

Welcome to the West Pokot Transformation Saga Workshop, Olof Palme Centre, Vi Agroforestry, Kitale January 14-18, 2013

Participants

1. Gert Nyberg, Swedish University of Agricultural Sciences (SLU), Dept. Forest Ecology and Management
2. Robert Musikoyo, Vi Agroforestry, Deputy Project Manager Kitale project (started 2002)
3. Peter Mwangi, Jomo Kenyatta Univ. of Agriculture and Technology (JKUAT), Dept. Botany
4. Ylva Nyberg, SLU Dept. Crop Production Ecology/Technical Advisor, Vi Agroforestry Program
5. Willis Oluoch-Kosura, Univ. Nairobi, Dept. Agricultural Economics
6. Samson N Maobe, Kenya Agricultural Research Institute (KARI) and CCAFS
7. Ingrid Oborn, ICRAF (the World Agroforestry Center), Nairobi / SLU
8. Wycliffe Obiayo, Kenya Forest Service, West Pokot
9. Eva Wredle, SLU, Dept. Animal Nutrition and Management
10. Catherine Muthuri, ICRAF/JKUAT
11. Magnus Jirström, Lund Univ., Dept. Human Geography
12. Mohammed Said, International Livestock Research Institute (ILRI)
13. John Nyaga, ICRAF/JKUAT
14. Peter Okwanyo, County Commissioner West Pokot (opening session)
15. Patrick Pkiach, retired Senior Chief
16. William Makokha, Vi Agroforestry, Seed/Agroforestry officer (started 1983)
17. Martha Kapukha, Agroforestry officer (SLM, climate change)
18. Lonah Mukoya, Vi Agroforestry, Capacity building officer
19. Madelene Ostwald, Gothenburg Univ., Dept. XX
20. Per Knutsson, Gothenburg Univ.,
21. Emily Chelimo, Vi Agroforestry, secretary

January 14

Introduction

A revised program was distributed (Attachment 1).

Gert welcomed everyone and gave an introduction and background to the workshop. He was showing pictures from 1987 and 2012 from the West Pokot area.

Vi Agroforestry (Vi skogen) started late 1983, participatory planning, tree planting

Morbus school compound was allocated to Vi Agroforestry by the elders 1987 to demonstrate tree planting, fencing, etc. Vi Agroforestry fenced the school compound from grazing animals.

It started with the fencing with live fences, fences around smaller areas for kitchen gardens/cultivations and around compounds.

In 2012 most areas are fenced, to improve grass growth. Trees and agricultural cultivation have both increased.

The fence planting and controlled grazing came in close connection with the land reform, but it is not documented which change caused the other one.

“Maybe I am overenthusiastic, but I see changes in vegetation cover, erosion, animal health, livelihoods, and market growth. I see research potentials in soil C, climate change, animal and crop productivity, various livelihood aspects, economics, rural change, cultural change, system change”.

There are still areas outside the fence and neighboring areas where it still looks like in 1987. Nobody owns the land (it is community land) and then nobody is carrying out land management practices. Land tenure change and fencing have together made the change possible. The land tenure change has been gradual and the question is what has driven what? The fencing has driven the land reform or the land reform has driven the fencing, or interaction between the two?

Introduction by Robert who welcomed the participants to Vi Agroforestry. They started as a small org working with soil and water conservation in West Pokot. They later went into tree planting that changes the microclimate. The will was there and the way has been seen. Later, they introduced the concept of agroforestry, they moved out of the area threatened by desertification and moved to Trans Nzoia in 1997 where the focus became agroforestry - integration of tree, crops and livestock. 2004 they started to work with market aspects and 2006 with financial services (microfinance). The program has expanded to the Lake Victoria basin: Tanzania, Uganda, Rwanda and Kenya. The target group is smallholder farmers having less than 2 hectares of land.

