World Agroforestry Centre
TRANSFORMING LIVES AND LANDSCAPES

IUCN
The World Conservation Union

Mount Elgon Regional Ecosystem Conservation Programme (MERECP)

FINAL REPORT

Activities undertaken between June 2006 and March 2007

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MERECP is a project of the East African Community with funding support from the Royal Norwegian Government

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1. Introduction

An agreement was signed between IUCN-The World Conservation Union and ICRAF-The World Agroforestry Centre on 31 May 2006 to collaborate in the implementation of the Mount Elgon Regional Ecosystem Conservation Programme (MERECP), overseen by the East African Community and supported financially by the Kingdom of Norway. The purpose of the agreement is to provide technical support to MERECP's institutional partners for the implementation of the programme. These include Ministry of Environment and Natural Resources, Ministry of Tourism and Wildlife, Kenya Wildlife Service, Forest Department (Kenya), Mt Elgon County Council, Mt Elgon District, Trans-Nzoia District and NEMA for Kenya and the Ministry of Water, Lands and Environment; Ministry of Tourism, Trade and Industry; Uganda Wildlife Authority; National Forestry Authority; Mbale District; Kapchorwa District; Sironko District and NEMA for Uganda.

The Programme Activity Implementation Agreement (PAIMA) was planned for the period from 31 May to 31 December 2006. Because of the necessary timelag for establishing implementation mechanisms such as staff contractual agreements, logistical and bank arrangements, the start of MERECP field work implementation by the ICRAF team was only effected in late August 2006. As a consequence, a no-cost extension to enable conclusion of the planned activities was granted to ICRAF to allow completion of planned activities at end of March 07. Relevant extracts of the ICRAF PAIMA is presented in Appendix 1 of this report.

2. Agricultural and natural resource technologies and marketing

2.1. Background

MERECP has considered development in the landscapes adjacent to the Mt Elgon protected area as a concomitant necessity to the conservation of natural resources within the Mt Elgon ecosystem. Conservation must be addressed alongside the actions and strategies that provide means of livelihoods to the peoples of the Mt Elgon. Indeed one may assume that enhancing human well-being of communities may reduce their impacts on the environment. Because major forms of land use in the Mt Elgon ecosystem are agricultural, the project aims to support management of its protected areas in agricultural landscapes in ways that benefit local farming communities, and develop ways to improve land productivity through the management of soil, water and vegetation.

Technical support was requested of ICRAF toward the achievement of MERECP's Objective 2 of enhancing sustainable development in Mt Elgon ecosystem. The Mt Elgon ecosystem hosts approximately 2.0 million people who derive their livelihoods from the natural resources endowment. Nearly 80% of residents depend directly on land for the direct use of resources

and agriculture-dominated activities. The Mt Elgon ecosystem is a highly productive agricultural zone. However due to poor infrastructure, remoteness, poor marketing systems, farmers do not realize full value to their produce. Secondly, rural farmers are not equipped with skills to add value to their products for fair values at selling point. The implication of this scenario is that farmers work harder for fewer returns. Consequently, because the value from agricultural input is less, the incentive to manage land and other resources wisely is undermined. Investment into activities that generate income to the households will create an incentive for better natural resources management as well as incentive for development of the natural resources base. In addition, such investment will improve opportunities for raising income to the poor.

2.2. Support the development of entrepreneur skills for investments in value addition and marketing of natural resource produce (Activity 2.1.1. in PAIMA)

1. Training community groups in commercial tree growing

A training workshop on entrepreneurial skills in commercial tree growing was held on 23 to 26 January 2007 in Kitale. Training was provided to 33 participants originating from 8 districts of the Mt Elgon region including private nursery operators, commercial tree growers, as well as government and NGO extension officers. The workshop introduced rapid business screening tools, concepts of livelihoods systems analysis and enterprise planning, basic record keeping, gross margin analysis and discounting of enterprise transactions as well as market condition analysis tools. The main focus was tree nurseries, timber, poles, fuelwood and fruit enterprises although it is applicable to some extent to non-wood tree products such as medicinal products, honey/beeswax, gums, resins etc. Details about the training content are available in Appendix 2.

2. Regional training of trainers in entrepreneur skill development in energy-saving stoves

Entrepreneurial skill development in energy saving stoves was identified in the 2005-2006 MERECP workplan as an important area to promote practices that could potentially reduce reliance on firewood resources within the protected area while enhancing value addition, skills to access markets and natural resources-based income generation. MERECP support for this activity aimed at ensuring that skills of trainers in alternative energy options are improved. The overall goal of this training was to enhance capacity of small-scale manufacturers of energy-saving stoves to:

- Demonstrate the financial and resource-saving advantages of using improved vs. traditional cookstoves
- Produce quality and cost-effective energy saving stove technology
- Increase profitability of production and marketing of their products.
- Enhance marketing strategies to increase volume of sales

The training took place in Mbale on 18-22 December 2006 with 32 participants from the six project districts of Uganda and two districts of Kenya. Details about the training content are available in Appendix 3.

3. Setting priorities for investments in the development of agricultural and natural resource-based commodities in the Mount Elgon region

District decision makers in the Mt Elgon ecosystem consider agricultural and natural resource-based products as an under-utilised area for development to be supported under MERECP. For farmers to more effectively benefit from agricultural enterprises and for local governments to provide policy and development support in this area, information and guidelines are needed on investment priorities, existing constraints in the production to marketing chain, and opportunities to be exploited in this sub sector. Therefore, a rapid appraisal of the local agricultural and natural resource commodity sub sectors was conducted within the districts of Trans-Nzoia, Mount Elgon in Kenya and Kapchorwa, Sironko and Mbale in Uganda. The main purpose of this component was to explore investment opportunities that could help small-scale farmers to upscale from subsistence agriculture to commercial agriculture and increase income. This component aimed to characterize these local sub-sectors, identify constraints in the production to commercialisation value chain as well as existing opportunities, and to identify strategic areas for investment. Key fruit, vegetable and natural resource commodities and actors in the Mt Elgon region were appraised and four to five priority agricultural and natural resource commodities with significant investment potential were identified based on a documented set of selection criteria.

The methodology included a combination of key informant interviews, value chain analysis and priority setting workshops. With the view of obtaining a holistic picture of agricultural value chains in the Mt Elgon ecosystem the following aspects were assessed for the most prominent value chains:

- Maps of value chains.
- Margins charged by wholesalers and retailers at fresh product markets.
- Strengths, weaknesses, opportunities and threats associated with farmers and traders within the supply chains.
- Constraints faced by supply chain actors and possible solutions to these constraints.

Before a range of products and ventures can be selected for development in the Mount Elgon Regional Ecosystem Programme, the following factors which could determine the success of such ventures were analyzed in detail:

1. Commodity vs. niche products
2. Local fresh product markets and value addition
3. Perishability and post-harvest handling
4. Institutional support
5. Market information

6. Green/eco labeling

An interesting feature of the Mt Elgon ecosystem is the large number of products that are cultivated and available on local markets. This can be attributed to the favourable climate and soil conditions. Results from the priority setting exercises conducted in Kenya and Uganda were considered for selecting a limited number of products for the focus of the project. Crops were evaluated for their value (high vs commodity value) and potential for export. Priority crops were selected from a total of 15 crops based on a set of 10 criteria and scored were established, leading to the identification of five priority products. These are coffee, maize, honey, beans, and passion fruit. Maize and beans were selected by the priority setting groups in Kenya and Uganda as commodity crops that can either be sold on the local market or exported within the region. Coffee, honey and passion fruit were selected by both priority setting groups as high value niche products that can be sold on the local market or exported. When considering investment opportunities related to these crops it will be necessary to consider investments that could improve the current market mechanisms for commodity crops and investments that could build on the already high value of niche crops. More detailed information on the activity is available in Appendix 4.

4. Promotion of agroforestry for honey production and bee-keeping

Large areas of Mount Elgon are covered by forests. The region is rich in biodiversity and the sustainable use of forest products such as honey, a high value niche product that can be sold on the local market and exported, has a significant potential to contribute to local economic development. Several constraints linked to capacity for quality honey production and business development exist however. In order to address some of these constraints, a regional training workshop was organized on bee keeping and honey production as a profitable business on 18-22 December 2006 in Mbale for 32 participants, including four from each of the 8 project districts. Quality of honey and its successful marketing depend on honey harvesting, storage and handling practices. Emphasis was therefore placed on various techniques for harvesting quality honey. Practicals were organized on making different beehives and siting them in a manner that allows ease of harvesting and protection. Participants also analyzed the economics of each type of beehive and management requirements to maximize profits. Additional details about the activity are available in Appendix 5.

5. Strategy development for enhancing the marketing of key agricultural and natural resource commodities in the Mount Elgon region

Communities within the Mount Elgon Region (MER) of Kenya and Uganda in the districts of Trans-Nzoia, Mount Elgon, Kapchorwa, Sironko and Mbale depend largely on smallholder agriculture and natural resource-based commodities obtained in the Mount Elgon ecosystem for their livelihoods. Farming systems are characterized by large numbers of poor and vulnerable small-scale farmers who are primarily involved in subsistence agriculture. Farmers

are constrained by factors such as the remoteness of urban market outlets, poor infrastructure, limited range of processing opportunities, access to market information, lack of collective institutional arrangements and limited land holdings. Production diversification, improved market access and agro-enterprise development could provide opportunities for improved livelihoods and a move from subsistence to commercial agriculture. Agricultural and natural resource products are promising commodities that could present opportunities for increased smallholder farmer incomes. However, most natural products are produced with limited consideration of the potential markets and the value chains for the products.

The main purpose of this component was to develop a strategy for enhancing the marketing of agricultural and natural resource products in the Mt Elgon region. The study included an analysis of the present status problems and opportunities of the horticultural / natural resource sub-sector for the selected priority crops identified in section A.3. above, as well as the outline of a strategy for strengthening the marketing of these commodities, including specific improvement priorities and main suggestions for implementation. The methodology included a combination of key informant interviews and a Strength, Weakness, Opportunity and Threats (SWOT) analysis. This method was applied to analyze the internal resource capabilities and deficiencies as well as the external market opportunities and threats of each district and its agricultural sector as well as the supply chain actors (farmers and traders) operating in Kenya and Uganda.

Solutions suggested to constraints experienced by supply chain actors such as high transport costs, power imbalances, perishability and low product quality, lack of specialization, competition included improvements in roads and market infrastructure, market information system, collective action amongst farmers and training of supply chain actors in marketing and business skills.

Development strategies including a series of strategic recommendations and specific actions were developed for the selected priority products, namely coffee, maize, honey, beans, passion fruit. Development strategies for maize and beans as lower value commodity crops could include:

- Improvement in collective structures to increase the bargaining power of producers.
- Market information and marketing support (training and market information systems).

Development options for coffee, honey and passion fruit as high value niche crops could include:

- Small-scale processing and value addition.
- Improvement in collective structures to increase the bargaining power and capacity of producers.
- Market information and marketing support.
- High value exports.

New crops such as deciduous fruit and bamboo shoots did not receive a very good rating but this can be attributed to the fact that there are virtually no existing market and support structures in place for these products. Development options for these new crops could include:

- Cultivation research and development.
- Product development.
- Market development.

The full report of the activity is presented in Appendix 6.

2.3. Catchment-based promotion of appropriate technologies that improve agricultural productivity and land management (Activity 2.1.2. in PAIMA)

1. Support to the establishment of fodder banks for improved livestock production in the Mt Elgon districts

With rising population density, pressure on resources protected for conservation within forest reserve and national park land in the Mt Elgon ecosystem is on the increase. Guaranteeing the livelihood security needs and development aspirations of local people is therefore an important challenge for managers of the ecosystem. MERECP promotes the dissemination of appropriate technologies in an effort to improve agricultural productivity and contribute to sustainable land management. In this context, ICRAF supported Kenyan communities adjacent to the Mt Elgon forest reserve and National Park involved in the implementation of watershed/landscape land management activities. A special emphasis was placed on improving skills of zero-grazing farmers in Kenya to establish contour hedgerows and manage them as fodder banks for production of high quality fodder for zero-grazed livestock as well as for soil and water conservation. Interactions with local farmers and field-based extension and development practitioners showed that farmers still have several knowledge constraints to be overcome to ensure that they obtain maximum returns from their efforts. Issues that are frequently mentioned as critical to guide investments in use of agroforestry fodder shrubs include profitability of the agroforestry fodder shrubs, availability of fodder materials during the drought periods and capacity in maintaining zero grazing units productive. Activities conducted by ICRAF in promoting the establishment of fodder banks for improved fodder production and soil and water conservation in Kenya consisted in two components: 1) A rapid assessment of the state of knowledge and skill gaps among dairy farmers as well as a training workshop in improved fodder agroforestry; and 2) Establishment of fodder banks on contours for soil and water conservation.

The rapid survey was conducted by ICRAF together with the district livestock production officer of Trans-Nzoia district to understand knowledge and skill gaps of farmers in the MERECP areas of Kenya to enhance skills in zero-grazing. Focused group meetings of dairy farmers, MERECP focal persons and field extension staff were organized to review successes and challenges faced in undertaking dairy production enterprises. At these meeting, farmers were provided with structured questionnaires to fill and subsequently a plenary session conducted to share

experiences and identify key areas of training needs. Field follow up were made to selected farmers to see and understand examples of key problems identified at the group meetings. The information gathered in the survey was used to develop the contents of training materials for a 3-day training workshop that ICRAF organized for a total of 27 trainers of trainers (farmers and extensionists) from the districts of Trans-Nzoia and Mt. Elgon in Kitale in November 2006. Among the subjects covered, the training covered general issues on agroforestry fodder shrubs, requirements for dairy animals, management of dairy animals, general principles of zero grazing and value addition for dairy products. The Agroforestry demonstration farm at VI Agroforestry Project was used during the workshop to demonstrate good practices in agroforestry.

During the 2006-07 MERECP implementation period, a total of 168 farmers in the districts of Kapchorwa, Sironko and Mbale were trained in contour layout and establishment (see also section 4 below and Appendix 10) and planting fodder crops on the dug contour trenches/bunds. In the district of Mbale (Bulweta B/ Mahalwe SWC site) farmers excavated over 5000 meters of contour bund of which about 1.500 km was stabilized with hedgerows of *Calliandra calothyrsus*. The contour technology involves digging trenches or raising soil bunds to trap running water; then hedgerows of either *Calliandra calothyrsus* or *Leuceana trichandra* (nutritious and not invasive species) or Napier grass are established either on the upper or lower part or on both parts of the trench to stabilize the contour. Challenges for this activity included its timing in relation to weather conditions and the onset of the dry season as well as circumcision ceremonies in Kenyan MERECP districts peaking in the months of November-December. However opportunities for the activity included farmer enthusiasm for the technology by farmers who considered that the labor used in excavating the contours was rewarded by the fodder planted to be used for feeding their animals. The activity sparked interest of nursery managers to produce fodder shrubs thus supporting the outscaling of the activity. Fodder production may also contribute to reducing grazing-related conflicts. The full report of the activity is presented in Appendix 7.

2. Establishment of agroforestry tree seed stands in Mt Elgon districts

A key challenge facing the management of the Mt Elgon ecosystem is to maintain and develop its natural resource base to meet the increasing demand in goods and development aspirations of resident populations while ensuring the ecosystem's local and global environmental service values. This challenge is largely attributed to the fact that local livelihoods are primarily based on small-scale subsistence agriculture, hence directly dependent on the natural resource endowment. High population density coupled with small landholdings and declining agricultural production builds pressure on protected parts of the Mount Elgon ecosystem. For instance, wood production for fuel, timber and construction has significantly decreased in the farming system over the years forcing many households to source it from the protected forests. MERECP addresses the need to strengthen local capacity for sustainable agroforestry production in an attempt to reduce pressure on the Mt Elgon ecosystem.
The role of trees in the landscape and their contribution to soil conservation, soil fertility maintenance, the generation of many goods and services essential to livelihoods (water, fruits,

fodder, wood, medicinals, fiber, etc), and the regulation of ecosystem processes, (pollination, climate, etc) has gained increased recognition over the years in the MERECP project area. Several initiatives to promote tree growing and support smallholder farmers to integrate trees in their agricultural production systems have been undertaken in the region. Our initial observations however concur with findings in other parts of Uganda, Kenya and other tropical countries in that farmers in the Mt Elgon area do not have access to a diversity, quality, and quantity of species even though these are essential for the development and scaling up of diversified, sustainable and market-oriented agroforestry systems. Much of the seed distribution is based on free handouts. Matching species with sites is not systematically done. Species selection by CBOs and NGOs is almost exclusively based on the availability of seed in the agricultural landscape (except for a few exotic shrubs that may be promoted by research organizations) and draws only partially on knowledge of a range of useful species that could be grown. Seed of only very few species is used and the genetic quality of seeds is not considered. Therefore there is a need to improve production and distribution pathways for tree seed in the Mt Elgon area.

Enhancing the production and distribution of species lies in the establishment of efficient and decentralized networks of commercial seed producers and nurseries handling a range of tree species. Input markets need to be developed in place of free handouts by extension and development agencies. A very important part of such a network is the establishment of seed sources—trees occurring on farmland and in natural forests for short-term production, and planted seed orchards for longer-term production. The establishment of district agroforestry tree seed stands of known quality on farm is one of key measures that MERECP to mitigate the situation.

To guide the process for enhancing establishing tree seed stands, consultations with district technical teams and users were emphasized to capture their needs and species priorities. The approach used to identify priority tree species for seed stand establishment included on-farm inspection visits and focused group discussions with both district technical teams and nursery operators. Each district proposed a list of priority species. In addition, over 25 commercial nurseries in the districts of Mbale, Sironko and Kapchorwa were visited for tree species assessment and identification. Two half-day meetings with 15 and 14 nursery operators and district technical staff in Mt. Elgon and Trans-Nzoia districts, respectively were also organized to prioritize species for promotion in the district. A preliminary list of tree species in each district was developed taking into account local demand, priorities for species diversification based on needed products and services. In addition, recommendations were made to address implications of the narrow current range of species, lack of natural forest species and for appropriate seed collection practices. Consultations with district technical teams and nursery operators revealed that there are no centralized established tree seed orchards of any known source or species provenance in any of the MERECP districts. Thus, ICRAF could not source seedlings for seed stand establishment from existing nursery operators. Therefore, two commercial nursery operators in each district were supported in raising quality seedlings for the establishment of mother trees and tree seed stands in the districts. Eight tree species of

known seed sources and provenances were procured by ICRAF and supplied to 12 commercial nursery operators.

Quality seedlings will need to be raised by commercial nursery operators for the establishment of seed stands for future sourcing of germplasm. To lay the foundation for this work, ICRAF organized consultations with district teams to discuss advantages and disadvantages about possible locations and assessed the potential of establishing seed stands at centralized demonstration sites. With the exception of Mbale district where a clear plan for establishing and managing centralized demonstrations is already in place, no seed stands are available in MERECP districts. For considerations of cost and sustainability, the development of new centralized centres where seed stands can be established should not be a preferred option. Instead it was recommended that seed production and agroforestry demonstration units be established on-farm. Arrangements were made to procure high quality germplasm for priority species which was provided to selected nursery operators. Seedlings produced will then need to be transferred to selected farmers for the establishment of high quality seed stands through arrangements made with districts. Districts will need to take lead in identifying and supporting individual farms to establish individual mother trees and seed stands for agroforestry tree species. Strategies were proposed to help producers in selling seedlings produced. The establishment of tree seed stands on private land is constrained by limited land size and limited tree seed markets as well as delayed disbursement of funds to implementing institutions for collaboration. Supervision and follow-up from districts' technical teams and the development of partnerships between MERECP and the private sector will be needed for ensuring eventual success of the activity. Additional information on the activity is available in Appendix 8.

3. Support to identification and mobilization for the establishment of on-farm demonstrations

Farming systems in Mount Elgon Region are characterized by large numbers of resource-poor farmers, smallholder agriculture, limited use of farm inputs, and a livelihood dependence on natural resource-based commodities obtained in the Mount Elgon ecosystem. Low yields result in household food deficits, are associated with limited linkages with markets. The resulting low household income further reduces the farmer's capacity for investment and perpetuates the poverty cycle. Rather than a single intervention, an integrated approach may contribute to overcome yield limitations and lift households out of poverty. The identification of suitable crops that may contribute to improve and diversify farm production, fulfill nutritional needs and enhance income and its annual flow deserves further investment. In this respect, high-value fruit tree crops appear to have high potential, which has not been fully utilized. The purpose of this activity was to promote technology demonstrations to increase the development potential of fruit tree growing in the Mt Elgon region.

In most of the districts, tree crops such as avocado, mango, orange, guava, and paw paws trees are common within homesteads. However, farmers ignored the different varieties and values and none of them focused on growing any of these crops for income. Support was therefore

provided to MERECP districts of Trans Nzoia, Mt Elgon, Kapchorwa, Sironko and Mbale in the establishment of on-farm demonstration sites for improved types of common tropical fruits.

Establishing centralized demonstrations on public lands has several limitations, among which the sustainability of management costs after MERECP lifetime and the long term nature of the enterprises which may be out-competed with other development programs. Therefore, the option of individual private farms can be the most appropriate substitute or used as a complement.

Several criteria were used by ICRAF and district focal persons to identify and select candidate farms. These included:

- Having not less that half an acre of land to set aside for the fruit trees and sufficient additional land for other operations
- Demonstrated capacity for orchard management (labor, inputs)
- Cooperation and readiness to accept that orchard is used as an interactive learning site for the benefit of communities.
- Proximity of orchard site for protection against animals and theft
- Easy access

A range of fruit trees were procured including 1425 trees (five cultivars of mango; 3 cultivars of orange; pawpaw and guava) procured for 12 private farmer demonstration sites in 3 districts of Uganda as well as 800 trees of mango and avocado in 17 farmer demonstration sites in the 2 Kenyan project districts. Pros and cons of identified centralized locations were also analyzed.

Some challenges stand in the way of development of fruit tree growing in the region. These include for instance the destruction of fruit and tree seedlings on farm by free ranging livestock, the lack of quality locally produced planting materials, pests and diseases, insecurity due to land ownership, small landholdings. More detailed information on the activity is available in Appendix 9.

4. Catchment identification and community mobilization for on-farm demonstrations and layout and establishment of soil and water conservation contours

Improving the management of a watershed requires recognition of people who are managing the resources. Resources and managers can be located both within and beyond the biophysical boundaries of the landscape considered. Watersheds represent a wide social and biophysical canvas. Within them reside multiple users of resources who often bear multiple interests and priorities. Thus, the productivity of any one resource is inextricably linked to the use and status of another. There may also be multiple administrative units within watersheds thus bringing into play the role of formal institutional structures in the governance of watershed resources. In the context of watershed management, participatory approaches assume greater complexity. One of the major challenges is how to bring the necessary people at village and watershed levels together in order to collectively address issues involving upstream-downstream linkages

and improve management of resources. Such issues often require negotiation across villages and/or stakeholders. Collective action is needed from local stakeholders including technicians, politicians and other local leaders, development partners as well as local communities to identify and implement appropriate technologies. Mobilization is therefore needed for people to jointly analyse prevailing problems and challenges, seek solutions, identify and implement appropriate interventions. This project activity involved the promotion of landscape-level approaches to demonstrate agroforestry commercial enterprises and soil and water conservation (SWC) activities for improved land management.

A set of guidelines for a participatory community approach to planning, implementation and monitoring of soil and water conservation activities at landscape/watershed level was developed and proposed. These guidelines were shared with the district technical teams as well as with district, local and community leaders during sensitization meetings and a first set of criteria for identification of critical sites and selection of pilot areas in each district for the implementation of SWC activities were developed and harmonized together with participants. Pilot sites were then prioritized according to four criteria, namely proximity to the Mt. Elgon protected area, absence of previous SWC interventions, community demand for SWC and willingness to collaborate as well as ease of accessibility especially for monitoring progress and follow-up.

District and local leaders at all administrative levels in the MERECP districts were sensitized and mobilized through meetings to support and actively engage in the participatory landscape approach to SWC activities. Leaders targeted included LC5, LC3, LC2 and LC1 in Uganda as well as District commissioners, Division officers, Location chiefs, Sub-location assistant chiefs and location/village leaders in Kenya. These meetings provided an opportunity for actors to voice their observations and recommendations, including the need for close ICRAF-district cooperation and integration of the project at district level, and the need for strengthening the legal and political authority of local institutions. In addition, sensitization meetings were held with local communities, their leaders and village elders in the selected sites where SWC activities are implemented to inform and sensitize them about the MERECP project, its objectives, activities and implementing institutions. Expected roles of local leaders and beneficiary communities as well as constraints and challenges were discussed.
The next stages involve the participatory characterization of selected sites/landscapes and the development of landscape management action plans. This phase involves the generation of information to describe and understand the selected SWC sites/landscapes in terms of past, current and desired future physical and socio-economic characteristics. Communities are led into a participatory identification of problems faced, existing opportunities, past and present status of resources and interventions, and definition of desired future as a basis for community planning. Methods used included participatory mapping and delineation of local resources and generation of Geographic Information System (GIS) maps that indicate the physical aspects of the SWC sites including location, boundaries, land use types, altitude, topography, rivers as well as socio-economic aspects including land and tree tenure, gender, local institutions, etc. The community in the Bulweta B/ Maharwe SWC site in Mbale district was guided through

participatory community resource mapping to come up with a community resource map showing various aspects including land use and soil erosion hotspots (Figure 1).

Figure 1: Participatory community resource map of Bulweta Maharwe village, Mbale district

The community was guided in identifying problems, interventions and opportunities and in describing desired future state. This additional information was used to supplement information generated and indicated on the resource map. ICRAF with the help of the district extension staff initiated the process of community action planning involving the identification of community needs, roles, responsibilities, required resources and sources in their action plans. GIS information was compiled for all target sites in all MERECP districts in Uganda, including GPS-registered location (longitude and latitude), elevation, and type of activity conducted under MERECP. Maps of all three SWC sites in MERECP districts in Uganda were also produced. A total of 168 farmers in the districts of Kapchorwa, Sironko and Mbale were also trained in contour layout and establishment. After the trainings, ICRAF together with the districts' extension staff helped farmers to excavate the contour bunds. Planting hedges on constructed bunds started in the district of Mbale where farmers planted hedges of Calliandra and Leucenae to be integrated with Napier grass, the latter being preferred for feeding animals. By the end of the first rainy season, a distance of 14,000 m of contour plantings were effected in Kapchorwa, Sironko and Mbale districts. Farmers in the pilot sites were enthusiastic to adopt contour farming and resolved to continue constructing bunds, vegetate them and explore the formulation of local bylaws through local SWC committees. The full report of this activity is presented in Appendix 10.

5. Technical support to apple production in the Mt. Elgon region

Production and marketing of deciduous fruits and their products, especially for apple production offer opportunities for farmers to shift farm production from low-value annual crops to perennial crops with higher value. They contribute to diversify farm production, reduce risks of food insecurity and improve nutrition of local people. Unlike repeated cultivation of

short-cycle crops on the steep slopes of the Mt. Elgon which bring declining yields over time when no organic or chemical fertilizers are used, production of fruit trees such as apple can be sustained over time. Income can be generated through the commercialization of fruit products. Other economic activities related to fruits include production and sale of planting materials (grafted plants, scions, rootstocks), the sale of processed fruit products; employment in production, marketing and processing fruit-related industries, and through provision of advisory/extension services in management and marketing.

MERECP districts regard growing of deciduous fruits, particularly apples, as a promising commodity with good market potential at local, national and regional levels. Therefore, apple growing was selected by the five MERECP districts as one of the enterprises to be supported in the 2005/06 work plan, as part of the catchment-based technologies for improving agricultural productivity and land management. In 2005/2006 ICRAF helped establish the foundation for promoting relevant deciduous fruit tree varieties and practices with emphasis on apple fruit production. Specific activities implemented include:

1. Provide technical support for the supply of quality temperate fruit tree seedlings to selected producers from producer groups for establishing orchards that could serve as demonstration sites as well as future multiplication sources
2. Conduct an assessment of farmer practices, as well as location, conditions and requirements of apple production farms in the Mt. Elgon area
3. Develop mechanisms and guidelines for accelerating the establishment and management of apple fruit orchards in the project area.

In a first step for implementation of apple growing activities, potential sources of planting materials in Uganda and Kenya were visited in order to ascertain the amount of planting material available from various sources. In September 2006, a total of 1,243 grafted apple and pear seedlings were eventually acquired from the FORRI nurseries in Kabale. This batch included eleven cultivars of apples (Anna, Golden Dorsett, Golden Delicious, Granny Smith, James Grieve, Duelmner, Fuji, Winter Banana, Red Jonathan, Gloster and Swiss Orange) and four pear cultivars namely Spadona, Naspal, Taiwan Hybrid and Japanese Yellow. All these were transported and delivered to the Mbale temporary nursery for rejuvenation, treatment and sorting. A reconnaissance visit was made to different nurseries and farms in Limuru, Nyandarua and Nyeri districts of Kenya to identify possible sources and assess quality of planting materials and orchards there. Three potential private nursery operators were identified for supply of temperate fruit seedlings. The AFROTEC nursery located at south Kinagop, Magumu sub-location, Nyandarua District, Central Province was finally selected because of its large orchards and the availability of apple seedlings at the nursery. A total of 770 grafted apples comprised of five cultivars (Apple Anna, Golden Dorsett, Winter Banana, Rome Beauty and Robin) were obtained from AFROTEC nurseries in December 2006. Like those acquired from Kabale, powdery and scab infections were observed. Therefore, seedlings were transported to Kenya Annex Prisons at Kitale for extra management (disease, nutrition and growth enhancement). After delivery, it was realized that the supplied seedlings had been grafted on cuttings and had not rooted. (Apples have large food reserves which make their branches vegetate in any moistened environment, even in the absence of roots. This confused the ICRAF staff who

collected the materials). The whole consignment was rejected and an agreement between ICRAF and the supplier to re-supply fresh seedlings in January 2007 was made. To ensure that proper qualities of seedlings are produced, ICRAF opted for the production of rootstock plants that would be grafted with ICRAF's technical support. The supplier was trained on how to produce rootstocks rapidly from mature fruit trees. It was felt that this option of producing rootstocks would provide an opportunity to train farmers and extensionists in nursery operations for apple fruit production, a necessary component to lay strong foundations for apple growing in the MERECP project area. Because rootstock seedlings from AFROTEC nurseries were not going to be ready until February and subsequent delay in grafting, an emergency measure was taken to ensure that some apples would be planted in Trans-Nzoia and Mt. Elgon districts. A total of 150 apple trees from Uganda were ordered and delivered to Kenya Prisons for recovery purposes. These seedlings were transported to Kenya without soil and their phytosanitary conditions certified by the plant protection department of Uganda.

Establishment of apple multiplication orchards was viewed as an important foundation if a strategy for large-scale production of quality grafting material was adopted in the future. Nursery operators need to be able to source quality scions to produce complete grafted or budded apple plants. Criteria including dynamism and financial capacity of farmers to host the first gardens were developed for selecting farms to host apple orchards. The draft criteria were shared with district partners, reviewed, accepted and used. Selection criteria led to identification of farmers in the districts of Mbale, Kapchorwa and Sironko as the first beneficiaries. Training in Kenya was delayed to avoid raising expectations that would not be met in time because planting materials could not be supplied in time or sufficient quantity. An inception training program for selected farmers aimed at preparing them to receive planting material and establish orchards correctly was organized and conducted for the three districts of Uganda. The training covered all agronomic aspects of tree establishment and management. By end of 2006, a total of 17 farmers on the Ugandan side benefited from MERECP support on apple growing. Due to reasons highlighted in the preceding section, only two farmers on the Kenyan side, one Trans-Nzoia and another in Mt. Elgon were able to establish apple orchards by the end of 2006. A total of 19 farmers (17 in Uganda and only 2 in Kenya for reasons of plant availability and timeliness) established small apple orchards totaling of 1,237 apple fruit trees and 120 pears fruits trees. In addition, 750 apple seedlings were grafted and kept at the Kitale Annex prison for supply to additional farmers in the Mt. Elgon and Trans-Nzoia districts of Kenya, raising the total number to 2,107 high quality apple and pear mother trees planted in the MERECP area during the period.

In total, 51 farmers and extension staff were trained in skills of establishing orchards of apple trees. The training focused specifically on required skills and practices for receiving apple and pear plants, establishing orchards and managing young fruit trees. In addition, a second training on plant propagation, nursery and orchard management, as well as tree structure and dormancy management was organized for a total of 46 participants comprised of 17 Kenyans and 29 Ugandans. Trainees included farmers already involved in apple growing, those selected to host MERECP orchards in Kenya, extension staff from Kenya Prisons and Departments of Agriculture and representatives of community-based organizations that are promoting apples in

Bududa and Manafa districts. Despite the significant training component developed in this activity, local capacity to provide horticultural advisory services is still insufficient for the backstopping of a successful apple fruit production scaling up strategy. This needs considerable strengthening of extensionists skills in nursery operations, tree management (pruning, defoliation, tree training, fertilization, protection from encroachment, etc.), vegetative propagation, orchard management, multiplication of clonal rootstocks, management of pests and diseases and quality fruit production. Capacity building is important for at least four categories of stakeholders, including technical teams of agricultural departments, commercial fruit farmers, NGO staff and farmer groups.

An initial assessment of existing apple farms within the MERECP region was conducted in the districts of Kapchorwa, Sironko, Mbale, Trans-Nzoia and Mt. Elgon. Existing orchards in Uganda included those established during the MERECP inception phase, and gardens of young trees in Manafwa and Bududa districts, while most apple trees in Trans-Nzoia district were inherited from the colonial farmers and those in Mt. Elgon district were promoted in the late 1980s and early 1990s. The majority of farmers in Kenya that inherited apple trees from colonial farmers cut them down, as they were not familiar with the management and marketing of this crop or their perceived opportunity cost.

The development and promotion of apple growing in the MERECP has been initiated, the scaling up of a regional apple farming enterprise will require the development of a comprehensive strategy. Among other things, the strategy should cover the following aspects:

a) Propagation and multiplication of planting materials (seedling/clonal rootstocks, scions)

b) Development of a competent and efficient system for the provision horticultural advisory services

c) Development of an appropriate marketing system

d) National and regional strategic alliances for the development of information systems and policy changes

The establishment of apple mother orchards comprised of a wide range of cultivars at different altitudes is the basis for identifying and promoting cultivars suited to ecological conditions of the Mt Elgon region as well as local and national markets. At this stage of development a strong backing of applied research will help strengthen the foundations of the apple sector laid down by MERECP. Additional details on the activity are presented in Appendix 11.

3. Land tenure and land and natural resource policy and planning

The following section on land tenure as well as land and natural resource use plans & policies reports on the methodology, implementation and outcomes of the following activities executed by ICRAF as specified in the IUCN PAIMA:

2.1.4. Strengthen tenure and access to land and natural resources
2.2.1. Develop and support strategies that provide incentives for Private Sector and NGOs / community investment in the development and management of Forestry resources in districts
3.1.5. Strengthening of land and natural resource use plans & policies

3.1. Methodology

This component was tackled in two different studies and addressed the three objectives of the PAIMA listed above.

Study 1.

A first study was entitled 'Past and present land tenure and land management in the districts surrounding Mount Elgon' and was entrusted to Dr. Eija Soini. The objectives of the study were to:

1. Review historical and current factors and trends affecting land tenure, resource access and conflicts over resource access and tenure in the MERECP project area. Use that information to establish a typology and characterization of current land tenure types in the MERECP project area.
2. Prepare a land tenure map, or set of maps, for the MERECP project area at the scale appropriate to the information collected, on the basis of the typology and data collected at the national and local levels.
3. On the basis of items 1 and 2, develop an initial set of recommendations for modifying and harmonizing policies and institutions effective at the local level that promote sustainable land (and tree) management.

