

**Report on the participatory rural appraisal completed at the  
Nalulingo/Chesitia farms**

Mt. Elgon Integrated Conservation and Development Project

The Project Management Unit, Kitale, Kenya

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## INTRODUCTION

A Participatory Rural Appraisal was carried out in the two farming communities of Nalulingo and Chesitia. These farms are located in Endebess Division of Trans Nzoia District. Four days of classroom training were conducted for fourteen extension staff from various line ministries that operate in the project area, staff from the implementing partners and an NGO. The training was followed by six days of field exercises in two communities living adjacent to one another. During the six days, information was gathered on the communities, their land and resource use, and their livelihood practices. At the end of the PRA, a problem analysis was done and the communities drew up an action plan to address their problems. The objectives of this PRA were:

- to train staff from our implementing partners and other extension agents in PRA techniques and gender awareness;
- to identify land and resource use practices by different social groups;
- to determine stakeholders' level of use of forest resources and their inter-relations according to different social groups;
- identify principal livelihood strategies, and how they have changed over time and constraints;
- identify socio-economic characteristics of the population;

- sensitise and create appreciation of the communities' role and potential contribution to conservation as key stakeholders;
- guide the community in developing an action plan addressing main constraints and priorities in conservation and development;
- assess the level of degradation of natural resources in the settlement area adjacent to the park and forest reserves.

This report is organized according to these main objectives. After the Summary of Findings, the first section gives an overview of the community, and Section 2 focuses on land and resource use. The third section covers livelihood analysis while Section 4 considers protected area stakeholders and their interrelationships. Problem ranking and analysis are covered in Section 5. Section 7 presents the community action plan and finally conclusions and recommendations are given in Section 8.

## **SUMMARY OF FINDINGS**

Nalulingo and Chesitia are two farming communities living on the plateau from which Mount Elgon rises. The former is of the Bukusu tribe while the latter are Sabaot. They settled in this area in 1971 and 1986 respectively. The total population is about 2,500 people constituting 463 farm families. Average family size is 6. Total acreage is 1,850. Land holdings range from 1 to 5 acres and have been surveyed but no title deeds have been issued. Land tenure is a sensitive issue mainly because of the past ethnic clashes and also because most people have not finished paying for their parcels.

This area was selected for the PRA as a pilot community living within an area of 5 to 10 kilometer range from the protected areas in order to compare their use of the mountain resources with those communities who border the park and forest. The principal difference is evident by little human-animal conflict in these communities.

### **Principal livelihood strategies, how they have changed with time and constraints**

Farming is the main activity of the people living in these two neighbouring communities. Former owners of the farms cultivated cash crops such as coffee, but the area was later sub-divided into smallholdings ranging from one to five acres. The main crops now grown are maize and beans, the majority of which is sold and the remainder reserved for subsistence needs. The stored crops are usually not sufficient to last the family throughout the year, which makes it necessary to find a subsidy for about six months in a year.

Few livestock are kept. The numbers decreased due to the land clashes in 1992, when many farmers lost their cattle to rustling. The security improved when the government introduced the Kenya Police Reservist in the area. The

community says that originally, many families had as many as 20 head of cattle. The current number is, on average, one per household. Drought and disease also contributed to the livestock reduction. The Sabaot communities, who have traditionally been pastoralists, were badly affected by this situation, as milk was their chief source of protein. With the improvement of security, farmers hope to build back their herds.

Crop production was originally quite high due to good soil fertility, but yields have progressively decreased, as land is continuously cultivated with little crop rotation. Many farmers do not use fertilisers because of the high cost. A few farmers grow horticultural crops such as onions, cabbages and potatoes for local sale.

The communities get most of their wood from the nearby Kimothon forest. According to the farmers, they are charged a fee of Ksh 39 per month to collect one daily bundle of fuelwood. Very few farmers have woodlots that can satisfy their requirements. It was interesting to note that the women ranked lack of fuelwood very low in the problem ranking exercise because they have easy access to the nearby forest. Some women buy bundles of wood from traders while other walks to get it themselves.

Two non-governmental organisations, VI Agroforestry Project and The Greenbelt Movement have introduced tree nurseries in the area. The former has stayed particularly long in the area i.e. about 10 years. No impact, however, was made on the establishment of private woodlots. VI has now changed its approach in trying to encourage tree planting. It seems the farmers did not take a great interest due to their easy access to the forest. The women have simply accepted fetching wood as part of their duty.

The Forest Department has recently allowed non-residential cultivation in the forest. The farmers are quite pleased and now have a positive attitude towards the department. Many of them now have maize and bean plots in the forest and they report very high yields, reflecting the high fertility of the forest soils. They feel this will continue to improve their family income greatly. In the forest, the farmers have a problem of wild animal intrusion, so they have to be on the alert at night throughout the cropping season.

Infrastructure is generally poor. There is an access road leading to this area, though the gravel road ends about 10 kilometres from the villages. The problem of roads has also affected marketing of produce and allows middlemen to take advantage of the farmers who sell their produce at very low prices.

### **Socio-economic characteristic of the population**

The Bukusu and Sabaot communities occupy the two farms. The Bukusu who occupy the Nalulingo farm were generally agricultural whereas the Sabaot in

Chesitia farm were pastoralist. There are 63 farm families in Chesitia and 400 in Nalulingo. The total population is about 2,500 people.

This area was badly affected by the ethnic clashes and even at the beginning of the PRA, there were signs of hostility between the members of the two farms. As the exercises continued, this tension diminished and villagers can now sit and plan development schedules together. There was originally a lot of suspicion between the two tribes as a result of the losses and the memory of the tribal clashes.

There are not many other trade alternative other than those based on crop production. The main source of income is from sale of harvested crops from their farms. Women do petty trade in the markets such as the sale of vegetables and dried fish. A few sell second-hand clothes, commonly known as "mitumba."

There are three private clinics in the area, which are under equipped. They however deal with uncomplicated cases of diseases such as malaria and scabies (which are quite common).

### **Community's role and potential contribution as stakeholders**

The communities identified the major stakeholders in the Mt Elgon eco-system as the Forest Department, Kenya Wildlife Service and saw-millers. They did not see themselves as stakeholders, more so before the introduction of the non-residential cultivation in the forest. In fact, the relationship between the community and the Forest Department was not very positive. The farmers felt that other people, particularly saw-millers who live far off from the forest, benefited more than they did. However, recently with the non-residential cultivation, they have developed a more positive attitude towards the FD.