In 2009 climate change had become a hot issue and the Kenya Agricultural Carbon Project (KACP) started in Bungoma sponsored by the World Bank. They will get the first payment for carbon credits this year. They work with organizational development (not individual farmers) but with farmers group, democracy – how to work in group and get your voice heard, we are working in the society to also address issues of HIV/aids, gender. Currently working in 5 districts; including highlands of West Pokot, larger Bungoma district and Mt Elgon. Climate funded project on climate change

Vi Agroforestry is now working with partners, 7 farmer organizations in Kenya. This started the last years. They are working in partnership, money to partners for some part of the implementation, a new thing for Vi Agroforestry.

County Commissioner in West Pokot. West Pokot has been a forgotten area for a long time. It is a privilege to be invited here. You don't think that the photos (that Gert showed) are real. But they are. If we go further away from the area people are still pastoralists. Some insecurity issues (but he has not experienced so much of that). West Pokot a county with a lot of potential for land based activities, agriculture, livestock keeping, proper animal husbandry, environmental conservation. The population in the county is 572 000. The program is based where people are a bit more settled. People are being attracted to settle in these areas. Other areas people move their animals freely without any environmental management leading to over grazing. We need more interventions to create change. In

the past, thickly forested environments, people settled there. In Trans Nzoia maize is gold for the people (the food basket), in West Pokot (especially northern part) they are wasting their time if growing maize, they keep livestock, and have dairy production. Dairy factory (collection point), they have established a bank and they can get advance and pay by delivering their milk (Brookside). They want to start to package the milk. People have cut the trees but they are very slow to plant the trees. He started 6 month ago, he was a regional commissioner in Kakamega before. Will partner with Vi Agroforestry and others.

They are telling the people to have other incomes than cattle which will solve the issues of insecurity. In some other areas people try to farm while in other areas of the county they don't. Want to encourage the Chiefs to become role models, e.g. fencing so that livestock don't graze everywhere, soil conservation, agroforestry, crops for food, technology. Become a good example for the farmers around. Thursday is market day in Chepereria. Livestock, mangos, bananas, vegetables are sold on the market.

Formal opening of the workshop by the County Commissioner

Introduction of the participants

Robert (see above)

Dr Peter Mwangi, Dep Bothany, ecologist, JKUAT, collaborate with ICRAF.

Gert Nyberg

Ylva Nyberg, Vi Agroforestry, PhD student, AF and ecosystem services, farm level in Trans Nzoia

Wilis, Prof Agric Economic, Univ of Nairobi. Agriculture development, land tenure issues, how it helps transforming agriculture, collaboration with Lund Univ., intensification in agric, rural income, diversifying the incomes

Samson, KARI, natural resource management, agronomist, Interests soil fertility management, legumes, part time lecturing in extension, came here through CCAFS, program to mitigate CC effects. Vi Agroforestry one stakeholder in these areas.

Wycliffe, Kenya forest service, West Pokot, tree planting, land rehabilitation in the highlands, conservation of indigenous forest, also promoting commercial field planting

Ewa Wredle, Animal scientist, specialized in feeding, production, nutrition and management. Improving rangeland and pastures.

Catherine Muthuri. ICRAF, Assoc Prof JKUAT Dep Bothany. Mt Elgon cc projects, W Kenya algorithms /equations on how much C there is in the in trees and AF systems, Students. Involved in tree for food security projects in Ethiopia and Rwanda. Local knowledge. We will get more and more into modeling, how to project and make future scenarios.

Magnus Jirstrom, Prof Human Geography, SE Asia, last 10 years in Afrint, Productivity change in staple crops in 9 countries, third round of data collection will soon start, 4000 hh l x villages. Poverty reduction and how agriculture can contribute in rural areas, the links between the overall hh economy and rural change.

Mohammed Said, ILRI, geographer bringing in the mapping side. Used to work at a Gov Dep, head of GIS department, livestock counting etc. Look at long term changes and datasets from GIS and remote sensing, mapping and GIS, land use changes and linking to livelihood and changes in policy. Working with pastoralists the livestock s always the livestock.

John Nyaga, PhD student JKUAT, Catherina and Ingrid supervisor, plot level, spatial and temporal aspects of tree crop relationships on station and on farm.

