,021	163.323

Note: * The population of Baringo District in 1999 on this table is based on the cohorts analysis conducted by the Study Team. Hence the number differs a few from the data of District Development Plan 1997-2001.

The estimated popluation is applied as the population in the beginning of year 2000, 2005, etc.

Box L.2-1 Definition of Household in the Population Census in 1989

Homestead – is a structurally separate and independent place of abode. In most cases homesteads will be surrounded by fences, walls etc. so that a person or group persons can isolate themselves from other persons in the community for the purpose of sleeping, preparing and taking their meals. A homestead may contain for example, a hut or a group of huts. The manyatta will be considered as a homestead. A homestead need not to be surrounded by wall, fence of hedge , for example a house, boy's quarters, garage, kitchen etc. may constitute whether or not they are surrounded by wall, etc. during enumeration you will visit all place of abode and identity the structure, dwelling units and households in them.

Structure – For census purposes a structure will constitute a building which is used for dwelling purposes. In rural areas most of the structure will be found within a homestead. A structure can contain one or more dwelling units.

Dwelling unit- Is the abode occupied by the respondents and constitutes one or more households. There can be many dwelling units within a structure.

Household – Consists of a person or a group of persons who live together in the same dwelling unit or homestead, and eat together. It is important to remember that members of an household are not necessarily related (by blood or marriage). The household is the most convenient small group of persons for census purposes. You will enumerate the population in dwelling units and homesteads by households.

Dividing a structure or homestead into household may not be easy. However the following examples should guide you in deciding who should form a household.

For census purposes, you will list only those persons who spent the census night i.e. the night of 24/25 August in the household, whether visitors, servants, etc.

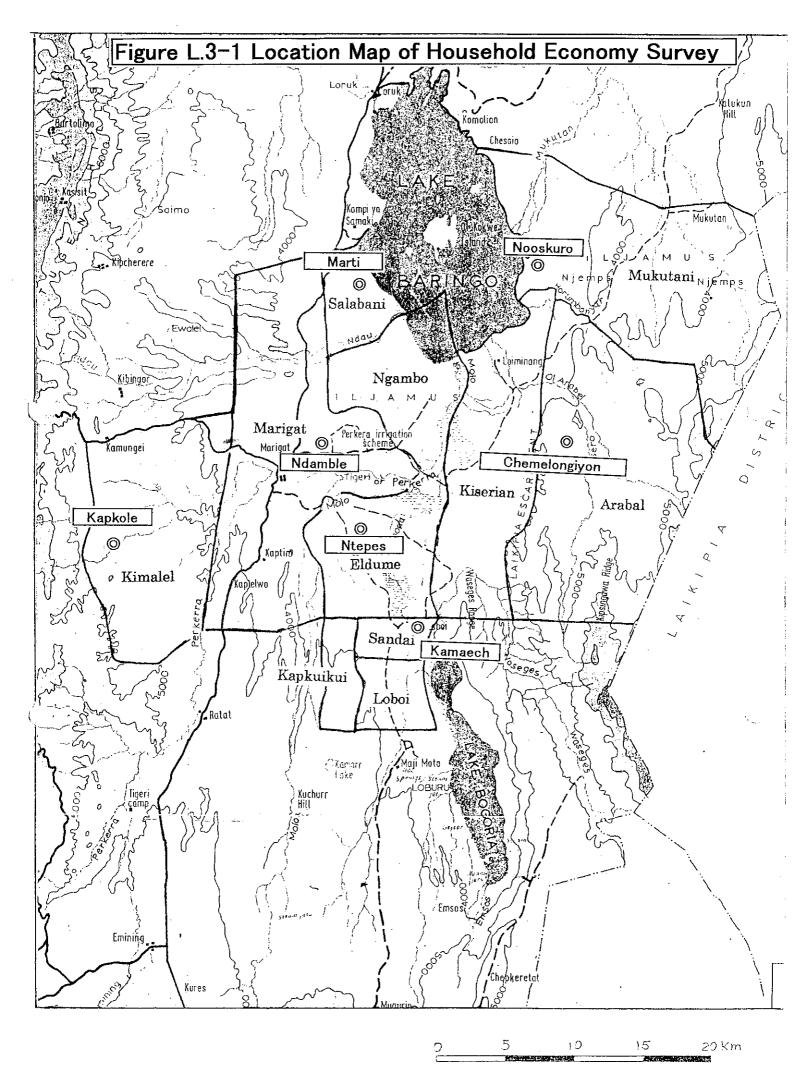
A household may consist of one or more persons and may occupy a whole building or part of a building or many buildings in the same compound/ homestead.

If two or more groups of persons live in the same dwelling unit and have separate living and eating arrangements, treat them as separate households.

A domestic servant who eats with the household should be included with the household. If the servant cooks and eats separately he/she should be enumerated as a separate household. The particulars of persons (visitors) who spent the reference night with another household should be recorded in the questionnaire for that household.

In a polygamous marriage if the wives are living in separate dwelling units, cook and eat separately, treat the wives as separate household. Each child with a children will therefore constitute a separate household. The husband will be listed in the household where he spent the reference night. If the wives eat together and live in the same dwelling unit then treat them as one household.

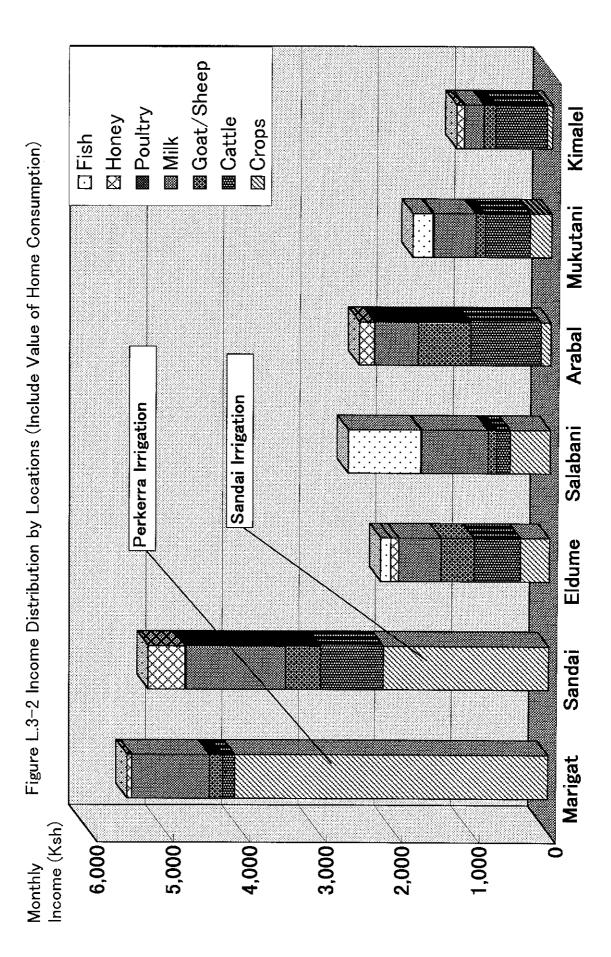
It is the custom in many parts of Kenya for boys to live in separate quarters between circumcision and marriage, while continuing to take heir meals with their parents. Such boy's quarters don't fall precisely within definition of household for they nomarly eat and don't sleep in their parents' household. Enumerate them with their parents' household.