For this study, a rapid literature review was done using the Internet and libraries at Nairobi University, Moi University and Makerere University. The study makes use of the literature on the land issue in Mt. Elgon area, putting it in a broader context of the historical developments of land tenure from the colonial days to the present state in Kenya and Uganda. Further, recent literature on the interrelationships between land tenure and land management/ecological development/investment on land in Uganda and Kenya (some on Mt. Elgon) is investigated.

Numerous officers in all the five districts were interviewed on issues related to the current state of agricultural land tenure, tree tenure, land use and crops, forest management arrangements and conflicts related to land (Table 1). Further, interviews were conducted concerning ADC farms and their management, and farmer's (men's and women's) attitudes, preferences and incentives in tree planting and the user rights of trees (Vi-Agroforestry).

Table 1. List of people consulted

Uganda	**Kenya**
Chemangei Awadi, District Environment Office, Kapchorwa	Nixon Sigei, ADC farms, Trans-Nzoia
James Mwalye, National Agriculture Advisory Services (NAADS), Mbale	Paul Obusuru, Department of Agriculture, Mt. Elgon
Mafabi Rashid, District Environment Office, Sironko	Mrs Nzomo, Department of Agriculture, Trans-Nzoia
Kibale Mwambi, Sironko	David Omoto, Forest Department, Mt. Elgon
Martha Mugarura, Lands Office, Mbale	Richard Nyabuti, Trans-Nzoia, Vi-agroforestry
Matilda Makabai, District Agriculture Office, Sironko	Opara Cleophas, Trans-Nzoia, Vi-agroforestry
G.R. Matanda, Uganda Wildlife Authority, Mbale	Björn Horvath, Trans-Nzoia, Vi-agroforestry
Susanne Wanyinya, National Forest Authority, Mbale	Peter Ng'ang'a Kinyanjui, Forest Department, Trans-Nzoia
Arinaitwe Enock, National Forest Authority, Mbale	Dominique K. Nyumu, Dept. of Agriculture, Trans-Nzoia
John Francis Onyango, Ministry of Lands, Water and Environment, Entebbe	Tom Nyang'au, Ministry of Lands and Settlements, Mt. Elgon
Chemangei Awadi, District Environment Office, Kapchorwa	James Chesebe, County Council, Mt. Elgon
	Godfrey Wafula, NEMA, Trans-Nzoia

Maps on land tenure are based on maps and information available in the Farm Mechanisation Office under the Department of Agriculture in Kitale (Trans-Nzoia), interviews within the Lands office (Mt. Elgon), Department of Lands and Surveys in Entebbe (Mbale, Sironko, Kapchorwa), and on former MERECP and MEICDP (Mount Elgon Integrated Conservation and Development Project). Boundaries are aligned and geo-referenced using scanned topographic maps of 1:50:000. Other boundaries used in the land tenure maps were taken from existing maps and databases (Survey of Uganda, Survey of Kenya, National Biomass database). The full report of this study is presented in Appendix 12.

Study 2

The second study enabled a comparative approach on policy formulation in terms of environmental and land management in Kenya and Uganda and on the way international and national policies are implemented at the local level. Special attention was paid to the variety of local situations, specific policies and their implementation. The study was shaped by what was called a "policy terrain approach" (Ashley et al, 2005) that relied on the definition of land tenure domains as a basis for the study, and examined policy implementation and local arrangements. It was conducted by Wilson Nindo with the guidance of Dr. Claire Médard, of the Institut de Recherche pour le Développement (IRD) and a member of the 'Migrations and Society' Research Unit (http://www.unice.fr/urmis/spip.php?article378) under ICRAF oversight.

Research was undertaken through interviews with key resource persons as well as discussions with local community groups (Table 2). Two district consultative workshops were also organized on 12th and 13th April 2007 in order to present and discuss findings of the policy terrain study with a diversity of stakeholders, identify emerging issues and provide recommendations for improving the relevance and effectiveness of policy implementation and institutional arrangements. The reports of these workshops are presented in Appendix 13 in volume 2 of this final report.

Table 2. List of key resource persons contacted and community meetings organized for the policy terrain study.

DATE	NAME	DESIGNATION	INSTITUTION	STATION	DISTRICT	CONTACT
KENYA						
21/11/06	Mohamed	Forest Guard	Forest Department	Kabeywo	Mt. Elgon	0725 930 734
23/11/06	Boaz Mong'aya	Forester	Forest Department	Kaberwa Forest	Mt. Elgon	0733 912 157
30/11/06	Gladys	District Development Officer	District Planning	Kitale	Transnzoia	0725 321 893
04/12/06	John Wafula	District Environment Officer	NEMA	Kitale	Transnzoia	0734 693 155 0721 412 828
05/12/06	Mr Atema	District Development Officer	District Planning	Kapsekwony	Mt. Elgon	0723906337
05/12/06	Mr. Nyangau	Settlement Officer	Lands Department	Kapsekwany	Mt. Elgon	0733 411 381
06/12/06	Solomon Kanuki	Forest Officer	Forest Department	Saboti Forest	Transnzoia	0724177847
08/12/06	Mr. Yusuf	Disrict Officer	Provincial Administration	Saboti Division	Transnzoia	0734 932 046
08/12/06	Mr. Mugo	Senior Warden	Kenya Wildlife Service	Mt. Elgon National Park	Transnzoia	0721884554
11/12/06	Chepnyali Group	-	-	Matumbei	Transnzoia	-
13/12/06	Solomon Kariuki	Forest Officres	Forest Department	Saboti/ Sosio	Transzoia	0724177847
15/12/06	Ogolla	Clerk	Elgon County Council	Kapsekwony	Mt Elgon	
15/12/06	Dominic K. Nyumu	Farm mechanization officer	District Agricultural Office	Kitale	Transnzoia	0734848944
18/12/06	Stella Kimutai	Deputy District Agricultural Officer	District Agricultural Office	Kitale	Transnzoia	-
18/12/06	Mr. Nduati	District Cooperative	Cooperative Office	Kitale	Transnzoia	0722461750
21/12/06	Joseph Chemengich	Chief	Provincial Administration	Kisawai Location	Transnzoia	0735690337
21/12/06	Michael Butukhu	Chairman	Tumboka Self Help group	Kalaha	Transnzoia	-

UGANDA						
DATE	**NAME**	**DESIGNATION**	**INSTITUTION**	**STATION**	**DISTRICT**	**CONTACT**
14/03/07	David Mukwana	Ag. Co-ordinator	Kapchorwa Civil Society Alliance	Kapchorwa	Kapchorwa	0782613084
15/03/07	Richard Matanda	Community Conservation Warden	Uganda Wildlife Authority	Mbale	Mbale	0772935812
16/03/07	Paul Mwambu	District NAADS Co-ordinator	NAADS	Mbale	Mbale	07740133663
19/03/07	Mr. Chemangei Awadh	District Natural Resources Officer	District Local Govt	Kapchorwa	Kapchorwa	0772 645 591
19/03/07	Moses Ngirio	Field Officer	Freedom from Hunger International	Benet	Kapchorwa	0 782 610 927
19/03/07	Chelimo N. Kaprokuto	LC5 Chairperson	District Local Govt	Kapchorwa	Kapchorwa	0772697814
19/03/07	Chebet Siraji	LC5 Secretary Production	District Local Govt	Kapchorwa	Kapchorwa	0772 553 167
19/03/07	Chemisto Satya	Co-ordinator	Action Aid Uganda International	Kapchorwa Action Aid	Kapchorwa	0772519013
19/03/07	Omoding Chesang Thomas	LC1 Chairperson	Local Council	Grik River Village	Kapchorwa	-
19/03/07	Augustine Ayeba	LC3 Counselor	Local Council	Ngege Grik River	Kapchorwa	-
19/03/07	Chepkwongia Kassim	LC3 Chairperson	Local Council	Ngege Sub – country	Kapchorwa	-
19/03/07	Sarah Babirge	Charcoal Trader	Trader	Ngenge	Kapchorwa	-
19/03/07	Kamonges Joseph	Firewood Trader	Trader	Ngenge	Kapchorwa	-
21/03/07	Martin Sekuton	Co – ordinator	KACODA	Ngenge River Bank	Kapchorwa	0772 664 891
21/03/07	Members	Members	Benet Lobby Group	Benet	Kapchorwa	
22/03/07	Titus Mayek	LC3 Chairman	Local Council	Kabei Sub-	Bukwo	0752 691 888

				county		
23/03/07	Christopher Masaba	Community Conservation Warden	Uganda Wildlife Authority	Suam	Bukwo	-
23/03/07	Chebet Jamade	Forest Technician	Uganda Wildlife Authority	Suam	Bukwo	-
23/03/07	Dickson Oniala	LC1	Kwirwot Parish	Suam	Bukwo	0736 851 941
27/03/07	Ayubu Webisa	For Wakhatenge Abdi LC3 Chairman	Wanale Sub - county	Wanale	Mbale	-
27/03/07	Jawali Waniaye	NAADS Co-ordinator	Wanale Sub-county	Wanale	Mbale	0782607922
28/03/07	Onauro Longinos	Namatale Forest Supervisor	National Forest Authority	Mbale	Mbale/ Sironko	0782 527 349
28/03/07	Ahmed Wamusiti	Retired Counselor	Buteza Sub – county	Buteza	Sironko	0774 530 036
28/03/07	Jerald Ongondia	Team Leader	NAFRRI	Bugema	Mbale	0772 695 262
29/03/07	Rashid N. Mafabi	Environment and Natural Resources Officer	District Local Govt	Sironko	Sironko	0772435518 0782329925
29/03/07	Mugusha Stephen	District Forest Officer	District Forest Services	Sironko	Sironko	0752 628 311
29/03/07	Francis Magum	LC3 Chairperson	Bumasifwa Sub – country	Bumasifwa Sub – country	Sironko	0774 206 114
29/03/07	Cllr. Stephen Muzenze	Chairman	Kitati Bee Keepers	Bumasifwa Sub – country	Sironko	-
31/03/07	Simon Nyangasi	NAADS Co-ordinator	Kween Sub-county	Kapchorwa	Kapchorwa	0772609715
03/04/07	George Mabuya	District Forest Officer	District Forest Services	Mbale	Mbale	0772 479 537
03/04/07	Bernard E.M. Mujasi	LC5 Chairman	District Local Govt	Malukhu - Mbale	Mbale	077399800

Kenya

No.	DATE	DISTRICT	LOCATION	COMMUNITY CONSULTATIVE MEETINGS
1	October 22nd	Transnzoia	Chepchoina	Community consultative meeeting
2	November 23rd	Mt. Elgon	Kopsiro	Consultative meeting in Kopsiro.
3	December 4th	Transnzoia	Matumbei	Meeting community and CBOs at Matumbei
4	December 5th	Mt. Elgon	Kopsiro	Meeting at Bible Translation Centre in Kopsiro
5	December 7th	Mt. Elgon	Kopsiro	Community FGD in Kopsiro - Chepyuk Settlement
6	December 11th	Transnzoia	Matumbei	Chepnyalili Youth Group
7	December 14th	Mt. Elgon	Kaptama	Community consultative meeting in Kaptama
8	December 21st	Transnzoia	Kalaha	Community consultative meeting at Kalaha Farm.

Uganda

No.	DATE	DISTRICT	LOCATION	COMMUNITY CONSULTATIVE MEETINGS
9	17th March	Kapchorwa	Benet	Visit and discussions at Piswa community tree nursery Consultative meeting with local Benet women in Bamboo basket making.
10	20th March	Kapchorwa	Ngenge	Community consultative meeting at Greek River Village
11	21st March	Kapchorwa	Benet	Consultative meeting with Benet Lobby Group
12	23rd March	Bukwo	Kabei Subcounty	Community consultative meeting at Mutushet
13	27th March	Mbale	Wanale	Wanale Subcounty community meetings
14	29th March	Sironko	Bumasifwa	Meeting Sitati Bee Keepers at Bumulegi Parish
15	30th March	Sironko	Namatale	Community consultative meeting at Namatale
16	12th April	Kapchorwa	Kapchorwa	Policy workshop for Kapchorwa and Bukwo
17	13th April	Mbale	Mbale	Policy workshop for Mbale, Sironko, Manafa and Bududa Districts.

1. Land tenure domain approach

Identifying different land tenure domains on Mount Elgon was to be the starting point of the study. In a way it soon became a purpose in itself. Based on an assumption that the legal framework does have an impact on the management of environmental resources, land and trees, defining tenure domains seemed at first straight forward. This assumption was carefully examined. It soon became clear that understanding tenure locally was crucial in order to define these domains and that tenure systems were not as clear cut as their legal definitions might suggest. From the initial vague question about whether or not tenure provided incentives or disincentives to invest in trees and land, it became clear that tenure should not be restricted to official tenure and that tenure systems had to be examined in their complexity. Each in its own way, both statutory and customary tenure might be legal. What needed to be further explored was how they relate to what might be called a paralegal tenure system. Land transactions do not generally take place outside the scope of officialdom; nevertheless, strictly speaking, in some cases, they are far from being legal. Stakeholders in the management of different land tenure domains need to be clearly identified. A clear marked difference was made between government land and community land (and by extension private land in legally registered areas), as it translates into individual and collective rights to land and defines the role of government officials in land matters. The impact of territorial control on land rights and of the overwhelming power of those in a position of leadership to define or redefine access to land was highlighted. Legal categories were used to define land tenure domains even though these do not suffice to characterise local land tenure systems in their complexity. The amount of state intervention in land matters, the privatisation of land and its legal translation (whether it is possible to get a title or not) became prominent factors in defining these land domains. Legal bottlenecks contributed to explain that access to land remained largely negotiable in some areas and influenced by officials.

2. Local adaptations of law

The issue of policy implementation came up strongly in this study with the assumption that policies are adapted to local realities and that they might be re-interpreted and negotiated at a local level. Local variations and changes over time in law enforcement appeared prominent features of policy implementation. They point to circumstantial enforcement of law. In this regard, understanding why a policy is being implemented at a given time and for what purpose is crucial. Who is or was involved in policy formulation (colonial or postcolonial period)? How are policies implemented? Who is in charge? Whose interests do they serve? Unexpected results, intentionally distorted results or no results at all should also be taken into account. Policy formulation might be viewed as a negotiated process. Its translation into practice is also political exercise and should be viewed as such. Unwritten political rules, based on self-interest and political preservation, might take over in dealing with environmental matters and forfeit public interest. Allocation of resources is embedded in power, and might serve to promote

certain values of authority, honour and protection just as it might entail illegitimate violence. Here the discussion needs to shift to power and power-brokers, conflicting interests, public interests versus private interests.

3. Focus on policy implementation

The framework of the study led us to consider the complexity of tenure systems and to focus on policy implementation. We asked the following questions:

- What are the rules of the game on the ground?
- What are the policies which have been formulated but do not translate into reality?
- What are the changes made to policies? Have they had expected results?

A number of shortcomings were noted and related to the State and issues of governance. The State's effort to control resources and resource allocations must be understood within the scope of neopatrimonialism. This concept describes the State as both weak and authoritarian, rife with political tribalism, where leaders might benefit at a personal level from their institutional position (corruption or para legality) leading to inequalities and injustice. The policy terrain approach made us consider the wider geopolitical context of policy formulation and implementation.

3.2. Ethno-regional setting and geopolitical context

On Mount Elgon, the primary conflict over resources seems to be found in the confrontation between the State and local communities. People keep on entering "illegally" or settling in forest reserves/parks and the State keeps on chasing people away by force. The ambiguous role of the state apparatus must be highlighted: at times allowing people to settle and at times chasing them away. Frustrations over the way their plight (becoming landless, becoming poor) is addressed, are building up. As a result of this confrontation, rights are being conceptualised in terms of ethnicity. In search of legitimacy, discourses have shifted to the idiom of the fight for "indigenous" or "ancestral" rights.

Despite the fact that the higher reaches of Mount Elgon have been officially under State control for over eighty years (demarcation started of forest reserves started in the 1920s and gazettement followed in the 1930s), different communities have laid claim to the whole of the mountain. The name Elgon originates from the Sabaot/Sebei[1], a cluster of Kalenjin speaking communities, and the name Masaba is used by the Bagishu/Bukusu Bantu speaking communities, a part of the larger Luhya group. In recent years a separate claim to the higher reaches of the mountain or "Mosop" has originated from a section of the Kalenjin speaking communities defining themselves as "Ndorobo", a generic term for "hunter-gatherers" in East

[1] National boundaries have had a lasting impact on the conceptualisation of ethnicity. The term Sabaot might be used on the Kenyan side of the border to unite the Bok from Cheptais, the Bongomek from Bungoma, the Kony from Kapsokwony and the Sabinyi or Sebei from Uganda. The term Sebei is preferred in Uganda. The term Bagishu is used in Uganda and Bukusu in Kenya. There are also people who identify themselves as Bukusu who live in Uganda.

Africa[2]. Claims by the Kalenjin speaking communities of Mount Elgon have resulted in the official de-gazettement of lower sections of the forest reserve in two places: in Chebyuk, the early 70s, in Kenya, and in Benet, the early 80s, in Uganda, with the creation settlement areas.

Both the Sabaot/Sebei and Bukusu/Bagishu claims might be viewed as "indigenous" as opposed to the European appropriation of land on the eastern side of the mountain in Trans Nzoia and also to the State's "foreign" intervention and creation of forest reserves and parks.

Since the colonial days, a separate territorial claim on the part of the Sabaot/Sebei has gained momentum. The Kalenjin-speaking communities of Mount Elgon have asserted their indigenous character, as the people of Mount Elgon, as a strategy to gain independence from the perceived Bukusu/Bagishu political domination (a much larger group). Separate districts were obtained through violence as a result of these claims (Kapchorwa in the 1960s and Mount Elgon in 1993). When Kapchorwa district was created, some groups of mountain dwellers, assimilated to the Kalenjin communities, were forced to relocate to that district. The Kapchorwa-Bukwa districts in Uganda, and the Mount Elgon district in Kenya might be seen as belonging to the Sebei/Sabaot communities as opposed to the Mbale-Sironko-Budada-Manafwa districts in Uganda and the Bungoma district in Kenya controlled by the Bukusu/Bagishu. The district of Trans Nzoia, in Kenya, previously designated for European settlement, is disputed. It is described by the Kalenjin communities of Mount Elgon as being part of their territory (and also claimed by other Kalenjin communities such as the Pokot, the Sengwer etc.), even though the area is rather cosmopolitan with a large Luhya/Bukusu population. As a result of this claim, there were attacks during the 1990s which targeted the non Kalenjin population in Trans Nzoia.

Last but not least, the "Ndorobo" claim to the mountain has also come to our attention since the 1980s. Not only do the "Ndorobo" claim to be "indigenous" but they also regard themselves as the custodians of nature. Their claim is linked to their previously recognised residence on the higher reaches of Mount Elgon. During British administration, lists of official forest squatters were compiled. In Kenya, the Chepkitale moorlands became a native reserve, even though the area remained under forest administration. Over the years great efforts were made to restrict access to the forest and moorland areas both in Kenya and Uganda. Drastic efforts to control the Chepkitale settlement date back to 1976-79 and, in Uganda, the upgrading of the forest to park, in 1993, put an official end to the moorland settlement. It might be noted that some Bagishu groups, mostly in the southwest, also made use of the higher reaches of the mountain, even though the case of the "Ndorobo" belonging to the Kalenjin communities, branded as "indigenous", has received more publicity.

Conceptualising ethnicity and the indigenous character of a people must be seen as a process including some degree of negotiation and some degree of outside characterisation. Groups might claim a corporate identity or separate identities as a strategy to gain exclusive access to certain resources. A wider level of affiliation to the Kalenjin community at large and, at a

[2] The term "Ndorobo" is considered inappropriate as it is borrowed from another region of Kenya. Some prefer the Kalenjin term "Ogiek". Others insist that in Mount Elgon, the appropriate word in "Somek", which very few people use. The simplest categorisation, also adopted, is to oppose "Mosobisiek", the mountain-dwellers to the "Soy" people from the lowlands.

different scale, to the Sabaot/Sebei group across the border became prominent during the 1990s, at a time when Daniel arap Moi (a Kalenjin) was the president of Kenya. Claiming a wider Kalenjin identity might be viewed as a strategy to gain access to land or other resources. The State has contributed to ethnic differentiation by granting a territorial status (districts) and limited access to given resources to some categories of people and not to others. At some stage, the State decided to recognise the "ancestral" rights of the "Ndorobos" in Chebyuk and Chepkitale versus the claims of other Kalenjin speakers of Mount Elgon, as a way to limit its responsibility in re-settling landless people and the number of claims it might have to deal with. At a different stage, the State might reconsider its position and decide to give no special consideration to the Chepkitale people, this has happened on several occasions in the past. In Uganda, it seems like the administration is contemplating the idea of repatriating the lowland Sebei settled in the highlands to where they came from, more than 20 years ago, to make space for landless mountain dwellers in the Benet re-settlement area. Considering the case of the "Ndorobo" is receiving special attention, other groups of Kalenjin speakers who might have taken refuge in the highlands during years of insecurity, such as the Kapkwata people, have tried to argue their case in a similar fashion so as to be considered as original forest dwellers.

The "Ndorobo" claim on the mountain has created a rift within the Kalenjin communities of Mount Elgon. Areas of re-settlement in Chebyuk and Benet in the lower forest areas, originally meant to cater for the forcefully displaced residents of the moorlands amongst others, became coveted by all the Sabaot/Sebei. The "Ndorobo" now claim an exclusive right to these re-settlement areas, which is disputed, and also retain a claim on the higher reaches of the mountain from which they were moved. These claims have led to violent conflict in Kenya which have reached a wider scale since 2006, even though the first skirmishes date back to the 1980s. In the last year, armed militias sponsored by rival political factions have led to the displacement of most inhabitants of Chebyuk (the area of Chepkurur or phase III has no inhabitants, in other parts a zoning has appeared between "Ndorobo" and other Kalenjin speaking groups). Some of the displaced people have sought refuge with their relatives in other parts of Mount Elgon district, in Trans Nzoia district and even in Uganda, others have settled in Chepkitale and relocated to the forest reserve in Mount Elgon district. Far from being an isolated event, it started in Chepkurkur, then spilled over to the whole of Chebyuk, then to the neighbouring area of Cheptais and finally to other parts of Mount Elgon district, to Trans Nzoia and even to the neighbouring Uganda.

The conflict is easily presented in ethnic terms: "Ndorobo against Bok" or "Ndorobo against Soy" in Kenya. In Uganda, one might oppose the lowland Sabinyi (the people from Ngenge, for instance) to the "Benet Ndorobo" or Yatui. The problem with this categorisation is that it obliterates the flexible dimension of ethnicity, and precisely, here, the links existing between all Kalenjin speakers of Mount Elgon. These links might also be stressed in a different context, but not in the context of an open conflict over resources where everyone is made to fit in separate and exclusive ethnic categories. The other problem with the ethnic characterisation of the conflict is that its political dimension is downplayed.

Politicians, the administration and the people have been trading accusations about each other's responsibility in the conflict. It seems like it should be the responsibility of :
- the administration to allocate, register and demarcate boundaries legally and not to bend the law;
- the political leaders not to incite people to take justice into their own hands and to capitalise on ethnic feelings and xenophobia;
- the people not to engage in irregular lands deals
- and generally for all of them to stop always claiming for more land, grabbing land and/or asserting control over land for their own benefit without any concern for the public interest.
There seems to be no consensus about what the public interest should be, and people carry on using or bending the law in their own interest.

In a way political leaders and the administration have worked hand in hand in government, their interests clashing in some cases only. For instance, the Kenyatta government gave way to political pressure (under Moss) for the creation of the Chebyuk settlement scheme. Under Serut, Mount Elgon people were allowed to graze in the forest reserve and the Chepkitale area until recently (June 10th 2007).

The State has lost its way in its effort to enforce linear boundaries and to implement unequal land reforms. In a way its legitimacy has been strongly affected, as the case of Chebyuk in Kenya illustrates: the State apparatus (administration, police, appointed people on government committees) is the first to be targeted and its people killed.

State officials might be acting both in their public and private capacity. Civil servants who might be aware of their public duties are marginalised. To understand the flexible enforcement of boundaries and also the changing policies or enforcement of laws, the role of political leadership must be highlighted on top of individual cases of bribing. A leader might claim land for his people as a strategy to retain popularity and manage to influence the conduct of administration. For instance, when people are being evicted, it is usually in the name of conservation. It is important to ask why they were allowed in: it is often due to political reasons or direct electoral policies. When people are evicted it might also be political: the State relinquishes its support to such and such group or political leader.

Competing claims for land in the Mount Elgon region must be understood within the context of ethnic labelling. If at one point a unified "Sabaot" claim is instrumental to put forward the right of an "indigenous" people against perceived Bukusu encroachment or the State, at a later stage, the term "Sabaot" might be seen to serve the interest of the "land eaters" within the community and detrimental, for instance, to the "Ndorobos". In the process of formulation of all these "indigenous" claims to the mountain, the role of the political elites in their efforts to monopolise access to the mountain resources, for their "people" and also, first and foremost for their own private interest, must be stressed. In contemporary Kenya, for instance, these claims for ancestral rights are to be viewed in relation to the fact that gaining access to private property is considered as a fundamental right. Thus if the land is claimed as a group, the benefit is individual, to quote one of our respondents.

Some of the rights of uses are fought for and obtained on the grounds of indigenous claims, others are not : people seem to know they are “temporary” and are conscious they are “stealing”. All of the uses (and misuses) of conservation areas are not being re-interpreted in terms of ancestral rights, but in some cases they are, which has far-fetching consequences.

3.3. Assessment of land resources tenure and implications for development

1. Uganda

Upon declaration of the 1903 Crown Lands Ordinance, all land in Uganda fell under the jurisdiction of Britain. Consequently all land held under customary law became Crown land. Those occupying land under customary law became tenants at will of the Crown. Under Crown Lands Ordinance Africans were permitted to occupy Crown land as of right until arrangements were made to remove them to other areas. No non-African was to occupy Crown land outside a township without a license or lease (Great Britain 1955).

The boundaries of most towns were declared in the early years of this century. They were determined largely on an arbitrary basis, always greater than the town area at the time to allow for future expansion. Many boundaries were the circumference of a circle with administrative offices as the centre. Mbale in the eastern Province of Uganda was gazetted with a boundary of a radius of two miles. In Uganda the greater part of the land inside the towns was Crown land, although there was a small amount of land held in private title. No one, of any race who was not in possession of valid license of lease was to occupy Crown land within a township (Great Britain 1955). Towns in Uganda were surrounded by Crown land in customary African occupation. An exception was made for Mbale where land adjoining the township boundaries was African freehold land. This exception was due to 20sq miles of land that had been given to a Muganda general Kakungulu who helped British colonialists to extend to the colonial frontier to Eastern Uganda. Many customary tenants were deprived of their land due to this land transaction. (Wandukwa 2004)

In general, the Ordinance enabled the protectorate government and religious institutions to acquire vast expanses of land. As years passed those with authority, especially the chiefs (the creation of the British governance), misused their powers to allocate land to themselves (Brock 1969; Wandukwa 2004). Finally chieftainship was abolished in 1966. The British authorities made a series of agreements with traditional rulers, granting private estates to them and their functionaries (mailo in Buganda, native freeholds in Toro and Ankole). The remainder of the country was regarded as Crown land. (Okoth-Ogendo 2004)

In 1953 the East African Royal Commission (EARC) was formed to frame recommendations by which better economic development of land was to be achieved (Obol-Ochola 1971). The Commission proposed that land tenure policy should seek individualisation of landownership;

land transactions should be facilitated to enable easier land access for economic use; customary land rights should be ascertained and accommodated before exclusive individual rights are sanctioned; registration should not promote subdivision and fragmentation. The land tenure reform was to be pursued only with local support. The Commission recommended that registration of individual ownership and consolidation of land throughout the protectorate was necessary in order to encourage commercial transactions of land. Some districts like Teso and Longo refused the idea of individual ownership of land. Widespread riots resulted in these areas. In 1958 the pilot scheme was introduced in Bugisu in a place called Bubirabi. The scheme failed to take off. (Great Britain 1955; Wandukwa 2004)

In 1962 a Public Land Act (PLA) was enacted that repealed the 1903 Crown Land Ordinance. This meant that all former Crown land become *public land.* It was administered in the District Land Boards (DLB). The DLBs got powers to dispose off land either in freehold or leasehold form to interested individuals. However, as the 1962 PLA did not give a ceiling on the amount of land somebody would individualise in freehold, land grabbing became a serious problem (Wandukwa and references therein). In 1969, as a remedy, administration of public land reverted to the Uganda Land Commission (ULC). The 1969 PLA also limited the amount of land that could be given to an individual to 500 acres, beyond which the consent of the minister had to be sought. According to the Act no one wishing to lease land on which customary tenure peasants lived could evict these peasants before they consented. If and when they consented compensation needed to be paid for the lost land (Nuwagaba 1998).

A fundamental transformation in land tenure and management in Uganda was established by the 1975 Land Reform Decree (LRD). The Decree claimed to reform the customary tenure in the interest of development. The LRD, among other things, sought to address the issue of land fragmentation and prevention of large chunks of land being left underdeveloped. The LRD declared all land public. Powers of administration was vested in the Uganda Land Commission (ULC) (Nsabagasani 1997) in accordance with the provisions of the Public Lands Act of 1969. The protection people had enjoyed under customary land tenure through the PLA 1969 was now abolished. Customary tenants on public land became tenants at sufferance. No person was allowed to occupy public land by customary tenure except with written permission of the prescribed authority. The politically powerful people grabbed vast chunks of customary land, thus displacing a considerable number of people (Otim 1993). All freeholds, including mailo ownership that existed before commencement of the decree, were supposed to be converted to long-term leaseholds of 199 years for public bodies and religious organisations and 99 years for individuals (Roth et al. 1993).

The land reform decree 1975 was, however, never implemented. The decree was rendered defunct by Uganda's 1995 constitution and finally replaced by the Land Act 1998 (Okoth-Ogendo 2004).

The primary objective of 1998 Land Act was to operationalise the land reforms of the 1995 constitution. The Land Act was passed with hopes of bringing about economic development in

the country by addressing issues of equity and justice. But more specifically the fundamental objective was the creation of a market in land (Wandukwa 2004).

The Act recognizes a number of tenures: customary, freehold, leasehold and mailo. What is important is that customary tenants on former public land now enjoy security of tenure and cannot be evicted at will as it had been before under the 1975 LRD. Security is further guaranteed by acquiring a certificate of customary ownership (CCO). However, the main objective of the 1998 Land Act was to promote the rapid disappearance of customary land rights through their transformation over time into freehold.

Customary land tenure is by far the most widespread tenure type in Uganda (Uganda Land Alliance 1997; Nsabagasani 1997). Most of the land in the three study districts falls under customary land tenure (Figure 1). Few customary tenants have obtained certificates of occupancy. In practice many find the process cumbersome and not necessary. Fees and forms make it difficult. However, most of the people feel secure under their customary system. As Wandukwa (2004) puts it, registration of land is not regarded as vital to consolidate tenure as the peasants have their own sense of security of tenure offered by the traditional system of tenure.

Before a certificate is obtained the land is surveyed. District Land Board is required to call together all stakeholders (neighbours) and resolve any possible conflicts before the survey[3]**.** District Land Board is in fact the only land related body in the study districts at the moment as District Land offices are undergoing drastic reformation with no functional staff present. Land Boards were established by the Land Act 1998 to hold and allocate land in the district which is not owned by any person or authority, to facilitate the registration and transfer of interests on land, to take over the role and exercise the powers of the lesser in case of leases granted by the former controlling authorities, to cause surveys, plans, maps, drawings and estimates to be made through its officers or agents, to compile, maintain and review every year, lists of compensation and deal with all other matters connected with land in the district (Uganda 2005b).

It was reported in Mbale and Sironko that under the customary tenure land is individually owned and it can be sold and bought without clan involvement. According to the informants this is not just a recent trend that might have been caused by in-migration (e.g. in the tumultuous 1980) leading to mixed communities. Clan involvement has not even in the recent past had strong power in land transactions. However, Wandukwa's study in 2004 from Sironko states that though there is evidence that land transactions are a common place in the area, land is sold with the sanction of the clan members.

Under the customary land tenure system, land is passed on to the next generation, usually through sudivision to the sons of the household head. Women are in practice excluded from the ownership right to land. Women do not inherit land. However, an exception is widows who

[3] Chemangei Awadi

can keep the land they were occupying when their spouse died. Women are reported to own only 7% of the land in Uganda. Constitution states that "Women shall be accorded full and equal dignity of the person with men" and "Laws, cultures, customs or traditions which are against the dignity, welfare or interest of women or which undermine their status, are prohibited by this constitution". However, this fine principle has not yet reflected in land ownership. Property in a matrimonial home belongs to the husband in the absence of evidence to the contrary (Mugoya 1998; UWONET 1998).

Kapchorwa occupies vast areas of lowlands with free-range livestock. Even though these lowlands are owned by individuals, access on 'empty' land is free for grazing[4]. Interview participants of Himmelbarb (2005) noted that agricultural land tenure in the plains was largely individualized by household, while grazing lands were held by villages in common.

According to Kayiso's (1993) study from the early 1990s of Mbale, out of 832 plots included in the study 490 (58.9%) were inherited, 263 (31.6%) were purchased, 39 (4.7%) allocated by clan incumbents[5] and 33 (4.0%) rented. For Kapchorwa the corresponding figures were 121 (28.3%), 109 (25.5%), 125 (29.3%) and 51 (12.0%) respectively. Clan heads had still in the 1990s a prominent role in Kapchorwa in allocating land for settlement. This might have changed since the establishment of District Land Boards. Terms of payment for the plots or holdings acquired through purchases, leasehold, renting, allocation etc were found to be cash, use of physical asset and use of both cash and physical assets. For Mbale and Kapchorwa districts the majority of holdings (53.2% and 64.1% are both with physical assets like livestock, durable assets such as houses and, possibly as part of bride price for a wife. The use of livestock or produce as media of exchange for holdings or land are a very modality common in the project area, given that physical cash is very hard to come by (Kayiso's 1993).

Leasehold tenure is mainly found in trading centres. However, even trading centres are mixed leasehold and customary. Recently scattered parcels have been obtained as leaseholds by more well-off people from elsewhere. These parcels cover a very small area of the total landscape and are impossible (and unnecessary) to depict in the land tenure map. For example in Sironko about 5% of land holdings are under leasehold (NEMA 2005c). Land is rarely rented. However some land is rented in the lowlands (Sironko)[6].

In Mbale the old freehold of the late general Kakungulu still occupies large areas north of the town[7]. This is a mailo system with tenants occupying the freehold land. Churches (Church of Uganda, originally Uganda Missionary Society; and the Catholic church) occupy relatively large areas of land. Small-scale farmers, however, occupy most of it[8]. In Sironko, it was pointed out that government institutions occupy large parcels of land. These are mainly agricultural and

[4] James Mwalye, Kibale Mwambi, Chemangei Awadi
[5] It is not clear to me what clan allocation of land means. It is likely that this refers to the time in the early 1990s where 'empty' land was still available in the lowlands and clans were involved in allocating this land.
[6] James Mwalye, Kibale Mwambi
[7] Martha Muragura
[8] James Mwalye

livestock trial and research farms and vary from 30 to 400 acres[9]. In Kapchorwa in Bukwa division, Sebei cooperative union, Kapyoyon farm, hires out land 6 acres per family, 2000 acres in total.[10] [1]

2. Kenya

Many white settlers got their land under the 1897 Land regulations. These regulations never gave freehold titles to settlers and prompted them to lodge complaints to the commissioner of the protectorate. They wanted the Crown to take over the land and give it out as freehold land.

It was in 1899 when all land was declared as Crown lands and the Commissioner of the protectorate went ahead to campaign for the establishment of a 'white man's country'. Land was given out as freehold titles, 999 years leases and licences. The first reserves for Africans were established in 1906. In 1915 these obtained legal protection (Macharia 1970). In 1938 a distinction was drawn between Crown land for which titles could be granted, and native lands, held in trust by the Crown for those in actual occupation (Okoth-Ogendo 2004).

What is now Mt. Elgon district remained as part of the Native Land Unit. This means a completely different history of developments in land ownership compared to Trans-Nzoia.