The community feels they can help to plant and tend the young seedlings alongside their crops as they continue to use the forest for cultivation. Other areas they could contribute towards conservation include:

- Practicing soil conservation measures on their own farms.
- Establishing their own tree nursery and woodlots so as to decrease dependence on the forest for wood products.
- Diversify crop production to increase income. Coffee and pyrethrum were originally grown in this area, and may still have potential.

The boundary of the National Park is a bit distant from the communities and they do not have any direct interaction with the park. Other than the case of grazing wildlife that stray into their shambas in the forest, they do not mention KWS often. KWS has a partnership officer and supervisor whose main role is to handle issues related to communities living adjacent to the National Park. The

Forest Department has an extension officer. These officers were trained during the PRA classroom sessions and field exercises.

### **Status of women and youth in the project area**

During the PRA exercise, the community was split into groups by gender: youth (who were mainly male), women and older men. The younger women were few and preferred to sit with the older ones. It was noted early in the PRA exercise that when put together with men, the women tended to be withdrawn and contributed very little. In most cases, they waited for the men to give answers or views on issues. The male youth tended to be very fast in grasping concepts and in answering questions or giving their reactions, which tended to overwhelm the women. However, when the various gender groups were separated, the women felt very free and expressed their views without inhibition.

Women in these two communities are major contributors to development activities, especially in the farming sector, where the main economic activities take place. Equitable distribution of benefits to women however, is questionable. The activity profiles and task distribution for the various gender groups show that women have their hands full with both productive and reproductive activities. The male youth, on the other hand, have the problem of unemployment, shortage of land and feel quite unsettled. The men control most of the resources and family income.

At the end of the PRA exercise, the community was guided in doing their problem analysis and they finally drew an action plan and assigned themselves responsibilities. The action plan outlines their proposed interventions and scheduled activities.

## **SECTION 1. COMMUNITY OVERVIEW**

### **1.1 General Overview**

Nalulingo was settled in 1971 and Chesitia in 1982. The average family size is 6 persons per household. The population was originally low at the time of settlement but has increased as more families came to settle in the area. At the time of the ethnic clashes, many people fled the area. Numbers started to increase again from 1995 as people resettled. Most houses are grass thatched, have mud walls and look relatively new, indicating recent resettlement after the ethnic clashes.

The Kaibei and Mubere rivers border the farms at the outer boundaries and flow throughout the year (see map on following page). The latter serves Chesitia whereas the former, Nalulingo. The rivers are at least two km from the farthest homestead. Water has decreased slightly in the rivers, which are

now silt laden and dirty unlike before. There are several seasonal springs that dry up in the dry season. There is a gravitational piped water system with an intake in the forest about five kilometres from Kimondo Trading Centre, which is distant from most members of the communities.

The area experiences heavy rainfall, which comes in two seasons. The first season is between April to June and the second, between August and October. The area falls under agro-ecological zone, 1 and 2 which receive between 1,600 mm to 1,800 mm of rainfall per annum. The rainfall has been fairly regular and reliable, though the villagers perceive that it has decreased over the years with the clearing of the forest. Participants told the PRA team that rainfall has been decreasing over the years, as well as tree cover. El-Nino rains were very strong in 1997.

There is one major earth road that serves the two communities. This has been left un-graded and is barely passable during the rainy season. People have to walk 8 km in order to find public transportation out of the area.

Nalulingo has one primary school, one secondary school, and a clinic whereas Chesitia has one primary school. VI, NCKK, and Greenbelt have operated in both communities. Transepa a health NGO has been present in Chesitia. There is one dispensary at Kimondo Trading Centre, which is under equipped. A nurse in Chesitia community runs a private clinic. Typhoid and malaria are common. There are several churches in the area, which have increased over the years.

Family planning is generally not practiced and the communities still see many children as a source of security. Most families experience food shortage and end up working as casual laborers in the neighbouring large-scale farms for income.

During the timeline preparation, the community was split into different gender groups: women, youth and men. It was observed that the women spoke more freely and participated actively in discussions when in their own groups. The details of each timeline by the different gender groups are given in Appendix 1. Women tended to remember events in areas like health, plot sizes, water, food availability (drought), and formation of women's groups, tree nurseries and security. The youth, on the other hand, talked of unemployment, education (schools), the purchase of the farm, soil erosion, farm subdivision and survey. They also covered some of the areas the women talked about. The men talked of the resources left behind by the colonialists, crops previously grown, livestock trends, tribal clashes, crop yields and schools.

## **1.2 Mobility of the Community**

The mobility map indicates the movement of community members on a daily basis. It helps to identify when people are available in the village and where

they go throughout the week. This information is important to monitor trade and interactions with the community. Visits and interventions can be planned according to the schedules of the community members. The important days for these communities are market days, church services and clinics. Nearly all women attend credit meetings (merry-go-rounds) in the village, which are mainly on a weekly basis. The markets are both distant and nearby. Not all community members go to all markets and it is possible to plan meetings on minor market days. Each woman goes to at least one market per week. Some markets like Kimondo operate daily. Figure 1 summarises the mobility through the week.

**Figure 2. Community Mobility (Chesitia/ Nalulingo)**

PLACE	DAY	RELATIVELY FREE
1. Church	Sunday	1. Wednesday
2. Cheptarkai (Mkt.)	Monday	2. Monday.
3. Molem (Mkt)	Wednesday	3. Tuesday.
4. Kimondo (Mkt)	Thursday	4. Thursday
5. Clinic - Toboo	Tuesday	
6. Endeless (Mkt)	Saturday	
7. Kimondo (Clinic)	Thursday	
8. Merry-go-round	Saturday	

### 1.3 Institutional Ranking

The community listed the various institutions in the village and ranked them in order of importance and level of relationship through the use of a Venn diagram. The larger the circle, the greater will be the level of importance. The farther the circle is from the community, the lower the level of interaction with the community.

The community interacts with the Forest Department as they get products from the forest such as fuelwood, poles, and logs for timber, medicinal herbs and pasture. They also rent plots for cultivation. Water, agriculture, schools and hospitals are important to them but are not easily accessible. The administration is considered to also be working within and outside village as the Assistant Chief and Chief are housed there but maintains contacts with the district officials. Churches, women's and youth groups are found within the community. Nearly every woman and youth is a member of a group. All community members go to church.