L-19

· · · · · · · · · · · · · · · · · · ·		Marigat	Sandai	- Eldume	Salabani	Arabal	Mukutani	Kimalel
Family Size	Sample(HH)	12	12					
	Average	7.8	6.4	6.9	6.0	8.3	7.3	
Grazing Distance	Apr. to Nov.	4.0	4.4	5.0	3.9	4,9	6.0	4.0
	Dec. to Mar.	3.6	5.5	3.2				4.1
Cultivated Land								
Irrigated	Average(ac)	3.3	2.8	1.4	0.0	0.0	0.0	0.0
Rain-fed	Average(ac)	0.0	0.3	0.3	2.1	1.9	3.0	0.9
Crop (Irrigated) in 199	8 acre							
Maize		2.0	2.2	0,9	-	-	-	-
Millet		0.0	0.2	0.2	-	-	-	-
Beans		0.0	0.2	0.04	-	-	-	-
Chili		0.2	0.0	0.0	-	-	-	-
Cotton		0.1	0.0	0.0	-	-	-	
Water melon		0.2	0.05	0.2	-	-	-	-
Onion		0.3	0.0	0.0	-	-	-	-
Vegetables Tomato		0.1	0.1	0.0	-		_	-
		0.1	0.0	0.0	-		-	-
Total Cropping Intersity (0/)	3.0	2.75	1.34	-	-	-	-
Cropping Intensity (70)	91	98	96	-	-	-	_
rop (rain fed) in 1998	acre							
Maize		-	0.04	0.2	1.5	1.5	2.1	0.1
Millet		-	0.02	0.1	0.0	0.3	0.4	0.4
Beans		-	0.0	0.0	0.4	0.02	0.3	0.02
Sorgum		-	0.0	0.0	0.0	0.04	0.0	0.2
Groundnuts		-	0.0	0.0	0.0	0.02	0.0	0.1
Total Cronning Internity (<i>«</i>	-	0.06	0.3	1.9	1.88	2.8	0.82
Cropping Intensity (70)	-	20	100	90	99	93	91
umber of Livestock								
Local Cattle	Male	0.4	1.8	0.4	0.7	1.8	0.7	0.5
	Female	2.3	8.9	3.5	2.7	8.4	4.8	1.4
	Calf	1.3	5.2	1.4	1.2	3.3	3.2	1.2
Milk Cattle		1.2	0.6	0.4	0.1	1.4	0.8	0.0
Total of Cattle		5.2	16.5	5.7	4.7	14.9	9.5	3.1
Goat		17.2	31.6	21.0	21.7	48.1	6.3	16.0
Sheep Poultry		2.2 8.1	9.8 14.3	2.8 3.4	6.6 7.5	4.8 5.5	2.0 4.0	4.5 6.6
umber of Beehive		-						0.0
Log Hive		2.7	5.9	0.6	Λi	70	<u>^</u>	r .
KTBH		0.6	5.9 0.1		0.1	7.9	0.3	5.4
Crude Honey Yield(19	9 liter/year	9.0	33.1	0.0 2.8	0.0 0.7	0.0 25.6	0.0 0.7	0.0 22.7
ome Consumption Rai	tio (%)							
Maize		33	50	88	75	100	85	100
Millet		-	71	100	-	100	100	100
Milk		65	73	100	65	94	100	100
Honey		1	12	14	0	23	0	46
come in 1998 (add to) : exclude home co		onsumptior	1)					
Crops	Ksh	49,032	25,705	4,527	6,273	1,554	3,367	821
	Ksh	(36,973)	(13,825)	(1,099)	(2,233)	(0)	(623)	(397)
Cattle	Sold No.	0.2	2.0	1.0	1.0	2.0	2.0	1.0
	Ksh	1,917	9,933	7,217	2,108	10,958	7,017	8,000
	Sold No.	3.0	6.0	6.0	2,100	12.0	2.0	2.0
Goat/Sheep		2,106	5,503	5,058	1,329	8,068	1,433	1,829
Goat/Sheep	Ksh			6,600	10,200	6,800	6,400	3,000
Goat/Sheep Milk	Ksh Ksh	12,240	15,600	-,				0,000
•	Ksh	12,240	15,600 (4,212)	(0)	(3,570)	(408)	(<u>n</u>)	(በ)
	Ksh Ksh	12,240 (4,284)	(4,212)	(0) 34	(3,570) 80	(408) 25	(0) 56	(0)
Milk	Ksh Ksh Ksh	12,240 (4,284) 0	(4,212) 160	34	80	25	56	0
Milk Poultry	Ksh Ksh Ksh Ksh	12,240 (4,284) 0 683	(4,212) 160 5,783	34 1,217	80 92	25 2,418	56 133	0 1,154
Milk Poultry Honey	Ksh Ksh Ksh Ksh Ksh	12,240 (4,284) 0	(4,212) 160	34 1,217 (1,047)	80 92 (92)	25	56 133 (133)	0
Milk Poultry Honey Fish	Ksh Ksh Ksh Ksh Ksh	12,240 (4,284) 0 683 (676)	(4,212) 160 5,783 (5,089)	34 1,217 (1,047) 1,600	80 92 (92) 11,400	25 2,418 (1,862)	56 133 (133) 3,100	0 1,154 (623)
Milk Poultry Honey	Ksh Ksh Ksh Ksh Ksh Ksh	12,240 (4,284) 0 683 (676) 65,978	(4,212) 160 5,783 (5,089) 62,684	34 1,217 (1,047) 1,600 26,253	80 92 (92) 11,400 31,482	25 2,418 (1,862) 29,823	56 133 (133) 3,100 21,506	0 1,154 (623) 1 4,804
Milk Poultry Honey Fish	Ksh Ksh Ksh Ksh Ksh	12,240 (4,284) 0 683 (676)	(4,212) 160 5,783 (5,089)	34 1,217 (1,047) 1,600	80 92 (92) 11,400	25 2,418 (1,862)	56 133 (133) 3,100	0 1,154 (623)