Trans-Nzoia was opened up as a settler-farming district. This happened around 1910, though, Boer settlers had come even earlier, in 1908, where they were allotted 2000-3000 acre farms. In 1912 the first survey of Trans-Nzoia was conducted, however, already by then the forest had been gazetted. When the first 50 farms were auctioned in 1913, 35 remained unsold. However, by January 1914 all were sold and the same year 120 more farms were auctioned. The whole Trans-Nzoia was part of the 'white highlands'. According to Waweru (Waweru 1974) allocation of land to the settlers often resulted in displacement of the local people called El-Gonyi.[11] Original people were few and as they were pastoralists the land appeared practically empty to the colonialists. As a result local people became workers on the farms, squatting on large white-owned farms. Work on the large farms also attracted people from outside Trans-Nzoia. [12]

Land within towns was either Crown land or freehold. The towns were surrounded by Native Land Units or by Crown land or by land governed by the Highlands Order-in-Council which may by either alienated (to white settlers, churches etc) or Crown land. (Great Britain 1955)

Trans-Nzoia was also one of the highland areas where Ex-soldier settlement schemes were established after WWI and WWII. Each British volunteer or soldier taking part in the East African campaign was eligible for a block of land. Land near Kitale totaling 28000 acres was earmarked. Other areas were established also in Nairobi and Limuru. After the WW1 there

[9] Matilda Makabai
[10] This might not be an exhaustive list of big landowners in the Ugandan side.
[11] It is not clear how much displacement of original people actually happened. I was also told by officers in the district that Trans-Nzoia was practically empty except small pastoralist populations.
[12] Dominique K. Nyumu

were three schemes of total of 72000 acres. A second phase came after the WWII. In 1962 three hundred settlers were under these schemes. This covered a total of 25000 acres of land in Trans-Nzoia and Uasing Gishu (Sandford 1919; Waweru 1974).

Order-in-Council of 1960 terminated the Highlands Order-in-Council (1938-1939) which had excluded all non-Europeans from owning land or farming in the Kenya Highlands. By the Sessional paper of the Kenya Colony and Protectorate Legislative Council of 1959/1960 (no 6) inhibitions against the transfer of freehold between parties of different races were withdrawn (Kenya Colony and Protectorate 1960).

By 1963 there were 1320 Europeans. Total population figure was then 98308 (1962). However, after the independence number of white farmers dropped dramatically. By 1969 only 668 of them were still in the district (Waweru 1974).

At the independence most of the white farms in Trans-Nzoia were disposed of. There were basically four ways in which the land ended up with new owners hand.
1. Kenyan individuals bought whole farms
2. Cooperatives bought them collectively and divided them amongst the members
3. Government bought them (Some of this land is now ADC farms, the rest have been given for settlement schemes i.e. for small-holder agricultural land)
4. SFT (Settlement Funds Trustee) bought them and divided for small-scale farming

In addition the Government bought them for afforestation purposes. [13]
Large pieces of land in Trans-Nzoia are currently under the management of the Agricultural Development Corporation (ADC) (Figure 2). ADC is a parastatal which has existed since 1965, when the government bought large pieces of land from the white settlers at the independence. Some of the original ADC farms have been divided over time for small-scale agriculture. In 1987, by a Parliament Act the remainder of the farms were to be set aside for seed production. It was recognised that these are the only remaining pieces of government agricultural land big enough for seed production. Currently, there are eight ADC farms in Tran-Nzoia. They cover about 40,000 acres in total, mainly in the Endebess region. These farms concentrate on seed production and bulking (together with KARI and Kenya Seed Company) and livestock breeding. There is also one farm that grows citrus by irrigation. All funding is generated by the farms and the extension services that the corporation offers (aimed at medium and large-scale farms). However the main resource, land, belongs to the government. Some donor funding is currently also coming from UNDP/Italian government. Large-scale farming is an important source of employment in the district. However, most of the farm employees, even though they are usually given small pieces of land, are kept as casual labour and they live as squatters on the ADC farmland. This forms a particular group of landless in Trans-Nzoia. In May-August there are about 2000 workers per ADC farm. [14]

[13] Peter Ng'ang'a Kinyanjui; Dominique K. Nyumu
[14] Nixon Sigei, Mrs Nzomo

At independence and up until today small scale farmers have formed cooperatives in order to buy land together. After the purchase, each family is allocated its portion, e.g. 5 acres, and goes through the process of adjudication and registering individually. This has lead to communities of Kisiis, Kikuyus and others living in neighbourhoods. After the land purchase and division of land between the members, these cooperatives are not involved in any land issues, but may take on other activities. In cooperatives, one's part of the land could be also paid by labour to the other members of the cooperative. Up until now some members have not finalised registration. However, having been part of a cooperative that bought the land, they are not particularly insecure as they are recognised by the neighbours as owners of their land**.** However, selling a subdivision that has not been registered as a parcel of its own and without registering it in the process, may put the new owner in an insecure situation when the relatives of the seller can undermine the transaction. This happens every now and then. [15]

General concern over the status of the Native Land units (Native reserves) throughout East Africa and over how to accelerate agricultural development led to the appointment of the East Africa Royal Commission in 1953. As a result of its report, the Native Lands Registration Ordinance was passed in 1959. Part of this Ordinance deals with the process of land adjudication and consolidation and part of it introduced a system of registration of title based on the English model. The registration provisions of the Ordinance were repealed and replaced by the Registered Land Act 1963, while its provisions regarding land adjudication and consolidation were retained as a separate Act, the Land Adjudication Act. This Act was later re-named the Land Consolidation Act, when the Land Adjudication Act 1968 was passed to provide simpler procedure in those areas where no formal programme of consolidation was being carried out (Coldham 1978 and references therein).

One of the most distinctive features of the Kenya land adjudication programme is its use of local committees at all stages of the process, particularly in the settlement of disputes. Under the Land Adjudication Act 1968, the adjudication officer, a public officer appointed by the Minister of Lands and Settlement, is required in respect of each adjudication section, to appoint not less than 10 persons resident within the section to be the adjudication committee (Coldham 1978 and references therein).

Kenya's land adjudication programme has progressed with very different pace in different parts of the country. Individual freehold tenure was first introduced in the Central Province. That happened in the 1950s during the Mau Mau rebellion. Most of the former Native lands there had been registered by the end of that decade, and nearly completed in the Nyanza and Western Provinces by the mid 1970s. Land registration in the Eastern, Rift Valley and Coast Provinces began at a later date. Today, however, there are areas in Kenya were the process has been stopped due to people's reluctance in cooperate due to land consolidation involved.
There are currently four land tenure systems in Kenya: Communal, Freehold, Trust and Government land. Trust land is not available for farming unless gazetted under appropriate law. Government owns land in the form of forest and reserves, townships and other alienated lands.

[15] Dominique K. Nyumu, Mrs Nzomo

These lands can be occupied by squatters who practice subsistence farming (Mbwika 1991). Town areas are hold in trust by county councils and leased out. In the two study districts small-holder farms are generally now all adjudicated as freehold land. Not all, however, have collected their title deeds. For example, in Mt. Elgon district adjudication took place between 1971 and 1990s. [16]

However, there are people especially by the forest boundary whose land has not been adjudicated. One particular and well-known case in Mt. Elgon district is Chepyuk (Chepyuk and Emmia locations). In spite of the official policy of land privatisation and issuing of title deeds in Kenya, the reform was not implemented in this area. Several land mismanaged allocations and re-allocations (1970s, 1990s and 2005) have taken place since 1974 when the area, 3686 hectares, was originally excised for a forest dwelling community of the Sabaot (Ndorobo, Kony, Sabiny etc[17]) in exchange to their original home land in the high altitude moorlands within the gazetted forest reserve. In addition to poorly managed procedures and corrupted practices, the original land allocation was complicated by a general rush to the area after the forest area was opened up for farmland. The area looks attractive for example to people lower down who are cultivating very steep slopes. Also, different informal arrangements of acquiring land have been used over the years (buying by local arrangements from those to whom it was allocated, labouring in order to get a sub-division etc). In 2005 the forest boundary was resurveyed and part of the population was found to reside in the forest reserve. This has caused another major 'reshuffling' of land in the area. The process has so far led to major dissatisfaction, as former investments on land were not given consideration when the area was re-divided amongst 'eligible' land applicants. Village elders were and are used in identifying 'original' or 'indigenous' people who can get land from the area. Thousands have been left landless (Médard 2010). Up to date the Chepyuk area has remained government land. The moorland area is now Trust land called Chepkitale National Reserve. In Trans-Nzoia smaller areas of land disputes exists. These are forest areas which have been irregularly given for settlement without official government degazetting. [18]

The land tenure map also marks Nyayo Tea Zones at the boundary of the forest. They are owned by Kenya Tea Development Authority (KTDA). KTDA established these zones in the early 1990s to stop people from encroaching the forest.[19]

The land tenure issue of the small-scale farmers, as predominantly freehold in Kenya, is not so simple as it might look like. As Haugerud writes "The formal and informal tenure systems interact in an unpredictable and disruptive manner. Uncertainty and conflict regarding claims to titles land persists and there is wide divergence between the land register and actual patterns or use and access". Sons of men who received land titles during the tenure reform marry and establish their own families on farms to which they themselves do not hold formal title. Many land sales, subdivisions and successions go unrecorded, many live on land which is titled to

[16] Tom Nyang'au
[17] Very many different names of the group have been used.
[18] David Omoto, Peter Ng'ang'a Kinyanjui
[19] Dominique K. Nyumu

another person, often a diseased person, and different individuals continue to have overlapping access to the same parcels of rural land (Haugerud 1989). Further, distribution of land is very unequal and over the years of questionable governance ethics, large areas of land have been given out irregularly.

Now the new Draft of National Land Policy calls for thorough reform. “Land reform should adhere to the principles of redistribution, restitution, resettlement, land banking, land readjustment and land taxation”…It recognises gender, equity, HIV and AIDS and poverty as its main cross-cutting issues. Constitutional changes are, however, required to realise the reform (Ministry of Lands 2006).

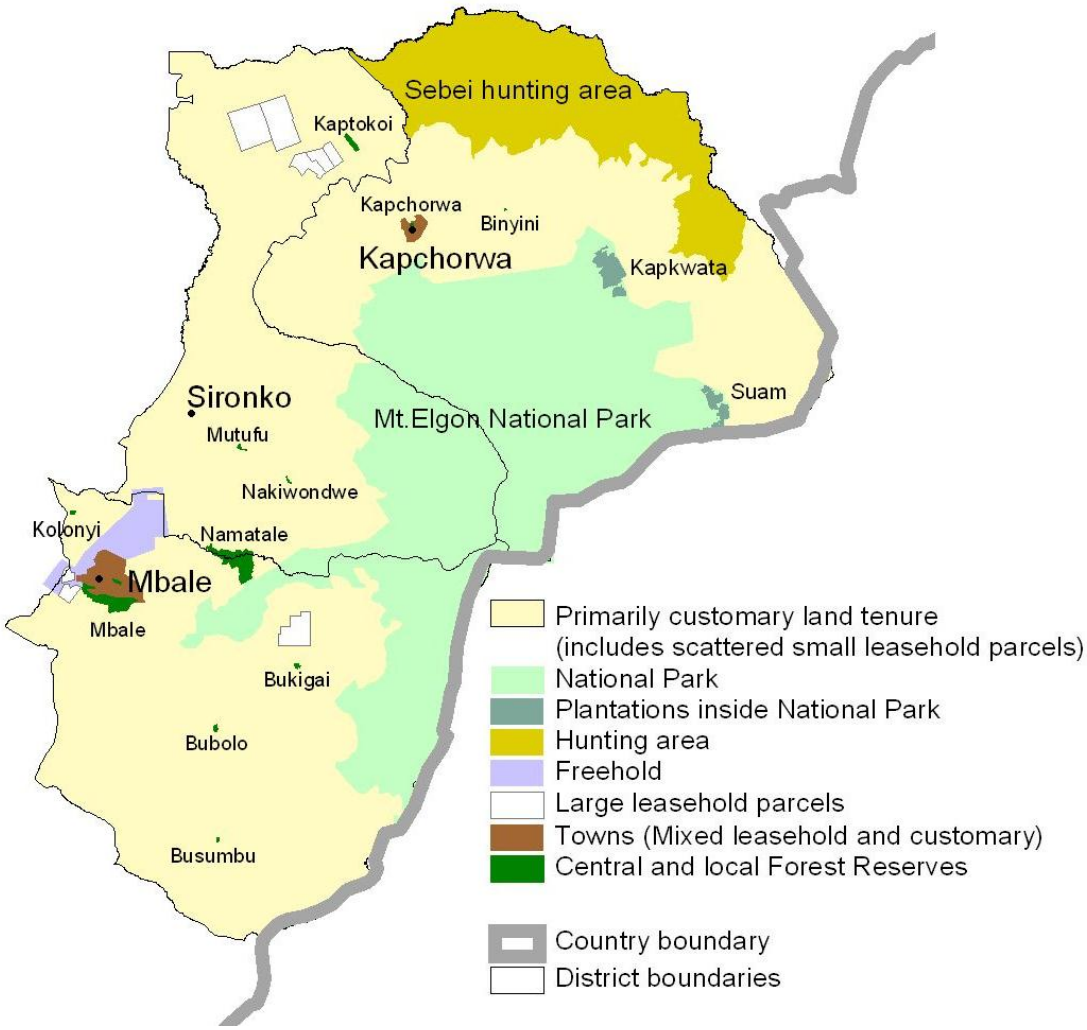

Figure 1. Land tenure map of Kapchorwa, Sironko and Mbale of Uganda. National Park boundary according to a map ‘Mount Elgon National Park’ by Department Lands and Surveys (2000) edited so that Namatale forms a separate Forest Reserve. Forest Reserve Boundaries from Biomass study (NFA). Town areas and Sebei Hunting area from 1:50 000 Topographic maps by Department of Lands and Surveys (1963). Freehold and leasehold boundaries from Cadastral maps at Department of Lands and Surveys in Entebbe (boundaries only, no status confirmed). It was assumed that the large parcel immediately north of Mbale

town is the freehold granted by the British administration to General Kakungulu in the 1920s, though ownership details have not been confirmed. Boundaries should not be taken as legal authority.

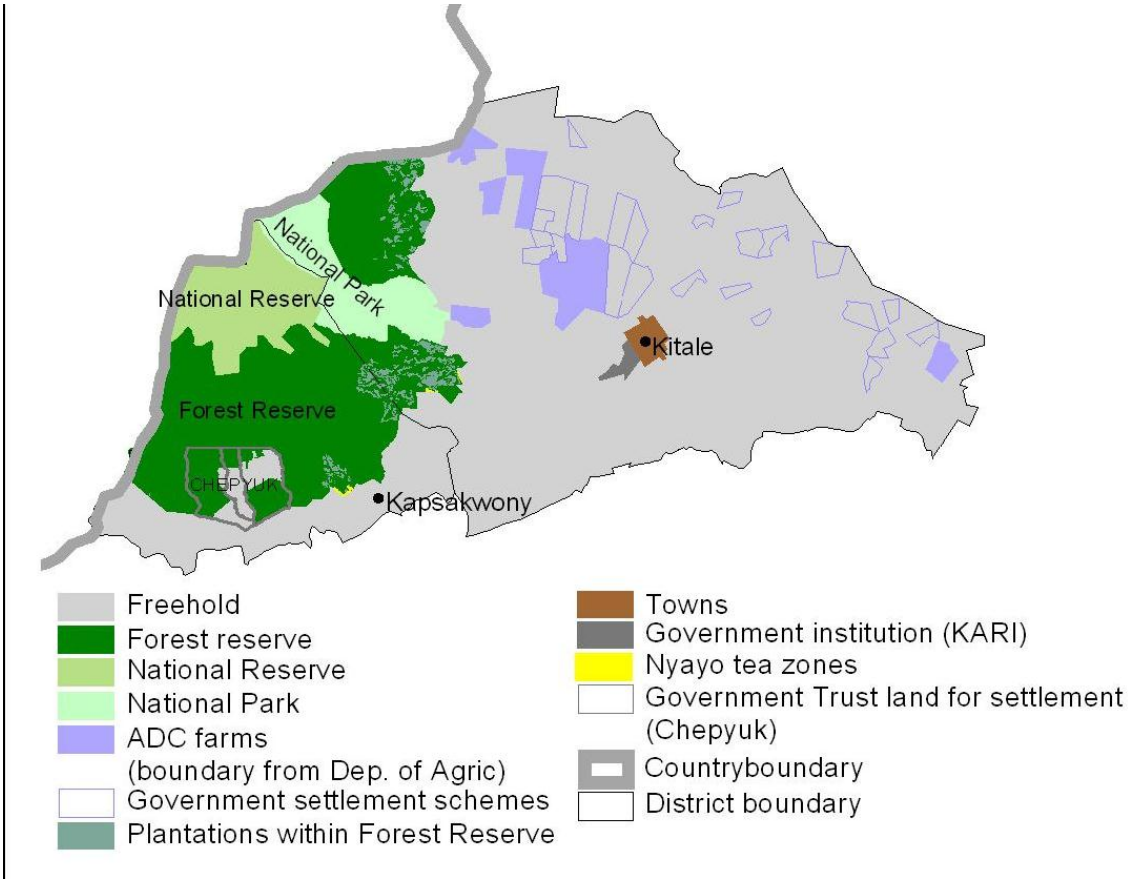

Figure 2**.** Land tenure map of Trans-Nzoia and Mt. Elgon districts. Boundaries of Forest Reserve22, National Reserve, National Park, Nyayo tea zones and Plantations as in MEICDP data. Chepyuk boundaries as in Poverty database 'location boundaries' (CBS Kenya 2004). ADC farms, Settlement schemes and town areas from the Agricultural Mechanisation Department, Ministry of Agriculture, in Kitale. District boundaries and country boundary from Mudsprings Geographers.

3. Relations of land tenure and economic development

For a long time there has been general contempt by land administrations for customary land tenure. Even though the 1998 Land Act in Uganda purported to reinstate customary tenure as a basis for property holding, this was done in terms that make it clear that the state would like to phase out the whole system. Also, the official policy in Kenya is to achieve the extinction of customary tenure, through systematic adjudication of rights and registration of land. Customary tenure is seen as an impediment to the development.

When land related problems (disputes, erosion etc) started to emerge in the Native reserves, customary land tenure was blamed, rather than the general lack of enough space in these reserves (Fleming 1968). Customary land tenure has been generally seen as a static system. It is also believed it excludes non-members from land transactions, thus hindering integration to the national and regional markets. They are believed to be non-secure with diffuse separation of land rights among individuals, communities, and clans, and this hinders investment. Customary land tenure has been blamed for fragmentation of land into uneconomic pieces. Also, as land under customary tenure does not allow taking loans using the land as collateral, it has been believed that changing the system to freehold will lead to agricultural investment (Okoth-Ogendo 2004, Macharia 1970).

Several academic dissertations and papers written in Uganda concerning the aims and means of the 1998 Land Act were consulted for this report (e.g. Wandukwa 2004; Tibeingana 1999; Coldham 2000; Kasujja; Nsabagasani 1997; Mugoya 1998). All of them are very critical. Several papers have been also written about the land reform in Kenya (e.g. Haugerud 1989; Barrows and Roth 1990; Coldham 1978; Okoth-Ogendo 2000). These dissertations and papers quickly assure the reader that the land reform has clearly missed the point(s) and has not resolved and will not resolve the issues (low economic growth and agricultural production) it was planned for.

Creation of land markets has been central in land tenure reforms in both Kenya and Uganda. The argument has been that a land market would deliver land for production as it would facilitate the movement of land from less progressive farmers to more progressive farmers and hence propel the country into economic development. According to Barrows and Roth (1990) customary tenure in Kenya was already undergoing individualisation and change several decades prior to the land reform. Land markets had existed in many areas as early as the 1930s. According to Wandukwa (2004), in Sironko the “existing cultural and social realities may not favour a land market that the Land Act was meant to create”. Transactions which people consider free market because they are able to sell their land whenever they have a pressing financial needs are, however, common. Tibeingana (1999) concludes by referring to Walubiri (1994) that “once people are left to do anything with their land there will not be much achieved”. This means that there will be no rush to sell and buy land, nor any sudden investments on land. Most of the land sales are distress sales to obtain school fees, medical bills and repayment of bride price etc. Those who buy land have typically alternative livelihoods (Haugerud 1989; Wandukwa 2004). They may not be those progressive farmers who put the land under the best possible agricultural use. Agricultural investment is not the primary motivation of accumulating land through purchase (Haugerud 1989). In Trans-Nzoia, absent farmers who leave their land unused is listed amongst the major problems in the district (Kenya 2002b). Buying land is a very lucrative investment for those who have accumulated wealth. Distress sales are very likely to lead into larger differentiation of well-being of the society and increased landlessness.

It is a general assumption that privatisation of land leads into better investment through agricultural loans that can be acquired by using ones land as collateral. Studies, however,

conclude that acquisition of loans using land as collateral is almost impossible in Uganda due to a number of obstacles in the way of an ordinary peasant farmer. These include the difficult processes of obtaining a loan, the bank's requirement to have a recognised business venture in the place in order to be worthy of a loan, an applicant's political connections, corruption requiring large fractions of the loan to be paid to bankers, and location of the land which might not be attractive to buyers in case the borrower fails to pay the loan (Tibeingana 1999). Moreover, although a minority of farmers use title deeds to secure agricultural credit, the banks have found the courts reluctant to allow taking over of land offered by a farmer as his security for a loan (Moris 1970:400).

Neither has changing the customary land tenure into freehold prevented fragmentation of land. In fact, there was never any reason to suppose it should, as it is the simple need of land in the absence of other livelihood options by offspring of the family that leads into subdivision of farms. As early as in the 1960s, it was noted in Kenya that freehold land had lead into refragmentation and subdivision (Fleming 1968). Many of these subdivisions do not get registered officially (Fleming 1968; Haugerud 1989).

Creating security of land, according to Wandukwa (2004), may not be a priority in Uganda as the people have their own customary means of ensuring security. Place (1995) argues that generally speaking, households have strong private rights of use and even ownership over land they occupy. Traditional authorities do not normally interfere in land use and transfer decisions of households on cultivated land. Mugoya (1998) further concludes that land tenure or insecurity of tenure is currently not a stumbling block to economic development. It is interesting that in Kenya where freehold is the main form of land tenure for small-scale farmers, insecurity of land tenure was mentioned as one of the problems in the new Draft National Land Policy (Ministry of Lands 2006). This in security is mainly caused my multiple claims to the same piece of land.

A large number of studies have been conducted in an attempt to find correlations between land tenure types and investment. Very few correlations have been found. The positive relationship found by Roth et al. (1993) between certain investments and land registration provides some evidence of demand-side effects through enhanced tenure security, i.e. right to sell has a significant effect on tree crops and continuous manuring; right to bequeath exhibits a significant negative relationship with fencing, tree crops and manuring. Yamano et al (2004) studied different land tenure types covering most parts of Uganda (except the northern areas) and found that short-term land investments are less practiced under the Mailo tenure system than the freehold tenure system, although they did not find any differences across land tenure systems in long-term land investments (slash and burn practices and tree planting). Place (1995) found through informal surveys that in most study sites tenure factors were not as constraining as supply side factors such as extension of agroforestry information and planting materials. These constraints (as well as lack of appropriate technologies) were the top reasons given by farmers for lack of tree planting or technology adoption. Himmelfarb (2005) argues that increasing pressures of landlessness, decreasing yields and economic marginalization have led residents of the Benet Resettlement Area to diversify their subsistence strategies. However,

he also reports that numerous farmers in the upper area were hesitant to invest in energy and resource-intensive soil conservation measures due to the uncertainty of how long they will be allowed to stay there. However, in Sironko highlands where land tenure is considered secure, terracing, contour planting, bunding, is also nearly absent. [26]

What actually makes land efficient is not the fact of ownership but the technical management. The very low use of chemical inputs, improved seeds and other planting material needed for diverse cropping leads to low productivity. Certain public investments have an important effect on both farm and non-farm investments. Presence of roads adjacent to parcels has been found to strongly correlate with all agricultural investments, especially manuring and terracing. Education is having a positive effect on diversification of economic activity in the research area (Roth et al. 1993; Place 1995; Tibeingana 1999). Muramira (1993) studied adoption of agroforestry practices in two districts in Uganda (Masindi and Mpigi) and found that land tenure system did not affect tree-growing programmes, as most ownership was adequately secure. Kayiso's (1993) studies amongst communities in Mbale and Kapchorwa found that the most salient problems intertwined with the operation of land were a) scarcity of arable land and b) poor quality of available land[20]. In Trans-Nzoia, when talking about the cooperative members who bought land collectively with some having fetched their titles and others not, an agricultural officer concluded that "there is no pattern that these who do not have title deed would not invest as much as their neighbours who have the title deeds. It depends mainly on individuals. Some are more eager to invest than others" [12]

Already in 1955 the members of the East African Royal Commission pointed out that: "From the land usage angle there is nothing necessarily associated as more beneficial either with communal or individual approach. Neither individual tenure nor co-operatives nor collective farming necessarily makes crops grow better". The system of ownership of land and the security of such a system as such have no inherent intrinsic effects on economic development.

3.4. Institutional arrangements for forest management in the five Mt Elgon districts

Below is a summary of the different institutional arrangements for forest management in the five districts around Mt. Elgon:

Kenya

- Kenya Wildlife Service (KWS): Management and conservation of Mt. Elgon National Park. No consumptive use allowed, no collaborative management present. New Forest Act has potential for collaborative and participatory forest management agreements.
- Forest Department in Kenya: Management of the Mt. Elgon Forest Reserve and Forest Plantations. Forest department allows use of certain forest resources through permit

[20] These two were picked from a number of likely problems interposed by the study, namely, scarcity of land, cost of land, socio-cultural factors that inhibit the development of land, uncertainty of tenure, poor quality of soil, and boundary disputes.

systems, however, resource use levels are not recorded or assessed. New Forest Act has potential for collaborative and participatory forest management agreements.
- Mt. Elgon County Council: Management of gazetted Chepkitale National Reserve (Trust land). Settling not permitted. Grazing and forest product extraction not regulated.

Uganda
- Uganda Wildlife Authority (UWA): Management and conservation of Mt. Elgon National Park. Allows collaborative management. Also has plantations to manage. UWA has policy of revenue sharing with surrounding districts.
- District local governments – Mbale, Sironko and Kapchorwa: Works with UWA through various arrangements. Manages some smaller forest reserves in the districts.
- National Forest Authority (NFA): It manages some forest reserves which are close to the Mt. Elgon National Park. It supports collaborative forest management.

(MERECP).

1. Uganda

In 1937 a boundary line was cut and Mount Elgon Crown Forest was gazetted under the authority of the Forest Department. In 1948 the area was re-gazetted as Mount Elgon Central Forest Reserve. It was gazetted yet again in 1951 as a Demarcated Protection Reserve (Synott, 1968; van Heist 1994; MERECP).

When the forest was demarcated for the first time, numerous Bagisu lived and cultivated within the intended Forest Reserve. Immediately after gazettment of the Reserve, 20 excisions were made and 70 heritable licences to live and cultivate within the forest were issued. From the 1940s to the early 1960s there were continuous disputes, further excisions were made and new licences were issued to control cultivation rather than to evict people (Wiley, 1993).

In the 1970s and 1980s the Forest Department management broke down due to political instability. This resulted in widespread encroachment. During seven years starting from 1978 two-thirds of the montane rain forest was destroyed (Otte 1991).

In 1987 all natural forest areas over 100km^2 were designated as Forest Parks. In January 1988 a new government forestry policy was proclaimed stating that the role of forestry should not only be to provide timber, fuel, pulp and poles but should also address broader environmental values. The president announced that Forest Reserve boundaries would revert to those of 1963, which meant that all encroachers had to be evicted (van Heist 1994).

Around 1988, the World Conservation Union (IUCN) in collaboration with the then Ministry of Environment Protection (MEP) identified Mt. Elgon Forest (together with Kibale and Semliki Forests) as of high conservation importance due to its unique biodiversity and hence the need to address the restoration of the ecosystem which had been heavily degraded. Mt. Elgon alone had more than 20% of the natural forest completely destroyed (Onyango 1996). In 1988, a

Forestry rehabilitation programme was started with the support of several donors. The programme did not aim at total protection, but rather at development of management systems to preserve 50% of the natural high forests whilst allowing controlled timber harvesting in the other half. In 1991 a ban on felling indigenous trees and the production of charcoal in Forest Reserves was enacted, but it proved difficult to control the trade in indigenous timber, because there was no regulation of sales (van Heist 1994).

From 1937 till very recently the Sabiny (Sebei) were permitted to remain in the park and graze their stock without licences. In the early 1970s, highland households began to settle on the northern edge of the forest reserve at the urging of the Forest Department, which was concerned with the human presence throughout the reserve's interior. The second main group of Sabiny in the resettlement area originated in the northern Ngenge plains. They escaped increasingly violent cattle raiding, now by firearms, by the Karamojong and the Pokot in late 1970s. Hundreds of households moved up the slopes to settle on the forested edge of the reserve. Such emigrations were so pervasive that today, one governmental official observed, over 1/3 of Kapchorwa district is completely unpopulated (Himmelfarb 2005). The formal resettlement exercise took place in 1983 (Onyango 1996). A new era of confusion and conflict emerged with the transition of the protected area from forest park to national park in 1992. When the governmental body in-charge of the administration of the park (then Uganda National Parks) resurveyed the park boundaries, it was found that the resettlement area which was supposed to have been no larger than 6000 ha was in fact more than 7500 ha. Despite the fact that the government had allocated land to households throughout the 7500 ha, the Uganda National Parks staff redrew the park boundary, removing the 1500 ha from the resettlement area and declaring those who lived there "encroachers." Roughly 6000 people were left landless. Both villagers and local governmental officials vehemently protested the new boundary, eventually securing a Parliamentary order calling on Uganda Wildlife Authority (UWA) not to forcibly relocate any residents until the dispute could be resolved. Though UWA repeatedly promised villagers that they would address the uncertain situation, the UWA administration delayed to such an extent that villagers, with the help of the national NGO the Uganda Land Alliance, pursued litigation against UWA. Though there have been numerous disputes between forest-adjacent communities and park managers throughout the history of the protected area, nowhere has the conflict been more intense and enduring than in the Benet Resettlement Area (Himmelfarb 2005). As a result the area of 1500ha was degazetted to the 1983 line.

In 1992 the name of Forest Park from the 1980s was changed to 'Conservation Forests' after a dispute with Uganda National Parks. In 1993 Mt. Elgon forest was officially declared a National Park and formal handing-over took place in January 1994. Currently the Mt Elgon National Park is managed by Uganda Wildlife Authority (UWA).

The UWA Programme for Community Conservation and Development is based on the principle that long term conservation of the Mt. Elgon ecosystem can only be assured if residents of adjacent communities understand Park management issues, and share both in the benefits

flowing from the operation of the protected area and in the responsibilities for managing that area. (UWA 2000; UWA 2002)

Assessment of the resource use was conducted within the IUCN Programme in the 1990s to better understand which resources the surrounding communities were extracting and assess harvest levels in the park. The report showed that approximately 60% of the park was being used for product extraction, though more regularized access was limited to the lower 10 kilometres of the park's boundaries or 30% of the park area. The extraction area extends as far as the bamboo zone (up to 10km in some areas) in the search of resources. Different uses include bamboo, building poles, firewood, medicine, mushrooms, honey, grazing, timber, green vegetables, crop (matoke) stakes, hunting, ropes, craft materials, traditional sites, thatching, fruit, drinking tubes, white ants and caterpillars, sand for smearing houses, fertiliser (rich soil) and charcoal. (Scott 1994)

UWA's policy of allocating 20% of the entrance fees to surrounding local authorities is a good example of sharing benefits from conservation. However, the actual amounts shared are small, as they are limited to gate fees only and do not include a wide range of other sources of revenues such as trekking fees, camping fees etc. (Chhetri et al 2002).

At the moment there are 26 valid agreements between UWA and communities (parishes) neighbouring the Mt. Elgon National park. All together there are 60 parishes that border the forest. Usually it is UWA or a third party (like Action Aid, AHI Landcare chapter, Local councils) that takes initiative in order to discuss agreements. The agreement is called Collaborative Resource Management Agreement and it is made for a fixed period of time. The parish elects Forest Resource Users Committee, about 7 people, who represent the parish. Resource needs are negotiated and rules set on the product, amount and time of harvesting. Penalties for breaking the agreement are set by the Forest Resource Users Committee. The main responsibilities of the community is to oversee/control resource extraction to make sure it is within the accepted limits set by the agreement; to conduct forest walks in order to observe the general status of the forest; to collect data as agreed between the community and UWA; to reinforce penalties; and to participate in Boundary Management (Taungya system). Money from penalties is used as agreed by the community. [21].

Following the gazetting of Mt. Elgon National Park, boundary demarcation exercise was executed between 1993-96. But communities in all the three districts disputed the 1993 boundary. This led to the establishment of two boundary-retracing committees, one at national level and the other at district level. The committees work is to ensure that the exert boundary is established and marked with beacons and trees. The local communities execute the boundary planting after signing boundary management agreements with Park authorities. Collaborating community members can grow crops within the boundary zone alongside seedlings until the canopy closes. The Boundary Management Committee is the main body deciding on the allotment of plots for boundary tree planting and intercropping in the boundary zone. The zone

[21] G.R. Matanda

is 10 m wide section of forest (within the park) with five lines of eucalyptus planted. Planting and weeding is paid for by UWA. [22] However, Kibuka (2000) concludes that very few within the community really benefit from the boundary management and even those who did were not satisfied. This is mainly because only few families are allocated a plot in the zone and the plots allocated are considered too small to make a difference.

In accordance with Uganda's National Forestry and Tree Planting Act (2003), the agreements allow use of some forest resources with no restrictions (mushrooms, fallen branches for firewood, wild vegetables, fodder, circumcision sticks), and use of others on a restricted or seasonal basis (bamboo shoots, medicinal plants, matoke stakes, wild honey and setting beehives). It was agreed that pit-sawing, charcoal burning, hunting, pole harvesting and cultivation agriculture are banned altogether (Hinchley et al.)

The forest boundary of the Mt. Elgon National Park has not changed since the gazetting of the forest, except in the Benet resettlement area. However, the actual forest boundary has changed a lot due to encroachment. Also, two large plantation forests have been established Kapkwata on the northern tip of the National Park and Suam by the Kenyan boundary.

In addition to Mt. Elgon forest there are several other small forest reserves within the districts. However, many have been taken up by people for settlement and no longer have forest cover, though they still remain officially gazetted. The central forest reserves (CFR) are kept in trust by NFA while the local forest reserves (LFR) are held in trust by District Local Government (NEMA 2004b).

Mbale

Mbale central forest reserve: 562ha. Mainly eucalyptus. Also demonstration plots of *Grevillea robusta, Casuarina,* and *Tectona grandis*. (CFR, in municipality)

More than three quarters have been allocated for farmers. All returns of tree growing (often eucalyptus for poles) belong to the farmers. Those living outside the reserve can obtain grass for fodder and fallen branches. No crop growing in the reserve is allowed (though sometimes it happens). The rent of having a plot in the reserve costs 22 300 Ush /ha/year.

Farmers having plots in the reserve belong to the Mt. Elgon tree farmers association. It was originally formed to address, amongst other things, theft of tree products amongst farmers. The association collaborates with the UWA. [23]

Namatale central forest reserve (DFR, Bufumbo subcounty): 663 ha was originally gazetted as natural highland forest. It falls in the two districts of Mbale and Sironko. It has been severely encroached. The middle part is secondary forest which is a result of conservation that led to natural regeneration in the 1990s. 1/3 of this forest reserve is shambas under food crops. The farming system does not incorporate trees. A few houses have even been erected in the

[22] G.R. Matanda; Mafabi Rashid; Matilda Makabai; Chemangei Awadi
[23] Susanne Wanyinya

reserve though these are temporary structures. Encroachment is more severe on the Mbale side. On Sironko side the boundary has been marked by live markers while on Mbale side the live markers were uprooted by villages and the boundary is now maintained as a slashed strip.