**Figure 3. Institutional Ranking (Women)**

Institutions.	
1. Police department,	2. Public health workers,
3. Administration	4. Education,
5. Churches	6. Agriculture,
7. Forest department	8. Water
9. Veterinary	10. Vi
11. Transepar	12. Health (family planning)

## **SECTION 2. LAND AND RESOURCE USE**

The terrain in this area is characterised with undulating hills and valleys with fairly steep descents in some places. The soils are rich alluvial clay loams that vary in colour from dark brown to black. They are deep and were originally very fertile. Most of the area has been cleared for farming and settlement, leaving very little tree coverage. The land is left bare when not in crop and is exposed to heavy soil erosion. Very few homesteads have trees on farm and most depend on the forest for timber and woodfuel. Farm holdings are small and range between one to five acres. Land has been surveyed and sub-divided but no title deeds have been issued. A number of families still owe the society money for their land parcels.

Communal land existing in the community includes a cattle dip for each farm, one main earth road, and a market centre.

### **2.1 Land tenure**

The average size farm in Nalulingo is 3-5 acres and Chesitia, 1-5 acres. Neither community has title deed for their plots. Farm sizes have decreased after demarcation and the fixing of boundaries. They also decreased as more people settled in the area. Area cultivated per household has increased as the Forest Department allowed non-residential cultivation.

A look at population trends indicates that the number of the people who settled in 1971 were originally few but increased gradually up to 1992 when the ethnic clashes caused many people to vacate the area. When they settled, people had large stretches of farmland and pasture. As more people settled, the family holdings reduced in size as the same parcels were shared out to the new relatives who came. A lot of squabbles and disagreements on boundaries resulted. This heightened when land was subdivided and definite boundaries

were drawn. The situation has eased off recently. The land parcel per family range from 1 to 5 acres.

Land tenure is a sensitive issue to discuss and most people feel uncomfortable to talk about it. One reason for this is that several people have not finished paying for their land parcels and fear they might lose them. The other reason is that the effect of the ethnic clashes has made them develop fear on how permanent their settlement in this place is. The effect of this is that the farmers are reluctant to put up permanent structures in form of houses or even plant trees.

**Table 1. Land Tenure- Chesitia/Nalulingo**

CHESITIA	NALULINGO
<ol style="list-style-type: none"> <li>1. Started as a marketing co-operative society in 1991.</li> <li>2. There are 63 members.</li> <li>3. The farm is 250 acres</li> <li>4. Members bought shares and divided the Shamba according to the number of shares.</li> <li>5. Each share cost Ksh 35,000. (1 acre)</li> <li>6. There are members who have not finished paying for their shares.</li> <li>7. Acreage per member ranges from 1 to 5 acres</li> <li>8. The members have not fully paid for the farm but they about to complete payment</li> <li>9. Members have only receipt for shares</li> <li>10. There are 5 female heads owning farms and the rest are males</li> </ol>	<ol style="list-style-type: none"> <li>1. Started as a company in 1971 and bought the farm from the original owner.</li> <li>2. There are 400 members.</li> <li>3. The farm measures 1,600 acres</li> <li>4. The farm was surveyed, 1992-1996.</li> <li>5. Members have share certificate although most of them have not collected them from the company H/Q.</li> <li>6. Acreage per person ranges from 1 acre to over 5 acres.</li> <li>7. Ownership of the shamba is by male heads, although there are 10 female heads.</li> <li>8. The farm is divided in to two i.e. A &amp; B</li> <li>9. No title deed yet but the farm is surveyed</li> <li>10. Shares were ranging from Ksh 500 per share.</li> </ol>

## 2.2 Transect across the community

Three transect walks were conducted through the community to observe the physical features, land use, socio-economic activities, constraints and possible interventions. Some of the information given during group discussions was verified. During this session, household interviews in some homesteads were

also held. The routes walked by the three groups were each about three kilometers long.

Figure 4. Nalulingo B Transect Walk

ZONE					
FEATURE					
Soils	shallow rocky black loam soils	Same as previous column	Same as previous column	completely rocky	red loam with rocky patches
Land use	cultivated land, grazing land, roads, schools, houses/shop	cultivated land, farm roads, houses	cultivated land, houses	small portions cultivated; huts; P. mill	cultivated land
Topography	sloping and hilly	steep slopes	steep slope	gently sloping	gentle slope
Vegetation	scattered acacia and grass	different trees species	scattered acacia shrubs and grass	scattered acacia shrubs and grass	different types of shrubs, scattered
Water		Mubere river about 400m away	Mubere river about 600m away, spring	Mubere river about 600m away	Mubere river about 2km away, seasonal spring
Agro-forestry	hedge row very few grevillea scattered	few blue gums trees	few grevillea sesbania, hedge of sisal loquats, cane, euphoria & blue gum	loquats, guavas oranges bananas eucalyptus	oranges, grevillea, bananas, blue gum, paw paw
Social economic indicators	shops, Nalulingo primary sch, iron sheets	cattle dip	grass thatched houses	grass thatched and temporary	iron sheet roofed houses grass

	roofed houses, grass thatched houses			huts, posho mill	thatched houses, and livestock
Interventions	new shops under construction				
Problems	poor roads, contaminated water, fertilisers, diseases, fuel wood, very few animals, pasture non-functional tank	poor roads, water, farm inputs, diseases, absence or demolished terraces; low yields	water, diseases, agro-forestry, farm roads, fuel wood	water, cultivate land, low income	water, fuel wood and timber
Opportunities			rehabilitation of springs	collect fuel wood from forest and ADC	dig terraces roof catchment

### SECTION 3. LIVELIHOOD ANALYSIS

#### 3.1 Agriculture

The crops grown by the previous owner of this farm were pyrethrum, coffee and fruits. The livestock kept were cattle, sheep, pigs and poultry. The community cleared the coffee, pyrethrum, and fruit plantations and replaced them with maize and beans. They also grew sweet potatoes and vegetables. They kept cattle, goat, sheep and poultry.

Maize and beans are grown both as cash and food crops. Although a significant amount of the crop is sold soon after harvest, the farmers in most cases keep enough grain for food to last them half of the year. About six months after harvesting, there is usually a period of food shortage and hunger, which lasts from May to August. After this point, they harvest beans and sweet potatoes. Maize is grown between the months of March to November and is rarely rotated with any other crop.

Since the Forest Department allowed non-residential cultivation in the forest, farmers now have an alternative area for crop production. Vegetables are grown for local sale.

### **3.1.1 Soils**

Soil erosion has also been related to the decline in soil fertility and poor yields. As settlement increased people cut down trees for construction of houses and other farm structures. The fields are left bare when not in crop and cattle are allowed to roam in them leaving the soils quite loose. This exposes it to heavy soil erosion and loss of a lot of topsoil during the rainy season. Soil conservation measures have not been practised. This could be seen clearly during the transect walk. The farmers feel soil conservation structures take up a lot of land which, they could use for cultivation on their already small shambas.