Table L.3-1 Summary of the Household Economy Survey



L-21

· · · · · · · · · ·			Unit Yield		Remark
Location	Crop	Average Year	1997	1998	1
		kg∕ha	kg∕ha	kg∕ha	
		(kg/acre)	(kg/acre)	(kg/acre)	
	Maize	2,001	2,024	2,980	
Marigat		(810)	(819)	(1,206)	
	Chilli(fresh)	3,212	4,139	3,706	
		(1,300)	(1,675)	(1,500)	
	Watermelon	4,324	7,413	4,942	
		(1,750)	(3,000)	(2,000)	
	Onion	4,739	4,346	8,347	
		(1,918)	(1,759)	(3,378)	1
	Kale	3,706	3,175	5,065	
		(1,500)	(1,285)	(2,050)	
	Tomato	1,651	2,244	2,244	
		(668)	(908)	(908)	
	Maize	2,958	2,557	3,180	
Sandai		(1,197)	(1,035)	(1,287)	
	Finger Millet	845	578	867	
		(342)	(234)	(351)	
	Beans	56	17	78	Inter-crop with maize
		(23)	(7)	(32)	(mostly failed)
	Watermelon	7,413	-	7,413	
		(3,000)	-	(3,000)	
	Kale	1,050	803	1,421	
		(425)	(325)	(575)	
	Maize	956	845	200	sufferring from water shortage
Eldume		(387)	(342)	(81)	
	Finger Millet	289	111	267	
		(117)	(45)	(108)	
	Beans		74	74	Inter-crop with maize
		_	(30)		(mostly failed)
	Watermelon	1,730	-	1,977	<u> </u>
		(700)	-	(800)	

Table L.3-2 Unit Yeild of Irrigated Area (Result of Household Economy Survey)

Table L.3-3 Unit Yeild of Rain-fed Area (Result of Household Economy Survey)

			Unit Yield		Remark
Location	Crop	Average Year	1997	1998	
		kg/ha	kg/ha	kg∕ha	
		(kg∕acre)	(kg∕acre)	(kg∕acre)	
	Maize	934	356	979	
Salabani		(378)	(144)	(396)	
	Beans	297	74	311	
		(120)	(30)	(126)	
	Maize	289	245	89	
Arabal		(117)	(99)	(36)	
	Finger Millet	44	44	22	
		(18)	(18)	(9)	
	Beans	25	25	-	
		(10)	(10)	-	
	Groundnuts	-		17	· · · · · · · · · · · · · · · · · · ·
		-		(7)	
	Maize	445	467	156	
Mukutani		(180)	(189)	(63)	
	Finger Millet	289	334	67	
		(117)	(135)	(27)	
	Maize	489	267	556	
Kimalel		(198)	(108)	(225)	
	Finger Millet	89	89	156	
		(36)	(36)	(63)	
	Beans	25	49	99	
		(10)	(20)	40	
	Groundnuts	247	297	190	
		100	120	(77)	

Table L.3-4 Unit Yeild of Crude Honey (Result of Household Economy Survey)

		Unit Yield		Remark
Location	Average Year	1997	1998	
	liter/hive	liter/hive	liter/hive	
Marigat			3.3	
Sandai			5.6	·
Eldume			4.7	
Salabani			7.0	
Arabal			3.2	
Mukutani			2.3	
Kimalel			4.2	

A Survey Results
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Table

Location	Marigat	Sandai	Eldume	Salabani	Arabal	Mukutani	Kimalel
Village	Ndamble	Kamaech	Ntepes	Marti	Marti Chemelongiyon	Noosukuro	Kapkole
Total Households	200	81	80	96	73	110	80
Sample Households share	6%	15%	15%	12%	16%	11%	15%
Average Monthly Income							
of Sample Households (Ksh)	5,498	5,224	2,188	2,624	2,485	1,792	1,234
Economic Status of Average							
Sample Household in the Village	Middle	Upper Middle	Lower Middle	Lower Middle	Upper Middle	Lower Middle	Lower Middle
Ulass In the Village (%)							
Rich Hopuseholds	7	4	13	œ	6	22	4
Middle Households	LT	53	27	23	44	27	81
Poor Households	13	43	31	29	36	27	15
Poorest of the Poor	ო	I	29	40	11	24	I
Refer to Table L.3-6 to L.3-19							

L-23

Table L.3-6 PRA Results in Relation to Household Economy-Profile (Marigat Location, Ndambul Village)

l acation				
	litiarigat			
Sub-Location	Perkerra			
Village	Ndambuł Village I			
Established year	1979			
Ethnic Group	Tugen, II Chamus, Turukana, Pokot, Kikuyu, Swahili	uyu, Swahili		
Household	200			
Population Total	1,000	.000 (farmer =477)		
male				
female				
Family Size	5.0			
Soil	Range from clay loam which are fertile in the south and central areas of the village to poor sandy soils bordering the Turrikana village	n the south and central areas of the vil	lage to poor sandy soils bordering the	urukana villaæa
Vegetation	has been eaten by goats, making the ar	ea susceptible to wind and water erosic	on. Some areas especially sloping basing	has been eaten by goats, making the area susceptible to wind and water erosion. Some areas especially storing has ins have better versatation (shruh seeia meem treas)
Farm Size	3-4 acres			A TRAVE PACKAGINI (ALLI AU) ACAIA, HACHI (1999)
Main Crops	Onions, chilies, watermelon, pawpaw, cotton, maize seed	tton, maize seed		
Major Problem in Agriculture	NIB poor management and lack of credi	t for farm inputs. Price of livestock is lo	w, the land is overgrazed. land tenure	NIB poor management and lack of credit for farm inputs. Price of livestock is low, the land is overgrazed, land tenure is uncertain boause of lack of title dead
Other Income source	Small business, livestock			
Water source	Perkerra river			
Distance from Market	2km to Marigat			
Poverty Profile	Rich Households: (7)	Middle Households (77)	Poor Households (13)	Poorest of the Poor households (3)
	more than 200 cows	20 goats	3-4 goats	no cow, no gnat
	more than 300 goats	3 acres of land and able to employ	no cow	Thatched and mud house in very had condition
	own sheep	casuals	no land	Put on tattered clothes
	run business e.g. rental house,	0.5 acre plot	no plots	Relv on relief food from government
	use all of the farmland	generally have enough food	poor clothing	3–5 children
_	afford to practice crop rotation without have bicycles	have bicycles	live in thatched house in bad condition have children who never so to school	have children who never go to school
	any problem	may have motorcycles	no enough food	subject children to labor (from 7 vears old)
	own farmland outside the village	wooden furniture	no adequate income	face poor health conditions and noor nutritional
	build brick houses	semi-permanent houses	work as casual labor	status
	have food storage facilities	some have water in their homes	borrow trees to burn chacoal for sale	face separation of husband and wife due to
	have water in their homes	can marry 2 wives		povertv
	own cars	5-7 children	6-10 children	-
	own tractors	Secondary education	children educated up to Srandard 4	
	have good furniture	afford Christmas gifts for family		
	have good clothing	can be elected as a leader		
	1-4 children	unable to afford farm inputs unless		
	children are healthy	they get credit from NIB		
	children with universitiy education			
	sustain family financially during hard time	. 0		
	employ other people as workers			
	in a position to be elected			

Table L.3-7 PRA Results in Relation to Household Economy-Trends and Seasonal Calendars (Marigat Location, Ndambul Village)

(Trends)

	1982	1987	1992	1996	1998
Food Shortage (months)	5	6	9	4	2
Drop Production	Adequate	Poor	Adequate	Poor	Bumper
Recipt of Aid	No	Yes	Ŷ	Yes	No
Price Levels (Ksh)					
Sell: maize/90kg	180	350	450	650	500
Sell: goat	100	300	600	1,000	700
Buy: Sugar/kg	9	12	30	40	50
labor(basin 6x5m mkato)	0.5	5	σ	10	15