This area has seen some gross mismanagement. The boundary was pushed by irregular means up to 500m into the forest. People were in the belief that the process is formal and legal. Now people living in the reserve are in an extremely insecure position, as they can be evicted any time. This insecurity shows in the landscapes, as there is no long-term investment such as tree planting at all.

NFA has been involved in development initiatives within the area. These have included energy saving stoves, beekeeping, tree growing and nursery establishment. Attempts have been made to solve the problem of encroachment and negotiate joint management agreements. However, the situation is extremely challenging with recent (2005) setbacks of political origin that made the people return to the gazetted area from which they had previously moved out. Negotiations have not moved as far as to get any agreements in place. The aim of NFA is to rehabilitate this natural forest area by regeneration and enrichment planting. [24]

- Kolonyi: 21 ha (LFR Nakaloke subcounty)
- Bubulo: 21 ha (LFR Buwagogo subcounty)
- Busumbu: 10 ha Forest and wetland has been encroached by few people who derive income by hiring it to farmers. (LFR Butiru subcounty)
- Bukigai: 18 ha (LFR Bukigai subcounty)[25]

Sironko

- Mutufu: forest reserve 21 ha, half of it is eucalyptus, half maize.
- Kaptokoi: 85 ha, bushland. [26]
- Nakiwondwe in Budadiri: 21 ha, established to provide building poles. Planted with eucalyptus (NEMA 2004c). District Natural Resource and production department manages this forest reserve.
- Namatale (See above under Mbale)

Kapchorwa

- Town council forest: (not forest any more), leasehold, 5 acres, open with houses, under NFA management, peri-urban.
- Binyinyi: This forest was totally encroached and turned into agricultural land. It is in a process of replanting (NEMA 2004a). Beekeeping by the veterinary department is the main purpose. The reserve is used by the community for firewood. Meetings to make agreements for intercropping maize with trees have been arranged.

[24] Arinaitwe Enock
[25] The last three were not mentioned by officers in the district. These local forest reserves are, however, listed in NEMA 2004 report.
[26] Mafabi Rashid; Matilda Makabai

- Kapchorwa central forest reserve: Not a forest. Houses and schools have been built. Few eucalyptus, 5 ha. [23]
- Kwirwot: Natural forest which has not suffered much of encroachment (NEMA 2004a).

2. Kenya

On the Kenyan side the Mt. Elgon Forest Reserve was gazetted in 1934 and part of it formed the National Park in 1968. Mount Elgon National Reserve, Chepkitale, was gazetted in 2000.

Mt Elgon forest in the Kenyan side is administered as

- Mt. Elgon forest reserve by Forest Department (5 Forest Stations in Trans-Nzoia, 3 in Mt. Elgon)
- Mt. Elgon National Park by Kenya Wildlife Service (KWS), in Trans-Nzoia only
- Chepkitale National Reserve (Trust land) by Mt. Elgon County Council

On the Kenyan side the National Park covers only a small area of the forest, the rest of the forest being forest reserve under the management of the Forest Department or, as in Mt. Elgon district, Trust land under the County council. Forest reserves and the Chepkitale National Reserve are separately managed. The Forest Department does not collaborate with the District councils on forest management. [27]

The Wildlife Act does not provide opportunities for the local community to use National Park resources. However, illegal extraction of forest products such as firewood, poles, water, medicines and honey, and even hunting, happens all the time.

In the Forest reserve, resource extraction for home consumption is permitted. However, people are expected to get permits to use the forest or extract resources. No records are kept on what resources are extracted and what level of resource extraction is sustainable. FD and KWS collaborate in forest management e.g. for joint patrols and joint fire fighting. In addition, the Nyayo Tea Zone (a parastatal) collaborates in reafforestation and has tree nurseries and plantations in the forest reserve (Kiragu 2002). [12]

A General Forest Licence (GFL) is used for extraction of major forest products such as saw timber, pulpwood and large quantities of firewood (Kiragu 2002). Even though there is a tree-cutting ban in force, the Pan African Paper Mills have an agreement with the government to continue extracting wood. The government has shares in the company. Also, firewood is extracted for government institutes.[28] A Monthly Fuel Licence (MFL) (permit) is needed for subsistence collection of firewood and pasture. Firewood for household use costs 39KSh/month for one head load per day. Grazing of a cow is 33Ksh per cow per month and 11 KSh per sheep per month. Goats are not allowed to graze in the forest at all (Kiragu 2002). A clearance letter is

[27] David Omoto
[28] Peter Ng'ang'a Kinyanjui

needed from a forest station for extraction of minor products (vegetables, mushrooms, medicinal herbs).

Kiragu (2002) studied communities adjacent to the forest reserve, e.g. their resource extraction and participation in conservation. According to her study, all communities were well aware of the laws and regulations concerning forest use: No cutting of trees without permit, no charcoal burning, no timber sawing, no residence in the forest, no firewood collection without permit, no starting fires in the forest and no grazing without permit. However, very few people go for permits in order to collect forest product. Charcoal is openly sold in the market centres nearby and is of high demand. Products typically obtained include fuel wood (firewood, charcoal), construction materials (timber, poles, posts, rafters, withies, ropes, thatching grass), fodder (pasture), medicinal herbs, and food (produce of non-residential cultivation, wild honey and vegetables, bamboo shoots) (Kiragu 2002).

To obtain an idea of the involvement in decision-making, Kiragu (2002) asked whether the farmers knew how the money collected was used. 41 % said they knew while 58% said they did not. Only 17% said they had attended a seminar on forest related issues while 10% had attended a public meeting in the last year. A majority of respondents (71 %) said they were not involved in any form of forest management issues. For those that were involved, this was through private tree nursery keeping, planting of trees in individual private land and re-afforestation through the Non-residential Cultivation (NRC) system.

When the shamba system of establishing tree plantations by aid of forest resident communities was abolished by the government in 1985, all forest dwellers were evicted from the forest. However, local communities can still be involved in re-afforestation by taking part in the so-called Non-residential Cultivation (NRC). In the NRC the community takes care of young trees and in return can grow crops, mainly annuals and biannuals. An NRC contract costs 330/KSh/per acre per year, and it is usually made for three years at a time (Kiragu 2002). In earlier years the system functioned well as the local communities benefited through increased food production and family income and the tree seedling survival rates improved due to weed control and protection against fires. However, the system has deteriorated, mainly due to mismanagement, poor control and lack of legal status. On the Kenyan side of Mt. Elgon encroachment to the forest reserve is emanating especially from NRC areas resulting in very unclear boundaries between NRC areas and the remaining indigenous forests. A lot of NRC area has been completely converted into shambas with no tree planting, and land is thoroughly cleared of old forest/plantation trees (KFWG 2000). Ndiwa conducted a land use survey of Mt. Elgon district by using Remote Sensing. He looked at changes during 12 years starting from 1986 and ending in 1998. He found that period Mt. Elgon forest reserve has decreased by 21.1%. More than 80% of deforestration is attributed to agricultural expansion to forest land (Ndiwa 2003).

In addition to farmers encroaching on forest and causing destruction by cultivation, grazing, cutting of trees and charcoal burning, one of the major sources of destruction in Mt. Elgon

forest has been large scale logging which has dramatically opened the canopy. The Raiply wood company of Eldoret, which even after presidential ban of harvesting indigenous trees in 1986, continued to enjoy preferential rights to harvest Elgon Teak/Olive (*Olea capensis*) until 2000 when the community barricaded the roads to block the company vehicles from getting into the forest (Kiragu 2002). The clearings created by logging promote the growth of grass and this encourages people to drive their cattle into the forest to graze. (KFWG 2000)

The Chepkitale National Reserve has remained as a free access area for grazing and beekeeping and forest product collection without any management plans.[29]

Some changes have happened over time in Trans-Nzoia related to forestland. In 1968 1981.8 hectares of land adjoining Saboti forest was added to the Mt. Elgon forest. It is still forest and is called Kabeywani block of Saboti forest. Sikhendu (808.6 ha) which is detached from the main forest block by 20km was also gazetted in about 1968. Kitalale forest of 2350ha which is also detached from the main block of forest was acquired in 1973. Kitalale has, however, became a settlement area in 1993. Kabeywan in Cherangani was with political motivations irregularly given to the people to settle. The case is still pending in court. Kapolet Charangani Trust land 746.6 ha (managed by the Forest Department) was given for settlement in about 1997. [28]

In Mt. Elgon District Kaberwa and Kaboywe plantations cover the lower zone of the forest. In Trans-Nzoia a total of 8425 ha is under plantations. [28]

The Forest Department is still operating under the old Act, but starting from the beginning of the next year participatory forest management approaches will be incorporated. Staff have already received training in the new approaches. The aim is to make an agreement between each of the forest stations (5 in Trans-Nzoia, 3 in Mt. Elgon) and a Community Forest Association (CFA). These new arrangements are initiated within the Green Zones Development Support Project, funded from the African Development Bank (ADB) in both Mt. Elgon and Trans-Nzoia districts. The aim is to form community forest associations (made up by local CBOs) for each division, and together with these associations the Forest Department will establish Participatory forest management plans. The motto will be 'Government owns the forest but community together with the government manages it'. User groups acknowledged under the agreements will recognise grazers, fuel wood collectors, herbalists, hunters and gatherers. [18]

Forest management in the area seems extremely varied with many kinds of management histories, legal and actual status of the forest areas, arrangements with people surrounding the forests, good examples of joint management and some nasty conflicts.

[29] James Chesebe

3.5. Review of land laws and natural resources-related policies and recommendations for strengthening land and resources tenure policies.

1. Kenya

1.1 The Forest Act, 2005

Government allows grazing at a fee yet this is done on the same areas set aside for plantations. The forester normally meet animals grazing in the same area young plantations are established. The forester is allowed by the forest Act to compound the animals if found destroying young plantations at a fee of Kshs.500 per animal. The Present act allows the forester to demand up to 10 times the value of destruction. This fee is normally not affordable to many offenders and the forester does not have room and arrangements of keeping such livestock for long in cases where the offender is unable to pay. The law is not clear on the next steps to be taken either.

The Forest Act Cap 385 has been taken through radical changes expected to be operational come January 2007 to known as The Forest Act 2005. The Forest Act 2005 will now involve the community into the forest management. The new arrangement to known as Participatory Forest Management (PFM) will mainly cover the management of natural forests but further and different arrangements will be put in place to regulate for the plantations.

Arrangements are ongoing to pilot community management of forests by forming Community Forest Association (CFAs). This is expected to start with community sensitization meetings with the help of Provincial Administration. Every village to form conservation committee – to bring on board CBOs, the communities, grazer groups, honey gatherer groups and firewood gatherers etc The new Forest Act transforms the Forest Department to be known as Kenya Forest Service which will now be a parastatal just like Kenya Wildlife Service. They will now develop Forest management plans with the community under CFAs. The forest Act has also changed in the fines. The old fines of up to Kshs.10,000 and/ or 3 years are revised upwards to Kshs.50,000 and/ or 5 yrs and above. Offenders in forest charcoal burning will now be fined up to Kshs.100,000 and/ or 7 yrs while those guilty of cultivating bhang (cannabis sativa) gets Kshs. 1million and/ or 10 years in prison. The compounding of livestock by the forester has been scrapped. The forester becomes the warden and warden becomes the forester in the new law (see KWS and FD).

1.2. Wildlife policy

The Wildlife Management and Conservation Act (Cap 376) restrict the use of the National Park completely to be non-consumptive by law. However, in 2005 KWS entered into a local arrangement with local the communities around the Mount Elgon National Park for collection of medicinal herbs with permission from KWS. The people entering the park to collect herbal

medicine must be escorted by the park rangers for security purposes against wildlife as well as to regulate their activities. KWS has also put in place arrangements for park adjacent communities to enter the park in groups to view wildlife as local tourists but this is not so much taken up for practice by the communities.

The Kenya Wildlife Service should pursue to streamline policies that define community participation in reference to local community interests.

Pursue and legitimize protocols and memoranda for joint management and information sharing with agencies managing bordering ecosystems such as the upcoming Kenya Forest Services and Uganda Wildlife Authority.

1.3. The National Land Policy, 2006

The draft National Land Policy (NLP) 2006, section 128 states: Policies for the management of land based natural resources in all sectors shall be harmonized with the Environmental Management and Coordination Act, 1999. The new formulated policy on land is also consistent with the Forest Act, 2005 on community interest and benefit sharing.

While the Forest Act 2005 provides for Participatory Forest Management that involves the community in management and benefit, it is stated in NLP section 83 (a) that a legal framework shall be established for recognizing community and private rights over natural resources and put in place procedures for use and access to these resources by communities and private entities. Section 83 (c) Establish mechanisms for the sharing of benefits emanating from natural resources by the People of Kenya and by use of participatory methods, define benefit sharing criteria for natural resources within and contiguous to the jurisdiction of local communities. 83 (d) Ensure that the management and utilization of land-based natural resources by community entities take into account the need to share benefits with contiguous communities and that such communities are fully involved in the management and development of the resources. It shall revisit the gazzettement of forests and protected areas to ensure that these are protected for their intrinsic value to the nation and not through physical exclusion by human beings. 83 (f) Recognize and protect the rights of forest dependent and other natural resources dependent communities to facilitate their access, co-management and derivation of benefits from the resources.

1.4. Environment Management and Coordination Act, 1999

To implement EMCA and harmonize environmental management, the National Environment Management Authority (NEMA) was created through the Act, passed in 2000 and became operational in 2002. The District Environment Officer (DEO) is responsible for the functions of NEMA at the district level.

EMCA 1999 and Water Act 2000 are now consistent but before there has been a lot of inconsistencies. The Land Survey Act and the Water and Agriculture Act have been in conflict in a few areas. For instance, while the Water and Agriculture Act has provision for the conservation of riverine and wetlands areas, the Survey Act gives room for land demarcation of such areas without any provision for preservation.

For many years there has been no clear tenure policies with regard to wetlands and rights over many wetland areas and these resources has remained a centre of controversy in many places resulting with conflicts, speculation and competition in many occasions predisposing such resources to overexploitation, degradation or neglect.

In many cases also wetlands were mapped out but with ownership or tenure not clearly stipulated especially when a wet land falls between 2 or more farms. Consequently, many wetlands are perceived as 'no man's land' with open access, remaining targeted by the landless and grabbers especially those in or close to 'power'. In Transnzoia, this is clearly visible mostly along large farms e.g. in Saboti, Gituamba where a person has fenced off a wetland. The wetland has since been privatized and title deed reportedly given to one farmer close to the former President.

The local county councils seem not to be aware that the wetlands are under their care, they need to be sensitized. NEMA is now mandated by EMCA through District Environment Committees to ensure wetlands are conserved. EMCA 1999 is given precedence in cases of inconsistencies arising from other state laws.

1.5. Enforcement of regulations for natural resources management.

The policy regulations for the management of natural resources in Kenya as it is emerging stand harmonized within EMCA. However, the implementation and enforcement of EMCA is hampered by a number of factors. NEMA suffers serious shortage of staff and capacity on the ground. For instance, it has only managed to post in many areas one officer in the districts who is the DEO. This is the case for both Mt. Elgon and Transnzoia districts. EMCA's mandate is so enormous such that the DEO manages only on coordinating and delegating to other Ministries whose staff are equally preoccupied with their work plans.

Conservation efforts are therefore negatively affected by weak enforcement of regulations. For example, around Cherangany forests in TransNzoia, people from outside link up with the poor around the forests to fell trees illegally. Steep slopes are targeted for cultivation against the law. Most of the large-scale farms (above 500 acres) such as those mainly found in Transnzoia have no Environmental Impact Assessments (EIA) done as required by law. This is because only officers registered by NEMA as Inspectors can prosecute for default and NEMA has in total very few officers of this level.

Politics and corrupt leadership have also had impacts on conservation efforts. Reportedly some wetland in Transnzoia was earmarked for settlement of squatters who never actually settled. Instead, the land turned out to be under a politician's ownership. Marginal areas which should be gazetted are settled with political intervention. Transnzoia is largely cosmopolitan and a highly politicized district especially on land issues.

Keeping people out of forest reserves, for instance, has been a major administrative policy over the years. During the colonial days, permits were required to take the cattle to salt-licks, found in caves located in the forest reserve. Today permits are still required for a number of activities. The Forest Department collects a fee for firewood, cattle-grazing, etc. One of the contentious issues has been cultivating in the forest. Large tracts of forests were turned into cultivated land in different parts of Mount Elgon often with the knowledge of the Forest Department under a system called "shamba cultivation" or non-resident cultivation (KFWG, 2000, 14). For example in Chebyuk, as in other forest areas around Mount Elgon, Kiboroa and Kaberwa, people encroached on gazetted forest. At times the forest department adopted a policy of enforcing territorial boundaries strictly and at times it allowed non-resident cultivation which might later turn into permanent settlements. In such cases, the forest department itself as an institution did not fulfill its duties, its staff sometimes benefiting at a personal level from such arrangements.

In some cases during the 1990s, designated forests were opened up for settlement by the president as the territory of specific communities. In Chebyuk for example, part of the land was settled illegally and changes were made to adjust the forest boundaries to the settlement in 2000 and 2001[30]. In addition, Kenya in general lacks an up to date inventory of the amount of land under different uses such as forests, water and infrastructure among others. Lack of this vital information complicates effective planning, zoning and overall management of both urban and rural areas.[31]

Since the Kibaki regime came to power in 2002, squatter settlements in forests, some of them established with the backing of the previous administration have been evicted. For instance, people were told to leave Kaberwa and Kiboroa. This policy is strongly resented in Mount Elgon. Giving out forest land to clients for settlement has proven to be somewhat contradictory with environmental policies. The fact that these rely heavily on the enforcement of boundaries has not helped matters.[32]

Inadequate logistical support – The DEOs in Trans-Nzoia and Mt. Elgon districts have no vehicle allocated, only a motor bike for their operations. They have to ask for support from the other departments when they have duties that require a vehicle. Consequently the DEOs cannot be proactive as expected due to immobility.

[30] Republic of Kenya (2004). Report of the commission of Inquiry into the Illegal/Irregular Allocation of Public Land., p.229.
[31] Draft National Land Policy 2006 section 178
[32] Claire Medard – Indigenous land claims in Kenya

2. Uganda

Policy, Laws and Regulations with close implications on Natural Resource Management in Uganda include:

The Uganda Constitution 1995, The Decentralization Policy 1993, The Uganda Local Government Act 1997 (Cap 243), The National Environment Management Policy for Uganda, 1994, The National Environment Statute 1995, The Uganda Wildlife Policy (2000) and The Wildlife Act 1996 (Cap 200), The Uganda Forestry and Tree Planting Act, 2003, The Environmental Impact Assessment Regulations, 1998, , The National Environment (Hilly and Mountainous Areas Management) Regulations 2000, National Policy for the Conservation and Management of Wetland Resources 1995 and The National Agricultural Advisory Services Act (2001) among others.

2.1. The National Environment Management Policy (NEMP)

This policy was endorsed by the Uganda Government in 1994 and was the first of its kind in Uganda. The NEMP is a landmark output of the NEAP process (NEMA 1997). The overall policy goal is sustainable social and economic development, which maintains or enhances environmental quality and resource productivity on a long term basis that meets the needs of the present generations without compromising the ability of future generation to meet their own needs. The policy sets out the objects and key principles of environmental and provides a broader framework for harmonization of sectoral and cross-sectoral policy objects. It was on the basis of the policy that a comprehensive environmental legal and institutional framework was designated. The policy created new capacity building needs in environmental planning, information generation and dissemination. The policy also set the agenda for decentralizing of environmental governance in Uganda. (NSOER 2000/2001).

National sectoral policies have also been developed after or in line with the comprehensive NEMP. These include the National Policy for the Conservation and Management of Wetland Resources 1995, Water policy 1995, Wildlife Policy 1995. The Decentralization Policy 1993, The National Forestry and Tree Planting Policy 2003 and the draft on Fisheries Policy.

2.2. The Decentralization Policy, 1993

The policy provides for the devolution of governance from the centre to the districts and lower levels of local councils. The local Governments Act 1997, section 39 and 40 gives provisions for the District Local Councils (LC5) and Lower Local Councils (LC3) to enact laws, regulations and bylaws for local applications in line with The Constitution of Legislative laws. However many District Councils in Uganda including the ones under this study lacks adequate capacity for the formulation of the various sectoral laws and bylaws needed for local applications.

Mbale, Sironko and Kapchorwa districts like the rest of the higher local governments in Uganda, has a District Council (DC), which is the highest level of governance. The DC has direct linkage with the District Support Coordination unit of NEMA, which provides guidelines for the establishment of District Environment Committees in consultation with the District Councils which deals with Production, Environment and Natural resource issues. Other new districts of Bukwo, Bududa and Manafa are yet to constitute a comprehensive DC.

Due to inadequate legal capacity or lack of policy makers, the Districts have done very little in as far as legal reforms and policy formulation is concerned. Another reason is that there are a lot of National laws, regulation and guidelines in existence that are yet to be implemented. For instance the National Environment (Hilly and Mountainous Management 2000) and Riverbank Conservation regulations are very appropriate for the districts around Mt Elgon but very little has been done on local policy formulation and implementation. Cultivation on steep hillsides and river banks goes on uncontrolled in and around all the districts studied.

The political structure of the Local Councils where most leaders are elected directly by the people hampers the pursuit for conservation law enforcement especially where such laws are resented by the people who normally want the their elected leaders to stand with them. (See the case Benet 2.2.4a and Namatale 2.2.2)

2.3. The National Environment (Hilly and Mountainous Management) Regulations, 2000

Section 4(1) states; every land owners or occupiers shall while utilizing land in mountainous and hilly areas-
(a) Observe the currying capacity of the land
(b) Carry out soil conservation measures

(c) Utilize underground and surface water resources;

(d) Carry out measures for the protection of water catchment areas
(e) Use the best available technologies to minimize significant risks to ecological and landscape aspects; and
(f) Maintain such vegetation cover as may be determined by an agricultural extension officer or a local environment committee.

4(2) A District Environment Committee may with respect to hilly and mountainous areas in its jurisdiction;
(a) Regulate land use through zoning
(b) Restrict and control the activities which are inconsistent with good land husbandry practice and
(c) Make guidelines for the management of areas prone to landslides, floods, drought, avalanches, falling rocks, fires and damage by wind.

16 (1) A land owner or occupier on gentle slopes in a hilly or mountainous area shall-

(a) not cultivate any garden exceeding one hundred metres in width;
(b) leave an uncultivated strip of land of not less than two metres width between all cultivated plots which shall be planted with grass approved by the local environment committee;
(c) follow contour lines marked by the local agricultural extension officer and the local environment committee in planting crops;

(2) A land owner or occupier on medium slopes in a hilly and mountainous area shall-
(a) not cultivate any garden exceeding seventy five metres in width;
(b) leave an uncultivated strip of land of not less than three metres width between all cultivated plots which shall be planted with grass approved by the local environment committee;
(c) follow contour lines marked by the local agricultural extension officer and the local environment committee in planting crops;

(3)A land owner or occupier on steep slopes in a hilly and mountainous area shall-
(a) not cultivate any garden exceeding twenty five metres in width;
(b) leave an uncultivated strip of land of not less than three meters width between all cultivated plots which shall be planted with grass approved by the local environment committee;
(c) Follow contour lines marked by the local agricultural extension officer and the local environmental committee in planting crops.

Section 4 (1a) and 4(2a) and 16 above faces implementation challenges given the small land sizes, dense population and high demand for agricultural land especially in the mountainous areas that can widely be classified under section 16(3) in the highlands of Bududa, Mbale, Sironko, Kapchorwa and Bukwo districts surrounding Mount Elgon in Uganda.

The regulation defines gentle, medium, and steep slopes as those of 0-3%, 3-15% and over 15% respectively.

Riverbanks

Riverbank settlement and continuous cultivation is rampant. It has been difficult to implement e.g. the law that requires for preservation of 100 metres on both sides of gazetted rivers such Sironko, Namatale and Sipi, Ngenge, Atari, Kere and Bukwo has never been practical on the ground. Along these rivers are overpopulated settlements with many land holdings as small as below 0.25 acres. Even the 30 metres provision for non-gazetted small rivers has not been possible. Some areas along the rivers have land owned by upto 5 households within the 100 metres. These riverbank land owners have customary tenure rights older than the conservation provisions. For this riverbank law to be effectively enforced as stipulated, the majority of the people who own and/ or settle within the 30 and 100 metres on both sides of small and gazetted rivers respectively might have to be displaced.

Riverbanks falling in the protected areas like the upper banks of River Namatale remains fairly preserved. However, all the areas outside the protected areas are in serious degradation due

to over-cultivation and human activities. Another impractical requirement to small land holders has been that which farmers are expected to preserve intervals of 3m bands on their farms depending on the slope for soil conservation. Some small landholders who are forced to preserve the bands due to heavy soil loss from their plots have only managed 1m bands on average.

2.4. Land Policies and Land Ownership

While land stands as the key and cross cutting natural, it unfortunate that Uganda have a Land Act 1998 but have never had any documented policy on land since independence. The process of land policy formulation is ongoing but facing a big challenge of *the cart before the horse.* It is amazing how the Land Act was developed before the land policy could be formulated. There are therefore numerous laws and regulations related to land that must be harmonized with the Land Policy. Consequently, since land policies and laws stand prominent to most other natural resources and environmental ones, several statutes including relevant areas in the constitution including the current Land Act may have to be reviewed and streamlined accordingly.

(a) The Constitution of Uganda

- Article 237 (1) of the constitution states; Land in Uganda belongs to the citizens of Uganda and shall vest in them in accordance with the land tenure system provided for in this Constitution.

- Article 237(2) Notwithstanding clause (1) of this article; (b) the Government or a local government as determined by Parliament by law, shall hold in trust for the people and protect, natural lakes, rivers, wetlands, forest reserves, game reserves, national parks and any land to reserved for ecological and touristic purpose for the common good of all citizens.

(b) The Revised Land Act (Cap 237), 2000

- Section 2 subject to article 237 of the Constitution, all land in Uganda shall vest in the citizens of Uganda and shall be owned in accordance with the following land tenure systems; (a) Customary, (b) Freehold, (c) Mailo and (d)Leasehold.
- Land Act section 3 (1)Customary tenure is a form of tenure -
  - (a) Applicable to a specific area of land and a specific description or class of persons;
  - (b) Subject to section 27, governed by rules generally accepted as binding and authoritative by the class of persons to which it applies;
  - (c) Applicable to any persons acquiring land in that area in accordance with those rules;
  - (d) Subject to section 27, characterized by local customary regulation;
  - (e) Applying local customary regulation and management to individual and household ownership, use and occupation of, and transactions in, land;

(f) Which is owned in perpetuity.

- Land Act (Cap 237) section 27 states in part; any decision taken in respect of land held under customary tenure, whether in respect of land held individually or communally, shall be in accordance with the customs, traditions and practices of the community concerned.
- "Lawful occupant" means - Land Act (Cap 237) section 29(1);
  (a) A person occupying land by virtue of the repealed; (i) Busuulu and Envujjo Law of 1928, (ii) Toro Landlord and Tenant Law of 1937 and (iii) Ankole Landlord and Tenant Law of 1937.
  (b) A person who entered the land with the consent of the registered owner, and includes a purchaser, or
  (c) A person who had occupied land as a customary tenant but whose tenancy was not disclosed or compensated for by the registered owner at the time of acquiring the leasehold certificate of title.
- "Bona fide occupant" means - Land Act (Cap 237) section 29(2); a person who before the coming into force of the Constitution
  (a) Had occupied and utilized or developed any land unchallenged by the registered owner or agent of the registered owner for **12 years or more**, or
  (b) Had been settled on land by the Government or an agent of the Government, which may include a local authority.
- 29(3) In the case of subsection (2)b
  (a) The Government shall compensate the registered owner whose land has been occupied by persons resettled by the Government or an agent of the Government under the resettlement scheme.
  (b) Persons resettled on registered land may be enabled to acquire registrable interest in the land on which they are settled.
  (c) The Government shall pay compensation to the registered owner **within 5 years** after the coming into force of this act.

- 29(4) for the avoidance of doubt, a person on land on the basis of a license from the registered owner shall not be taken to be a lawful or bone fide occupant under this section.
- 29(5) any person who has purchased or otherwise acquired the interest of the person qualified to be a bona fide occupant under his section shall be taken to be a bona fide occupant for the purposes of this act.

- Land Act (Cap 237) section 31: Tenant by occupancy;
  1) A tenant by occupancy on registered land shall enjoy security of occupancy on the land.
  2) The tenant by occupancy referred to in subsection (1) shall be deemed to be a tenant of the registered owner to be known as a tenant by occupancy, subject to such terms and conditions as are set out in this act or as may be prescribed.

3) The tenant by occupancy shall pay to the registered owner on annul nominal ground rent as shall be determined by the board.
4) The tenant and the registered owner if aggrieved by the decision of the board may appeal against the decision to the land tribunal, and the tribunal may confirm, reverse, vary or modify the decision or make such other orders as it is empowered to make by this act.
5) The approved rent determined under subsection (3) **shall not exceed one thousand shillings per year irrespective of the area or location of the land.**

Land ownership in the eastern Ugandan districts of Mbale, Sironko and Kapchorwa all the way to Bukwo is large customary tenure system, a traditional system where land is passed on to siblings (mainly men) through inheritance. This goes with subsequent subdivisions depending on the number of dependants. Unlike Kenya the Uganda the registration through title deeds of customary land is optional and registration of such land has mainly been done for purposes of using the land to access loans. Consequently as population and demand for settlement and agricultural increases land is already being subdivided to uneconomical pieces. Conflicts and potential conflicts over land exist.

The many boundary and encroachment related conflicts between the communities around the protected areas are partly to blame on lack of harmonized policies on land. The communities and political leaders while in conflict with the government over land for instance refer to the provision of Constitution article 237(1) and the Land Act 2, 27, 29(2a) and other sections that favour their cause while ignoring such areas as article 237(2b) of the constitution (see above).

It has proved difficult in some of the cases to evict communities from government land without compensation from such areas where they have stayed for over 12 years because the constitution is clear on that. A good example of these is the Benet resettlement areas in Kapchorwa. The indigenous claims of land to the protected areas like the National Park by such indigenous tribes like the Bamasaba and the Sabiny Ndorobos on the western northern side respectively find some rights in the constitution. (See Benet case in 1.2.4a)

2.5. National Forestry and Tree Planting Act, 2003.

Section 27(1) removes the right of ownership of trees on private land from the Government or local government. Section 30 (1) gives provision to the Minister in charge to declare any tree species protected. Protection of such trees as the *Mvule* prohibits cutting or felling of the species in whole or in part for any purpose even if on private land. This has made the species to be perceived as a government tree especially in Mbale and Sironko districts. Planting of most of the big mvule trees left on most roadsides are associated to the colonial government. It is not easy to tell people to plant mvule because it is considered a tree of no use and generally not taken up for planting on private land. The mvule species sprouting naturally on private land are cut prematurely before they are recognized by the authorities.

For other trees on private land, one is expected to obtain a felling permit at UGS 4500 from the local government (Forest Office) in order to cut (District Forest Services). This include cutting for poles, timber, firewood or charcoal. After paying for the felling permit a forest officer is supposed to visit the site, witness and estimate the volume of the products. In addition, the clients wanting to fell trees for commercial purposes are expected to pay non-refundable estimated fee at 15% market price of the total volume produced to be able to obtain other requirements like movement permit to the market or transportation to a different location. Most people avoid this whole process of going through the authorities because it is time consuming and in most cases results in losses. The 15% estimate in most cases is not properly done because the forest officer cannot always stay on each site to ascertain such volumes as of charcoal, firewood or timber to be produced. Sironko district for example has only 2 Forest Rangers to undertake this role among other duties and many at times without regular transport facilitation. Many people cut and/ or produce or trade in tree products from private farms without permits. They transport to the market during odd hours when the rangers cannot catch up with them. The Forest Office has no working arrangements with the Police and many of those who transport or trade in timber products prefer going without permits because the only major barrier on the road are the traffic police who they can normally negotiate with informally at a far much lesser process and amount. For a few who go for the permit, the forest officers are forced take the 15% estimates from the farmer/ trader without going to the field to witness due lack of transport. “Man by nature is very difficult to man” a phrase used by Mr. Rashid – Senior Environment Officer Sironko district in reference to controlling human activities around environmental issues. Most people with no recognition in public or among his community normally have no respect for the laws. Such people always want to oppose the laws.

In the Ugandan decentralized governance, the revenue benefits from the central government are released to the higher local governments (districts) who then transfer 65% to the lower local governments (sub-counties). For districts that have commercialized resources or services, the revenue collection is contracted and 35% retained by the districts and 65% remitted to central government. This has not been the case with the forest sector. All revenue collected by the National Forest Services is all remitted to the central government with no affirmative provision to bring back and reinvest such funds to particularly improve and develop the sector. The outcome is a toothless limping sector unable to facilitate its mandate.

In the lowland areas of Sironko, a lot of mechanized maize farming is practiced. The farmers include those who hire land to produce commercial maize. Mechanized farming which involves the use of tractors discourage agroforestry (trees on farm) while the practice of renting out land puts large sections of landscapes under control of tenants who have very little incentive if any to invest in long term ventures such as tree based farming within the usual one year renewable agreement contracts with landowners. Tenant farmers have less interest in soil erosion control structures such as contour bands.

Upland communities depend on the forest for timber products. Those who take trees as destructive to crops is a result of lack the necessary skills and knowledge on tree planting, management and selection of right species of trees for different farmer needs and landscape

situations. Many people do not think beyond eucalyptus when they see trees as destructive to crops.

There are no tree nurseries with variety of tree species for farmers to choose from. The lack of germplasm has made tree planting a very expensive venture.

People have not taken up trees for commercial interests due the long time taken for trees to mature. Farmers are encouraged to plant trees with more immediate uses. Some of the farmers plant trees to add value to their idle land.

Some farmers whose neighbours have planted woodlots of tall growing eucalyptus are forced to also plant trees on their plots as a no option strategy. There are cases in court of neighbours in conflict over tree planting on boundary.

There is no policy or bylaws that guide boundary tree planting especially on aspects of type of species and management of boundary trees so even the courts do not know how to go about some of such cases reported in Sironko district. Many people plant woodlots but lack the silvicultural knowledge for management e.g. thinning to improve yield. Some farmers who planted the Grevillea species for coffee shade in Buchambi parish- Busulani sub country are cutting down the trees for interfering with coffee yields but technicians blame this on spacing management since Grevillea have integrated well with coffee in other areas.

The culture of the Bagishu gives commercial tree ventures to man. For instance, Eucalyptus, Grevillea and coffee plots belong to men while banana and Sesbania trees are left for women. For purposes of landscape tree cover improvement such species like sesbania and calliandra are not taken up faster as they are left for women. In Sironko women do 80-90% of farm work but are not independent to make important decisions on land use such tree planting.

Mainly what has been done in implementing these regulations is only little awareness raising meetings and action planning. The action plans developed has remained only on paper without implementation. This has been as a result of lack of commitment towards environmental management by local leader and high demand for arable land which compromises land conservation practices.

All parishes in Buteza, Sisiyi and those adjacent the Mt. Elgon National park have developed Environment Action Plans to the conserve riverbank protection zones ranging between 10 – 30m for the start in a bid to implement the riverbank regulation, but to date no significant area has been conserved.

There exist several community agreements in different parishes in the districts of Mbale, Sironko and Kapchorwa that would form effective combination for management of natural resources management. For instance, Bumasifwa, Bulwala Parish and Piswa in Benet have a community agreement on bush burning and tree planting respectively. However, awareness and dissemination of relevant sectoral laws and/ or local bylaws is highly desired.

Enforcement of all laws is through the courts while there is no administrative management of the laws. People are not informed of the dos and don'ts. It is waiting until it happens before one can be sued, though there is no strong mechanisms for monitoring for things like soil erosion and hillside cultivation.