An interesting factor was pointed out relating population decreases to soil fertility. Farmers noted that when land was left fallow for about 3 years after the ethnic clashes, the crop yield went quite high compared to the previous period. They realise that when land is repeatedly used the yields decline and that there is need to replenish soil nutrients or to allow the soil to regain its fertility. A negligible number of farmers use organic fertilizers like farmyard or green manure to improve soil condition. The majority of farmers believe that chemical fertilizers are the most effective and what the soil needs.

### **3.1.2 Yields and Marketing**

Maize yields, which were originally about 20 to 25 bags (90 kgs) per acre, have decreased to as low as 8 bags per acre. This decrease is due to lack of crop rotation and reduced fertilizer use. The few that use fertilizers still get relatively high yields. Farmers say grain prices were good when the Kenya Cereals Board bought maize (up to 1996) at a standard price of Ksh 1,000 per bag. They currently have to sell their produce to middlemen who badly exploit them. A 90 kg bag of maize during the last harvest sold for as low as Ksh 400; the cost of production is estimated at not lower than Ksh 650 per bag. Therefore, farmers sold their produce at a significant loss. A few farmers who stored their maize for about five months have been able to get a decent profit.

Farmers have had a problem of marketing mainly due to the poor access road from the area to the urban centre. They also have no knowledge of markets outside Kitale (Trans-Nzoia) or transport. In addition, farmers have not developed the practice of preserving and storing their produce until a time when demand is high and prices are favourable. A few farmers have ventured into onion and Irish potato production but at a very low scale.

### **3.2 Livestock**

Few livestock are kept because of the rampant cattle rustling, which started during the ethnic clashes. The Sabaots, who settled on the Chesitia farm in 1986, were traditionally pastoralists. An exercise on trendlines (see Appendix 2) shows that most families had a number of cattle (average 20 per household). The number of livestock increased steadily between 1986 up to 1990, when cattle rustling were on the increase. Nalulingo farm started to experience cattle rustling as early as 1978. In 1992 during the ethnic clashes, many people lost nearly all their livestock to rustlers whom they believed to have come from Uganda. Since then the number has remained low, (about 1 cow per household or none) due to continued insecurity.

Since 1998 when the Kenya Police Reservists were introduced in the area, residents feel more secure and the number of livestock has begun to increase slightly. The loss of livestock has affected mainly the Sabaot whose chief source of protein has been milk. They have now adopted crop farming and also grow maize and beans as cash and food crops. The main breed of cattle kept is the local zebu. Cattle are mainly kept for milk, animal draft power (ploughing) and trade.

### 3.3 Seasonal Activities

The matrix below is an illustration of seasonal activities as they occur in the year. Symbols are used to show variation in occurrence. The more the number of symbols, the more intense the activity.

#### Figure 5. Seasonal Calendar Chesitia/Nalulingo Villages

Rains usually start in April and progressively increase until June, then decrease from July to September. There is a second short rainy season in October and November. Cases of disease rise in April because people do not get treatment for lack of income, the rainy season has set in, and famine is more prevalent. By August, incidence of disease decreases through the dry season. From January to February, most of the people have only 25% of the food that was harvested. From May to June, food shortage is acute. From July through September, the community harvests beans. Food continues to be available through December, as the maize harvested in October.

The rainy season makes transportation more difficult and fuelwood less available. After the harvest of farm products, the community has income to purchase timber, so most is purchased during the months of October to December.

### 3.4 Daily Activities

#### Table 2. Daily Activity Profile (Women)

ACTIVITY	TIME	DONE BY WHO	WHERE DONE
Waking up - prayer	5.00 am.	W	Home
Break fast - children	5.30 am.	W & g	Home
Fetching water	6.00 am.	W & g	River
Milking	7.00 am.	W	Home
Breakfast (babies/adults)	7.30 a.m	W & M	Home
Cleaning houses	8.00 a.m	W	Home
Washing clothes	8.30 a.m	W & g	Home
Washing utensils	9.00 a.m	W & g	Home
Tethering livestock	9.30 a.m	W & M	Home
Shamba/ farm	9.00 a.m- 12.00 p.m	W & M	Shamba
Preparing lunch	12.00 p.m- 1.00p.m	W & g	Home
Eating dinner	1.00 p.m.	W, M &	Home
Grazing & watering animals	1.00 p.m- 2.00 p.m.	M& b	Shamba/ River
Washing utensils	1.00 p.m- 2.00 p.m.	W& g	Home
Resting (breast feeding, Tending children)	2.00p.m -2.30 p.m.	W	Home
Fellowship/market	2.30 p.m- 4.00 p.m	W & M	Home (Kimondo market)
Fetching firewood, vegetables, flour	4.00 p.m -4.30 p.m	W & g	Shamba (Kimondo)
Prepare evening meal	6.00 p.m- 7.00 p.m	W & g	Home
Eating dinner	7.00 p.m - 8.00 p.m	W, M, b & g	Home
Time with children	8.00 p.m- 9.00 p.m	W & M	Home

Bed time tea (husb and wife) - Reason; planning for tomorrow - Days briefing	9.30 p.m	W & M	Home
Sleep	10.00 p.m - 10.30 p.m	W & M	Home

The men did an activity profile for women, which is presented below.

It was interesting to note that the men preferred to do an activity profile for the women and not for themselves. The information they gave was quite similar to what the women themselves gave.

### 3.5 Forest Use

Timber: Forest products are used both for income and domestic use. Men use timber for construction of houses, furniture and other farm structures. They buy the wood from the forest and transport it home. Some sell the timber for profit, mainly after harvest between the months of October and February when people can afford to improve or build new houses or buy new furniture. The timber is also used for fencing.

Fuelwood: Collection of fuelwood is mainly left to women and girls. They pay Ksh 39 per month to collect one bundle of wood per day. Most women collect it for domestic use whereas a few sell it to make money, mostly between March to October when most of farms are under crop. After harvest, from October to March, most people use shelled maize cobs for fuelwood and do not need wood from the forest.

Medicines/ herbs: Forest products used as medicines are mainly collected between the months of March and October. When the rains start in the month of March the cases of illness increase. Malaria is then prevalent and pneumonia among children. During rains the runoff water from the farms and homesteads pollute the rivers which are the main sources of water for domestic consumption. Diarrhoeal diseases and typhoid fever are common. Few people have iron sheet roofs for roof catchment, which could be used to harvest water. When the maize flowers in July and August, there are again cases of respiratory diseases (coughs and colds). The main people who collect these herbs are the local herbalists who are both women and men and they do these as a trade. A few individuals from the community who have knowledge of the medicinal herbs also collect them on their own.