(Seasonal Calenders)

Year 1998	Jan	Feb	Mar	Apr	Mav	un	n	Alle	Sen	+	Nov	
Farm Gate Price (Ksh)							5	9	222	***	1	Dec.
Kenya Seed Maize	2,610											
Pilipili	800											
Commercial maize	1,000	1,200	1,250	1,350	1,400	1.500	1.500	1.600	800	2007	600	500
Onion	200	200	300	180	160	150	150	150	150	150	150	150
									-	2	2	202
Source of Food and Income												
Seed Maize												1
Onions												
Hot pepper												
Livestock												
Casual Labor										X		
Labor Demand												
Excess Labor												
Full employment												
Labor Shortage							X					
											i	
Food Security												
Period of Shortage			•	•							İ	
Food aid (y/n)	z	z	<u>}</u> >-	`	} >-	z	} >	} >	Þz	Dz	1	
								-	z	z	z	z

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Table L.3

Location	Sandai
Sub-Location	Mbechot
Village	Kamaech
Established year	1930's
Ethnic Group	Tugen
Household	81
Population Total	438
male	
female	
Family Size	5.4
Soil	The upper sides of the is loamsoils. As the land slopes down the soils become loam-cray and then cray in the swampy area. Western part is sandy and less fertile
Vegetation	Swamp area as grazing land.
Farm Size	1.5 -3 acres
Main Crops	maize, finger millet, sorghum, beans, kales, tomatoes and water melon by irritation (Sandai Water Users Association)
Major Problem in Agriculture	Irrigation ware cannot reach some part of the village, wild animals and birds, shortage of irrigation water due to tennorary intake and seenage floods and river flow channes
Other Income source	Bee-keping sale of livestock
Water source	Wasegeses river
Distance from Market	[9km to Marigat
Poverty Profile	Rich Hauseholds: (3) Middle Hauseholds (43) ID-ox Hauseholds (95) I
	and 90 cheen chert 10 clicker 3 cherren 15 meter
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	house with good quality grass, iron rooff and meetings
	educate children up to form 4
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Table L.3-9 PRA Results in Relation to Household Economy-Trends and Seasonal Calendars (Sandai Location, Kamaech Village)

(Irends)					
	1980	1984	1989	1993	1997
Food Shortage (months)	6	4	2	none	(C)
Crop Production	Failure	Poor	Adequate	Bumper	Adequate
Recipt of Aid	Yes	Yes	Yes	No	Yes
Price Levels (Ksh)					
Sell: maize/90kg	250	300	500	700	1,000
Sell: one cow	800	500	10,000	15,000	15,000
Buy: Sugar/kg	7.50	10.00	28.00	36.00	42.00
Buy Salt/250g	0.25	0.50	3.00	5.00	00.6
casual labor/day	4	15	30	40	09

(Seasonal Calenders)

00 1,000 1,000 1,000 1,2	Year 1998	Jan	Feb	Mar	Apr	May	unp	Inc	Aug	Sep	Oct	Nov	Dec
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	e (Ksh)												
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		1,500	1,500	1,600		1,800	1,900	2,000	2,100	1,000	1.000		1.300
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		50	50	60		70	75	80	80	40	40		45
		30	30	30		30	90	30	30	25	25	25	25
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Location	Eludume			
Sub-Location	IIngarua			
Village	Ntepes			
Established year	1880	(
Ethnic Group	II Chamus (major), Tugen (minor)			
Household	80			
Population Total	640			
male				
female				
Family Size	8.0			
Soil	Mainly cray loam, very fertile. The soil is light and highly prone to soil rosion.	s light and highly prone to soil rosion.		
Vegetation	Acacia tree, cacutus, euphobia, salaban tree	ı tree		
Farm Size	2 acres			
Main Crops	Maize, (rain water only?)			
Major Problem in Agriculture	Lack of skill, soil erosion, poor usage of rai	f rain water, Lack of irrigation water		
Other Income source	Selling cattle, goats,			
Water source	Tikirich water point (2km), Perkerra water	ter point (0.5km)		
Distance from Market	6km to Marigat			
Poverty Profile	Rich Households: (10)	Middle Households (21)	Poor Households (24)	Poorest of the poor households (23)
	iron seet (Mabati house)	ts	2 cattle, 5 goats 3 sheep. 2 chicken	eress thatched house
	about 50 cattle, 50 goats, 50 sheep	house	grass thatched house	no wife or husband
	farm land 4 acres irrigated	have a bicycle	1 wife	rarely or occasionally eat proner meals
	assets, bicycle, radio, sofa set, TV		about 3 children who do not go to school	
	2 wives	educate their children	eat 1 meal per day	
	educate their children	les	war tattered clothes	horrows from rich and the middle horiseholds
	business (shop, kiosk)			
	Have a toilet			
	can buy new clothes			
	can eat 3 meals per day			
Activities	keep livestock	employed in the government, Perkerra casual labors	casual labors	emploved by rich as casuals
	carry out business (shop, kiosk)	irrigation Scheme	small business, hawking	
	farming	: (shops ,kiosk)	rent farms from rich	
•		farming		
Survival strategy	sell goats and cattle		sell goats	borrow money from neighbours
	get money from the bank savings	get employment, casual labor	receive famine relief	depend on famine relief
			work in the Perkerra Irrigation Scheme	work in the Perkerra Irrigation Scheme

Table L.3-10 PRA Results in Relation to Household Economy-Profile (Eludume Location, Ntepes Village)

Table L.3–11 PRA Results in Relation to Household Economy-Trends and Seasonal Calendars (Eludume Location, Ntepes Village)

(Trends)					
	1980	1985	1990	1995	1998
Food Shortage (months)	<u>L</u>	5	6	e	4
Crop Production	Poor	Adequate	Poor	Bumper	Adequate
Recipt of Aid	Yes	٩	Yes	٩	Ŷ
Price Levels (Ksh)					
Sell: maize/90kg	300	450	730	006	1.400
Sell: millet/kg	5	ω	12	16	30
Sell: cow	500	1,400	6,000	12,000	4,000
Sell: goat	40	160	230	800	200
Buy: sugar/kg	2.50	12.00	24.00	36.00	50.00
Buy: salt/50g	0.10	0.60	5.00	6.00	7.00
Buy: tea leaves/50g	0.25	1.60	7.00	12.00	16.00
casual labor/day	25	30	30	40	09

(Seasonal Calenders)