3.6. Characterization of land tenure domains, land use situational analysis in the Mt Elgon ecosystem and implications for agroforestry and forestry development

1. Kenya

1.1. The Mount Elgon National Park - Kenya

On the Kenyan side, three institutional bodies manage the Mt. Elgon natural ecosystem. The Forest Department (FD) manages the Forest Reserves and the Kenya Wildlife Service (KWS) run the National Park (NP) while the Mt. Elgon County Council is the trustee for the Chepkitale Game Reserve.

The Kenyan Mt. Elgon National Park is an estimated area of 196sqkm that was gazetted in 1968. This about 15% hived from the total protected areas (forest reserves) around Mount Elgon on the Kenyan side. The Mount Elgon NP in Kenya borders the Chepkitale game reserve, Forest Reserves and the NP of Uganda under Uganda Wildlife Authority (UWA) as well as communities around Trans-Nzoia district. Before coming under KWS management, the Wildlife Conservation and Management Department (WCMD) was in charge until around 1991 when it was changed to operate under KWS.

The most important thing in the protected areas is the level of management. While the forest department allows for access and utilization of its forest resources, e.g. clear felling of trees (harvesting) in case of plantations and attempted shamba system which had little success stories in many areas, the NP is purely focused on conservation management. FD has now been gazetted as a government service parastatal. It is hoped that FD will improve when it becomes fully operational as a service. They will be cut from the bureaucracy in the central government procedures and easily win their status. The institutional arrangement of parastatal improves efficiency because the accounting system for example is not directly supervised by the central government. KWS for example do not need to go through the District Accountant as is done by the FD. Every Park managed by KWS has a bank account of which the senior warden is a signatory. So if the FD becomes operational as a service (parastatal) then decision making procedures especially on finances and procurement will be quick and implementation faster.

The park is purely of indigenous trees and the Wildlife Management and Conservation Act (Cap 376) emphasizes a policy of no interference. The NP utilization is non consumptive where only

tourists visit various sites in the park with no removal of vegetation. Because of this, the natural vegetation in the park is fairly intact. "*If you fly over, you see a clear distinction in the types of vegetation"* (NP warden). In the case of forest reserve areas there is evidence of illegal poaching of indigenous forest sections. A game reserve or trust land like Chepkitale has a lower level of protection where limited human activities such as grazing and honey harvesting are accepted by law.

(a) Major conservation threats to the National Park

One of the central threats to biodiversity conservation in the National Park comes from invasive species. "*The challenges in the park are mainly destruction by wildlife which is not so much and the major challenge to the park now is invasive species" (NP Warden).* Invasive species if not checked, are a potential threat to the open areas of the Park used by grazing wildlife. Buffaloes for instance, graze in open stretches of land. In one such area in the National Park buffaloes were systematically seen. However, it has been heavily overtaken by invasive species, grass has disappeared and buffaloes no longer graze around the place. KWS have newly employed scientists. The scientists are expected to spearhead research work in this area. There is already some information is available on invasive species (See a report on invasive species by MERECP) but research is needed in order to come up with best practices for handling these species and control the problem of invasiveness.

Another major threat to the national park is fire outbreaks and there are patches within the park where vegetation is regenerating after destruction by fire outbreaks last experienced in 2005. The origin of fires is thought to originate from poaching activities, cattle rustling and honey harvesters. One cannot prove that people do not enter the park illegally. It does happen but very minimally. Thus people enter the park to poach wildlife and trees. Land uses subject to different management surrounding the National Park expose it to threats and potential conflicts. The park has open borders with the Chepkitale Trust Land and Game Reserve, the Forest reserves, communities in the TransNzoia district as well as the Uganda National Park. There is no physical structure separating the park and adjacent areas under different management regimes. Moreover wildlife knows no boundary.

There have been cases of cattle rustling and rustlers mainly from Pokot and Uganda who use the park as a transit route. In the process they also poach the wildlife for food. They use the park as a hiding place for a number of days at a time when they light fires for purposes of cooking. The last case of cattle rustling was in December 2005 and they were suspected to have crossed into Uganda. This is one of the suspected theories for the fire outbreaks in the park. Honey gatherers using fire to harvest honey especially from communities (Ndorobo) living in the Chepkitale area are also suspected for fire cases. Occasionally, poachers cross over from Uganda to poach resources in the Kenya side and together with those on cattle rustling missions present insecurity in the park since they are always armed. Members of adjacent communities also enter the park illegally to collect firewood though on very limited scale.

(b) Human-wildlife conflicts

Comparatively, the Kenya side of Mt. Elgon has more wildlife than Uganda because the control on hunting of large mammals was lifted during the Amin period in Uganda, thus allowing the wiping out of wildlife populations. However, while elephants who have a long memory have not made a come back to Uganda, interviews with a community in Kapkwai in Uganda indicate that crop raids have become more common, suggesting that some of these species are reaching high population levels.

There is a live fence of about 21 km mainly on areas bordering the communities. This was erected in 2004 to control human-wildlife conflict especially with large mammals such as buffalos and elephants. This fence venture funded by the European Union (EU) has substantially reduced the wildlife menace in surrounding areas. Earlier in the 1980s a fence erected by Biodiversity Conservation Programme (BCP) which was a European vision failed. Wildlife destroyed crops. Problem animal species changed throughout the year; some months there were problems with baboons, while in other months, buffalos and elephants etc. They came in somewhat a cycle throughout the year. This placed the community in constant alert to watch over fields against destruction by wildlife.

The 21-km fence around the park is mainly effective in controlling large wildlife like buffaloes and elephants but burrowing animals like porcupines and bush pigs are still able to cross to the fields by digging underground below the fence. Baboons are also very intelligent and know how to go over the fence to reach crop fields. KWS therefore has a plan to upgrade the fence to a type that can control both burrowing and jumping animals like porcupines and monkeys respectively. The estimated budget of Kshs. 14 million has been requested and KWS hopes to get funds from the MERECP project. The kind of fence proposed for the Mt Elgon National Park has been erected for example around the Aberdares National Park at a cost of about 1.4 m per kilometer. This cost makes it an expensive project to be undertaken by KWS on its own without external financial support.

The EU also funded a gravity flow type of water project which has unfortunately failed due a problem with the pipe layout. KWS is engaging in a community programme to:

- Rehabilitate the water project.
- Support a school in the community adjacent to the park by constructing classrooms.
- Maintain the fence by employing about 5 community members whose wages are met by MERECP

The water project once rehabilitated is expected to take water to individual homes. This water project was undertaken with funds leftover from the fencing project. The money was Kshs. 4 million and after laying 21-km electric fence.

Minimal illegal entry by adjacent communities into the park to collect firewood, thatching grass, etc is reported by park authorities. People cross the fence by sort circuiting the fence's electric wires temporarily putting off the power. Also because the boundary of the National Reserve and the Park is not visible on the ground, occasionally, the Community in Chepkitale sometimes crosses into the park to graze.

"*I was surprised however when we flew over to see very little destruction in Chepkitale area in terms of tree cutting. The Ndorobos in their livelihood have ways of preserving the ecosystem. They are not destructive. Actually there is a lot more of destruction in the forest reserve than in Chepkitale Reserve if you go by the magnitude of settlement in the Chepkitale"* (Senior Warden, Mt. Elgon National Park, Kenya).

The Kenya Wildlife Service has adequate rangers to offer necessary protection to the park. The organization is always recruiting to replace for attrition. Mt.Elgon strategically is the seat security headquarters for the western region that links from Lodwar to Kisumu and to Ruma National Park.

KWS authorities view the transformation of the FD into a parastatal as the Kenya Forest Service as big step towards proper management of forest reserves and a big advantage to KWS and the park since improved control of illegal activities that spill over to the park from the forest reserves is expected. KWS hopes to combine forces with the new KFS to be because in terms of facilities, the current FD is very ineffective because there been no consistent recruitment, no vehicles, no training for the guards, and poor remuneration for staff etc.

KWS offers training to all staff. For instance, it has a 3 year plan to take all KWS staff for refresher training to make their service more efficient. All KWS staff is taken for mandatory military training before deployment –something not found in the FD. The foresters are not trained on military skills. MERECP has advocated for joint patrols around protected areas around the Mt. Elgon ecosystem. On the Kenyan side, KWS rangers and forest guards have been doing joint patrols once a week in exchange between the park and the forest reserve. There is hope that the joint patrols will become even more effective when the FD is fully operational as a service. KWS communicates with the Uganda Wildlife Authority for international border patrols but protocols are not yet formalized to undertake joint operations.

KWS views on the Mt Elgon ecosystem differs from those of FD. While KWS protects wildlife and vegetation in the Park, the FD brings in people to harvest trees and various other products. Mt. Elgon for example is one of the five major water towers (catchments) in Kenya, with Mt Kenya, Aberdares, the Mau and Marsabit which have been identified for close attention in terms of conservation and management. Mt. Kenya and Aberdares for example are preserved as water catchments areas. When the FD introduced the shamba system in the Mt Elgon Forest Reserves, the system degenerated into abuse because there were no arrangements in place to check illegal human activities. When forest cultivation is allowed, conservation efforts are jeopardized due to disturbances from human activities.

The KWS senior warden singles out the promotion of tree planting within the adjacent community as a 'grey area' i.e unexploited. He attributes this to the land tenure situation. Adjacent communities do not have titles to their lands.

"I was surprised when I came here how the adjacent farms are without trees; there are no trees at all. Something MERECP should look into is the land tenure status. I think the paper (title deed) is a very big incentive to many. The other reason I think is land clashes which were common in this area. There is history of land clashes here but now the situation is calm and MERECP should work on alternative energy sources to reduce pressure on the park". Senior Warden, Mt. Elgon National Park -Kenya.

Find out why communities are not establishing trees on their farms while the land is fertile and rainfall is adequate. The park area is only 15% of the overall protected area and human activities are illegal while the other areas permit limited human utilization.

(c) Relations with adjacent communities

Though the Wildlife Management and Conservation Act (Cap 376) restricts the use of the National Park completely to non-consumptive uses by law, in 2005 KWS entered into a local arrangement with local communities around the Park for collection of medicinal herbs with permission from KWS. The people entering the park to collect herbal medicine must be escorted by the park rangers for security purposes against wildlife as well as to regulate their activities. KWS has also put in place arrangements for park adjacent communities to enter the park in groups to view wildlife as local tourists but this is not so much taken up for practice by the communities.

The majority of residents from the Kalaha farm which is adjacent to both the National Park (KWS) and the Saboti Forest Reserve source most of the tree and forest products they need for their livelihood there. Officially it is not allowed for local communities to access the National Park but the residents confirm they still get the resources illegally even from the forest reserve.

The fence is viewed as generating a lot of benefits to the community. It has effectively controlled cattle rustlers that could previously raid the community and disappear with livestock through the park. There is considerable peace between the community and KWS unlike before when the rangers had to keep responding to complaints of destruction by wildlife such as waterbucks, buffaloes and elephants. Some of the wildlife like baboons, bush pigs and porcupines among other smaller animals remain a big threat to crops especially for farms close to the fence. Those with farms adjacent to the fence must still spend time watching their crop fields against such challenging animals because most of these animals are active at night. The community therefore considers the fence very helpful but incomplete. Wire mesh extension along the fence is therefore suggested by both the community and KWS in order to control more animals.

Local youths benefit when helping tourists through their porters association. The local community members are normally employed to do most of the unskilled labour required in the Park. Fence maintenance is funded by MERECP through KWS and the local community members are employed in the process.

1.2. The Mount Elgon Forest Reserves - Kenya

The Kenya Forest Reserves of Mount Elgon were gazetted in 1934 forming close to 85% in proportion of the total protected areas of Mount Elgon that runs around the edge of the mountain from Endebess to Cheptais in both Trans Nzoia and Mount Elgon districts. These include indigenous natural forest and forest plantations all under management of the Forest Department (FD). The FD runs its activities from 4 forest stations in each of the TransNzoia and Mount Elgon districts. Forest stations in TransNzoia include Suam, Kimothon, Saboti, and Sosio while Kabuywo, Kaberwa, Kopsiro and Cheptais forest stations are located in Mount Elgon district.

Unlike the National Park, regulated resource extraction is permitted in the Forest Reserves. The surrounding communities can get such resources as firewood, water, honey, medicinal herbs etc through permits given from the various forest stations.

The FD is in contract with Pan African Pulpwood Company for the supply of wood which is harvested rotationally from the different plantations. At the end of 2006, Sosio was being harvested and in May 2007 Kabuywa is being harvested.

(a) The Case of Saboti and Sosio Forest Reserves

This forest comprises two separate areas, which fall under different forest stations, namely Sosio (where indigenous trees were cut down and plantations established) and Saboti, a more recently created forest area which is mainly of cypress and pine plantations.

At one time the Saboti Forest station had 160 workers while Sosio had about 170. Today Saboti has only 2 and Sosio 4 workers. This makes forest management difficult. Entry into the forest reserve by local communities is only controlled where there are forest stations. This leaves a wide area without control. There are no vehicles for managing the forest activities like plantation establishments

In Sosio, the indigenous forest reserve covered over 7,000 ha. The area was cleared to pave the way for plantation forest. Residential cultivation made this possible and was allowed from 1978, up to 1986, at a time when people were removed. From 1986 to 1996, there were no people living in the forest reserve. Non-residential cultivation however continued till around 1999 when these activities were completely stopped due to forest destruction resulting from extended human livelihood activities.

In 1969, the government acquired land from white settlers bordering the Forest Reserve. This is the area called Saboti forest and leased 2,600 ha to the East African Tanning Company (EATEC) to establish ‘shamba’ plantations with 3-year cropping period. Indigenous forest reserve covered over 7,000 ha. This forest has since been divided into 2 namely, Sosio Forest station (indigenous) and Saboti which is mainly of cypress and pine plantations.

In 1986 people were expelled and everybody had gone and up to 1996 there were no people. After 1996, the local community mainly from the Saboats gradually came back to claim rights over the forest land which they claim is their ancestral land that was taken by the colonial government. They grazed livestock and collected forest products illegally but in 2004 a group organized themselves in a form of society from the Saboat community and invaded the Saboti forest land where the trees planted under the EATEC contract had been harvested. This group while being led or misled by their leaders who had important connections in the local administration /political field were directed to occupy the given land. Even though this is known government forest land, their leaders took the case to court against the government.

The process of concluding this case must have to wait before the case is presented to the Attorney General after which the court may give an eviction order for the Provincial Administration and the Forest Department to enforce. Meanwhile, the community continues to settle and cultivate the land. The long process to be taken also gives a lot of room for justice to be corrupted or delayed through the influence of corrupt leaders and politicians. In 2005 there were groups from within and outside the area fighting against each other over the same government land under dispute with a number of killings reported. Forest officers remain powerless in the whole saga and cannot stand against politicians and/ or communities.

By somehow illegally allowing people to encroach forest reserve land, administration is in conflict with the forest department who is the legal manager of forest land. The FD is expected in this case to stand against the community, politicians and to some extent the local administration, a task not so easy for a public officer at the level of a forester in charge of a forest station. Forest reserve above the contested area was also encroached by settlements up until 2004. This is now completely free of any settlements.

The pulpwood company buys access to forest timber from the government but the government does not reinvest as much as it should to regenerate and ensure sustainable supply. The foresters have not seen the renewed agreement between the government and the pulpwood company. The agreement reportedly was that the government shall be the sole producer and Pan Paper to be the sole buyer of forest materials (interview with Forester Saboti station).

Grazing is charged at Kshs 20 per cow per month but this is difficult to monitor due to limited personnel. Firewood is charged at Kshs.45 per head load but people carry bicycle loads. Foresters in this station do not charge women for firewood collected. Only for pine, cypress and eucalyptus as leftover after harvesting by Pan African Pulp Paper Company are collected for firewood. A truckload of firewood is charged at Kshs 500. Grass for thatch is collected with permit as well.

People contracted to take firewood to schools are allowed but they need to produce a letter from school where the firewood is to be taken to DFO who issues a permit but still problems exist because one cannot tell how much they take to schools and how much they do not. The system is open to abuse. Nobody vets who can and cannot access resources.

Firewood collection is officially allowed through issuance of permits by the Forest Department but residents of Kalaha report that receipts are no longer given. Community members also avoid paying the expected amount and go in to steal. Other people who trade in firewood tip the forest officers in order to collect as many times as possible. Collection of honey and herbs is not allowed since 1999 but community members still access these products from the forest either illegally or through colluding with some forest guards. Grazing of cattle is illegal though this also goes on the same way.

Apart from eucalyptus, cypress and pine, other species are not considered as trees so people cut them. This is because at Sosio and upper parts of Saboti indigenous trees were bulldozed to clear for exotic plantations in the past. So people got the notion that those indigenous trees are useless.

Current tree planting is mostly focused on indigenous species (enrichment planting). This effort is not supported by any management plans or guidelines from the FD as exotic plantations are. Planting is not done on contested land, as it would be a waste of labor, but in the forest reserve in places away from areas where groups that have bought grazing rights (hilltops, and not riverine areas). Riverines require carefully selected species and Environmental Impact Assessment is necessary before undertaking large tree planting projects along or close to natural waterways.

Lack of funds is a big challenge towards implementing sound forest management policies such as plantation monitoring and maintenance. Young plantations are predisposed to fire risks in the dry season as rats thrive and destroy young trees that remain in bush without weeding due to lack of labour. No labour is provided for weeding in plantations which are supposed to be weeded at least twice a year.

The government stopped employing forest staff close to 10 years ago and constant hiring of casual workers retards the expertise in handling the seedlings and plantations in forest management. There is no accumulated experience by the tree nursery attendants for instance.

Honey harvesters illegally use fire to chase the bees while harvesting honey in the forest, especially from the large hollow *Podocarpus* trees. In the process trees are damaged by fire. When the shamba system was in place in the forest reserve, some trees were also burned at their bases to get rid of them to create space for crops hence going against the objective of the system.

(b) General challenges and threats to the management of forests reserves of Mount Elgon in Kenya

- Understaffing in the forest department (government not recruiting new forest staff)
- Insufficient training and skills updating for forest officers due to lack funding
- Poor logistical facilitation to undertake for patrols and supervision

- No provision for regular aerial supervision of the forest
- Poor remuneration and living conditions for forest staff
- Lack of labour and funds to establish and manage plantations (Inadequate government reinvestment in forests development)
- Permitted livestock grazing is a threat to young forest plantations
- Pests such as forest rodents especially in the forest plantations.
- Lack of proper records for resource off-take and updated resource audits especially for the natural forest areas.
- Corruption by some forest officers that facilitate illegal extraction of forest resources.
- Indigenous claims for forest land by local communities in some areas
- Illegal logging
- Forest fires mostly caused by illegal honey gatherers.
- Irregular and different ways of implementing forest policies across different forest stations under the same forest department. No harmony on implementation.
- High demand for forest products that put pressure on the forest reserves due high human population in the settled areas bordering the forest
- Forest boundary encroachment resulting from high demand for agricultural land in the surrounding areas
- Poor land administration in the adjacent areas (bad land policy implementation that result with human conflicts as in Chebyuk settlement scheme).
- Indigenous forest dwellers e.g. the Ndorobos in Chepkitale deep inside the reserves.
- Non-applicable and unrealistic forest laws e.g. compounding of livestock without sufficient subsequent arrangements and options for next steps.
- Poor institutional frameworks to support or facilitate efficient implementation of forest regulations.

1.3. Former African Native Reserve land transformed to freehold

(a) Case of Kaptama, Kapsokwony, Kopsiro and Cheptais Divisions in Mt. Elgon district

The African Native Reserve lands were areas set aside or reserved for Africans during colonial white settler occupation. Around Mount Elgon much of this category of land was included in the protected zones by gazettement. After independence these were made to be freehold through land adjudication that took place in early the 1960s. All the settled farm land outside the protected areas from Kaptama, Kapsekwony, Kopsiro to Cheptais divisions is freehold other than Chebyuk settlement scheme in Kopsiro and the few leasehold areas around the administrative and business centres. The adjudication here was carried out from 1964 with first land title deeds produced in 1972. However, many titles remain uncollected from the Lands Department to date. From the community meeting in Kaptama location it came out that most people have not even seen a title deed. The most affected are women. Traditionally land is owned by men and land titles are normally inherited or transferred along patrimonial lines. Women generally claim no customary rights to land. Sons of men who received land titles

during the tenure reform marry and establish their own families on farms to which they themselves do not hold formal title.

Many people have for many years postponed bringing their title deeds home for fear of losing them in domestic fire outbreaks, the main reason given being the traditional thatched huts that are prone to fire outbreaks. A few people ignorantly attach losing the title deed to lose of actual land. Also, the cost of getting titles is considered very high and people are discouraged by the long distance and poor means of transport to the Lands Office which has remained in Bungoma district despite the fact that Mt. Elgon district was formed over three years ago. The official processes of legalizing individual land ownership in some cases are too long and discouraging to complete. Many are reluctant to collect or follow to process their title deeds for what is viewed as a security measure. This is to mean title deeds are safer staying at the land office than at home. Many also have not bothered to pursue their land documents out of ignorance, while some are hardly aware of what land ownership by title is all about. Others connect no purpose to land titles and are said to be not interested to obtain titles for their land parcels.

Consequently, many land sales, subdivisions and successions go unrecorded and many live on lands which are titled to other peoples, often deceased. Over time different people continue to have overlapping access to the same parcels of rural land. Poor land distribution, over-fragmentation and irregular acquisitions tend to follow.

The circumstances with freehold tenure areas of Mount Elgon district are not very different from other freehold tenure areas in Kenya. To date, arrangements for delivery of land rights in Kenya as based on planning, demarcation, surveying, titling and registration are inappropriate and unable to supply adequately service landusers with security of tenure to the required scale and at affordable cost. The system has been unable to achieve equitable and fair distribution of limited land resources. Furthermore the land allocation process is haphazard, expensive, lengthy, bureaucratic and time-consuming and therefore cannot provide the populace access to land rights.[33]

Many older men in the area have delayed the subdivision of their land among their sons as per the tradition as way of maintaining loyalty from their children. A few others have allowed subdividing their land to sons but with the block title remaining under their name claiming that sons can easily sell out land if given independent titles.

Some parents transferred block titles in the name of their elder sons and this has been a major source of many of the land conflicts in the area especially if such people have many sons or wives. It becomes more complicated when a man dies with either the block title in his name or the name of one of the sons and without a will on how or even whether the land should be shared among other sons. In most cases it is reported that the elder son whose name appears in the land document either remains unwilling to process the subdivision or takes

[33] Draft National Land Policy, section 155.

proportionally a bigger share than the rest which is known to spark off serious local land conflicts.

Disabled people in the society are more disadvantaged in this issue of land inheritance and acquisition of title deeds. They mostly remain shortchanged especially is cases where land is in dispute.

(b) Land Use, Problems and Challenges

The customary land areas around Mt. Elgon district are mainly put to agricultural activities. Estimated 80 percent of the population earns their livelihood through farming of crops, mainly maize and others like wheat, potatoes, bananas, avocado, beans, coffee, tea, pyrethrum, sorghum, carrots, tomatoes and other vegetables like kales, cabbages among others. Keeping of livestock e.g. poultry and dairy cattle are some of the common livelihood strategies and a few farms are under fodder and trees. While maize dominates as both cash and food crop, wheat, tea and coffee are the most prominent cash crops in Kaptama and Kapsokwony. Kaptama and Saboti areas are known for apples. Horticultural crops like cabbages, onions, oranges and more coffee are mostly grown in Kopsiro and Cheptais divisions. Fish farming and irrigation for horticultural crops are found in Cheptais. Traditional free grazing livestock is more common in Kopsiro and Cheptais areas. Other than settlement some rent out portions of their land to generate income (District Development Plan 2004-2008).

The problems associated with the use of customary land tenure here are largely linked to high population densities, hilly landscapes and high intensity rainfall around Mount Elgon.

- The areas are settled with high population density and traditional land inheritance is practiced with land fragmentation reaching unproductive levels of about 1/8 acre in some areas.
- Land is mainly used for cultivation farming with priority put to short-term subsistence crops with reduced soil fertility and erosion management.
- High population has resulted in fragmentation and over-cultivation of land in these areas accelerating visible land degradation, reduced vegetation cover, erosion and declining soil fertility.
- Saboats who are the majority are traditional cattle keepers and many have livestock within their livelihoods. Free grazing especially after harvesting discourage establishment of soil conservation structures and tree planting.
- Land leasing or renting is a common practice in these areas with an acre rented out at between Kes.4000 – 5000 per year. Land tenants normally have no incentive to invest in long term soil conservation and fertility improvements on land.
- The steep landscapes around the mountain present challenges of landslides and rock falls especially around the densely settled and hilly divisions of Mount Elgon district.
- While the area has several rivers and streams, irrigation is hindered by the hilly terrain
- Overstocking and overgrazing especially in Kopsiro.

- Land boundary conflicts arising from traditional rights of land inheritance through land subdivision. The conflicts hinder land management and development.

1.4. Former Forest Land turned into settlement scheme in Mt. Elgon district

(a) Land Situation in Chebyuk Settlement Scheme

At independence a fund was put in place by the government through the Parliament under the Agriculture Act, Cap 318 to help Africans purchase land from the outgoing European settlers. The funds were given as loans to farmers through the Settlement Fund Trust (SFT). This was therefore the statutory organ established for the purpose of executing the settlement programmes.

Land has since remained the main source of economic activity and so a means of survival for the majority. Consequently finding land to settle the landless has been a major preoccupation of successive post independent governments. Settlements schemes have had to be carved out of both unalienated and alienated government land such as gazzetted national forests and trust land to settle the 'landless'.

Chebyuk settlement scheme was one such area of land excised from the larger Mt Elgon Forest reserve and set aside mainly to settle forest communities especially the Saboats of Ndorobo and Soy clans who are traditional forest dwellers. The objective was to reduce human pressure in natural forests towards managing the biodiversity-rich ecosystem. Chebyuk location is therefore a settlement scheme that was once a forest covered by indigenous trees. The first people settled around 1971 and at this time occupation was informal.

The creation of the latter day settlement schemes has been operational through the Ministry of Lands and Settlement. Although the SFT remains technically responsible for such schemes, the Provincial Administration has also had a hand in the actual identification of the people to settle and the acreages to be allotted to each individual. This has been occasioned by the fact that the District is the focal point of the implementation of government policies. Thus, where land is identified for settlement it is almost automatic that a district-based plot allocation committee will be charged with the responsibility of settling the people. District Plot Allocation Committee comprises of six persons, namely the District Commissioner as the Chairman, the District Settlement Officer as the Secretary, the area Member of Parliament (MP), the District Agricultural Officer, then Chairman of the County Council of the area and the Clerk to the Council.[34]

This committee wields enormous powers in the land allocation process in settlement schemes like Chebyuk. Since the Chebyuk settlement scheme was created around 1970, it remained without comprehensive land adjudication resulting to date with complex land settlement

[34] Report of the Commission of Inquiry into the Illegal/ Irregular Allocation of Public Land – Government Printer (June 2004).

conflicts and related problems.

Then conflicts mainly over land in Chebyuk have been propelled by poorly conceived policies, inconsistency in policy implementation occasioned by corruption and inadequate leadership. After the initial settlement, people have since been shuffled several times between different plots each time changes were made. Major changes occurred in 1989, 2001 and latest in 2006. *"When leaders are changed we experience land changes here".* Doing corrupt and frequent reshuffles causes hatred amongst the beneficiaries. The SFT does not appear to have any supervisory powers over the Land Committees and the absence of accountability on the part of these district plot allocation committees and the fact that its members are public officers who are transferable or replaceable has occasioned the abuses, delays and manipulations witnessed in the Chebyuk settlement scheme. The problem is compounded by deep mistrust among the leaders especially the political leaders.

The unsatisfactory land rights delivery system is also a result of land speculation, unethical practices by allocation personnel, corruption, political interference and excessive powers of those mandated to manage land. The inefficiencies and imperfections in the organization of the land registries are due to poor record keeping. This has encouraged multiple plot allocations and registration of land.[35]

The people developed wrong attitude towards planting trees or even maintaining those that were there. Farming took over and people cultivated land up to the river. People accelerated the cutting of trees to maximize benefit for fear of being moved at short notice. There is no stability and people have no time to think about planting or preserving trees.

Some people have gotten land in all phases of the settlement (1, 2 and 3) through the influence of government or political leaders. Others lobby and collude with the survey office to get more land by area or different parcels in the names of different relatives e.g. different wives (multiple allocations). There are cases where one parcel is allocated to different people officially by the same office (double allocation). There was also a lot of illegal re-surveying to subdivide and create more plots hence subjecting many people to smaller parcels of land while the land is ever too small compared to the number of people to be settled. As people were shuffled and transferred, the plot sizes were also reduced from 100-50 acres to 5 acres to 2.5 with some even less (below 1 acre) yet the existing policy says no one should get below $2^{1}/_{2}$ acres.

Whenever any local people are to be involved to negotiate in any government-led settlement process, they are normally hand-picked from personalities not trusted by the community. No room is allowed for questioning of the authorities e.g. surveyors and the administration and the local people are never properly involved in the process of settlement. No proper designated office for complaints has ever been setup for the aggrieved to channel complaints, hence people resort to organized revenge and killings. Some people from far outside the settlement area were allocated land yet some of the residents who had even paid the mandatory 10% of

[35] Draft National Land Policy, section 156.

the title fee were left out.

Survey problem – the riverine areas were not ignored in demarcation during survey. Land parcels were surveyed allocated across the streams and recently in 2006 with changes now in the water Act people are restricted from cultivating close to the rivers. Water Acts were not considered during land allocation. This problem is said to have mainly been created by the Administration and District survey (corruption) since traditionally riverine areas were preserved for grazing of goats. It is difficult for water resource management under the Water Act to enforce for conservation of the riverine areas.

(b) Livelihoods derived from the forest

Some of the benefits of the adjacent forest (Reserved forest) mentioned by the community include herbs (roots, tree barks and leaves for medicine), honey, fuelwood, poles for building and fencing (either from bamboo or tree). Others are wild fruits, wild meat, timber, bamboo shoots for vegetables and ornamentals. They also benefit by grazing animals in forest. Participants in the community consultative meeting also said the forest is their source for fresh air and water while enhancement of rainfall and soil fertility were as well included as related to the forest without much explanation. Elgon teak is reserved even if on private land.

The adjacent Chebyuk forest is home to wildlife (elephants, buffaloes, monkeys) and trees produce leaves that provide fodder to the animals. *"Livestock that graze in the forest are normally very healthy".* They obtain fresh water and salt from the caves. Livestock are grazed in the forest in two ways. Some people take their cattle everyday for grazing while others stay with livestock up in the moorlands of Chepkitale Trust Land. Honey is collected from the forest in different places; honey can be found on the ground and it is often very sweet there, in trees with holes where bees place their hives naturally and traditional bee hives mounted by the local people. The community has maintained the traditional practice of honey collection without any legal permit to do so. Local communities are aware of the law requirement for permits to be issued by the forest department but this normally is not practiced. They do not go for permits because they feel the forest belongs to them and that has been the trend since their forefathers introduced them to living near the forests. So they have taken this practice not to be illegal. People believe the forest is their traditional resource.

Honey is a rare commodity for which local demand alone is higher than supply. The market is readily available locally as well as far off. Local honey gatherers and producers sell mainly to middlemen who come from as far as Kitale, Kapsekwony and other towns. Some traders like the Jua Kali Association of Mt. Elgon buy local honey to process (refine) before packing and selling to far off markets in big towns. Those who engage in honey business say many people in area have not considered the potential income of honey. While honey produced in the forest is seasonal and is mainly available in December, only few people have made their own hives at home.

Firewood is collected from the forest for the purpose of domestic use and for sale. The market for both bamboo sticks and fuelwood exists but is largely a local one. In order to collect firewood from the forest, one is required to get a permit from the forest department. When large quantities of firewood are required for institutions like schools, a logging authorization may be granted by forest officers to a firewood collector on the condition that supervision from the forest officer is provided to verify the number of logs before payment is made. However, verification is not always done as required and in many cases information on permit requirements may not be made available uniformly to local people. On the other hand, people are aware that firewood collection for domestic use is charged Kshs. 40/-.per month and transportation means for large quantities such as donkeys are not authorized. This allows one to carry one bundle every day. If collection is done for sale or domestic use using a donkey, then the monthly charge for the permit is Kshs 80/-. Only dead trees are allowed for firewood collection. *"It takes time just to go for a 'paper' and even those who issue permits are not always available".*

Poles for building are acquired from the forest by getting a permit from the forest department. Those who rely on the forest as a means to earn a living obtain permits. Others enter the forest at night and cut the poles they want and ferry them illegally. Local arrangements are made by the chief or forest officers to collect poles from non-endangered trees species. Some of the people who live up in the moorlands do not fully understand the laws governing the trees and forests. When they see people from far acquiring poles or timber from the forest whether legally or illegally, they also tend to invade the forest without permits claiming it is their equal right. Consequently the trend leads to poorly restricted exploitation of forests and conflicts between the people and forest administration.

Local people state that traditional herbs were easily available when the trees were abundant. Nowadays, they find it difficult to get herbs for traditional medicine because indigenous trees are become rare. Given the legal restriction of access into forests, people may choose to enter the forest and destroy roots of the trees they seek to harvest from, leading to their death. In such cases, harvesting is done in a hurry or with a careless attitude. Honey, another forest product, also used for mixing herbal medicines is difficult to obtain. As evidenced in group discussions, community members feel they would take care of the forest and manage indigenous trees in a sustainable manner if they were involved by the Government in forest management. Indeed there are no significant populations of indigenous tree species left in people's farms to produce traditional medicine.

There are a variety of wild fruits found in the forest such as *tamoolik, tiryaak and takaimaamii.*[36] A number of these fruit tree species are facing local extinction because their roots are destroyed in making traditional medicine. For instance, people refer to a small valley towards Kapkateny which is said to have had an abundance of these fruit trees in the past but which are no longer found there, while serious soil erosion is experienced in the valley. In the past, trees were hardly cut and hunting was controlled. Certain trees like the Elgon teak was

[36] Name in Saboat language.

not allowed to be cut at all.

However, local communities adjacent to the forest also experience its negative effects. Crops raids by buffalos, elephants and monkeys mentioned in other areas are also common in the Chepyuk area. A few fatal accidents where human lives were lost to wildlife have been reported with no compensation especially in settlement areas of Chepyuk. The forest is also a major security threat because it provides hideout and escape route for armed criminals and cattle rustlers.

Groups with tree-related activities.
Community groups with activities on tree nurseries activities include: Loong'ukeey youth group, Kaapkong community conservancy and Lebkweyeet youth Group. Others with activities on honey are Elgon Co-operative Jua Kali and Cheptonon Bee Keeping.

1.5. Former Large farms now subdivided to members by Land Buying Cooperative Societies, mostly in TransNzoia district.

(a) Land situation

Some of the large-scale pieces of land taken over by the government after independence have been sold to small scale farmers who came together as co-operative societies. This process has been taking place after independence to date.

The kind of cooperative society lands are found in Central and Western Kenya as well as in the Rift Valley. In the study area of Mount Elgon, lands owned by co-operative societies are largely found in TransNzoia district. Most of these societies acquired lands through government loans given through the Agricultural Finance Corporation (AFC), the Co-operative Bank and Agricultural Development Corporation (ADC).

For many years, many co-operative societies including some that acquired land in 1960s and 1970s are yet to pay up their loans. Some of the societies bought their lands from individual Africans who themselves bought the land from the government after independence. A number of them are also yet to transfer and register land to members due to pending loans. Most land title deeds are with banks and institutions that gave out the loans.

The advantage of buying land as co-operative was to allow small-scale farmers to access land for agricultural development. It was also to allow individual member advantages and security for payment of installments. This open land market attracted buying co-operative societies from all over the country. TransNzoia district became cosmopolitan after various co-operatives from tribes such as Luhya, Kisii and Kikuyu took over the lands they acquired and settled their families.

In most co-operatives, land parcels were subdivided to members as shares according to payment made. Members got between 5-15 shares, each share representing 1 acre in most co-operative societies.