Forest vegetables: Vegetables are collected, mainly by women, in the dry months between November and April when other home ground vegetables are

not available. These include bamboo shoots, aila, nderema, khamalea, etc. They collect both for sale and also for direct consumption.

Honey: Honey is harvested twice a year in the months of June and December. Only men practice bee keeping and most of their honey is sold at an average of Ksh 200/kg. Few traditional hives are kept in the forest and yields range between 2 and 4 kgs per harvest. Bee keeping is not common and does not contribute much to family income. Farmers know about the Kenya Top Bar hive and have a handful of them around their homes.

Non-residential cultivation: Farming in the forest is now a major source of food supplement. Those who farm there say they get very high yields. This has improved food security for them. About  $\frac{1}{4}$  of the population here use the forest. Farm sizes vary between  $\frac{1}{2}$  to 3 acres per person. However, farmers have to guard their crops during the farming season from destruction by wild animals. Farmers sign a written agreement with the Forest Department on their conduct and other conditions regarding their farming in the forest. One of the important conditions is that they must tend and maintain the young seedlings in the plots they are allocated. They must not built permanent structures in the forest.

Hunting: The Bukusu tribe hunts the colobus monkey for their skin, which they use during circumcision ceremonies. Animals that stray into their plots are killed for meat. But this they say is very rare.

The women were asked to list the products they get from the forest and their use (whether for income or home consumption). They were also asked to indicate what time of the year they collect these products. The graph below represents their responses:

#### Figure 6. Forest Product Use (Income/Domestic) Time of the Year

The men's group also looked at the resources in the area and their use by themselves, the women and youth. They ranked them in order of who had the greatest use of each resource. The table below shows how they ranked them. The higher number represents greater use of the resource.

#### Table 4. Resource Use by Different Social Groups

*Trees*: The group feels that the sawmillers use the trees in the forest more than anyone else. Women also use them a lot, as they collect fuelwood.

*Water*: Women are the greatest users of water.

*Stones*: Men and youth get quarry stones to sell for building.

Livestock, beekeeping and land are mainly under the charge and control of men.

*Fuelwood*: under the responsibility of women.

Mtumiaji (User)	Old Men (wazee)	Women (Wamama)	Youth (Vijana)	Saw Millers
Rasilimali (Resource)				
Trees (Miti)	2	1	0	9
Water (Maji)	2	4	1	2
Stones (Mawe)	2	0	1	0
Livestock (Mifugo)	3	2	1	0
Land (Shamba)	4	2	1	0
Fuel wood (Kuni)	2	4	1	0
Honey (Asali)	2	1	¼	0

## SECTION 4. STAKEHOLDERS AND THEIR INTERRELATION

The key stakeholders in the Mt Elgon ecosystem are the Kenya Wildlife Services, the Forest Department, the saw millers and the communities living adjacent or close to the protected areas. The first two departments are the custodians of the resource. Saw millers have a high interest and do a lot of logging. The major millers are the Webuye Pan Paper Mills, the Raiply company and the Elgeyo saw millers. There are other small-scale millers such as the Kenya Power and Lighting Company Ltd., who get their timber for electric posts from the forest reserves. To the communities living around it, this mountain is a source of rain, water, timber, medicinal herbs, food etc.

### 4.1. Control of resources

The community feels that they have no control of the major resources on the mountain. Until very recently when the non-residential cultivation was allowed by the Forest Department, they felt that they had no access to these resources, and they held resentment towards FD. Although the relationship has improved, they feel loggers like the saw millers still benefit more from the forest than the community. Some feel that they too could start sawmills and sell timber.

During the stakeholder analysis, the community placed themselves very close to the forest though benefiting very little whereas the Pan Paper Mill was located far from the forest but benefits a great deal. Although they say their lives depend on this mountain, they contradict themselves by saying, "Why should we conserve this forest when people elsewhere are the ones who benefit most?"

The communities in this area are distant from the park and see no relationship between themselves and KWS, as there is little interaction. However, they are aware that it is illegal to be in the park without the authority of the KWS. Wild animals that stray from the park are occasionally killed for meat. But this is usually rare and they know it is illegal. The Pan Paper and Raiply companies have tree nurseries and a programme to re-plant forest plantations.

### SECTION 5. PROBLEM RANKING AND ANALYSIS

The women, youth and men listed the problems they felt affected them. They then ranked them in order of importance. The table below shows the top ten problems ranked by gender groups.

Rank	Youth (male)	Women	Men
1	Unemployment	Water	Water
2	Insecurity	Wood fuel	Land tenure
3	Lack of capital	Insecurity	Soil erosion
4	Road	Roads	Roads
5	Education	Health	High input prices
6	Deforestation	Education	Education
7	Water	Unemployment	Insecurity
8	Diseases	Poverty	Market
9	Soil erosion	Land tenure	Diseases
10	Market	Inactive women gp	Livestock diseases

Whereas women and men ranked water as the most serious problem, the youth felt that unemployment and lack of capital were more critical. There are many school leavers in the village. Many of them expressed the wish to start income generating activities or embark on farming for their own income. The youth and women both felt insecurity is a serious issue due to the permanent presence of the Kenya Police Reservists in the area and some isolated cases of cattle rustling. Family holdings are small, sub-division of land is not easy and

the men felt that until land tenure issues are resolved, the community will experience problems of dispute and insecurity. The women also raised the problem of unemployment among the youth. According to them, their grown up children who should now fend for themselves still depend on them for their basic needs, giving them an extra burden. All the three gender groups ranked roads fourth out of ten. They all feel the problem needs to be urgently addressed.

After ranking the problems, each group analysed them one by one. For each problem, all the known causes and the current coping strategies were given. The groups then brainstormed to explore the possible opportunities to deal with the constraints in a more effective way. The table below illustrates the work of one group. Other groups' reports are in the appendix. Refer annex 6A and 6B on pages 46 and 47 respectively.

By completing this exercise, the community began to see alternative means to deal with their own problems in a more effective way. They were awakened to solutions they could have implemented on their own, previously thinking that help could only come from outside. They realised that although assistance is required, there is a lot they can do independently to improve their current situation. Even where help is required from outside, they can still take the lead to facilitate the process by contacting the relevant authorities.