	Манали	Marti		II Chamus (major), Tugen, Turukana			male	female		Very fine sand and silty loam clay soils in most parts of the village.		1-7 acres	maize, beans and millet, and a few ather crops.	Major Problem(potential) in Agriculture Lack of water for irrigation leads to fod shortages in the households, fertile soils, plot for Ostrich farming	source Livestock keeping (main productive activity), fishing handicrafts	2km (to water pan, Moro seasonal river, Noolmorijo seasonal river)	Market	Rich Households: (8)	30-50 cows 1-5 cows	p and goats 30-60 sheep and goats 1-4 goats	s 2–4 donkeys 1–4 sheep	15–20 chicken 2 chicken	nd 0.5 acre of land	vehicle have a bicycle engage in casual labor	ren educate their children 1 wife	s have a kiosk	have enough food have adequate food	1-4 wives 1-2 wives				
l ocation	Sub-Location	Village	Established year	Ethnic Group	Household	Population Total		female	Family Size	Soil	Vegetation	Farm Size	Main Crops	Major Problem(potential) in Agricu	Other Income source	Water source	Distance from Market	Poverty Profile										- 194				

Table L.3-12 PRA Results in Relation to Household Economy-Profile (Salabni Location, Marti Village)

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(Trends)					
	1982	1984	1989	1992	1997
Food Shortage (months)	0	12	9	10	2
Crop Production	Paor	Failure	Adequate	Poor	Adequate
Recipt of Aid	٥N	Yes	٩	Yes	No
Price Levels (Ksh)					
Sell: maize/90kg	300	I	650	750	006
Sell: goat	60	150	350	750	1,200
Buy: maize flour/2kg	5	9	10	24	30
Buy sugar/kg	2	12	14	45	48
Labor(5x10m mkato-basin	2.50	I	3.50	5.00	10.00

(Seasonal Calenders)

(beasonal Calenders)												
Year 1998	Jan	Feb	Mar	Apr	May	un	Int	Aug	Sep	Oct	Nov	Dec
Farm Gate Price (Ksh)								0				
Maize/90kg	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,000	1,000	1,400	1,500	1,600
Beans/kg	56	56	56	56	56	56	39	39	39	39	44	50
Millet/kg	30	30	90	30	30	30	30	30	30	08	30	00
Cows	4,000	4,000	4,000	4,000	4,000	4,000	4,000	5,000	5,000	5,000	5,000	5.000
Goats	1,500	1,500		1,500		1,500	1,800	1,800	1 800	1 800	1 000	800
Sheep	1,200	1,200	1,200	1,200	1,200	1,200	1,800	1,800	1 800	1.800	1.800	1 800
Chicken	150	150	150	150	150	150	150	150	150	150	150	150
Source of Food and Income												
Livestock									1			
Fish												
Maize												
Beans												
Millet												
Casual work												
Borrow												
Labor Demand												
Excess Labor												
Full employment												
Labor Shortage												
		:					1					
Food Security												
Period of Shortage	•	•	•	•••							į	
Food aid (y/n)	Y	Y	۲	~	7	7	7	>	>	7	>	>
								-	-		-	-

Location	Arabal				_
Sub-Location	Arabal				.
Village	Chemorongion				
Established year	1930				
Ethnic Group	Tugen				
Household	73				
Population Total	373				
male	162				
female	211				
Family Size	5.1				
Soil	Vary from stony red-brown soils on the	Vary from story red-brown soils on the hills and red soils with good water retention on the land sloping down to lower areas with black cotton soils	ention on the land sloping down to lov	ver areas with black cotton soils	_
Vegetation	grassland and scattered indigenous shrubs and trees	rubs and trees			_
Farm Size	zero to 3 acres				
Main Crops	maize, millet, sorghum and beans				
Major Problem in Agriculture	unreliable rain results in frequent crop fai	failures, adequate rains come only once in about 5 years.	t in about 5 years.		
Other Income source	bee-keeping, livestock sale, donkeys, casual labor, and animal hide and skins	asual labor, and animal hide and skins			
Water source	9km to Arabal river, Arsin water pan				
Distance from Market	30 to 32km to Matwiku and Marigat				
Poverty Profile	Rich Households: (8)	Middle Households (40)	Poor Households (32)	Poorest of Poor Household (10)	
	15-30 heads of cattle	of cattle	3-8 cows	no cows	
	20-60 goats		1–10 goats	no goats	
	about 5 donkeys		no donkev	no donkev	
	10-20 beehives	hives	1-2 beehives		
	about 20 chicken		10 chicken	about 6 chicken	
	2-3 wives	2 wives	1 wife	often single parents	
	assets such as bicycle		no tangible assets	no tangible assets	
			no business activities	no business activities	
	educate children up to pri. or sec.	up to pri. or sec.	educate a few children	do not educate children	
	Farminjg. 1.5-3 acres	Farming: 0.5–3 acres	Farming: 0–1.5	Farming: 0-1.5	
Survival Strategies	Eating the meat of dead cows or goats	Eating the meat of dead cows or goats, eating Ngosiek and Nyakanyek, which grow on big trees and produce small fruits which people collect and boil	grow on big trees and produce small f	ruits which people collect and boil.	
	Depend on relief food from the government or from donors	ment or from donors		-	_
	Rich Households may use some income th	e they have obtained from their business	(0)		
Main Sources of Household food	Sources of food and income, to which		access in varying degrees, include in	come derived from selling livestock and	
and income	honey, and farming of maize, beans and	nd millet. For the poor and poorest households casual labor and dead livestock (dried meat) are significant.	eholds casual labor and dead livestoc	ck (dried meat) are significant.	
Labor and Employment	The main type of employment in this area	rea is working in the farms as casual lab	orers, which is usually done by the m	is working in the farms as casual laborers, which is usually done by the members of the poor and the poorest households.	
	Some of the rich people are employed in (in government offices.	•		

Table L.3–14 PRA Results in Relation to Household Economy-Profile (Arabal Location, Chemorongion Village)

Table L.3-15 PRA Results in Relation to Household Economy-Trends and Seasonal Calendars (Arabal Location, Chemorongion Village)

(Trends)

	1982	1984	1989	1990	1998
Food Shortage (months)	10	12	8	11	11
Crop Production	Poor	Failure	Adequate	Failure	Failure
Recipt of Aid	N٥	Yes	٥N	Yes	Yes
Price Levels (Ksh)					
Goat Sale	70	100	250	370	600
Buy mazie flour/kg	1.50	3.50	4.50	8.00	22.00
Buy Salt/250g	0:30	0.50	0.75	2.50	7.00
casual labor/day	2.25	3.00	5.50	10.00	20.00

1

(Seasonal Calenders)												
Year 1998	Jan	Feb	Mar	Apr	May	սոր	Jul	Aug	Sep	Oct	Nov	Dec
Farm Gate Price (Ksh)												
Honney/gallon								250	250	250	250	250
Cows	1500-6000						5000					
Sheep/Goats	300-600						500-1400					
Donkey	800						1200					
Chicken	70											
							5					
Source of Food and Income	ne											
Maize												
Beans												
Millet												
Honey												
Livestock												
Donkey												
Borrow				m	æ	щ		1				
Labor Demand									1			
Excess Labor												
Full employment												
Food Security												
Period of Shortage				•	•	•	•					
Food aid (y/n)	≻	۲	Y	۲	≻	7	z	z	z	z	Z	Z