Co-operative societies contribute to changing land use patterns in the TransNzoia district. Farms which were under perennial crops like coffee or focused on cattle keeping by white settlers were rapidly turned and put under monoculture of maize for the main season. Other short season crops common in the district include Irish potatoes and beans. Extensive grazing of cattle is common in fields after harvesting of maize since many farmers have maintained cross breed cattle for milk production.

Subdivisions of most co-operative farms were done informally without official surveys, awaiting completion of land transactions and payment of pending loans. Most farms were cleared of trees to give room for tractor ploughing and maize production. Many farmers who were left with coffee in their plots uprooted them during 1990s when coffee markets and prices collapsed while some co-operatives were criticized for poor management.

Absentee landlords are a common situation in most co-operative societies. Most land owners only come in to cultivate their plots while settling elsewhere in the neighbouring districts or beyond. Some land owners keep workers or relatives or friends to look after their pieces of land while others prefer to rent out their land. These practices constrain sound land use, planning and management.

(b) Case of Kalaha Cooperative Farm: history of tenure and land use

Kalaha farms are owned mostly by members of the Siboti cooperative society. This farm of about 450 acres was formerly owned by a white settler. After independence, the farm was taken over by the government and put under management of the Agricultural Development Cooperation (ADC). It was later leased to the late Masinde Muliro (former area MP) who however did not pay ADC for its purchase. Masinde reportedly received some money from the Siboti cooperative members who pulled resources together to buy the land. Apparently, Masinde could not release the land because it was only leased to him by ADC who holds the block title to date. The Siboti members invaded the Kalaha farm in 1979 when they started felling trees and cultivating but without settling in. About 455 members are reported to have originally paid in shares towards the purchase of the Kalaha farm. When the farm was settled, it is not clear to farmers how the late Muliro settled its case with ADC but he introduced them to ADC who then agreed to sell the land to the Siboti cooperative society.

The society started paying as members settled and more serious maize farming went on from around 1984. Interest on the shares however went up after the 1992 clashes during which members were scattered. Those who are currently occupying the farm are currently in the process of paying directly to ADC. The Kalaha farm is therefore occupied and divided in shares and the majority of members belong to the Siboti cooperative society who owns another farm

in Kabretwa where most of these members had settled before. However, the number of members has now increased to 467. It includes people that were not original society members. The fact that these new members have been allocated land whereas a few of the original shareholders still have not managed to, is blamed on the change of society officials. This change of officials is also said to have given room for lobbying whereby influential members were allocated larger portions than others.

Payment to ADC by the occupants is reportedly in good progress. Members are optimistic to complete payment for the farm and a specific timeframe has been set by which all members must pay up or lose their share. The agreement is also such that each farmer with arrears must pay a given percentage within a specified time interval. From 2007 those who default were to be stopped from cultivating and may eventually lose their shares altogether. Nevertheless, the farm had long been casually subdivided to members, an exercise that was only overseen by the cooperative officials. The official survey for individual titles is only to be done after members clear their purchasing dues to ADC and after paying for the surveying fee.

Land use in Kalaha is mainly farming and largely for maize production. Only about a quarter of the Kalaha farms are settled. The remaining parts of close to 75% are either rented out or cultivated by the owners but who are non residents in the farm. Also those who reside in about half of the settled plots are children or relatives of the plot owners who cannot make key land use decisions such as planting trees or terrace construction for soil erosion control. This situation is partly attributed to land clashes of 1992 where some of the people moved out and have since not returned to settle.

It can be noted that many people tend to plant trees on lands where they settle. Some farmers who in the past got tree seeds and/ or seedlings from development institutions that worked in the area ended not planting at all or planted not in Kalaha but elsewhere.

> "*There were a lot of trees in the farm when we came to settle in 1984 but they were felled indiscriminately for building materials and to create space for cultivation. A few remaining trees were cleared completely around the 1992 clashes when all the big trees were targeted for timber and charcoal. Many hesitate to plant trees for fear of being relocated when land surveying will be done"* one old woman's comments during a community consultative meeting in Kalaha.

Free grazing of livestock especially after maize is harvested is another major discouraging factor to tree seedling establishment here. This is viewed as a potential area of conflict (especially after the 1992 clashes) since the pastoralists mainly of Saboat communities in the surrounding areas normally move large herds of livestock to graze across the farms. Majority of the Siboti cooperative society members are from the Bukusu community while the surrounding areas are settled by Saboats who are traditionally livestock keepers. Any attempt by the cultivating farmers to resist free grazing of livestock, is seen as a predisposition to chaos. Farm fencing as a better way of controlling livestock is not practiced due to the land ownership problems (partitioning has not been officialized by a survey).

It is confirmed by Kalaha residents that training and awareness is not what is lacking especially on tree establishment. What was confirmed as missing is action or knowledge implementation and this is largely attributed to aforementioned factors.

The concept of agroforestry (incorporating trees on farmlands) is known to majority but less practiced. Many people could mention the several benefits of agroforestry trees such as *Sesbania* and G*revillea* among others. For instance, members in a community meeting clearly stated that *Sesbania spp* improves soil fertility, provides firewood, fodder and poles for building. They are well aware of the importance of forest conservation and could also mention almost all the functions of natural forests such as medicinal plants, poles, fuelwood, tourists' attraction, and bamboo shoots as vegetables, wild fruits, honey, fresh air, soil conservation, rainfall attraction and water catchments. Tree and tree products used in Kalaha are sourced from the adjacent National Park Forest, Saboti Forest Reserve and a few from private farms.

(c) Case of Kabuywo Cooperative Farm in Matumbei

This was registered as a cooperative in 1972 with over 600 members. The farm Kabuywo was formerly the Bunyala farm that belonged to the Gumo family which was earlier a white settler's farm. The white settler used the land mainly for coffee plantation that also promoted plantations of *miti kahawa* (cordia africana) within coffee farms. Remains of *cordia africana* and grevellia can be observed in Kabuywo. Kabuywo cooperative society bought it after they got a loan from Agricultural Finance Corporation and/or Cooperative bank. Some neighbouring farms e.g. one related to the Kenyatta family still have coffee and forest perches of *cordia africana*.

Kabuywo members settled from around 1983 when members informally subdivided the land to individual members but with neither legal survey nor land titles given to date. Confusion on land transfers is not settled yet. The area of Kabuywo farm is mainly occupied by the Saboat being the majority followed by Luhya mainly Bukusus and also a few Kalenjins.

The block title is still in Gumo's name because the bank loan is cleared but the land has never been surveyed therefore title transfers can not be done until the survey and title transfer is fully paid for. It has also been difficult for members to collectively contribute for the survey and transfer fee because not all the members who paid for the shares are settled. Some members are unsettled to date. Some members also occupy more land as large as 10 acres while others only 2 acres. The original members register is said to have been burnt in domestic fire accident, a theory doubted by most members.

New officials were elected in 2004 when the Minister gave new directive on cooperative societies to elect officials. The officials elected are to occupy office for a maximum of two terms of three years each. When such documents like members register is missing, it is therefore difficult even for the Cooperative Department to solve such problems without the original members register. The logical option is to use members share receipts but it has also been

difficult to bring all these members together to forward the share receipts or to let them contribute money for survey and title deeds because this process would still require reference with the members register for contacts. Some members have occupied more land than the shares they paid.

The other alternative would be to collect all the original share receipts from all members but members are so scattered. Different members visit the cooperative office from different places and districts like Mt. Elgon, Bungoma and far off to present their claims but at different times. The case of Kabuywo will remain very difficult to solve without the original members register.

Kabuywo farm as it is now has no place left unoccupied/ preserved for the construction of something like a store. This society was registered as a farm cooperative which was expected to produce crop and sell as a cooperative but the problems stated has made it difficult for members to operate as a cooperative. Each member who found some place to occupy, farm and sell farm produce independently and this is taken advantage by middle men who buy the produce at lower prices because the members are not united to sell as a cooperative where better prices can be negotiated. Land ownership problems therefore contribute a lot to management of cooperatives and it is a major disincentive to long term investment on landscapes.

(d) Reasons that discourage investment in tree planting by Cooperative Societies

The Case of Chepnyalili Youth Group in Kabuywo

The name Chepnyalili means evergreen. This group is mainly made up of young people in the society with the membership now at 21. They started in 2000 by 16 members with a vision of making the area green through establishment of tree nursery for income generation. The whole idea was drawn from the positive impacts of VI Agroforestry who had been promoting agroforestry activities in the area.

VI Agroforestry established tree nurseries in the region for example at Kimondo and gave out seedlings free of charge to farmers and groups and when these phased out in late 1990s, Chepnyalili decided to venture on similar activities mainly tree nurseries. This is one of those groups that got some initial tree seeds from VI but they also collect seeds from the National Park and forest reserve in liaison with the Kenya wildlife wardens. Seeds or germplasm they report is their biggest constraint. ICRAF is now working with this group to promote agroforestry through training and assistance in germplasm.

One of the problems discouraging the group's tree nursery activities is lack of market. The community lacks the culture of tree planting, a fact mainly attributed to availability of tree and forest products sourced freely or cheaply from the adjacent "Forest Reserved" and National Park. Due to lack of market, seedlings overgrow in the nurseries. This is also so because they

haven't ventured much in targeting the market outside the community due to poor infrastructure, low demand in the adjacent areas and poor capital base for the group.

Some community members mentioned long dry spells as a factor that hinders the establishment of young trees but this was readily disputed by others who instead see lack of training, poor timing for seedling production and planting time as the main factors hindering tree development in the area. The local groups like Chepnyalili place seeds in the beds during rains when they can access water closely or in plenty and when the seedlings are ready for planting, the rains are either gone or reduced to support planting and establishment of young trees in the natural fields.

Little or lack of knowledge and access to a variety of tree species also contribute to the fatigue to invest and care for trees. The easily available species are eucalyptus, cypress and grivellia species which has their history dating back to the white settler. This species are also the ones mostly visible in the surrounding landscapes. Chepnyalili members confirmed this is also because the seedlings are easy to raise as compared to the indigenous ones like elgon teak among others.

People generally are not aware of the other valuable tree species (The knowledge on tree value and choice is narrow). Delay in the legalization of land ownership for individuals is somehow seen as an impediment to peoples interest towards making permanent or long term investment decisions on their farms such as building permanent houses or putting large capital investment on trees e.g. woodlots.

Free grazing of livestock in the area especially after crop harvesting is a key discouraging factor to on farm tree establishment. The laws / by laws that should regulate free a grazing and hence destruction of property on farms exist but enforcement is lacking to protect young seedlings on farms. People do not value trees either, because the returns are long term and farmers do not report to the authorities about tree destruction by livestock.

The path to be taken to prosecute someone is also seen as too long by the community since one must acquire the assessment of damage by the forester or agricultural officer in case of tree or crops respectively before offender can be prosecuted. This normally is a long process as the officers are never readily available for such activities. Social considerations for good neighborliness also discourage prosecution when the offence is by an immediate neighbour.

However, one old man asked *"why do we grow maize and potatoes but never point at livestock but for trees we talk of livestock destruction? I think we just care for maize and food crops more than we do for trees. Here people think of cutting but not planting."*

But another man replied and said *"It is like a tradition here especially among the Saboats to keep cattle, if one does own any livestock, you are considered 'nobody' so everybody tries to keep at least some livestock without any thought of space."*

(e) The forest reserve and national park

From around 1986, there was indiscriminate and clear felling by saw millers such as Kitale timber, Karanja, Sebei, Ramulla, Webuye and Elgeyo sawmills. They used to be given permits to buy and fell trees from the plantations but which they seriously abused as they could collude with the local foresters and fell more plantations than permitted. They could also harvest from natural forest illegally.

Forest destruction is high today than when there was no ban. Some wardens and forest guards with or without the knowledge of the foresters secretly harvest timber for their own benefit. Some of the local people are involved in the racket. Even reserved species such as elgon teak are cut and timber made into furniture by carpenters based very close to the forest before this furniture is carried and sold away.

The wardens/ guards compound donkeys they find carrying fuelwood from the forest but which they themselves use to their advantage to draw timber and logs from the forest. Women arrested are also forced and used to carry wood from the forest to the benefit of forest officers.

Nevertheless, forest/tree products still used in this area include fuelwood, poles, timber for furniture, honey and herbs for medicine. This are mainly sourced from the adjacent National park or Forest Reserve. Initially local people were allowed to go into the forest to collect these products at a fee. This arrangement was removed around 2003 and now there is "total ban" on the use of forest products. Communities around the forest, however say they get all the products either by colluding with park warden or forest guards to harvest whatever they need or by stealing. The ban has pitched the community against the government and already conflict exists between the community and the wildlife wardens and forest administration.

Summary of reasons

- The impact of 1992 clashes sent people away
- Many farmers and farm owners do not stay in their farms
- Land leasing practice that keep land in the hands of tenant farmers who have short term vision for investment on land.
- The common freelance practice for livestock grazing.
- The proximity to the forest (communities leaving adjacent to the forest are used to accessing tree and forest products they need from the forest and therefore have little incentive to invest on trees)
- Lack of farmer to farmer education on tree planting
- Lack of farm fencing practice attributed to the state of land ownership hence little protection for young trees and seedlings against livestock.
- Burning of crop refuse on farm
- Belief of trees destroying soil fertility

1.6. Large farms neighbouring Forest Reserves mainly in TransNzoia

Large pieces of land in TransNzoia are currently under the management of the Agricultural Development Corporation (ADC). This is a parastatal which has existed since 1965, when the government bought large pieces of land from the white settlers at the independence. Some of the original ADC farms have been divided over time for small-scale agriculture (see 1.1.5). Through an Act of parliament in 1987, the remainders of the farms were to be set aside for seed production. It was recognized that these are the only remaining pieces of government agricultural land big enough for seed production. Currently, there are eight ADC farms in TransNzoia. They cover about 40,000 acres in total, mainly in the Endebess region. These farms concentrate on seed production and bulking (together with KARI and Kenya Seed Company) and livestock breeding. There is also one farm that grows citrus by irrigation. All funding is generated by the farms and the extension services that the corporation offers (aimed at medium and large-scale farms). However, the main resource (land) belongs to the government. Some donor funding is currently also coming from UNDP/Italian government. Large-scale farming is an important source of employment in the district. However, most of the farm employees, even though they are usually given small pieces of land for own subsistence , they are kept as casual labourers and they live as squatters on the ADC farmland. This forms a particular group of landless in TransNzoia. In May - August at the peak of farm labour there are always about 2000 workers per ADC farm.[37]

Other few private individual large scale farmers practice more diversified farming activities that include maize production, coffee farming and horticultural crops as well as dairy cattle.

These large farms have large sections of land left fallow for cattle grazing purposes hence allowing natural vegetation to flourish. However, crop fields which are the largest in proportion and are always flat bare without any tree ever left to allow for the mechanized operations used in the farms.

ADC farms as mechanized large-scale farms naturally from large open lands in Trans-Nzoia. According to the ADC management ADC farms are generally keen on agroforestry. However, trees need to be placed as woodlots and border trees due to mechanized farming. Mainly eucalyptus and cypress are planted. Riverines crossing ADC farms conserved for biodiversity, and in fact five out of the eight ADC farms in TransNzoia have some natural vegetation left their area. ADC workers plant shrubs that can bring benefits quickly. In fact, long term investment by squatters is not allowed by the management of the ADC farms.

1.7. Former Native African Trust Land now Chepkitale 'Game Reserve' mainly in Mt. Elgon

Trust lands are communal land areas held in trust by the local governments (County Councils) on behalf of the community. The communities retain the rights of access and traditional-

[37] Eija Soini

cultural resource uses other than farming or external development unless appropriately put under gazette. Minimal subsistence farming has however been witnessed in trust lands especially by squatter settlers (Mbwika 1991).

In 1934 Mount Elgon was gazetted as a Forest Reserve and later part of it became National Park in 1968. When the national park was created on the Kenyan side to the east of the mountain in TransNzoia district, parts of the moorlands (Chepkitale Trust land) were included into the park and the people totally excluded from the area. In the 1970s, in spite of the decision to relocate them to Chebyuk, some inhabitants remained in Chepkitale. They were chased in 1979, managed to return in 1982, had to leave again in 1988 and came back in the 1990s (Claire Medard). In recent years, in 2000, an attempt was made to transform Chepkitale into a game reserve[38]. The proper procedures were not followed[39] and the Chepkitale people have managed in a way to reassert their right over the area on the basis of the legal status of the former native reserve which has remained trust land. This was championed through an NGO formed and led by Dr. Chengeiwo of Egerton University. The NGO was fronting the interest of the Ndorobo community (Interview with Clerk). Cattle-rearing remains tolerated in Chepkitale but people have been asked not to cultivate (potatoes), but this rule is not always understood, even though it appears to be a territorial compromise between wildlife conservation and human occupancy. (Claire Medard, 2005)

These forest dwellers remains basically pastoralists and whose livelihoods still rotate around the Chepkitale moorlands far inside the forest. They do burn grass in the moorlands during the dry spells as a strategy for killing ticks and for grass to rejuvenate. This act of burning grass was initially opposed by the foresters but has since been accepted because these people care for the forest and normally control the fire from getting to the forest. Initially the efforts of putting off such fires by the forest agents were defeated as they were lit up as soon as the guards left. Their culture and livelihood is said to be friendly to forests and trees. They mainly use forest for subsistence activities like bee keeping. They also compliment government efforts of guarding the forest by reporting illegal activities up in the forest.

Since Chepkitale remains classified as Trust Land, the management therefore remains largely under Mt. Elgon County Council. Poor financial capacity of the council has hindered the development of the Trust Land into a fully fledged Game Reserve.

When the council was funded by IUCN to help open up a link road, the community thought IUCN wanted to take away their land and through their NGO they took IUCN to court. The case is pending in court. The community (Ndorobo) being a marginalized community thought the concept of gazzetting the Chepkitale as a game reserve meant fencing off of their ancestral land. Even the area Councilor then was later voted out accused of not protecting their interest. The also contested the gazettement because they felt the area gazetted was too large and that it included their customary valued shrines

[38] An area of 17200 hectares was gazetted as per Legal Notice No 88 6th June 2000 as Chepkitale Game reserve.
[39] This measure does not follow the procedures laid out in the Environmental Management and Co-ordination Act, 1999 (Kenya Gazette Supplement, Acts, 2000, Nairobi, 14th January 2000).

According to the County Council Clerk, the main issue was to gazette the Chepkitale and come up with plans for projects and activities that would encourage shared benefits with the community. However, the community did not trust the council on this and this can be attributed to how the communities have been treated over the years.

It should be noted that Ndorobos respect their elders a lot and for many of their actions or decisions on issues that relate to external ideas (visitors or people from outside), they must take time to consult with their elders and/ or the elite in their community before any matter touching on their livelihood or resources can decisively be communicated. The Trust Land system has been widely abused by the County Councils and the Central Government in many parts of the country. Instead of acting as the custodians of the land, many County Councils have facilitated the alienation of such land in favour of individuals and institutions in total disregard of the rights of the local residents.[40]

The Mt. Elgon County Council is trying to open up to make the Ndorobos in Chepkitale understand by taking them for exchange visits to other Councils like Olekajiado (Narok) where there is success in involving the community in game reserve management. In line with this the Council organized a meeting with the elders in 2004 but the elders were very reserved (could not tell much but only wanted to listen from the council). The new councilor is slow in decision making for fear of being sidelined by the community.

The Elders insisted that the way forward is for the government to first degazette the area and organize to agree with the community on the plans of gazettment. Such gazettment makes such areas protected and this comes with access and management changes. Ever since they were given the Chebyuk area in 1971 they have always been going back to the Chepkitale moorlands. The continuous conflict over land in Chebyuk, their pastoralist nature of livelihood and culture of dwelling in the forest keep pushing and pulling them back to the moorlands.

2. Uganda

2.1. The Mount Elgon National Park – Uganda

(a) The situation

Mount Elgon forest reserve is one of the first reserves to be gazetted as protected zones by the colonial government in Uganda. It became a crown forest way back in 1938 under legal notice number 100 of that year.

[40] Draft National Land Policy 2006, section 154.

The area was then estimated at 111, 100 ha (this may have changed) extending into the old districts of Bugisu and Sebei (the present districts of Kapchorwa, Mbale and Sironko) The name was changed from Mount Elgon crown forest to Mount Elgon Central forest reserve in legal notice No. 41 of 1948 and it was regazetted with the same area. In 1963 the forest was again regazetted under legal notice No. 11 with other reserves in the eastern region and divided between the district of Bugisu and Sebei.

According to statutory instrument No. 64 of 1968, the reserve area was 118,385 hectares of which 51,276 ha were in Mbale (now Mbale, Bududa, Manafa and Sironko) and 67,109 hectares in Kapchorwa (now Kapchorwa and Bukwo). The reserve occupies the slopes of Mount Elgon starting from an average altitude of about 2000 meters above sea level in the six districts. The total length of the external boundary as per the 1968-working plan was approximately 211km. The larger sections of this boundary are artificial cut lines and a few areas, which follow ridges, cliffs and river courses. Maintenance of the boundary started soon after the gazetting of the reserve in 1938. Several parts of the boundary were marked with planted eucalyptus trees (Hamilton, 1984). In October 1993, the conservation status of Mt. Elgon forest changed from gazetted forest reserve to Mt. Elgon National Park managed by the Uganda Wildlife Authority (UWA) from three major stations of Mbale (headquarters), Kapkwata in Kapchorwa and Suam in Bukwo.

Following the gazetting of Mt. Elgon forest Reserve as a National Park, boundary demarcation exercise was executed between 1993-6. But 1993 boundary was disputed by communities in several sections along all the three districts. UWA-FACE project planted sections of the boundary with Eucalyptus in 2001 – 2002. Due to the boundary disputes several boundary strips was destroyed. This led to establishment of two boundary-retracing committees one at National level and the others at District level. The District boundary committee consists of 7 members with the Resident District Commissioner as its Chairperson and the Chief Warden Mt. Elgon as the secretary. The committees work is to ensure that the exert boundary is established and marked with Beacons and trees. The subsequent retracing exercise of the Park boundary that started in July 2004 was met with resentment by adjacent communities in many areas across the districts.

For instance, in Sironko a total of 29km boundary was to be planted with 4 lines of Eucalyptus and 1 of Spathodea covering a strip of 10m widely along the park boundary. Beacons had already been fixed to mark the exact end points of the Park Reserve. Each Beacon is of 3.5 metre height, that is, 2 metres below the ground and 1.5m above.

The local communities were to execute the boundary planting exercise after signing boundary management agreements with park authorities. Some of the conditions in the agreement are that, collaborating community members were to grow crops along side seedlings until the canopy closes under the Taungya system. That the boundary plantation belongs to the community and managed as per the silvicultural practices and harvested sustainably.

Mt. Elgon is conserved for various values which include; its water catchments value, the importance of its biodiversity and its value as a source of subsistence forest products for a large surrounding population. The Afro alpine ecology, a unique feature found in East Africa on high-altitude Mountains (Rwenzoris, Virunga, Mt. Kenya, the Aberdare, Mt Meru, Kilimanjaro and Mt. Elgon) is found nowhere else in the World.

The Biodiversity survey of 1996 found that Mt. Elgon was not particularly diverse but supports many species of extreme conservation importance by virtue of their rarity and/or limited distribution.

Although the flora and fauna of Mt.Elgon have not been fully studied it is already known that at least some of its species of plants and animals are known to occur only in relatively few other areas. A total of 30 species of small mammal's shrews and rodents are known to occur in Mt. Elgon, consisting of a mix of highland, forest – dependant and open habitat species. In addition there is range of larger mammals including black and white Columbus monkeys, leopards, elephants, buffalos, bushpigs, sitattunga and duickers.[41]

The 1996 Biodiversity report specifically inventoried butterflies and moths of MENP's forest zones, 171 species of butterflies and 71 species of moths were recorded.

The Mountain Park is the source of many perennial rivers which flow in all directions into the adjacent lowlands of al the surrounding districts serving as water catchments for an area of over 4,000km² in Uganda with a population of at least one million in eastern Uganda. Mt. Elgon is an important source of subsistence forest products for people living around the forest, including firewood, honey, bamboo, mushrooms, and medicinal herbs etc.

(b) Challenges

The Conservation of Mt. Elgon National Park is still faced with a number of challenges. The main source of this pressure arises from human population demands for use of natural resources for livelihoods and development manifested through degradation and in some instances, deletion of natural resources within the ecosystem.

Those include.

- Boundary disputes remains the biggest challenge UWA is encountering in some areas. The communities have completely distributed the established boundary for instance in Buluganya sub-county, adjacent communities have a case before court against the government and have not yet established in collaborative arrangements with the park authorities (see also cases for Benet resettlement area, Bumasifwa and Wanale)

[41] Sironko District State of Environment Report

- Illegal lumbering activities in the National Park are another problem. Given the high demand of timber, some park staff members connive with timber dealers to be allowed to log.
- Restricted access to the Park resources is yet to be embraced by most community members.
- Some park law enforcement officers are accused of using unnecessary excessive force this sets back the collaborative management initiative.
- Malice and sabotage tendencies of some community members such as uprooting of seedlings planted for boundary demarcation.
- The levels and patterns of natural resource use, inappropriate management skills and weak management institutions and policies are major contributors to the current state of affairs. Consequently, natural resources base on private and community lands is very low, leaving limited livelihood options but to turn to the neighbouring protected areas for livelihood resources.
- Continuing pressure from encroachment for human settlements and associated agricultural pursuits into the protected areas is due to land and population pressures, combined with weak national institutions and local political pressures.
- Insecurity from Pokot cattle rustlers who subject pressure for people to graze uplands in and around the park
- Conflicts arising due to denied or restricted access to resources and human-wild life conflicts and mis-conception of the role of UWA as denying community resources.
- The attitude of local people is also changing; they view the forest as their ancestral homeland, which has subsequently increased invasions by squatters and encroachments on the fringes of the reserves.
- Poaching of wildlife and wood products remains a serious problem and cattle rusting through the park between Uganda and Kenya create insecurity for both local residents and tourists.
- Institutional constraints including limited capacity (human, systems, funds and institutional arrangement), policy failures (gaps, contradiction/inconsistencies) and lack of an overall conservation and development framework for ecosystem are serious threats to effective management.
- These human pressures are already threatening the biodiversity on Mt. Elgon, unless these threats are addressed, this valuable biodiversity is likely to suffer more extensive damage and loss.
- Cultural factors that encourage unwise use of resources and inadequate community sensitization on the need for conservation
- Political pressure and pronouncements that sometimes encourages exploitation of resources by the community in exchange for votes.

(c) Community Collaborative Management with UWA.

A number of policies and strategies are being implemented to improve the community – protected areas relationship and co-operation in a bid to ensure sustainable management and conservation of protected areas. Among the interventions is the institution of Community Protected Areas Institution representatives (CPI), Revenue sharing scheme, Resource access agreements and collaborative management agreement.

Arising from the many conflicts with the community, a fully fledged Community Conservation Unit was introduced within UWA in 1998 to manage collaborative management issues with the park adjacent communities.

Several agreements have been signed between communities (in Parishes adjacent the park) and park authorities since 2001. These agreements include Collaborative Resource Management, Beekeeping Agreement and Bamboo harvest. More agreements including Boundary Management Agreements were to be signed after the completion of boundary retracing and making, an exercise that is pending in many areas due to disputes from the communities.

The forest products largely documented in the general CCM agreement include firewood, poles, honey, bamboo shoots and stems, mushrooms, vegetables grass, ropes, stakes for bananas, salt licks and medicinal herbs. Other activities completely prohibited are and not limited to grazing by all domestic animals, cutting of timber in natural high forests, game killing or trapping, disturbance of nests or removal of eggs, charcoal burning and cultivation. Some activities that require special arrangements with UWA are access to cultural sites, path through the park, and assistance with problem animals and may be vermin control, use of boundary zone and sitting bee hives in the park.[42] (See separate cases on CCM 2.2.4 d, e)

Challenges

- The community data collectors are not facilitated to do data collection or make resource off take returns to authorities
- Communities who have signed agreement access resources more easily than their non-signed up counter parts yet UWA reserves the right to engage the community in such agreement or not.
- Boundary shifting from time to time has proved a bone of contention with accusations and counter accusations between UWA and the community. This strains the relations.
- Genuine complaints could however exist among the community because of unscrupulous surveyors who shift boundaries with bad intentions.

[42] CCM Agreement of Kapkwai Parish and UWA, May 2002.

i) Taungya System

UWA introduced taugnya plantations on the northern side of the park in Suam Bukwo and around Kapwata in Kapchorwa. These are mainly plantations of cypress, pinus, grevillea and eucalyptus species. Local communities sign individual contracts with UWA to cultivate for short season food crops within young plantations established in the Park. UWA considers this system successfully working despite selected cases of sabotage and theft by some adjacent community members who cut the young trees for poles. In Suam, communities report high demand and ready market for building poles. Community members are not happy with terms in taungya contracts complaining high handedness by UWA in the implementation of the terms.

ii) Revenue sharing schemes

In accordance with Uganda wildlife Act cap 200, 20% of tourist revenue from gate receipts is to be shared with communities living adjacent to protected areas. This is intended to provide direct benefit to communities from the operation of Mt. Elgon National Park. The National Park has funded a few community projects especially in Mbale and Kapchorwa through district local government proposals but a lot needs to done on community awareness on the benefits of the park.

(d) FACE Project

A project christened the face foundation has come in to enrich forest cover on Mt.Elgon area. FACE stands for 'forests absorbing carbon dioxide emissions) it's sponsored by mainly multi national companies. It started work in 1994 and have so far reintegrated plantations in Kapkwata areas of Kapchorwa, Bulago and sisyi in Sironko district, Bufumbo and Wanale in Mbale district, Buwabwala sub-county in Manafa district and Bududa district. The species so far reintegrated are; Prunus Africana. Alaeia, Cordia Africana which are doing quite well.

However, there is a challenge in Buwabwala were there a lot destruction of the newly enriched forest by local people. About 1500 acres are estimated to have been destroyed through encroachment. Fortunately, the enriched area in Kapchorwa has not registered much encroachment and cutting of trees

2.2. The Central Forest Reserves

These are forest reverse preserved and managed for purposes of environmental and biodiversity conservation. These serve to conserve water catchment areas, fragile ecosystems such as river banks, wetlands etc. The CFR were previously managed by the forest department. The national forestry and tree planting Act 2003 puts the management of all CFR under the national forest authority.

The main central forests around Mount Elgon include Namatale 663 ha located along river Bwifumbolo on the border of Mbale and Sironko district.

The other CRF is that of Mbale municipality 562 ha. The species are eucalyptus, demonstration of gravillea, robusta, casuarinas and tectona grandis. More than 75% of the forest is allocated to local farmers. The trees belong to the farmers with lease rights. Local communities fetch grass for fodder, firewood and buy poles for building. The Mbale CFR is also a traditional circumcision site for the surrounding Bugishu communities.

The Kapchorwa CFR is about 5ha and is not really a forest. Only a few eucalyptus trees are found here. Houses and a school are constructed on this forest land. NFA does not seem to have given up taking any step as far as CFR are concerned.

(a) The case of Namatale Central Forest Reserve

Namatale CFR was part of the large Mount Elgon high forest. This was left out of the forest reserve survey of 1936-1937. In 1955 the Bugishu district council gazetted it as Namatale local forest. This was followed by survey and demarcation.

Before being gazetted by the Bugishu district council, the forest was not managed. When the council took over the management, they resolved to exploit the trees in the forest for timber. This went against the advice of the district forest officer.

The Bugishu district agreed to sell the timber and the proceeds to be shared with the neighbouring sub-counties of Bufumbo, Buyobo and Buwalasi.

In 1968 Namatale was gazetted as central forest reserve (statutory instrument No.176 of 1968). This put a stop on revenue sharing with the communities.

After 1968, the CFR was under the forest department. Between 1970 and 1979, the forest witnessed serious mis-management under the forest department. Illegal pit sawing and agricultural encroachment was at its highest with forest officers even renting out agricultural plots in the forest land.

The decade long over-exploitation left the forest almost bare with encroachers who got into the forest through corrupt FD officers claiming rights over plots since they paid out money. A few temporary settlements started on the Mbale side in 1990s.

Between 1992 and 1997, the FD under new officials tried in vain to forcefully evict the encroachers. After the use of force failed, the FD in 1998 tried collaborative management approach but did not achieve much since the encroachers did not change their ways of land use for crop cultivation. When the NFA came in force in 2003, it started by trying collaborative management but before it went for the thought of retracing the boundary in order to stamp

new authority and outline the boundary a fresh. The boundary retracing exercise in 2005 sparked conflicts between NFA and the community who resisted the surveyors.

NFA also tried to take inventory of the occupants by asking them to register their names in vain. To date about 40% of the forest land is cultivated for quick food crops like maize, beans, cowpeas and potatoes.

Conflicts
Four set of conflicts emerge over Namatale central forest reserve:

1) NFA and encroachers claim they paid money to the FD to get land (especially on Bufumbo on the Mbale side.
2) NFA and indigenous land owners - there are those with indigenous land claims over the Namatale forest land and they want the land which they say was taken by Bugishu district council and then transferred to FD without consulting them. They want the land reverted to them.
3) Indigenous land owners and encroachers - The indigenous land owners insist those cultivating in the forest land have no rights to do so since they got into the forest during the corrupt era of FD.
4) NFA and local leaders - The local political leadership support the use of the forest land for cultivation and food crop production by the local people. (conservation vs. agricultural production)

2.3. The Local Forest Reserves (LFR)

These are forest reserves under the jurisdiction of the District Local Governments. There are a few LFR across the districts of study. The level of management and focus to this LFR by the respective district government is wanting. Most of these forests are plantation in nature of which many are planted with eucalyptus trees.

The Forest Department which was to be phased out with the introduction of the National Forest Authority has silently been retained with only one staff of District Forest Officer of which some districts have none e.g. the newly created districts of Bukwo, Bududa and Manafa. The District Forest Officer is expected to assist the District Local Government (District Forest Services) in managing the local forest reserve. However districts have not always prioritized development activities of these forests in their budgets.

The LFR mostly exist around customary land tenure system or other settled areas. The biggest threat therefore facing the LFR is the land demand for settlement and cultivation. Many of these LFR are in a state of neglect and encroachment by human settlement and farming. They are more of gazzetted forest land than forests.

The LFR in the study districts include Kaptokoi LFR covering an estimated area of 85 ha situated in Bunambutye sub-county of Siroko district. The forest is mainly bush land of degraded and threatened ecosystem. Human encroachment for crop farming, charcoal burning and grazing. Fire outbreaks occasionally spread from accidental bushfires during dry spells. Insecurity in the lowlands of Sironko from the cattle rustlers of Karamajong have rendered this forest neglected. Some of the pressure from the landless evicted form the NP is transferred here.

Other LFR are Mutufu LFR 21 ha in Sirinko which is half leased out to farmers who grow mainly maize and beans. Encroachment and indigenous claims of the LFR land by some community members.

Nakiwodwe LFR is located in Busulani sub-county – Sironko. The 10 ha forest is heavily encroached with buildings belonging to a local water project and other offices for a local NGO. Large sections are under crop farming.

Binyiny LFR in Kapchorwa is totally turned into agricultural land. Others in Mbale are Kolonyi 21 ha, Bubulo 21 ha in Buwagogo sub-county, Busumbu 10 ha forest and wetland in Butiri sub-county and Bukigai 18 ha in Bukigai sub-county.

2.4. The highland areas outside the National Park

(a) The Benet Resettlement Area in Kapchorwa district

Benet Ndorobo have indigenous claims of land in the Park (formed the Benet lobby group to help push their case) in the resettlement process after evicted from the Forest Park in 1983. The government sought to resettle them hence the creation of the Benet Resettlement Area. The area was identified and estimated as an area 6000 ha between the two rivers of Kere and Kaptokoi.