**Table 5. Problem Analysis**

PROBLEMS	UNDERLYING CAUSES	COPING STRATEGIES	OPPORTUNITIES
Water availability and quality.	<ul style="list-style-type: none"> <li>lack of tanks</li> <li>distance to clean and potable water sources</li> <li>hard water in springs</li> <li>contaminated water in the rivers due to run-off</li> </ul>	<ul style="list-style-type: none"> <li>few people boil water. Women walk for long distance to sources of water.</li> <li>Very few people have roof catchment.</li> </ul>	<ul style="list-style-type: none"> <li>extension of Kimondo piped system to strategic points in the villages</li> <li>spring protection</li> <li>repair existing tanks and add extra ones</li> <li>pump water from rivers to tanks</li> <li>ensure everybody has a latrine</li> <li>soil and water conservation efforts</li> <li>roof and rock catchment in institutions like churches, schools</li> </ul>

			with iron roofed buildings encourage water purification
Insecurity	cattle rustling international border with Uganda bordering forest poverty	request Kenya Police Post and reservists arm them with enough weapons	government to increase the number of Kenya Police Posts and reservists improved relationship between the different communities living in the area improved cross-border relationship
Woodfuel	deforestation for domestic and commercial uses some areas are rocky preventing planting of trees indiscriminate cutting of trees during clashes destruction of young planted seedlings by domestic animals	have tried to establish tree nurseries but did not maintain them get fuelwood from neighbouring forest use of maize cobs	practice agro-forestry e.g. plant grevillea, calliandra, sesbania, mukhamia along side our crops. use energy saving stoves use of solar energy
Communication	poor roads and no bridges. soil erosion during heavy rain	community maintains roads lay logs across the river to serve as bridges identify shallow sections of the river to cross during dry season	construct bridges contact the roads department to include us in their roads improvement schedules. maintain roads as a community.
Poor education and Low Literacy Level	lack of teachers lack of school fees early school drop outs distant schools insecurity caused transfer of schools and	sell farm produce to educate the children, began nursery, demarcated land for school employing	government to deploy enough teachers improve current schools and increase more schools bursary fund to be

	<p>teachers high incidences of sicknesses lack of adult education teachers most single heads of households are not able to raise school fees</p>	<p>untrained teachers in school (PTA) teachers, youth are counselled in churches to continue with school.</p>	<p>started for good student who are unable to raise school fees</p>
Health Facilities	<p>no government hospital (health center or dispensary). Present private clinics lack adequate facilities</p>	<p>small private clinics buy medicine in shops use of herbs traditional birth attendants who are not equipped</p>	<p>build hospital (government, private and mission) avail mobile clinic in the area seminar and equipment for TBA's</p>
Unemployment	<p>lack of factories, no village polytechnics lack of proper information on places to seek employment small farm sizes (youth have no land where they can engage in farming as an occupation)</p>	<p>employ labourers as casual on neighbouring farms involve in thefts few involve in illegal e.g. charcoal burning girls look for jobs like maids / barmaids and boys as herd boys touts few are traders</p>	<p>introduce village polytechnics encourage jua kali (local artisans) projects begin youth groups saw mills due to proximity credit schemes for youth groups to start small income generating activities training on entrepreneurship</p>
Lack of Capital	<p>low income from farms paying of shares (dear) (Chesitia) survey (Nalulingo), insecurity resulting in low morale for income generating activities people fear to lose goods income from farms is mainly for the men</p>	<p>merry go round practised grow horticultural crops small scale businesses e.g. selling vegetables, sugarcane, guards, etc</p>	<p>need a credit scheme to start projects for horticultural crops improve security improve markets strengthen women groups</p>

Land Tenure	corrupt directors of farms (societies) boundary disputes following improper surveying methods (Nalulingo), survey did not demarcate roads	present the issue to administration and concerned departments few lease land elsewhere	the land to be re-surveyed by government surveyors Involve in better economic activities and be able to lease land elsewhere. members to pay balances on land fees
Soil Fertility	soil exhaustion due to lack of rotation no conservation methods practiced, use of inadequate fertilizers shallow soils burn maize stalks	inter-cropping few adopted terrace construction	construct and maintain terraces plant trees for conservation of soil. Use green and compost manure if chemical fertilizers are un-affordable
Markets	poor communication because of poor roads, insecurity and exploitation by middlemen lack of knowledge of outside markets	request councilors to bring back market days	store produce until prices are good and look for market elsewhere improve roads improve security

The youth and the older men did a similar exercise and their proposals were discussed in a plenary and harmonized with those of the women for ease of follow up.

## **SECTION 6. COMMUNITY ACTION PLAN**

After the problem analysis was completed, the listed opportunities were then examined closely and an action plan drawn up. For each opportunity the following were discussed and agreed on:

- the action needed,
- resources that the community should provide,
- resource needed from outside and who to provide them,
- when to start the action or activity, and
- who to follow up.

Once the Community Action Plan (CAP) was completed, the problems were grouped and the community elected sub-committees responsible for each group

of problems and the related activities. Each sub-committee formulated a calendar of work. Some of staff trained in the PRA was proposed to work with the different sub-committees especially in areas related to their fields of specialization, for example, a soil conservation officer to work with sub-committee chosen to deal with soil conservation matters. The two communities split up from the stage of problem ranking so that they could make the plan practical and specific to their areas. We noted too that during problem ranking their priorities were different and they preferred to sit separately. The details of the community action plan can be found in Appendix 7 from page 50 to 63 for all the problems they identified and ranked.

An example is given below of the action plan made to deal with the problems of health and water. The last row gives an example of an opportunity where the community only needs advice from a health assistant, representing assistance needed from outside. The rest of the action and resources are to come from the community. It was notable that both women and men were elected into the committees in almost equal numbers. Asked whether they would not be overburdened with work, the women said they would work in turns and would concentrate on activities that would not take them out of the village frequently. They also did not wish to be left out in areas which they felt were of importance to them.

Although the communities made long lists of opportunities to solve the various problems, most are not practically feasible, especially within the time frame in which they scheduled. What the community compiled can be more or less considered a wish list, which could be improved on and joined with more practical and realistic proposals. The PRA team concluded that it was necessary to link extension staff working in the area to the CAP sub-committees in order to guide the community in formulating viable ways of dealing with their problems.

**Table 6. Example of Community Action Plan Addressing Health Problems**

**Table 7. Problem: Water**

**SECTION 7. CONCLUSIONS AND RECOMMENDATIONS**

The ten-day PRA exercise turned out to be very productive. Staff from various departments were trained on how to conduct a PRA. For most of them, this was their first opportunity to use the methodology, and they found it both challenging and useful. They can now apply or use some of the tools or techniques learnt during the PRA in their normal work. We believe this training has helped improve their extension skills. Some of the people trained are staff already working in the project area with whom the project hopes to liaise closely.