Location	Mukutani			
Sub-Location	Rugus			
Village	Noosukuro			
Established	1912			
Ethnic Group	II Chamus			
Household	110			
Population Total	006			
male			and the second se	
female				
Family Size	8.2			
Soil	Lower side has fertile loam soils formi	ing the major part of the communal farn	ms. The upper section of the village ha	Lower side has fertile loam soils forming the major part of the communal farms. The upper section of the village has sandt soils being used for livestock grazing
Vegetation	Lower section of the village is fairly lu	Lower section of the village is fairly lush consisting mainly of acasia trees and other drought tolerant tree species.	id other drought tolerant tree species.	
Farm Size				
Main Crops	maize, millet, and beans. Fertilizers ar	maize, millet, and beans. Fertilizers and improved seeds are not used. Traditional tools as jembes and pangas are the farm inputs.	tional tools as jembes and pangas are	the farm inputs.
Major Problem in Agriculture	droughts, lack of control fo Ngasotok river	river	2	
Other Income source	Goat and Cattle rearling (main income	Goat and Cattle rearling (main income source), fishing, quarrying of stone and concrete chips	d concrete chips	
Water source	Nagsotok seasonal river, Lake Baringo			
Distance from Market	33km to Marigat			
Poverty Profile	Rich Households: (20)	Middle Households (24)	Poor Households (24)	Poorest of Door Household (22)
	100-200 cattle and goats	40 cattle, 60 goats, 5 chicken	6 cattle. 2 goats. 12 chicken	no cattle, no poats
	several (three) wives	more than one (two) wives	one wife	aholat 5 chicken
	assets radio, bicycle, sofa set, bed	assets radio, bicvole	assets only livestock	one wife
	dress in a suit	traditional seat, shuka, bed made of	use local skin	traditional dresses
	business people	local skin	use traditional dresses	rise skin heds
	have a farm	might operate a shop	no shop or farm	no farm
	operate a shop	have a farm	use diertv water from Lake Barin <i>s</i> o	no assets
	education level form four or higher	water from Lake Baringo	0	use dirty water from Lake Baringo
	water iron Lake Darnigo Iron Shet roof			
Survival Strategies				
Main Sources of Household food and income	The income in most households is obt. The women control income from sellin	The income in most households is obtained from the sale of cows, goats, chicken and eggs, and fish. The women control income from selling chicken and eggs, while men control and make decisions regarding all the other income.	cken and eggs, and fish. and make decisions regarding all the o	ther income.
Labor and Employment				

Table L.3-16 PRA Results in Relation to Household Economy-Profile (Mukutani Location, Noosukuro Village)

Table L.3-17 PRA Results in Relation to Household Economy-Trends and Seasonal Calendars (Mukutani Location, Noosukuro Village)

110					
	1978-83	1983-85	1985-90	199095	1995-98
Food Shortage (months)	7	4	2	ŝ	8
Crop Production	Poor	Poor	Adequate	Poor	Poor
Recipt of Aid	No	Yes	No	No	°N N
Price Levels (Ksh)					
Sell: maize/90kg	60	120	600	800	1,800
Sell: millet/kg	2	5	15	20	35
Sell: cow	600	3,000	6,000	9,000	15,000
Sell: goat	180	250	700	800	1,000
Buy: sugar/kg	5	6	12	15	52
Buy: tea leaves/50g	е С	9	8	12	16
Buy: salt/200g	1.50	3.00	4.50	6.00	8.00
Buy: kimbo/500g	2.50	5.00	20.00	55.00	60.00
Buy: soap panga	2.00	4.00	6.00	8.00	10.00

Year 1998	Jan	Feb	Mar	Apr	May	որ	ווור	Aug	Sep	Oct	Nov	Dec
Farm Gate Price (Ksh)												
Chicken	35-60	35-60	35-60	35-60	35-60 35-60 35-60 35-60 35-60 35-60 35-60 35-60 35-60 35-60 35-60 35-60 35-60	35-60	35-60	35-60	35-60	35-60	35-60	60-100
Cattle	2000-4000	2000-4000	2000-4000	2000-4000	4000-6000	4000-6000	4000-6000	6000-10000	6000-10000	6000-10000	6000-10000	6000-10000
Sheep/Goats	500-600	500-600	500-600	500-600	600-800	600-800	600800	800-1000	800-1000	800-1000	800-1000	800-1000
Maize 20kg	200	200	200	200	200	200	200	200	150	150	150	150
Source of Food and Income	me											
Goat/cattle												
Mazie & beans												
Water lily roots												
Water lily sorghum												
Wild vegetables												
Full employment												
Food Security												
Period of Shortage	•	•	•	•	•	•	•	•				
Food aid (v/n)	~	<u>≻</u>	>	\ \	\ \	>	>	}>		2	2	
			-	•		-	-	-	z	~	Z	

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Location,
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Results in
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Table L.3-

about 20 cows about 10 cows no goats, no cows about 50 goats about 15 goats poor clothing about 30 beehives beehives boor 15 goats poor clothing about 30 beehives beehives boor 15 goats poor clothing about 30 beehives beehives boor 15 goats poor clothing about 30 beehives beehives boor clothing poor clothing about 30 beehives beehives boor clothing poor clothing about 4 life 1 wife life 1 wife good clothing very small thatced house 6-7 children good clothing boor casual labor ducate children up to form 4 join village polyteonics hor furniture, sleep on animal skins brick or iron sheet house cultivate up to 0.25 acree own sofa set and radio own sofa set and radio have stools and tables in the house have stools and tables in the house
--

Table L.3-19 PRA Results in Relation to Household Economy-Trends and Seasonal Calendars (Kimalel Location, Kapkole Village)

(Trends)					
	1979	1984	1989	1993	1998
Food Shortage (months)	9	12	4	ω	e
Crop Production	Poor	Poor	Adequate	Adequate	Bumper
Recipt of Aid	٥N	Yes	٥N	No	No
Price Levels (Ksh)					
Sell: goat	80	120	200	450	1,200
Sell: groundnuts/kg	1.5	I	10	20	30
Buy: sugar/kg	0.75	3.00	8.00	12.00	40.00
Buy salt/500g	0.25	1.50	2.00	5.00	10.00
Casual labor/day	2	12	25	30	50

.