In the process mainly were people from the lowlands who were being pushed up by insecurity around the areas neighbouring the cattle rustlers of Pokot and Karamanjong, of whom some were already wandering and squatting and labouring for people around the mountain. Categories of people to be resettled were identified and they included the following:

i). The indigenous group made up of the Benet people;
ii). The internally displaced persons from the lower zones; and
iii). The needy.

Several mistakes were made from the beginning

i. Inadequate awareness created among the communities affected;
ii. Very minimal participation by the Benets themselves in decision making;
iii. No resettlement packages granted to the settlers to aid in their relocation;
iv. No clear definition of the needy; and

v. Failure to officially demarcate the land area gazetted for resettlement.
vi. There was no plots survey carried to ascertain the exact acreage and plot sizes and owners.
vii. No action and no close follow up mechanisms were put in place to help monitor the resettlement process.

With the number of herds to the lowland communities greatly lost to the rustlers, they saw great opportunity for land in Benet. People rushed in to occupy the land, felling trees and burning forest in a free for all style. They quickly adapted to settled-cultivation farming. Many others not originally among the 3 categories earmarked for resettlement took advantage of the situation and grabbed land. Some these were influential persons in or close to the allocating authorities and the politically connected who took the opportunity to amerce bigger chunks of land for themselves and to date there are people who occupy unusually larger plots in the area.

Culturally the livelihood of Benet Ndorobos remained attached to the forest for honey, medicinal herbs, fruits, grazing among others. About a decade later in 1993, the Forest Park was gazetted as National Park and management taken by Uganda Wildlife Authority. When the government (UWA) revisited the boundary issue; many of the Ndorobos had even already sold out their land in the resettlement area and went back to their nomadic lifestyles in the forest within the National Park. Most of those who remained unsettled after 1983 were those Ndorobos (about 567 households) who were slow to take up land in the resettlement area. They were not prepared for the abrupt change to settled life. Their leaders were also generally against the eviction and the whole resettlement idea. They reportedly discouraged their community members from taking land in the resettlement area and instead urged the community to push government to allocate them land in the forest park where they could continue with their traditional life around the forest. While Ndorobos were still weighing options, many more non Ndorobos mainly from the lowlands were busy settling, buying land from the Ndorobos to cultivate and settle. Many Ndorobos gave up their land in exchange with livestock. Today the population of the settled non-Ndorobos in the entire resettlement area is far much higher than that of the Benet Ndorobos. The projected population estimate puts the figures at 40000 and 4000 respectively (1999 population census)

UWA surveyed the resettlement area and evicted the Ndorobos from the park in 1993 from the survey it was also found out that the estimated resettlement area of 6000 ha was actually more by about 1500 ha (total 7500 ha). The 1992/93 evictions were carried out by UWA rangers in a combative and brutal manner whereby houses were torched, livestock compounded and many people injured in merciless beatings. Moreover in 1993, UWA sought to recover the 1500 ha for the National Park and this meant changing the 1983 boundary hence displacing more people (mostly Ndorobos) who tended to settled adjacent to the 1983 line.

On 1st September, 1994 an inter- ministerial task force committee was commissioned as a national outfit and to review and formulate recommendations and strategy for resettling the Benet community outside the Mt. Elgon National Park based on the review of the dynamics of the Benet community, the appraisal of the resettlement process, and the need to address

indigenous needs and requirements in the protected area management. The ministries included were Finance and Economic Planning, Local Government, Tourism, Wildlife and Antiquities, Natural Resources and Uganda National Parks.

The recommendations the committee came up with included:

i. Purchasing more land within the Benet area from those holding large parcels of land.
ii. Resettlement in Ngenge lowlands.
iii. Buying land from the non-Benets who wished to return to the lowlands.
iv. Excising more forest land.
v. Maintaining the 1983 boundary line.

The committee completed its work in 1996 and recommended an implementation plan to be followed by an implementation committee that was to be formed. Two years later the implementation committee was formed but which never did much.

Emerging Issues

The settlers from lowlands (Soi Sabiny) formed the Benet Settlers Association – BESA). Few others who attach themselves to this association were the needy and landless found in the district of Kapchorwa. With legal and logistical support from Action Aid and Uganda Land Alliance, the two groups (Benet Lobby and BESA) formed a loose merger with a common interest to petition the government/UWA over land and handling of the park and boundary.

Benet community successfully petitioned the Government (Uganda Wildlife Authority and Attorney General) in a case filed in the High Court of Mbale in 2002. The court ruling of 27th October, 2005 was made in favour of the Benet community as follows:

i. THAT the Benet Community residing in Benet Sub-county including those residing in Yatui Parish and Kabsegek Village of Kween County and in Kwoti Parish of Tingey County are historical and indigenous inhabitants of the said areas which were declared a Wildlife Protected Area or National Park.

ii. THAT the said Community is entitled to stay in the said areas and carry out economic and agricultural activities including developing the same undisturbed.

iii. THAT a permanent injunction does issue restraining the defendants either jointly or severally from evicting or disturbing the quiet occupation by the community of the said areas.

iv. THAT the Respondents take all steps necessary to de-gazette the said areas as a Wildlife Protected Area or National Park pursuant to this Consent Judgment, after a physical inspection of the boundary with the Benet Community.

v. THAT the 2nd Respondent take affirmative action in favour of the said Community to redress the imbalance which presently exists in the said area in terms of education, infrastructure, health and social services in the spirit of Article 32(1) of the constitution in lieu of general damages, commencing in the Financial Year 2005/06.

vi. THAT the Respondents jointly and severally meet the applicant's costs of the cause.

- No action yet as was contained in resolution 5 of the High Court ruling of 2005. The community feels the government is in the process of hatching a different plan of cheating and short-changing them again. UWA accused of ever changing the boundary.
- Boundary issue with UWA remains unresolved. Strained UWA-Benet community relationship.
- Community want boundary and resettlement permanently resolved and confirmed.
- Rampant cutting of trees and cultivation on steep slopes adjacent to the park, every one tying to confirm occupation by cultivating especially after the High Court ruling.
- Evidence of recent land slides and gullies forming.
- Over extraction of resources such as bamboo which the court ruling opened to communities.
- Illegal logging of timber reportedly in the knowledge or by some corrupt UWA rangers.
- Outstanding conflicting undercurrents, intrigues and claims exist between the settlers with origin in the lowlands and the Benet Ndorobos who were formerly forest dwellers.
- Most of those who came from the lowlands are not willing to surrender land to resettle back in the lowlands. They have adapted to crop farming and most of whom are grown up youths of the generation that were born and brought up in the mountain even though their parents may have originated from the lowlands. Majority would want trace back their lands in the lowlands but not to mean they give up land in the mountain.
- A good number of families remain landless.

(i) Case of Benet Women in Bamboo basket weaving.

This group of women makes baskets from bamboo .The different forms of baskets include those for serving food, winnowing, keeping cloths carrying grains to the markets, measuring and storing grains and harvesting mats for drying into mats for making doors e.t.c.

The women making weaved items from bamboo are mainly from the forest dweller clan of ‘Ndorobo’ .Baskets making from bamboo and other forest grasses is a long socio –economic and cultural activity of the ‘Ndorobo’ women.

The good quality bamboo for making these products are found deep inside the forest which now fall all in the restricted natural park under UWA jurisdiction .
Since the forest communities were evicted in 1983, the women basket weavers have now to travel long distances from 20km where they were resettled in Benet to access bamboo .This has made it difficult for most of the women to keep depending on this activity as a major livelihood source .Some are now resorting more to casual labor and crop farming. It is these same women who could more often gather wild fruits and vegetables such as bamboo fruits and shoots for subsistence and sale but these has been reduced by the change in management regime of the park to UWA.

The women consider bamboo and others than exchanging the products for foods stuffs mainly grains; they also reported receiving, reasonable cash income to buy other food items for their families; buying exercise books for children and children clothing especially at Christmas since the trading is more profitable in November –December during crops harvesting .Those who exchange the baskets with grains have been able to collect and store grains enough to keep their families throughout the year. Two (2) women in the community meeting (at Piswa on 17/03 /2007) reported to have been able to buy a cow and one (1) women land from the income made out of basket making.

The women reported that the cash income from activities such as basket making and firewood sale benefits them and the whole family more because the men are less interested in such income. Cash income from the sale of farm produce (mainly crops) is dominated by the men and women do not have much control cash in the hands of men is less accounted for because most men spend money in drinking of local brew
The other product that 'Ndorobo' men were culturally less concerned with is milk .Milk was mainly controlled by women though the cattle ownership remains a male preserve even if the cattle is bought by the women .

While firewood trade and basketry has been affected by the change in park management policy. Other livelihoods related to livestock such as milk sale that mostly placed money in the hands of women has equally been reduced due to ban in park grazing .People are pushed to settled life with farming becoming the major livelihood activity.
Bamboo is the only forest product allowed by UWA for collection in Benet .The resource is therefore highly over harvested because many people go in also to collect the bamboo poles to sell for granary construction, banana staking and fencing. The women who collect bamboo report an invasion of certain pests and diseases that threaten to wipe the bamboos if not checked bamboo will disappear.

The price and demand for bamboo poles have risen and many find it expensive and scarce use for such purposes as of building of granaries.
The bamboo baskets are normally on high demand around harvesting time all over the Sebei /Sabiny area both in the uplands and lowlands .The women in basket weaving are do not have language skills to market the products .They have no idea of better markets beyond their ethnic

region. Other than a few tourists and researchers that rarely visit the area, no institution or external people buy or promote these products.

Women of landless families are highly vulnerable since they only rely on natural resource such as firewood and bamboo to sell or exchange for food .Due to pressure, disease and restrictions a lot of time and energy is spent to be able to access these resources.
One woman was reported to have planted bamboo on her land sighting danger on the high rate bamboo is harvested from the park and the management dynamics in the park. The women go in to harvest bamboo in the park as a group for fear of harassment by the rangers. The demand for firewood is high both in the village and the surrounding country and sub county town ship like Kapchorwa and those trade in firewood mainly split the dead logs in farms outside the park .women are tempted to enter the park and steal dead wood but when found by the rangers ,they are beaten ,tools confiscated and forced to pay fines ranging from 5.000 to 100.000 depending how one negotiates .The parks rangers take advantage of the illiterate by confining them to make them pay more hence most people even sell their livestock in other secure their release .Those who do not have livestock and cannot afford the fines are beaten and left or taken to remand. The "fines" paid are not receipted anywhere.

'I accepted to lie down to be flogged so they sympathized and left me to go' related one man. Bee hives erected by women are not respected by men.
Because of the reducing number of trees and park restrictions women must now consult with their husbands even for dead logs in the farm. Most women cope by digging out stumps for firewood ,burn/use maize cops band dry maize stalks which cannot cook their common food like maize and beans .women reported that firewood scarcity does not worry men and planting of trees for firewood on their lands which are controlled by men may not be easy .Men do not think about firewood ,they can even beat women up if food is not made on time regardless of whether firewood was the problem " a woman who cannot get firewood is considered lazy. One woman said there are some vegetables and herbs in the park forest that if given or fed to children they take too long before any disease such as malaria can attack. There are herbs e.g. for deforming that the community have use for many years ,these herbs that even researchers find out more about because the local people have used them with good results for many decades .The issue of park access especially with regards to herbal medicine should be reconsidered

- Bamboo basket making activity seasonal
- Bamboo resource base reducing fast due to open access (overexploitation)
- Harassment of women by UWA rangers with rape cases reported in the past
- Political interference.

(b) The Kapsegek Community in National Park around Kortet in Bukwo district.

A group of Ndorobo community that remains unsettled. They dwell in the park awaiting resettlement by the government. This is an indigenous Benet community that were left out

during the 1983 land allocations. Only eight families in 1992 after some of them were transferred to Yatui in Benet resettlement area have since multiplied to about 1000 at present.

Their population is on the rise and services lacking, no schooling for children, no health facilities, poor sanitation and poor housing. Other alien communities have also moved in as friends and relatives adding to the population yet these people are meant to be resettled. They live deep into the park.

The Kapsegek are now demanding for all social infrastructures like roads, health units, and schools among others as human rights entitlements which if provided gives sense of permanency yet government is committed to find an alternative resettlement for them. This will become problematic in the long run if resettlement is delayed. Resource management is also difficult once ownership is not yet determined.

(c) The Landless of Rwanda and Kisangani camps in Kapkwata camps, Kapchorwa district

People here have history of origin to the lowlands of Kapchorwa that neighbours Pokot and Karamanjong and mostly belong to the Soi clan of Sabiny who were predominantly traditional cattle keepers (pastoralists). They have been displaced severally from the lowlands of Ngenge sub country since 1979 losing almost all livestock to the Pokot and Karamanjong cattle rustlers.

They moved uplands and found refuge around the open large rocks top hill in Kapkwata where they camped and could watch the Pokot raiders from uphill. Gradually they extended settlement into the Forest Reserve (before UWA was established) and evolved into cultivation farming and working as labourers in people's farms and homes around the mountain to cope with livelihood.

In 1993 the Government (UWA) evicted them form the Forest Reserve when it was gazetted as National Park hence pushed and they re-confined themselves all back in Rwanda and Kisangani camps. They protested and had begun to lobby against their eviction from the Park before UWA started the plantation in the park under the Taungya system in which they were allocated plots to grow crops like maize and beans for their subsistence within the contract to tend the young trees planted by UWA. The lobby pressure reduced when most of them got plots in the adjacent UWA taugnya system plantations.

Emerging Issues

- Population increase within the camps resulting with congestion, poor housing as the camps are on top of large widespread rock where building of structures is made difficult.
- The land owner who gave the rocky land free for their camping is now demanding for rent.
- Poor sanitation. It is impossible to dig pits for latrines on the rock.

- Slowly being edged out from the plantations as the trees mature. Most of whom have been automatically displaced from plantations where trees have grown and that crops cannot survive anymore.
- Some have started going to resettle back around Greek River in Ngenge Sub County in the lowlands of Kapchorwa districts where they deserted close to 30years ago.
- Land use in the lowlands is fast changing from mainly pastoral to charcoal burning and cutting trees for sale as firewood. Most of the trees cut in the lowlands are the slow-growing acacia species which regenerated over the last 3 decades when the area was deserted due to cattle rustling. Majority returning with these activities to lowlands are still dwelling in the uplands. Cultivation for crop farming is gradually becoming an option too as way of starting new life in the plains especially for those resettling. They have avoided livestock to keep away cattle rustlers.
- People working to resettle in their farms or burning charcoal in the lowlands have to walk long distances and carry food from uplands for their upkeep.
- There is no road, the only would be road that linked Ngenge sub-county headquarters and the last Greek River parish about 60 kilometers away was abandoned in 1971 due to insecurity in the area.
- They are committed to settle in their former lowland areas so long as the government can maintain security.
- The government has established 2 recent Army camps in the lowlands to help restore security in the area.
- Plans in place to open up the road connecting Ngenge sub county headquarters to Greek River along the former Sabei controlled hunting area with a proposed bridge over Greek River to connect Ngenge and Kapiripiri.

(d) Community Collaborative Arrangements with the National park

(i) The Case of Mutushet Parish in Bukwo district

Collaborative management was conceived by IUCN project (1993-1999) but informed by the historical attachment of locals to the park but signed between UWA and Mutushet community. It was signed and came into force in 1995. Community was recognized as important co-managers of the park resources and through their own structure elected by the community and with representation from all villages adjacent to the park boundary in Mutushet parish Kabei sub-county now in [43]Bukwo district.

The IUCN project made tremendous effort in helping the community conserve the soils and protect the environment. Tree planting outside the park on individual farms/plots also increased with IUCN. Those individuals who violated the terms of agreement among the

[43] Bukwo became independent district from Kapchorwa in July 2006.

community were reported to UWA for action. After the IUCN project wound up, the collaborative agreement also later expired in 2002 and was never renewed by UWA. Consequently restriction to the park increased and UWA-communities conflict have since gone up.

Boundary conflicts between UWA and locals the community is unresolved with accusations and counter accusations of shifting from either side. Communities have since moved the boundary retracing pillars and conflict rages on. Unfortunately, natural resources in the park now suffer abuse by both parties e.g. pit sawing, grazing etc

During the collaborative management era, a fairly good relationship was harnessed with UWA and the park was well protected and conserved. Fines were not imposed by UWA but dialogue was pursued.

Before, collaborative management had been channeled through an individual appointed by UWA known as Community Protected Area Initiative (CPI). However CPI was unpopular among locals as opposed to the Collaborative Management Committees. The CPI as a link between UWA and community failed because he reported to UWA and not community. Mistrust, suspicion and ineffective collaboration set in. Perhaps that's why UWA has not renewed the 5 year term of CPIs but are considering another alternative to be referred to as Park Link Committee.

In summary, the CPI era as opposed to CM committee witnessed more destruction of park resources like never before, boundary disputes increased and rendered sustainability of park resources threatened. The Collaborative Management approach is however still very much welcomed by the Mutushet community. IUCN project was instrumental in mediating and sustaining the collaborative arrangements.

Community undertook patrols to prevent/apprehend illegal activities in the park including logging, bush burning etc. A sense of ownership was very high.

Park rangers were and are still transferred from one station to another every one month hence good relations and understanding has become unpredictable

Data collection on park resource off-takes was done by the community collaborative management committee though with no facilitation at all from UWA.

IUCN Project activities in Kabei Sub-County included Soil conservation and management practices**,** livestock improvement and management and Agro-forestry in which tree species such as Eucalyptus, Cypress, Sesbania, Grevillea, and Fruit trees like avocado, Markhamia and Napier grass for livestock were promoted.

Park resources that were accessible to the community under Mutushet CM included; bamboo shoots, bamboo stakes, rafters, mushrooms, medicinal plants./ herbs, wood fuel, construction

poles and other materials and green leafy vegetables like *dodo, suja* e.t.c. others were wood for making bee hives, honey (about 30 bee hives in the park adjacent to Mutushet owned by a women farmer group)

Emerging Issues

- Land fragmentation has discouraged agro-forestry
- Limited access to tree seed for those who are willing to grow trees
- Cultural attitudes that resistant to fundamental change in as far as conservation and management issues are concerned.
- Sustainability of sensitization programs on land management and environmental conservation is still a problem over time.
- Lack of inputs like watering cans, polythene tubes to enhance seedling development and tree planting.
- limited access to seeds and planting materials
- Though sensitization of the community on environmental management for those adjacent to the park was done. Its seeping down to the lower areas of Kabei sub-county
- A few farmers with on-farm tree nursery developed having benefited from IUCN skills development.
- Seedlings are sold for commercial purposes.
- The upsurge in community agro forestry activities helped to reduce the pressure on park wood resources during and after the implementation of the IUCN project
- Challenges to tree planting in Mutushet parish include, free grazing livestock, poor management and establishment skills for young trees e.g. poor timing for planting, degraded soils and the priority on food crops than trees by most farmers as well as open access to wood products from the Park Forest.
- Revenue share to the community was never realized even with collaborative management arrangements.
- Community want the collaborative management committee reinstated and term of office extended for 5 years.
- Community wants the boundary problems to be conclusively solved before new live-marker trees are planted along the boundary.

(ii) Kitati Bee Keepers Association

Bee keeping activities are allowed in the Park. Bumalegi community has a 6 year agreement (2002 to 2008) with UWA through Kitati Bee Keepers Association. In the agreement, the members can site bee hives in the National Park.

The association membership includes 82 men, 30 women and 79 orphan children from two parishes of Bumulegi and Bugiboni. They keep 30 colonized and 10 yet to be colonized beehives

in the park and another 50 colonized and 38 yet to be colonized outside the park. Their beehives are mainly of traditional and Johnson type.

In April 2005 UWA gave out some money to help community projects in Masaba sub country through a CBO known as Mt. Elgon Bee keeping Community (MEBC). The money UGS 15 Million which was to promote local bee keeping industry within the Park was reportedly misused and embezzled.

They have been harvesting about 3 times a year since 2003 producing an average of 60 litres per harvest. All their produce is sold locally at 60000 UGS per litre. This price is considered very low but many members have been able to improve their houses, buy some small livestock like goats and orphan children acquired clothing and food.

- They lack good market for their honey.
- Lack of market information. No organization or individuals help in marketing. No market leadership.
- Poor beehive technologies.
- Lack of funds for expansion and improvement.
- Majority of members are poor and needy e.g. the orphans.
- Poor traditional honey processing technology – a lot of honey left in the combs.
- No supplementary benefits from the wax due to lack technology.
- Lack of skills on bee management e.g. queen rearing
- Beehives outside the park are disturbed by neighbours – malicious damage e.g. reported cases of kerosene poured on the hives by those who feel bee are a menace in the farms.
- Dense settlements and small land holdings outside the park discourage sitting of beehives on private lands.
- Reduced foliage both in the park and outside due to cutting in park since 1970s (illegal cutting in the park and continuous clearing and cultivation on private land.

Recommendations

- Training on group dynamics and management.
- Better technology beehives to improve production.
- Training on bee management, honey processing and non honey bee products.
- Training on improved marketing, packaging and help in market linkage.
- Planting agroforestry trees that support bee honey production on private land. Some of the tree mentioned as good honey bees were mango and avocado trees. *Toputopu* flower is also preserved by many as a bee shrub.

Problems with tree planting

- Lack of seeds (germplasm)
- Lack of skills in raising seedlings
- Nursery materials expensive e.g. potting materials, soils
- Small land sizes push people into food crops other trees

(e) Communities with no collaborative arrangements with the National park

(i) The case of Kwirwot Parish Suam Sub-County in Bukwo district.

The Taugnya system allows people from the community to access firewood, rafters, building poles during thinning in the plantations.

Communities living adjacent the park in Suam are not aware of the Community Collaborative Management concept by UWA, a few people have only heard that in some areas UWA allow communities collect firewood freely but in Suam only those with plots in the plantations have access. People are not sensitize on the collaborative approach nor organized in way for co-management of the park. Those who have plots in the taungya plantations apply and sign one year contracts individually. A boundary management committee was formed but the community does not realize its purpose because the boundary trees are harvested without consultations with the committee. The people who harvest the boundary trees are suspected to be connected to some park officials. One particular individual community was mentioned to have selectively benefited from the boundary trees and the CPI chairman accused of using his position to influence for bigger plots in the taungya system for him and friends.

While the original arrangement for the boundary management committee was for the community to help in tending and later benefit from the eucalyptus on the park boundary. With transfers and changing officials at UWA, subsequent officials failed to recognize the boundary committee. There is actually no boundary committee. A few people from the local community who have ever requested to be allowed to harvest the boundary trees are told to write for requisitions hardly responded to. For instance, over one year after the community applied to harvest the boundary trees for the construction of a local church in February 2006 there has been no permission to cut. In several occasions of previous follow up, they were told the request was forwarded to UWA in Mbale (80 km away) for approval. Latest new Warden told them to re-apply.

Communities source poles and firewood at times across the border in Kenya. The FD in Kenya allows grazing of cattle and firewood collection of a head load once a week at a fee of Ksh 50 per month and Ksh50 per cattle per month.

Communities admit smuggling timber poles for building across from the Kenyan forest. The poles are cut during the day and carried at night. This is because UWA on the Uganda side of the border are too strict and brutal. The lowest is Ugs 300000 e.g. for felling rafters while a high of Ugs1.5 million if found hunting, 3.5 million for tractor and oxen ploughing, imprisonment of the person involved, compounding the tractor or shooting the oxen. Kenya shillings one thousand (1000) or 3 months imprisonment is charged for trespass, imprisonment without fine for hunting or cutting cedar trees.

Community-UWA relationship is not friendly. *"UWA should be taken away far from the people and bring back the Forest Park closer, UWA should control the high forest where wildlife are found".*

The trees in the taungya plantations are planted by UWA and at times they plant at wrong time yet those given plots are made to sign agreements to ensure the trees grow. Trees may also be cut by poachers at night. People have been charged, denied contract renewal or evicted from their plots for loss of trees due to factors beyond their control.

Those living close to the park whose livestock enter the park by mistake have had their animals compounded and charged Ugs10,000 per animal.
The community accuses UWA for poor communication with the people. A case of harassment over water source in the park in Senendet and Kapkoros in 2005 stopped only when president Museveni during his campaign said *"let the people breath".* After which, grazing was also allowed in the park between February to July 2006 and later extended to December 2006 and now to May 2007 through the request of LC5 committee.

"*The fines are only benefiting UWA officials and not the community. The community finds it difficult to graze in the lowlands due to cattle raiders and UWA seems to after money so we should be allowed to graze and collect firewood from the park at a fee like our neighbours across in Kenya"*

"*Politicians tell us the government is for the people – which the government is yours but when things are done the people are never involved. People are not appreciated in the taungya plantation process where we even spend our money to pay for the pruning of the trees yet I think UWA should have money for that".*

Emerging Issues

- Constrained UWA community relationship
- Failed boundary management deal
- Community not happy with the terms of UWA on the Taungya system
- Community feels park management in model of the previous Forest Department where the community was allowed some access to forest products without was better.
- No awareness on Community Collaborative Management
- People have moved their livestock uplands due to insecurity on the lowlands
- Temporary grazing in the Park on Local government arrangements with UWA
- People still depend of the Park forest for various tree products
- Illegal extraction of tree products from the park including cutting poles from the taungya plantations.

(f) Communities and National Park boundary conflicts

(i) The Case of Bumasifwa in Sironko

Forest in the National Park has been illegally and legally the main source of forest products such like firewood, poles, herbal medicine, honey and bamboo shoots and stems for the park adjacent communities for many years.

Boundary contested (conflict with UWA for boundary shifting). There have been 4 different boundary lines since 1963. The 1st boundary with the Forest Park of 1963 is known to the community but this was changed by the UWA survey of 1993 when the Forest Park was turned into National Park. The community accepted the 1993 which was also planted with eucalyptus trees to demarcate.

In 2002 UWA conducted another survey which moved the boundary inside towards park and in 2004 another survey by UWA moved the boundary further inside the park was again done. It should be noted that before 1993 boundary and after, communities advanced, occupied, owned and have continued use and invest in the area between the 1963 and 1993 boundary lines. However, those who advanced before 1993 were encroachers of the previous 1963 boundary with the forest park.

In 2005, a conflict was sparked off when UWA now wanted to revert back to the 1963 boundary (about 12 years) after the 1993 boundary had been established and planted with live markers (eucalyptus trees). Moreover, local community members had continued to advance tree felling and cultivation beyond the 1993 boundary especially after the latest boundaries of 2002 and 2004. It is President Museveni's directive to the authorities in February 2006 that have cooled down the hot conflicts that was rising between UWA and Park adjacent communities. The President reportedly directed that the communities be left until the boundary issues are determined and resolved by Parliament. Meanwhile erosion and landslides are experienced all around the mostly hilly boundary areas where *status quo* cultivation without conservation is going on may be until (who knows when) Parliament will pass a resolution on the issue.

The communities in Bumasifwa sub country are comfortable with the 1993 boundary and those who had advanced into the Park upto the 2004 boundary are ready to vacate. Otherwise, the community are determined and united together with their local leaders not to move back to the 1963 boundary as was required in the latest attempt by UWA. Before there had been harassment by UWA Rangers where many people from the community had been beaten, confined and illegally charged upto UGS 50,000 (no receipts) for entering the park illegally. Cases of people killed e.g. in 2004 Bernard Ogoti was shot dead by a known UWA Ranger and no action taken. The community has since given up on the case and many other cases of assault that were reported to the police.

Currently UWA allows the communities in Bumulegi and Bugiboni parishes through 3 to 4 months agreements with the LC 3 Office of Bumasifwa sub country for collection of bamboo shoots and dry stems, firewood, medicine herbs, mushrooms and green vegetables. The agreement is for 3 days a week (Wednesdays, Saturdays and Sundays). Individuals going into the park for these items must obtain a monthly permit of 1000 UGS from UWA.

(ii) The Case of Wanale Sub County in Mbale

The forest was formerly Forest Reserve up until 1992 when it became NP. Government passed resolutions for survey in 1993 and this was carried out. The boundary was established and those who were in the park were evicted. There was no conflict because it affected those who had encroached into the forest. Under the forest department, before the national park was gazetted and management changed to UWA, the community with arrangements facilitated by IUCN project could get the forest products and even sight beehives in the park. Grazing was not allowed even before IUCN came in 1996.

In 2001 UWA came out to retrace the boundary which was changed and was different from that of 1993. The 1993 bench marks with UWA in collaboration with the Wanale community where people were allowed to cultivate along boundary as UWA planted six lines of eucalyptus with the help of the community. When the boundary eucalyptus trees were tall enough, UWA wrote to the community thanking them for the good work on the boundary establishment. This was the time for the community to vacate the boundary area they cultivated.

In 2001 a different survey changed the boundary again then extending in people's farms. After that new boundary retracing, the community were given 9 days to vacate after which UWA demolished houses and evicted people. UWA used power saws to cut down the eucalyptus they themselves helped plant along the boundary in 1993. The community members were stopped from cultivating on the land. UWA even placed camp tents to police the community Those products the community could get from the park like firewood, herbs, mushrooms, bamboo for those were close to bamboo forests (shoots), stakes of bananas from shrubs spp, honey were stopped for some time.

Many people, about 1000 families were displaced and became landless. No compensation and nothing was done to date. Some were scattered living with their relatives while others went to caves outside the park and until today some are living in mosque in Babwale.

In February 2007, the president came to Mbale and sent the inspector general of police and the minister under whose docket UWA falls to look into the Wanale conflict. The communities were then told to resettle up to the boundary line that was set in 1993. It was then that UWA removed their camp from Wanale and the situation on boundary conflict was calmed down.

The president's pronouncement has since been put in writing and the LC3 Chairman has documents on the president's pronouncement and pictures taken.

The World Conservation for Nature (IUCN) project in the area did a lot from 1996 to 2000.

- They trained community members on how to raise seedlings, nursery beds, bull scheme, nappier for soil conservation bands and fodder.
- Trained women on energy conservation (energy saving jikos)
- Bought seedlings from farmers who raised tree seedlings
- Promoted bee keeping (training, introducing hives, training on local hives making and facilitated collaboration with UWA.
- Promoted eucalyptus, gravillea and sesbania for banana staking and firewood.
- IUCN established research demonstration plots.

Emerging Issues

- A lot of trees planted in conflict area were cut down by UWA. There is steady decline in soil conservation and erosion management
- Others people outside the park also cut their trees to earn a living.
- People have been distorted by the conflicts.
- It is expensive to establish a tree nursery; seeds and polythene pots are lacking for those who want to develop seedlings and tree seeds are scarce and expensive.
- A few farmers have nursery seedling of gravillea, eucalyptus, coffee and calliandra which are on great demand. They collect some seeds locally but with gravillea seeds are sought as far as Kenya (Kitale and Thika) through the forest or environment authorities.
- Polythene is expensive and watering during dry season is labour demanding. Constructing the shed requires money.
- Lack of small land sizes reduces people's interest in tree planting. Land sizes mostly 0.5 acres with a few 2 acres, competition for agricultural food crops
- Wanale is settled by Bamasaba Bantus most people are polygamous and do not allow women to plant trees. Many leave land subdivision and transfer pending for too long and trees cannot be planted by those waiting to inherit land. Trees also tend to be used as ownership symbol to land and boundary and cannot easily be planted by those without ownership rights.
- For felling a tree one has to acquire felling permit based on the cubic metres of the trees. One has to acquire permit from District forest authorities to transport timber to the market. Without which timber if found, is impounded and fine charged.
- People now go to the park for firewood and this is allowed by UWA on Saturdays and Sundays for free. Herbs also Saturday and Sunday. Pangas are not allowed. People say if they could be left with the 1993 boundary then there will be no conflict.
- Crops commercialized – potatoes, carrots, field piece, passion fruit, bananas, coffee and cabbages.
- The agricultural awareness has been created on modern methods of farming, good quality seeds and garden management by the National Agricultural Advisory Services (NAADS)
- They have helped in cattle rearing

- We call them or go to them when we have any problem
- Service providers have been contracted to train people. It is working very well with the people
- MERECP -ICRAF is coming up to introduced apples and pears through farmers training and demonstrations but is yet to do much.
- Community members feel the IUCN approaches were good and should be revived because it had good impact on the community. e.g. the bull scheme which indirectly helped people to conserve soil is counted as one of the most successful. IUCN took farmers for study tours and training workshops and these helped them acquire long lasting knowledge.
- The landscape by observation is growing with visible woodlots of eucalyptus, grevillea attributed to IUCN.

2.5. The Lowlands Areas

(a) Ngenge Sub-County, Kapchorwa

Ngenge Sub-County takes all the lowlands of Kapchorwa district. Ngenge has 3 parishes of Sundet, Griki River and Kapkwot. This is part of the wider lowlands that spreads from Bukwo, Kapchorwa, Sironko, Mbale, Manafa and Bududa Districts surrounding Mount Elgon in Eastern Uganda. The average altitude is 1300m as compare to the highlands of over 1800m.

The landscape here presents the flood plains of rivers flowing from Mount Elgon. Rainfall patterns are erratic and unreliable producing and environment of grassland with drought resistant acacia species.

Traditionally lowlands have been used by pastoralists for livestock grazing. The Sabiny pastoralists owned land here through customary and communal tenure system.

Cattle grazing or livestock keeping here in general have long history of cattle rustling by the neighbouring Pokot and Karamanjong tribes who used raid tactics to rustle livestock from the Sabiny. They armed themselves with arrows and spears and killed people during their raid missions.

In 1979 with the collapse of Idi Amin's government, a lot of small arms fell in the hands of ordinary Ugandans and the area witnessed a massive raid from the Pokots that saw the residents (lowland Sabiny) completely dissert the area to seek refuge with relatives and friends around the upland areas of Mount Elgon (see Benet and Kapkwata camps). Some settled on forest land. Since 1979 the community tried to go back to the lowlands only to meet successive raids from the cattle rustling communities bordering the lowlands. Upto 2004, the Sabiny recounts about 8 major raids where large herds were taken away, houses burnt, people killed and displaced.

After about 28 years, the community seems to be returning in large numbers now courtesy of government commitment to set up a permanent Army detach in the area. An army of about 100 personnel is among the rapidly increasing returnees with camps located in various Parishes in lowland areas. High incidence of malaria is proving a great challenge though the Kapchorwa Red Cross has distributed a few mosquito nets to the residents. Those who took refuge and settled in Mount Elgon forest reserve were among those who faced eviction in early 1990 when it was transformed into national park status. (See Kapkwata camps).

Many returnees were previously pastoralists but are now returning with farming as a livelihood learnt from the upper slopes during the many years of refuge. However, limited access to farm inputs like seeds, fertilizers etc coupled by drought conditions is also a great challenge to these determined returnees.

Even though people are now returning to resettle in the lowlands, land use is still estimated to be hardly over 10% (policy workshop Kapchorwa, April 2007).

(i) Former Sabei Hunting Area

This is an expansive area in the lowlands of Ngenge sub-county to the borders with Karamoja district. The area was designated hunting area during the colonial government as it was set aside and used mostly by the white settlers for sport hunting. The hunting had no reference to the Sabei people as the name could reflect. It could better still be referred to as 'colonial hunting area'. The land here is still largely intact without much human activity except minimal grazing and of late charcoal burners are slowly encroaching into the area. The land of former Sabei hunting area has since been reverted back to be public since 1997 through Ngenge Local Council resolutions.

3.7. Assessing opportunities and options for engagement in tree planting and development of strategies for providing incentives for private sector investment (NGOs and private sector) in tree planting.

1. Tree tenure

Trees outside forest have become of increasing interest, as they often are the main tree resource for the majority of the rural populations. Do trees on farms benefit the whole family, or is there differentiation between men and women?

There may be some internal variation of whose domain trees belong, however, according to officers in the five districts, a general rule is that trees belong to men. This status seems even stronger on the Ugandan side than on the Kenyan side of the mountain.