The six days field exercise gave the community an opportunity to be involved in analyzing how their community relates with the natural resources and environment of Mount Elgon, which was quite eye opening for both the community and the PRA team. The team gathered a lot on information on human activities and their relationship with the mountain through both discussion and observation. The community, on the other hand, had a chance to review their activities and, in fact, were awakened to certain issues, which have not been so apparent to them in the past. The attitude, for example, those solutions to their problems can only come from outside changed to some extent when conducting the problem analysis. When critically analyzing the opportunities that exist for solving various problems, it turned out that the initiative for a number of solutions rests with them.

At the end of the PRA exercise the community drew an action plan to guide them in trying to solve their problems. They also elected sub-committees responsible to take the lead on various actions. These sub-committees will work with the related specialised officers represented in the project area.

**Below is the major information we gathered during the PRA:**

Both large and small-scale farmers occupy the slopes of Mount Elgon. The latter are peasant subsistence level farmers. Their main livelihood centers on agriculture. The farm holdings are small and current productions do not support the family needs throughout the year. Land has been exhaustively used and yields have declined with time and most farmers do not use fertilisers as they cannot afford them. Poverty and food shortage is prevalent in these communities. Income from farm produce is low and cannot sustain the families throughout the year.

The area has been cleared of trees for settlement and farming, leaving it bare and exposed to soil erosion. Infrastructure is underdeveloped resulting in poor marketing, low level of literacy and poor health. The forests are the main source of timber and fuelwood for the communities.

The communities recognize the importance of this mountain to them and see the role they can play in the conservation of it resources. Communities have not adopted afforestation programmes because they have easy access to wood in the forests, uncertain land tenure and the insecurity experienced in the area during the ethnic clashes that badly affected this region.

Settlement and population are increasing and there is pressure on the land and other resources. The youth talk of shortage of land as a major problem. They need land to set up homes and farms. Women are the main actors in the productive and reproductive activities in the area. They are most times overloaded and interventions targeted at these communities should be planned with this in mind.

The main custodians of the Forest Reserves and the National Park are the Forest Department and the Kenya Wildlife Services respectively. The communities living around these resources have not identified closely with the two departments. Lately, since the introduction of non-residential cultivation (NRC), the communities now see the Forest Department in a more positive light. The NRC now provides an opportunity to farm in the forest on condition that the community helps maintain the young tree seedlings planted on the forest plot. NRC has contributed to an increase in family income. As the National Park is off limits for the community, they do not feel part of it. The community feels they can be involved as tour guides or even offered employment in the park.

The community feels that these are other stakeholders like Pan Paper Mills and RaiPly, companies located far away from this area, tend to benefit much more from the forest resources than those that neighbor it. They suggest that if these saw mills were located closer to the communities, they would benefit from employment.

There have been few NGOs working in this zone and have covered areas like afforestation and a little on health. The National Christian Council also assisted in resettlement after the ethnic clashes.

### **Recommendations**

The community needs to develop and improve their current livelihood strategies. They need to diversify crop production and venture into high value crops, which could give them better income. As population and settlement are increasing, there is even more pressure on the land and there is need to maximize production to the full potential of the land. Low cost, soil friendly agricultural practices should be encouraged and practised by the communities. Use of compost and green manure could improve both soil texture and fertility and result in higher crop yields. An NGO like the Environmental Action Team (EAT) could assist in this area as they deal with this kind of technology and have been assisting several communities around Trans- Nzoia. The MEICDP as a coordinating body can approach and introduce EAT to the community. The communities could also venture into other income generating activities, and the project could have input such as training in entrepreneurship and other possible opportunities for profitable businesses.

On infrastructure, the community needs to approach the relevant government departments or NGOs to be included in their schedules where possible. On its own, the community is capable of doing a lot to improve the general infrastructure, but will require a lot of sensitization and mobilization. Capacity building could be done through training and awareness creation. The project could play a role in this collaboration with the relevant departments and in organising training.

As the implementing partners, the Forest Department and KWS need to take the lead in community mobilization towards conservation and development. They need to build a working relationship and work with communities living around this resource. Communities could be involved in joint management. The community sees the position of the Area Partnership Officer in a positive light, and can result in close and better interaction.

Non-residential-cultivation is already in place and both the FD and community should honour their part of the agreement. The communities could also be involved in planting seedlings in the degraded areas so that they can identify with natural forest rehabilitation. As regards boundary planting, they could again be involved in both planting and maintenance. This activity could also extend to the National Park boundary where they could dig moats and also protect the fence, if rehabilitated, from vandalism. Though maintenance of moats are seen as labour intensive they have worked very successfully in some areas where animal menace is a problem. The community members have proposed to act as tour guides and even to set up campsites outside the park that would act as alternative accommodation for tourists. Such proposals should be considered by KWS.

Concerning on-farm tree planting, the NGO, which has been involved in tree planting, should be approached to continue. The VI Agro-forestry programme has dealt with this area for the last eleven years. They could assist farmers to establish woodlots on their holdings, which would result in less dependence on the forest for timber.

Though the two partners, KWS and FD, have to take the lead in implementation, the project could contribute a lot in facilitating a number of interventions and coordinate and monitor the activities proposed. The project has a role to play, which includes capacity building through training, planning, information gathering, and supporting the departments concerned where necessary. The communities were stimulated by the project's presence during the PRA and expectations are high for future collaboration on various conservation and development issues.

There has been a lot of tension between these two neighbouring communities from different ethnic backgrounds. The bitter memories of the land clashes are still fresh in their minds. The joint PRA exercise carried out in these communities has brought the population closer and they can now pursue joint development issues.

## APPENDICES

### APPENDIX 1. Historical Profiles

#### 1A. Timeline for Women

TIME LINE	NALULINGO
YEAR	EVENT
1971	- Settled in the area. Realized decrease in soil fertility. Started using inputs
1983	- high typhoid incidence, received vaccination
1987	- VI Program started work in the community
1990-92	- land clashes, scattered to other towns
1993	- land surveyed and sub-divided (boundary changes led to squabbles between - began payment of shares 2500/acre - Nalulingo Primary School began - high meningitis incidence - Greenbelt movement began mobilizing women groups for tree planting
1996	- allowed to cultivate in forest - Kimondo Secondary School began - high incidence of highland malaria
1998	- high malaria incidence continued - VI tree nursery program ended
<b><u>CHESITIA</u></b>	
YEAR	EVENT
1982	- settled in the village as squatters on Ite farm
1991	- land clashes
1992	- scattering of community
1993	- resettled as squatters
1994 (Feb)	- formation of Chesitia women group
1995	- Transcepa - Aids awareness project started counseling sessions with the women's group and community
1996	- visited by the NCCK, discussed peace and development - demarcated 5 acres for a school - church was built and premises also used as nursery school
1997	- received their land agreement