(Seasonal Calenders)

Year 1998	Jan	Feb	Mar	Apr	Mav	hun	Jul	Aug	Sen	Oct	Nov	Dec
Farm Gate Price (Ksh)								D)
Groundnuts/kg	40	40	50	60		•		30	30	30	35	35
Finger millet/kg	30	30	30	32				20	20	20	25	25
Source of Food and Income	he									-		
Buying food												
Farm produce												
Food aid												
Sell livestock												
Sell honey												
Casual labor												
Sell ropes and baskets												
Labor Demand							-	-				
Excess Labor												
Full employment												
Labor Shortage												-
Food Security												
Period of Shortage	•	•	•	•	•	•						
Food aid (y/n)	Y	≻	7	7	۲	>	>	z	z	z	Z	Z
											2	2

Table L.3-20 Survey Form of Household Economy Survey

No: Household Economy Survey Sheet Interviewed by:_____ Date Interviewed: Name:______ (Sex:____, Age:____, Education_____, Ethnic:_____) Address: Location:_____, Sub-Location:_____, Village:_____ **1. Family Composition** (1) Number of Members: _____(No. of Children _____) (2) Number of children who work: _____(Inside Village _____, Outside Village _____) 2. Land Use 2.1 Grazing Land (Distance from House) April to November: <u>km</u> December to March: km 2.2 Irrigated Land <u>acres</u> (titled communal tenant) 2.3 Cultivated Land without Irrigation <u>acres</u> (titled communal tenant)

3. Production and Income

3.1.1 Crop Production (Irrigated area)

Crop	Acre		Unit Y	Field per Acre	
		Unit	1998	1997	Average Year
Maize				· - · · ·	
Millet				<u></u>	
Beans					
Vegetables					
()				
()				
Others					
()				

Сгор	Acre		Unit Y	field per Acre	
		Unit	1998	1997	Average Year
Maize					
Millet					
Beans					
Vegetables					
()			·	
()				
()				
Others					
()				
()				

3.1.2 Crop Production (Rain fed area)

3.1.3 Income from Crop Production (from 1998 July to 1999 June)

Сгор	Sold Amount	Unit Farm-Gate	Gross Income (Ksh)
		Price (Ksh/)	
Maize	Bags	Ksh/bag	
Millet			
Beans			
Vegetables			
()			
()			
()			
Others			
()			
()			

3.2.1 Livestock and Poultry

Animals		Number		Kind
	Adult Male	Adult Female	Kid	
Beef Cattle				
Milk Cattle				
Goat				
Sheep				
Chicken				

3.2.2 Income from Livestock and Poultry

(1) Sold Number of Cattle from 1998 July to 1999 June: _____,

Total Price: Ksh

(2) Sold Number of	Goat/Sheep fro	om 1998 July	y to 1999 J	une:	<u>,</u>	
Total Price:	Ksł	1				
(3) Milk: Home Cor	sumption:	liter/day	Sale:	liter/day	Price	Ksh/liter
			Milk mo	nthly sale:		Ksh/month
(4) Others (poultry)						
				(Ksł	n/month)
				(Ksł	<u>/month)</u>
3.2.3 Bee-keeping						
No. of Bee-hives :	- Log Hi	ive ()			
	- KTVH)			
Yield per one time:	(Crude:	debe or li	ter /hive)			
	(Refined:	debe or lit	ter/hive)			
No. of Harvest: (times/yea	r)				
Unit Farm-Gate Pric	e of Crude Ho	ney:	Ksh/liter	Gross Incon	ne:	Ksh/liter

3.2.4 Fishing

Kind			
Fishes/day			
Unit Price			
Gross Income		 	

3.2.5 Other Income Source

4 Production Cost

4.1 Bee-keeping

(1) Bee hives:	(make himself, purchase (Ksh/hive)		
(2) Mating:	(Natural, Artificial (Ksh))		
(3) Hired Labor:	(Kind of Operation:	;	Price:	<u>Ksh</u>)
(4) Other Cost	()

acre
per
Input
Farm
4.2

Crop		Irrigated	Irrigated/Rain Fed			rigated/	Irrigated/Rain Fed		_	Irrigated/Rain Fed	Rain Fed
Input/acre	Kind	Quantity	Price	Kind	Quantity	t,	Price	Kind	Quantity	ty	Price
		(/acre)	(Ksh/acre)		(/acre)		(Ksh/acre)		(/ac	/acre) ((Ksh/acre)
Seed											
Fertilizer											
											- - -
Pesticide											
Labor		(Total Labor) (% of Hired)	(for Hired)		(Total Labor) (% of Hired)		(for Hired)		(Total Labor) (% of Hired)	1	(for Hired)
Ploughing	tractor/manual			tractor/manual				tractor/manual			
Ridging	tractor/manual			tractor/manual				tractor/manual			
Bed making	manual			manual				manual	:		
Planting	manual			manual				manual			
Watering	manual			manual				manual			
Fertilizing	manual			manual				manual			
Weeding	manual			manual				manual			
Spraying	sprayer			sprayer				sprayer			
Harvesting	manual			manual		-		manual			-
Transporting to stdtractor/manual	tractor/manual			tractor/manual				tractor/manual			
Threshing	thresher/manual			thresher/manual				thresher/manual			
Other											
							·				
	i								-	-	

Box L.3-1 Access to Credit

1) Christian Children Fund (CCF) Small Enterprise Development

The annual report of CCF explains, "The programme was started in order to help the sponsored families to improve their sustainability and a way of reducing the dependency syndrome. The area covered by Marigat project is suitable for small-scale business and commercial farming within the irrigation scheme such as Perkerra, for this reason both those undertaking commercial farming and are on business are eligible for joining the programme. The business Officer introduces the group approach to the individual concerned that is not more than thirty members per group. This must be those undertaking similar business that is small-scale and those undertaking commercial farming should form different group, if a group has twenty members 12 should get loans first while the remaining 8 should get after 2 months." The interest is 24% in 6 months. 300,000 Ksh is the budget of the loan program (revolving) in 1999. At present there are 25 customers who are doing vegetable marketing, butchery, kiosk, animal trading, farmrs in Perekerra Irrigation Scheme, honey etc. CCF advertised their credit programme in the villages so people are aware of the credit. There is a also case of the loaning in year 1995/96, saying:

"During this year the late loans were connected while the new approach was introduced to the beneficiaries. They have reorganized themselves into groups of between fifteen to thirty, they form their own committee, set their own by- law registered with Social services and opened group accounts. Nine groups benefited from loan amounting to 1,193,000Ksh. Two of these groups belong to farmers of Perkerra Irrigation Scheme while the others are businessmen. Farmers take loans to buy pesticides, for weeding and harvesting purposes. At first they agreed they should plant horticultural crops which they could sell on monthly basis so they could repay the loan but this have been a bit hard. This is because according to the National irrigation board programme water is directed to different areas at different times and so when the water level is low it is not enough to all the farmers as was the case between December and May. The farmers have decided to repay their loans with the pay out from the produce delivered to the board like Onions, Pepper, Pawpaw and watermellons. They have agreed this should not exceed ten months, should be paid together with the fines for each month. Total repayments recorded have been correct but to differentiate between principal and interest have been hard because of poor recording within groups to evade fines possibly. The groups have not saved as much as would have been expected because others have preferred to invest elsewhere. One group has constructed a two roomed rental house which was Officially opened on 10th July 96, others have been loaning the saving their members and buying goats."