Timber trees are with no exception men's domain. However, there seems to be variation in whether a timber tree such as *Grevillea* can be pruned by women for firewood or not. In Trans-Nzoia, it was reported that women can prune bigger trees like *Grevillea*s even if they do not have the right to cut these trees. Usually women collect only fallen branches for firewood. It was argued that if women plant trees, men will take over the ownership except for smaller shrubs like *Sesbania* which has worked better in farm extension efforts targeting women. As *Sesbania* has no market value and is not suitable for timber, it does not interest men. In Trans-Nzoia, Vi-agroforesty reports that women take the lead in planting scrubs like *Sesbania* or *Calliandra* as they can keep the ownership of these. In Mbale the rule was formulated differently, so that the household head owns the trees. This means that amongst all women widows are the only ones who can actually own trees. [44]

In Trans-Nzoia and Mt. Elgon districts, I was told, women take the lead in fruit tree growing. But even there fruit growing can be taken over by men, especially if the species yields plenty and selling fruits brings cash[27]. When the question is of small quantities, women take the lead, when the question is of large quantities, men take the lead[45]. In Sironko it was reported that even avocados are sold by men.[26]

It is common to hire land in the lowlands (reported in Sironko). Trees on hired land belong to the owner, not to the tenant. [26]

Though there was no opportunity to meet representatives of the Mount Elgon Tree Farmers Association, it would be interesting to confirm whether this association has any woman members. Can women in reality become 'registered tree farmers'?

2. Some patterns in tree planting

Proper studies of land cover and land use are naturally needed to establish a clear picture of the spatial differences within the five districts in relation to patterns of tree cover. However, by quick observations (by no means systematic) and interviews with various officers within the district one can reach tentative conclusions. In general on the Ugandan side, it appears that lowlands have less trees than highlands while on the Kenyan side, lowlands have more tree planting than in the highlands (Figures 13, 14). Another quick observation is that eucalyptus is by far the most popular tree on farms in all five districts, however, Trans-Nzoia has in addition lots of other tree species grown on farms.

In Mt. Elgon district ethnicity was given as a reason for the spatial pattern. People in the lowlands are Luhyas and Tesos who are commonly considered as hardworking with a tradition of planting trees. The upper zone is settled by the Sabaots who have traditionally depended and still depend on the forest for their tree products. These are also the people who earlier

[44] Richard Nyabuti; Opara Cleophas; James Mwalye; David Omoto
[45] Richard Nyabuti, Opara Cleophas

took part in the shamba system by cultivating farms adjacent to forest while keeping animals and trees in the forest. They do not generally plant trees on farms. It is also an unquantified observation of the Forest office in Mt. Elgon district that Kaptama and Kapsokwony have higher tree cover than Kopsiro and Cheptais. In Mt. Elgon district, Chepyuk area is an exception with practically no tree growing at all [27]. In Trans-Nzoia, Vi-Agroforestry has had a substantial impact in introducing agroforestry on small-scale farmland. In addition to scattered trees on farms, 2-3 acre woodlots are common. Some spatial differences occur: In Cherangani there is more intense tree planting than elsewhere, while in Saboti lowest results have been attained [46].

In Sironko and Mbale the tree cover pattern is explained by farming practices, farmland characteristics and tradition. The upper areas have more tree cover than lowlands because oxen ploughs are used on the lowlands fields requiring big open areas while oxen cannot be used on the upper slopes due to stoniness of the land. Also, the types of crops grown on the upper slopes (coffee, banana) require shade, thus encouraging tree planting. Free grazing livestock in the lowlands also pose a threat to tree growing, or at least complicates it. Further, in the highland areas people have a longer tradition of planting compared to the lowlands where people are not used to planting trees [47]. In Kapchorwa the western part of the highlands have more trees than the eastern part. High population and inadequate firewood supply is believed to have pushed the western part into tree planting. Generally on the higher slopes people plant trees. More enlightened people have woodlots. Woodlot sizes vary between 0.01 to 1 ha (NEMA 2004a).

Due to the past insecurity of tenure the higher slopes of Benet are devoid of trees, but already the lower slopes have numerous small woodlots, intercropped banana and coffee tree plots, and Napier grass contour bands amidst the maize and potato fields. In the lowland plains of Nenge, people do not practice tree planting. However, it was believed by the environment office that there is a lot of will already to do so. Even though extension efforts of tree planting have not targeted these areas, some have started tree growing on their own. The area is sparsely populated but charcoal burning is popular. That has affected the landscapes by leaving only young trees. In places even young trees are cut for charcoal [1].

From Trans-Nzoia it was reported that firewood is a priority in tree planting, especially for women. For men construction timber planting is typically more important. Both men and women naturally would like to plant fast growing species. Thus *Grevillea* and eucalyptus are preferred. As seeds and seedlings for these two species are available everywhere, Vi-Agroforesty does not provide seeds for the two. *Calliandra* is also in high demand and is actively distributed by the programme. *Sesbania* is constantly requested as it needs planting again after harvesting. Both women and men plant fruit trees. Some popular species include passion, avocado, lemon, mulberry, guava, *Sizigium*, papaya, *Annona*, Mexican apple and *Ziziphus*. Medicinal trees in the programme Request list include *Xanthoxylum* (in West Pokot), *Warburgia* and *Prunus*. Some preferred indigenous species are *Cordia africana* and *Croton macrostachys*.

[46] Björn Horvath
[47] Mafabi Rashid, Kibale Mwambi

Elgon teak/olive and podo are promoted by the programme, but when farmers realise how slow they are compared to some other species, they are not very interested. *Prunus africana* is now coming up in the landscapes in Trans-Nzoia after having been promoted and planted some years ago. According to Vi-Agroforestry, there is not much interest in planting trees for fodder. Fodder, however, may come as a side supply from planting trees for firewood. Kalenjins are an exception to this rule. They are traditionally cattle keepers and fodder is of interest to them. The same applies to environmental conservation benefits from trees. People do not plant trees for conservation. Trees on farms are mainly for home consumption, though some see a benefit of marketing as well. [48] According to the Forest Department office in Trans-Nzoia, due to the timber-cutting ban, the timber price has gone up. This is believed to have encouraged planting, which has resulted in more tree-planting than ever before in the district. New nurseries are established all the time [28]. It would be interesting to know whether the result really derives from the timber-cutting ban or the cumulative effects of the vigorous tree-planting programme over the years by Vi-Agroforesty which currently works with more than a thousand groups and has truly transformed the landscapes of Trans-Nzoia.

It seems also that due to Vi-Agroforestry's efforts in Trans-Nzoia, tree planting has become a popular practice amongst both women and men. In the other districts, the impression is that predominantly only men plant trees[49].

The main constraints of tree planting in Trans-Nzoia were summed up as a) small size of the farm, especially when trees are not soil friendly b) long-term realisation of benefits, and c) inadequate markets to encourage planting. Farmers also feel annoyed as there was no one to consult when they planted, but harvesting/cutting is regulated and permits are needed.[50] In Sironko a few more reasons were given: Farmers still expect inputs from the government; weak extension services and farmers participation due to unoperationalised district Forestry Services; and inadequate knowledge of tree growing (NEMA 2004c).

ADC farms as mechanised large-scale farms naturally form large open lands in Trans-Nzoia (Figure 15). According to the ADC management, ADC farms are generally very keen on agroforestry. However, trees need to be placed as woodlots and border trees due to mechanised farming. Mainly eucalyptus and cypress are planted. Riverines crossing ADC farms are conserved for biodiversity, and in fact five out of the eight ADC farms in Trans-Nzoia have some natural vegetation left their area[51]. ADC workers plant shrubs that can bring benefits quickly. In fact, long-term investments by squatters are not allowed by the management of the ADC farms. [52]

In Mbale and Sironko it was reported that people are in general interested in planting trees, but there is not enough space for trees. However, in Mbale many farmers have about 20-50 trees

[48] Björn Horvath, Richard Nyabuti, Opara Cleophas
[49] Paul Obusuru, James Mwalye, Mafabi Rashid, Kibale Mwambi, Richard Nyabuti, Opara Cleophas
[50] Richard Nyabuti, Opara Cleophas
[51] Nixon Sigei
[52] Richard Nyabuti, Opara Cleophas

on their farm. Those with more land may have woodlots of 1-2 acres but farmers mostly prefer scattered trees due to lack of space. Eucalyptus is the most preferred species. Others include *Maesopsis eminai, Cordia africana, Ficus natalensis* and *Grevillea robusta*. *Leucaena* and *Calliandra* are preferred for fodder. According to a study by Byabashija et al. (2004) on the usage of indigenous species**,** *Arundinaria alpina, Cordia millenii, Ficus spp., Markhamia lutea* and *Albizia* spp. are the most commonly used *indigenous* species in the three districts of Mbale, Sironko and Kapchorwa. In Sironko, farmers were reported to have a lot of interest in planting fruit trees as a permanent crop. That would patch up their food supply in March-April when everything else is used up or sold. According to the farm extension, there would also be potential for timber markets. In the lowlands especially the price is high due to there being fewer trees[47]. In Kapchorwa species planted include *Grevillea*, eucalyptus, avocadoes, *Sesbania*, cypress, *Calliandra*, *Cordia*. Species selection is admitted to be a big challenge in the lowlands.

3. Opportunities and options for engagement in tree planting

1. Kenya

1.5. The National Park Area

For the National Park Area, the inception of Mt. Elgon Regional Ecosystem Conservation and Development Programme (MERECP) whose overall goal is "enhancing the conservation status and benefits of Mt. Elgon ecosystem to environment quality and livelihood".
MERECP intends to realize the above goal through; i) promoting conservation and management of natural resources in and outside protected areas, ii) enhancing sustainable development in Mt. Elgon ecosystem, iii) Integrating conservation and management of Mt. Elgon Ecosystem into national, regional and international development framework and MERECP effectively implemented as a regional trans-boundary programme.

Therefore as reflected in the above MERECP objectives, there is great opportunity of conserving and enhancing biodiversity (within both the protected areas and outside) in the Mt. Elgon Ecosystem. Kenya Wildlife Service can engage well with extension programmes that provide incentives for tree planting to farmers on the immediate surrounding of the national park. KWS can team up very well with existing community institutions as well as the Ministry of Agriculture and Vi Agroforestry in TranNzoia and Mt. Elgon.

Even though the park policy requires no interference with the park ecosystem, new challenges such as the invasive species emerge. There is need for KWS to deal with these threats through research by employing researchers as well as working in consultation or partnership with research institutions such KEFRI and ICRAF. NEMA should be engaged to support with Environmental assessment of the park for possible enrichment planting without compromising the open grades for wildlife grazing.

1.2. The Forest Reserve Areas

It was clear from the various forest stations and different communities visited across the two Kenyan districts of study that the same forest regulations and by-laws are implemented differently in different locations by different officers in charge. Around Suam and Kolobot forest stations in Transnzoia, community members reported total ban to cattle grazing in the forest reserve and harassment by forest guards who charge illegal fines (no official receipts) if found carrying forest products mainly firewood. While in Kaberwa and Kabuywo stations in Mt Elgon, communities adjacent to the forest reserve can graze their cattle at a monthly fee reportedly on the request of the area MP. Other products like firewood are also collected at a fee while medicinal plants can be harvested free of charge by registered herbalists. At Kaberwa, the forester reported having a few traditional bee hives kept by the local community members in the forest reserve. This confirms (Ribot 1999) that in many African countries, laws are often ill-defined, unclear, unknown, misinterpreted, reinterpreted, inconsistently applied, manipulated, negotiated, ignored or changed.

Attention is needed to governance more broadly. Greater transparency is a key ingredient in any negotiations. Ambiguity only serves to perpetuate open access situations. It is essential to clarify policy 'black spots' to reduce uncertainty for people to go about their rights without fear or risk of abuse.

The communities around Natural Forest Reserves feel they should be involved in forest benefits and management. The provisions of Participatory Forest Management (PFM) in the new Forest Act 2005 is therefore likely to be taken positively by most communities around the protected forests. They would like to be allowed to continue with the traditional livelihood activities like bee keeping, grazing, collecting firewood and building poles from the forest. This opportunity should be utilized to educate and encourage communities living adjacent to forest reserve to plant trees on their farms.

The advantages of Non-Residential Cultivation (NRC) within government forests should be re-introduced to engage and employ local people to help guard the forest and more necessary provide labour needed in young plantation establishments. This should be done with a sound policy framework that can check misuse by community members and forest officials. These may also help reduce pressures and conflicts related to indigenous land claims around the protected areas.

Efficient and transparent system must be put in place for recording, accounting, auditing, monitoring and evaluation of trees, timber and non-timber forest resources and extracts. Review of the relevant policies to accommodate arrangements of how the revenue collected can partly benefit the community while major reinvestments are made towards sustainable forest development. Any arrangements for harvesting of forest products or land use should by all means black out all types of public leaders, government officials as well as their relatives.

One option suggested widely by the communities is to put particular common entrance to the Forest Reserves and allow for regulated access by erecting a fence around the protected areas to be maintained by employees from the surrounding communities. This option has worked well with the 20 kilometres electric fence around the National Park. Other than controlling open access, such a fence also help to reduce human-wildlife conflict common around reserved forests.

1.3. The Chepkitale 'Game Reserve'

This is mainly the moorlands of the growth or trees area discouraged by the very cold weather conditions that do prevails here. This is a community trust land under Mt. Elgon County Council. Trust lands are communal land areas held in trust by the local governments (County Councils) on behalf of the community. The communities retain the rights of access and traditional-cultural resources use other than farming or external development unless appropriately put under gazette. Minimal subsistence farming has however been witnessed in trust lands especially by squatter settlers (Mbwika 1991).

The County Council of Mt. Elgon tried and gazzetted the area as a game reserve in 2000 but this has been resented by the community. Tree planting here, mainly enrichment planting of indigenous support bees and honey production may be the best option for the honey loving Ndorobo community around here. This option should be used to negotiate with community to help convince them for the gazetting of the area to allow for better management of the area.

1.4. Customary/ Freehold Areas

Exotic trees are not always an inappropriate choice, particularly if they provide critical ecosystem functions, however, farmers are normally given little species choice and have extremely limited access to indigenous germplasm.

Quality germplasm needs to be made available through supporting local tree nursery businesses and strongly rooted CBOs rather than giving seedlings to unsustainable spontaneous project-initiated groups.[53]

There are numerous community-based private tree nurseries in TransNzoia and Mount Elgon districts that can be targeted with training and technical support. Other established institutions such as VI Agroforestry and Ministry of Agriculture are already in these areas with agroforestry activities.
Landscape conservation inherently implies the linking of terrains with multiple uses and multiple values. For rural dwellers on customary tenure systems land use and natural resources are valued for what they bring to local livelihoods[54]. However the government put priority to

[53] Dhakal et al 2001.
[54] R. Ashley, D. Russell and B. Swallow 2005.

land uses that contribute to the national economy. As part of landscape conservation, facilitating access to markets or diversifying existing cash crop systems with high value tree crops may add value to livelihood and economic strategies and overall landscape tree cover.
Commercialization of tree products could reduce pressure on the natural forests if appropriate technologies are promoted to incorporate trees on farmlands adjacent to protected areas.
Agroforestry technologies promoted should carry both conservation and livelihood functions. Such technologies should also merge well with the existing land use systems and situation. For agroforestry to achieve conservation and livelihood goals in landscapes around protected areas, implementers have to improve the quality of technical interventions especially with multipurpose technologies. For instance, increase species choice with more indigenous species to be selected in a participatory process.[55] Comprehensive information on the benefits of technologies being introduced must be provided and sufficiently supported with efficient extension support.
A good number of farmers in Transnzoia and Mt. Elgon (Saboti and Kaptama areas respectively) have long experience with fruit trees such as apples and grapes. To promote such technologies, it is important to consider domestication and husbandry aspects of those technologies to help such farmers conceptualize and change their perceptions over some existing or related technologies that might have failed them in the past due to lack of proper husbandry knowledge.
It is important to acknowledge that people will always strive to meet their livelihoods and that markets for forest products will continue to exist whether labeled illegal or not. Threats to protected areas resulting from conflicting application of regulations or weak governance cannot be solved by simply putting agroforestry technologies in place. Rights to use, access and commercialization of tree and non-timber forest products must be taken into account.
Harmonize interventions by emphasizing relevant capacity building on integrated land use and value addition for products for better markets through training and coordinated extension that is supported by strong micro-finance systems.

1.5. The Large parastatal and private individual farms

- Biggest opportunity here is availability of land.
- Most large farms either have enough human labour and machinery or are capable of mobilizing the necessary resources towards investment in tree planting.
- Promote awareness among large farm owners especially in TransNzoia on the benefits for investing trees on idle or fallow land.
- Promote improved fallow agroforestry technologies
- Promote high value trees such as apples production.
- Review land use policies that give incentives for large scale farm owners to engage it trees as woodlots or as boundary planting.

[55] Franzel et. al .1996

1.6. The Cooperative Society owned lands

- Tree planting on most land owned cooperative societies can effectively be achieved after solving the various land use problems facing them (see land cooperative societies in section1.1.5d)
- A very special approach must be sought to help address the various different and complex land crises for many of the cooperative societies and the former land buying companies mostly in TransNzoia district.
- Promote formulation of farm based land use and land use planning bylaws that give incentive for tree planting, farm fencing and livestock control.
- Promote tree fodder and high value livestock e.g. zero grazing dairy livestock to reduce free grazing practices.
- Introduce high value trees like apples with proper marketing strategy such as may include on-farm processing.

1.7. The Settlement Schemes – the Chebyuk

- To achieve peaceful land settlement in Chebyuk the process should be all inclusive. There has been little effort even by organization or anybody to facilitate people to come together to chat unity and peace. The NCCK have tried to solve the problem by bringing communities on round table to talk but the task was overwhelming. So other NGO's should join to help bring people together. Government have put security but people still die actually even police post here are raided.
- For conflict areas such as the Chebyuk settlement, a consortium of external institutions especially neutral NGOs and religious organizations may take a constructive lead role with programs towards participatory conflict resolution, peace building and ethnic integration. These should come with long term and sustainable livelihood interventions some of which with strategies that focus less on land and forests. The role of the Provincial Administration should be redefined and carefully taken especially in the conflict areas due to the mixed and suspicious perceptions on the ground.
- Opportunity is big for agroforestry programmes especially support for training, integrated tree planting and energy saving interventions in settled areas. For the conflict prone Chebyuk settlement, such programmes should start by targeting phase I and II where many people are now settled and fairly peaceful.

2. Uganda

2.1. Highlands and Lowlands of Mbale, Kapchorwa and Sironko Districts.

- Utilize the opportunity of decentralized governance in which District and Local councils can streamline laws and regulations to promote tree planting.

- Facilitate the development of bylaws by local councils to regulate the anti-tree establishment practices of land leasing and over-fragmentation of land in the lowlands and highlands respectively.
- Institutions mainly NGOs which support conservation and farming activities such as Action Aid Uganda, Freedom from Hunger International (FHI), ICRAF, Kapchorwa Civil Society Organisations Alliance (KACSOA), Kapchorwa Conservation and Development Association (KACODA), Sironko River Valley Integrated Programme among others on the ground offer open opportunity for collaboration in promoting support and capacity building for tree planting.
- Strengthen the local extension channels and promote private tree nurseries by providing comprehensive information and demonstrations on new technologies. The opportunities such as exist with National Agricultural Advisory Services to be used.
- Create more awareness on the benefits of planting alternative trees/ woodlots on private land.
- Introduce high value multipurpose agroforestry trees with direct or indirect cash income results especially those that support livestock systems. These may be integrated with high value alternative livestock like dairy cows and goats.
- Facilitate access to relevant tree planting materials and germplasm. Increase and widen species choice for indigenous and fast growing tree species.
- Promote off-farm cash income generating activities such as processing non-wood forest products. This can be local forest associations in bee keeping.
- As part of landscape conservation, facilitating access to markets or diversifying existing cash crop systems with high value tree crops may add value to livelihood and economic strategies.
- Networking among lead agencies with affirmative budgets to natural resource development.
- Engage and support local private nursery operators for germplasm establishments.
- Involve schools and clubs in tree planting programmes.
- Facilitate security, peace and conflict mitigation programs while encouraging and pursuing amicable and comprehensive resettlement solutions for the settled and landless in Benet Resettlement Area.
- Introduce and support food security programmes such as integrated soil conservation with high value tree planting components for relatively settled areas of Benet (see general opportunities above).
- Explore and put in place policies and incentives that encourage small and large-scale tree plantations by private individuals, company and NGOs in the lowlands of Kapchorwa, Sironko, Mbale and Bududa areas where population and agricultural pressure is low. This will help improve landscape tree cover and reduce pressure and demand for wood products from the protected areas.
- With the government now putting measures to improve security situation in the lowlands that were deserted for many years (see Ngenge Sub County), there is the biggest opportunity for engaging the resettling farmers in tree planting. However, it may take time before many are fully settled since many are weighing options are they watch

government commitment to restoring security in the area. The erratic rainfall and free grazing of livestock are issues to be dealt with through technology transfer and livestock grazing policy respectively. Otherwise it may difficult for young trees to take off in these areas (see general opportunities above).

2.2. Opportunities related to Forests and National Park

- Introduce policies that encourage and allow private investment on government land to complement and accelerate establishment of tree plantations. For instance, contract district local forest to private individuals, local groups, companies and NGOs.
- Commercialization of tree products could reduce pressure on the natural forests if appropriate technologies are promoted to incorporate trees on farmlands adjacent to protected areas.
- Explore the opportunity that come with the Collaborative Protected Areas Management to sensitize and engage the communities living adjacent to the protected areas in co-management and policing for illegal activities in the forests.
- The Taungya system by UWA is a success story for plantations establishment in the National Park where adjacent communities cultivate for crops while they tender trees in young forest plantations. UWA to sensitize and employ negotiated approaches with the communities involved. The Taungya system can also be applied for the Central Forest Reserves and District Local Forest Reserves. History in Kenya with Forest Reserves and LFR in Uganda have shown that proper negotiated guidelines for implementation and supervision of the system must be observed if the objective is to be realized.
- Any arrangements for harvesting of forest products or land use within the protected areas should by all means black out all types of public leaders, government officials as well as their relatives to reduce overexploitation of forests in a counterproductive manner.
- They should pursue the Forest for Absorption of Carbon dioxide Emissions (FACE) project funded by a consortium of Dutch electricity companies that is aiming to plant 25,000 hectares of previously encroached areas with local forest tree species over a period of 25 years. These initiatives started in 1994 under an agreement with UWA but have since slowed with increased boundary and encroachment conflicts around the park.
- Change policies to help re-invest revenue raised from the District forest activities in developing the district and local forests in employing adequate forest staff and labour force especially for plantation management and afforestation and reafforestation activities.
- The officers, managers and employees of the key relevant institutions akin to conservation of natural resources such as the FD, UWA, NFA, Lands and NEMA must commensurately be motivated by providing training, clear guidelines, quality information and communication facilities, efficient logistical provision and other necessary adequate resources for their jobs.

- Put in place effective mechanisms for monitoring protected areas boundaries with annual or biannual participatory survey evaluations to control encroachment by communities and conflict arising from boundary reviews conducted in most cases after over 10 years without consultations with neighbouring communities.

2.3. Workshop recommendations on opportunities for engaging in tree planting

(a) Policies

- Utilize the opportunity of decentralized governance in which District and Local councils can streamline laws and regulations to promote tree planting.
- Facilitate the development of bylaws by local councils to regulate the anti-tree establishment practices of land leasing and over-fragmentation of land in the lowlands and highlands respectively.
- Introduce policies that encourage and allow private investment on government land to complement and accelerate establishment of tree plantations. For instance, contract district local forest to private individuals, local groups, companies and NGOs.
- Commercialization of tree products could reduce pressure on the natural forests if appropriate technologies are promoted to incorporate trees on farmlands adjacent to protected areas
- Explore and put in place policies and incentives that encourage small and large-scale tree plantations by private individuals, company and NGOs in the lowlands of Kapchorwa, Sironko, Mbale and Bududa areas where population and agricultural pressure is low. This will help improve landscape tree cover and reduce pressure and demand for wood products from the protected areas.
- Explore the opportunity that come with the Collaborative Protected Areas Management to sensitize and engage the communities living adjacent to the protected areas in co-management and policing for illegal activities in the forests.
- The Taungya system by UWA is a success story for plantations establishment in the National Park where communities adjacent cultivate for crops while they tender trees in young forest plantations. UWA to sensitize and employ negotiated approaches with the communities involved
- Any arrangements for harvesting of forest products or land use should by all means black out all types of public leaders, government officials as well as their relatives.

(b) Interventions

- Facilitate security, peace and conflict mitigation programs while encouraging and pursuing amicable and comprehensive resettlement solutions for the settled and landless in Benet Resettlement Area.
- Introduce and support food security programmes such as integrated soil conservation with high value tree planting components for relatively settled areas of Benet.
- Create more awareness on the benefits of planting alternative trees/ woodlots on private land.

- Introduce high value multipurpose agroforestry trees with direct or indirect cash income results especially those that support livestock systems. These may be integrated with high value alternative livestock like dairy cows and goats.
- Facilitate access to relevant tree planting materials and germplasm. Increase and widen species choice for indigenous and fast growing tree species
- Strengthen the local extension channels and promote private tree nurseries by providing comprehensive information and demonstrations on new technologies. Opportunities as they exist with National Agricultural Advisory Services should be used.
- Promote off-farm cash income generating activities such as processing non-wood forest products. This can be local forest associations in bee keeping.
- As part of landscape conservation, facilitating access to markets or diversifying existing cash crop systems with high value tree crops may add value to livelihood and economic strategies.
- Change policies to help re-invest revenue raised from the District forest activities in developing the district and local forests in employing adequate forest staff and labour force especially for plantation management and afforestation and reafforestation activities.
- The officers, managers and employees of the key relevant institutions a kin to conservation of natural resources such as the FD, UWA, NFA, Lands and NEMA must commensurately be motivated by providing training, clear guidelines, quality information and communication facilities, efficient logistical provision and other necessary adequate resources for their jobs.
- Put in place effective mechanisms for monitoring protected areas boundaries with annual or biannual participatory survey evaluations to control encroachment by communities and conflict arising from boundary reviews conducted in most cases after over 10 years without consultations with neighbouring communities.
- Networking among lead agencies with affirmative budgets to natural resource development.
- Engage and support local private nursery operators for germplasm establishments.
- Involve schools and clubs in tree planting programmes.

3.8. Strengthen or support development of policies on land use

1. Kenya

Kenya have had no comprehensive National Land Policy and hence no policy on land use, planning and management. Around Mount Elgon, the land policy question is displayed by:

i) Over-fragmentation and sub-economic parceling of land especially in the high potential areas of Mount Elgon district. Gross disparities in land ownership with regard to gender and generation. This is attributed to the customary tenure system where traditional

land inheritance practices gives rights of claim to each sibling (sons not daughters) without regard to the land size available.

ii) Population pressure on land particularly in Mt Elgon

iii) Landlessness and squatter problems as witnessed in many parts of TransNzoia and Mount Elgon areas such as the Chebyuk case.

iv) Unproductive and speculative holding of land especially by the well-off, such as land found in many parts of TransNzoia.

v) Underutilization of land especially in large parastatal or individual farms.

vi) Destruction of forests and catchment areas, forest encroachment, illegal logging

vii) Declining land quality due poor land use e.g. overstocking, over cultivation and overpopulation.

viii) Over-concentration of management and administration in Lands Department and shortage of trained personnel to handle the many and complex emerging land issues.

ix) The high cost of cadastral surveys and centralized cadastral processes in the districts.

x) Land/ ethnic conflicts in both TransNzoia and Mt. Elgon

xi) Lack of effective environmental management

xii) Poor infrastructure leading to agricultural areas resulting with agricultural loses due to poor marketing.

xiii) Conflicts arising from competing land uses, e.g. boundary tree planting verses neighbours with crop fields, crop farming and free grazing of livestock.

xiv) Uncontrolled land transactions that include sale, renting and leasing

xv) Limited extension services and shortage of agricultural finance to small land holders.

As a matter of priority, the government should facilitate the development of the National Land Use Policy to be taken up to follow the new National Land Policy 2006. This national land use policy will guide the development of district of other specific area land use policies. The following actions are recommended.

- Constitute interdisciplinary district consortiums that bring together district technical staff, leaders, civil societies, and community organizations among others to help in the development of land use policies. Facilitate a mechanism for networking and dialogue among stakeholders.
- The task of facilitating and constituting a consortium on land use policy development must be institutionally taken up with a mandate and capacity to coordinate activities and practically harmonize policies that relates to natural resource management especially with regard to land use. In the management of Mt. Elgon ecosystems, the institutions to be brought on board include the FD, KWS, Ministry of Lands, Agriculture, Cooperative and Marketing, the Provincial Administration, District Development Office, related State Corporations like ADC, the County Councils, National Research Institutions, NGOs, CBOs and local Religious organizations. NEMA has the mandate but not the capacity to effectively undertake this role.
- Facilitate the evaluation and auditing of land under protected areas to redesign and put the strategies that maximize the land use based on their functions and objectives.

- Promote policies on land use in the forest reserves particularly with regard to cultivating forest land and grazing. Protected areas agencies to forge and facilitate collaborative land use arrangements with adjacent communities to improve on resource management other than resource policing around the protected areas.
- Come up with comprehensive regulations to control fragmentation of agricultural land especially within the customary tenure systems. The regulations may be explored to put rules and conditions for situations where a person can sell all his/her land and remain landless.
- Formulate regulations to control and reduce land transfers and transactions such as sale and lease. For instance, introduce NOT FOR SALE title deeds for land in settlement schemes.
- Develop clear guidelines of defining and determining the landless and squatters to help address these problems in TransNzoia and Mt. Elgon districts. These guidelines should be implemented in a participatory and transparent manner so as to reduce suspicion and conflicts as witnessed in Chebyuk settlement scheme.
- Enforce land use planning and promote farm planning to improve agricultural production in both small scale and large farms. Put and enforce regulations that end speculative land holding and underutilization of land mainly in large farms especially in TransNzoia. Long idle fallows can be subjected by law to tree production in the framework of farm planning.
- Promote platforms that involve community participatory land use policy formulation.
- Review to decentralize some aspects of land administration from the lands department to check on corruption that lead to illegal, overlapping, double or multiple land allocations as has been witnessed in Chebyuk.

2. Uganda

While every technical officer at the Districts acknowledge that land is key all the natural resources, Uganda like Kenya initiated other policy reforms without National Land and Land Use policies. All the other reforms have been done based only on the underlying principles and guidelines stated in the Constitution and as a result, a number of land use issues have remained unclear or counterproductive in implementation.

Agricultural land in Uganda is never used productively and sustainably. It is estimated that land degradation account for over 80% of the annual costs of environmental degradation (Uganda Land Alliance).

Land records in Uganda are in disarray stemming from the political disorders of 1970s and 1980s and subsequently the scarcity of financial commitment to install efficient institutional structures such as adequate staffing, equipment and district offices to streamline and put back any meaningful land records and information system. The Land Act 1998 puts responsibility over the District Land and District Land Offices, all of which are not facilitated and almost non-

functional especially in the districts surrounding Mount Elgon where land conflict is also the order of the day.

There is hope now as the Uganda Ministry of Water teams up with that of Land and Environment in the ongoing process of formulating a comprehensive National Land Policy. A major challenge they have is to harmonize all the land related policies already formulated and being implemented. The other important challenge is to come up with policies that can rectify the disorders created by the various land tenure systems with conflicting constitutional provisions, perhaps recommend radical review in the Uganda constitution and other sectoral laws and regulations accordingly.

All manifestations of the land question around Mount Elgon on the Kenyan side are largely similar to those on the Uganda side of the mountain. The land issues in Chebyuk Settlement in the Mt. Elgon district of Kenya are for instance similar to those of the Benet Resettlement Area in Kapchorwa in Uganda going by the history of government handling of these delicate land issues. The magnitude of conflicts may be different but it may just be a matter of time before the conflict repercussions spread in space and magnitude.

The following are some of the way forward for approaching the development of land use policies in Uganda.

- Involve and facilitate communities and all staff of lead agencies in land policy debate and development. This should bring on board the political and other leaders from all levels of local government.
- Provide basic legal training and refresher courses on land use policy formulation, interpretation and updating for relevant district and local governmental and non-governmental agency staff.
- Build capacity and awareness for the District Local Governments and Local Councils on other policy matters.
- Enact District by-laws on relevant areas such as riverbank management and land use in wetlands, hilly and mountainous areas. The areas facing greater land use challenges are the hilly customary and freehold land around the mountain as common in all the districts of study.
- Establish a participatory process to help develop sound land use policies for comprehensive implementable resettlement programme with conflict mitigation packages both in the uplands e.g. resettle the landless in Benet and Kapsegek communities living inside the national park.
- Pursue peace and security with integrated and well planned livelihood options to encourage resettlement in the lowlands deserted for many years due to cattle rustlers. This will help reduce pressure around the protected areas uplands. This should be done hand in hand with the facilitation of dialogue to help develop frameworks for land use policies as a beginning.

- Put in place and facilitate an effective process of awareness and support to public and private institutions on the interpretation and local applications of other national policies on natural resources management and land use.
- Facilitate dissemination of relevant policy documents to local policy implementers and communities.
- The frameworks provided for within the National Agricultural Advisory Services offer an attractive entry platform for land use policy development.
- The active presence of institutions with paralegal objectives on land such as Action Aid Uganda and Uganda Land Alliance offer good opportunity the initiatives for developing land use policies.

3. Emerging issues and recommendations from district consultations

In addition to the above sections, the two consultative district-level workshops on the policy terrain characterization undertaken for this study yielded the following set of issues and recommendations. Full details are available in Appendix 13 of this final report.

1) Bottlenecks to implementation of NR related policies

- Inadequate staff by implementing agencies, notably the Forest Department, National Forest Authority, Uganda Wildlife Authority, National Environment Management Authority and the Lands Departments.
- Inadequate District institutional funding and logistical facilitation.
- District implementing authorities e.g. most District Environment Committees consist of district departmental staff with a lot of other responsibilities.
- Environmental Impact Assessment exercises are expensive. This hampers proper and regular Environmental Audits and updates especially in protected areas as provided for by law.
- Low awareness by communities on regulations and laws governing natural resources
- Political pronouncements that are inconsistent with laws and regulations
- Corruption and conflict of interest by some implementing officers e.g. Park and Forest Rangers colluding for illegal logging in protected areas.
- Little or lack of reference and updating knowledge on policy by implementing agency staff.
- Indigenous claims of land as in many areas around the protected areas. Community conflicts with the resource management over boundary and resource use.
- Insecurity (cattle rustling) in lowlands and community conflicts.
- Population pressure and high demand of land for farming and settlement. Crop production remains a priority. A lot of bush burning and over-cultivation on hilly areas.
- Land tenure practices such as in customary over-subdivision of land and land leasing that discourage long term investments.
- Lack of harmonized national policy on land.

2) Developing and strengthening policies on land use

- Involve and facilitate communities and all staff of lead agencies in policy debate and development.

- Provide basic legal training and refreshers courses on policy updates and interpretation for relevant governmental and non-governmental agency staff.
- Build capacity for the District Local Governments and Local Councils policy matters.
- Enact District by laws on the more relevant areas as riverbank management and land use on wetlands, hilly and mountainous areas common in all the district of study.
- Establish and implement a comprehensive resettlement programme with conflict mitigation packages both in the uplands e.g. resettle the landless in Benet and Kapsegek communities.
- Pursue peace and security with integrated and well planned livelihood options to encourage resettlement in the lowlands deserted for many years due to cattle rustlers. This will help reduce pressure around the protected areas uplands.
- Put in place and facilitate an effective process of support to public and private institutions on the interpretation and local applications of National policies on natural resources management.
- Put in place effective and continuous community awareness creation mechanisms on natural resource related policies.
- Facilitate dissemination of relevant policy documents to local policy implementers and communities.

3) Workshop Resolutions

- It was noted that the issues of advocacy had not been exhaustively identified. Participants recommended that as consultations continue in different districts, major cross-cutting issues should be identified and used to develop and implement an advocacy agenda.
- The final report was proposed to be reviewed so that the issues are pulled out and possibly discussed in detail at future appropriate fora that should involve policy makers and implementers.
- Find incentives to involve law makers, specifically parliamentarians in advocacy.
- Advocacy initiatives to be led by external agencies or NGOs.

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