	<ul style="list-style-type: none"> <li>- increase in cattle rustling</li> <li>- realized major drops in crop yields due to erosion following heavy rains.</li> <li>- pest attack on maize (cut worms) members had to replant</li> <li>- private clinic opened</li> <li>- Kenya Police reserve post established</li> </ul>
1998	<ul style="list-style-type: none"> <li>- blackwater disease attack on cattle</li> <li>- present number of households 72, but only 63 is resident</li> </ul>

### 1 B Timeline for Nalulingo (Youth)

YEAR	EVENT
1971-78	They settled at Nalulingo from Namajalala farm. They bought farm from Mr. Rechel. Subdivision was carried out. People were living in-groups and cultivating crops. The land was bushy and fertile. There was enough rainfall. ITE farmers sold the farm to Loise holding Ltd. Farmers formed a society called Nabakhwana.
1979-84	Famine and cattle rustling started. The land was cleared for farming and there was a lot of soil erosion due to poor method of farming i.e. they clear land by burning fields.
1985-92	People planted trees from VI tree nurseries in Kimondo. Towards the end of 1992, tribal clashes arose, which displaced most of the families.
1993-99	Nalulingo primary school and center started. The farm was surveyed and subdivided to the community. There was disunity in the community due to division of land. There was heavy pollution of water and soil erosion. Chesitia Co-operative Society was formed with the intention of buying land. They made an agreement of buying part of the land (250 acres) from Loise Holding Ltd. After sub-division, there was big improvement in both farming and livestock production. Last year, youth formed their groups called Kobil and Chesitia youth groups.

### 1C. Timeline (Men)

1971-72	The present residents occupied Nalulingo. They found a lot of resources left behind by the colonialists' i.e. pyrethrum, coffee, fruits, cattle, sheep and pigs. Pyrethrum was grown. There were a lot of trees. Maize, beans, sweet potatoes were grown on small scale. There were terraces. Soil erosion was controlled. The colonialists' left generators and tractors. Colonialists had planted pyrethrum, coffee and fruits.
1973-	More maize and beans were planted. Coffee, pyrethrum was cleared and

75	farms were used for settlement and other crops. Most of the resources found were sold and mismanaged but few were retained i.e. posho mills and cattle.
1979-87	Production of maize and beans was high. Coffee and pyrethrum were completely phased out. Livestock numbers started increasing. Most of the terraces were filled up due to lack of maintenance. Up to this time no school had been built.
1991-94	Production of maize and beans had dropped by 25% because of tribal clashes. The tribal clashes also affected cattle keeping.
1995-98	Nalulingo primary school was built.
1999	I.U.C.N Mount Elgon Project came to our village.

## **APPENDIX 2. Trend-lines (Diagramming)**

Table 2A. Trendlines Women

Table 2B. Trendlines - Men, Nalulingo/Chesitia

In the above matrix we can see that the higher the number the greater the level of production.

## **APPENDIX 3. Transect Area (By Women). This transect was about 4 Km long**

3A. Transect (By Youth)

3B. Nalulingo B Transect Walk (Men)

## **APPENDIX 4. Institutional Analysis**

4A Institutional Analysis Chart

## **APPENDIX 5. Problem Ranking**

The following problems were listed by the community as affecting them.

1. Unemployment
2. Lack of capital to start a business and buy farm equipment
3. Lack of clean water
4. Poor communication system (infrastructure)
5. Poor health. Lack of hospitals
6. Poor farming methods
7. Shortage of land for farming

8. Cattle diseases
9. Marketing (low prices)
10. Timber shortage
11. Soil erosion
12. Disturbance from wild animals
13. Lack of education facilities - e.g. schools
14. Insecurity
15. Population increase
16. Land tenure (no title deed)

**Table 5A Problem Ranking (Pairwise) Youth**

**Table 5B. Problems Encountered By chesitia /Nalulingo (Men)**

1. High cost of farm inputs	7. Stock theft
2. Water shortage	8. Lack of teachers
3. Insecurity	9. Unemployment
4. Poor roads	10. Lack of secondary schools
5. Lack of hospitals	11. Low prices of farm produce
6. Livestock	12. Few trees
	13. Soil erosion

**Table 5C. Problem Ranking by Women**

### ANNEX 6. Problem Analysis

**Table 6A Problem Analysis (Youth)**

**Table 6B. Problem Analysis (Men)**

### APPENDIX 7. Community Action Plan

Problem: Education

Problem: Water

Problem: Market

Problem: Livestock Disease

Problem: Insecurity

Problem: Land Tenure

Problem: Soil Erosion

Problem: High Input Prices

Problem: Unemployment and Lack of Capital

**Problem: Inactive Women Groups**

**APPENDIX 8. Community Action Plan Sub-Committees**

The problems were grouped in three lots and three sub-committees were formed for each community as follows:

<b>PROBLEM</b>	<b>SUB-COMMITTEE</b>
	<b>Nalulingo</b>
- Lack of capital	- Jane Khamala, Janet Oyuga
- Lack of market	- Cecilia Nasimiyu, Mary Adisa
- Income generating activities	- Gladys Adisa, Peter Wanjala
- Livestock diseases	- Patrick Kisaka, Shem Ababa
- In active women groups	- Philip Wafula
- High input prices	
	<b>Chesitia</b>
	- Mary Temoi, Grace Waliaula
	- Concepta Naibei, Edith Saekwo
	- Sarah Yego, Joseph Kimnai
	- Wescot Chemengich,
	- David Mutunga, Samwel Ndiwa
	<b>Nalulingo</b>
- Fuelwood	- Susan Makhanu, Elizabeth Masinde
- Timber	- Jackline Mutonyo, Julius Wamalwa
- Soil erosion	- Sylvester Muzunyaji, Israel Mwako, Fred Khamala
	<b>Chesitia</b>
	- Beatrice Ndiwa, Keta Ndiwa
	- Carolyn Mutunga, Patrick Ndiwa
	- Idi Marine, Simon Mutai
	- David Sikoria

	<b>Nalulingo</b>
- Education	- Muliro Matufari, Ann Mukhwana
- Water	- Ronald Wanjala, Peter Mwasame
- Roads	- Josphina Chakai
- Insecurity	
	<b>Chesitia</b>
- Land tenure	- William Saikwa, Vincent Sabila
- Health	- Joyce Temoi, Salim Naibei
	- Bridgid Sirma