2) World Vision Micro Enterprise Development Program

They started the program in the nation wide. In their operation manual saying "Micro Enterprise Development (MED) will emphasize on the individual self-reliance aspects. MED approach if managed effectively is able to deal with alleviation of poverty. If given as revolving loans and a percentage charged as interest, even with limited funds, there will be sustainability, beneficiary involvement, and the community in return is empowered to address their needs both at individual and community levels. Therefore, there is need for WVK (world Vision Kenya) to explore MED as an alternative approach to Community Development." Its goal is to raise the economic status of the economically poor by making them realize their potential and mobilize them to form manageable income generating activities through revolving loans. Its strategies are, to provide credit to the poor and oppressed, group formation, to mobilize group savings, credit follow-up, training, monitoring and evaluation.

Here to be focused is the approach includes lending to groups. The guidelines of the group formation are as follows:

- At least 5 members with common interest and not more than 30 members (should be part of a larger group of 30 registered by the Ministry of Culture and Social Services, as a self group)
- Co-guarantee loans to each other by pledging their normal savings to Project through the group
- Have a Chairman/Chairlady, a Treasurer and a Secretary.
- Must be from the same locality, ADP or Project area
- The group should undertake the responsibility of loan repayment. They shall make monthly/weekly loan reports to the group, who in turn report to the Credit officer.
- Members of each group should pledge security to each other.
- The group members should agree to pay service charges to cover all other extra expenses which have been considered sound.
- Be bound by group rules and by laws.
- Members should agree to repay loan within the specified period.
- Members will not withdraw from the group while they have an outstanding loan.
- Group members shall not be immediate members of the same family.

3) Marigat Catholic Church headed by Diocese of Nakuru

It is about to start. The system is revolving fund similar to the system of CCF, or World Vision.

4) Agricultural Finance Cooperation (AFC), Kabarnet Outline of AFC

The Agricultural Finance Corporation (AFC) was established according to the Act of Parliament in 1963. The objective of the AFC is to finance farm projects and agrobusiness. It is the largest single agricultural credit institution in Kenya assisting in the development of agriculture and agricultural based industries by making loans to farmers, co-operative societies, private companies etc. The source of AFC used to be heavily funded by the government. However, after introduction of the privatization policy, fund by the government has been limited. So the major source of AFC is interest from borrowers. International agencies that used to provide fund to AFC have stopped funding. Kabarnet Branch is the only one in Baringo district.

Type of Loan

There are two types of the loan in AFC as follows;

Туре	Term	Interest	Amount	Remark
Seasonal Loan	1 year	20 %	6,000 Ksh/acre	
Development Loan	3 to 5 years	20 %		Approval of manager at the headquarters in Nairobi is required for over 100,000 Ksh

Farmers are utilizing the loans for daily cattle, beef cattle, fence, water tank and pipe, cash crop such as coffee, pyrethrum.

Loan in Marigat and Mukutani division

Because the lands in the areas are communally owned, the people have no mean to give collateral. Therefore AFC have not serviced the people in Marigat and Mukutani. Only five farmers in Marigat have been using the loan of AFC. They are migrants from Kabarnet. They have their own lands in Kabarnet (Tugen hill) and these lands are given as collateral. They are tenants of NIB irrigation scheme area. They rent money for farm inputs (50,000 to 200,000 Ksh) 50% from NIB and 50% from AFC. AFC has given loans mostly to farmers in Kabarnet, Kabartonjo, Tenges division.

Present Problems

- Repayment: Default rate is now estimated at about 30%. However the attachment of collateral has not executed actually. There is a big debt made in 1984, the year serious drought occurred. Most of the farmers could not repay the seasonal loans for maize.
- AFC is still following to collect the debt.Lack of Collateral: People who have means to give collateral (land title) are limited.
- Limited Land Use: most of the land are range land.
- Size of Land Holding: the average land area of farmers is small, so the amount of loan is limited.

5) Commercial Banks

Kenya Commercial Bank, Kabarnet:

They started credit for coffee growers last year. The interest is 24%, higher than that of AFC. However, AFC lost borrowers because they did not have enough finance. **Standard Chettered Bank, Kabarnet:** no agricultural loan but for business.

6) Marigat Co-operative Society

Loans are issued for school fees, medical expenses, food purchase, and labor for weeding or harvesting in the irrigated plots. The loans are then recovered through NIB from farmers crop accounts (Perkerra farmers say lack of credit). It is constrains in fund for it, sometimes stopped due to lack of fund.

7) Other Credit Source to have potential to access

Kenya Industrial Estates (KIE)

They have a branch in Kabarnet. Schems avilable are informal sector loans, Jua Kali, formal loan scheme, etc. On condition for borrowing, land title is not necessarily required but cattle or a guarantor. Interest is 18% with a few months of grace period.

Kenya Women's Finance Trust (KWFT) (NGO) Loan Scheme:

They have some schemes but no branch in the Study Area. Their schemes are;

1. BIASHARA Credit Scheme

Women entrepreneurs organize themselves into 6 groups of five. Loans are given to individual women through these groups. Amounts lent range from 10,000 Ksh to 50,000 Ksh/.

2. UAMINIFU Credit Schemes

The broad objective of the Uaminifu Scheme is to access credit to women small and microenterprises for the purpose of developing their business in order to increase income and generate employment. Security is provided by the group savings as well as the numbers who co-guarantee each other. As group fragility directly affects repayment, the strength of the schemes lies in the cohesion that is characteristic of indigenous groups.

3. Barclays Bank of Kenya Limited and Kenya Women Finance Credit Scheme

The KWFT provides business management skills, training and other technical services to the clients, while the Barclays Bank of Kenya meets their credit needs.

4. Loan Guarantee Scheme

KWFT has an agreement with commercial banks. Business women who are unable to get credit from commercial banks and credit institutions because of lack of collateral are enabled to get loans from the banks where the bank and KWFT share the risk by providing pro rata security loans under this scheme ranging from Ksh 50,000/ to 100,000 Ksh/.

5. KWFT Brokering Credit Scheme

KWFT trains women entrepreneurs and recommends them to the banks for loans of 101,000 Ksh/ to 4,000,000 Kah. The loan is processed direct by the bank.

(Quoted from "Credit System for Women's Micro-Enterprises in ASAL Project Areas FAO, UNDP Nov. 1993")

PRIDE (NGO)

They do not have significant activity in the Study Area. But they provide credit mostly to women's group: First of all, they organize group of 25 members. The members are all known each other and all have to have their own business. They are divided into 5 subgroups with 5 members each. The first person of each group borrows 10,000 Ksh with the repayment period of one year and interest rate is about 22-23 %. After a while next person can borrow 20,000Ksh, third year, 30,000Ksh and up to maximum amount of 150,000ksh. On the other hand, each members have to save about 100Ksh/week Repayment rate is 98%. The have never provided loans to nomadic people, but the have plan to work with them near future (they don't know how yet).

Kenya Cooperative Bank

There is no branch in Baringo district. The nearest branch is in Nakuru. The cooperative bank serves normal savings, checking and deposit accounts to cooperative societies, companies and individuals. Only registered cooperative societies can get loan. Individual cooperative societies borrow from the Cooperative Bank for on-lending to their members through their local Saving and Credit Cooperative (SACCO) section. It seems still hard for the people in the Study Area to access the bank.