Peter A, County Commissioner, West Pokot

Retired Chief, Sekerr, became chief in the area in West Pokot, Vi Agroforestry asked for a portion of land to plant trees, 100 acre, in 1993, succeeded. Was here on a seminar 1991,

William. Was around when they started 1983

Martha, junior scientist, BSc agroforestry, climate change officer

Lonah, environmental science, head of monitoring and evaluation and carried out in West Pokot, baseline 2001 - a bit tricky since the intervention started already in 1983, did a survey and an assessment, why did farmers adopt? Now officer for capacity development, program of children and youth farm enterprise development.

William, came to West Pokot 1981 working for a Sw missionary organization (the Faith Homes). They sent him to an agricultural school. Sten Lundgren, make the desert green. Came as a tourist late 1982, but he told his mission. He came with money in 1983 and opened an account in Williams name to start the tree planting. Gert arrived 1983. Produce seedlings for the drylands. 3 districts currently in the same county (West Pokot). 43 ha of forest from high up and low, create a green area in a desert. We cannot stop a desert when you are inside, so we moved outside and to Kitale in 1986. It was a white highland taken over by the British and the Africans were workers. They had cut down all trees and there was a shortage of firewood for local people. William in West Pokot 1983 to 1996. They also wanted to work with people so they had to start where the people live. People said it was impossible to be in West Pokot; 1. They were worried that the white should take the land if successful, 2. They thought it was impossible to change the land to something good, they went to a school that looked bad. 1986/87 some good grasses started to grow. In 1987, trial in school ground showed again it was possible. Communal land ownership, there was no fence at all. One farmer had fences around a tree and was growing some tobacco protected for the goats. They started with fencing and set up a nursery for tree seedlings, started soil conservation and water harvesting. People were most interested in grass, they said it was because of too little water, an elder disagree saying we have water but we don't harvest it that is why we have this gullies. When harvesting water it is enough for seedlings. Grass also is coming up when the

land is protected. Vegetable tree (*Balanites aegyptica*, L.). Need to loosen the soil since it is a hard pan. Started to fence off and produce fodder grasses. In 1992 they set up a demonstration site with crops together with Kenya seed. They had 1500 ha covered by the end and handed over to the people – what you are doing now is for yourself. It first went down but the second year they picked it up again, now all has fenced. They wanted to have paper on the private land ownership. Good livestock used to sell for 6000 Ksh, but with better feed one sold a bull and sold it for 27000 Ksh. People don't think the animals come from this area. Iron sheet roofs are now common. Until 1996 still some extension pulled out totally in 2000 since the Vi Agroforestry policy was to work in the Lake Victoria basin. The higher part of the landscape in West Pokot is a part of Lake Victoria Basin. Benefitted a lot from Relma working at ICRAF, their books were very valuable for Vi Agroforestry success.

About the interrelation between land tenure and land improvement, and between grass performance and tree planting, roles of the bushes (for goats, wild life), etc. Experience from Acacia Fadherbia Albida, not good to transplant from nursery, they don't like interference with the roots, they need to regenerate naturally to be successful but it has to reach the water table (1 m) to start growing, the people harvest the pods and store, given to the goats when nothing else is available as feed. Fadherbia (one species) is native in the area (Kainuk), a drought resistant species. Adverse phenology, has that been seen in E Africa? In W Africa yes, but they have not seen it in E Africa. Adverse phenology means to shed their leaves in the beginning of the rainy season when the farmers are planting. Have a student to study the phenology, could be a student project. Remote sensing can be a help here, links to the CRPs. Understanding the effects of the dual system (bimodal rainfall). Linking remote sensing with observations on the ground.

Other research cooperation with Vi Agroforestry.

John Nyaga, PhD student JKUAT, ICRAF, his research is on plot level, spatial and temporal aspects of tree crop relationships on station and on farm. John is supervised from JKUAT and ICRAF.

Ylva Nyberg, PhD student, SLU, Vi Agroforestry, her research is on approaches for analyzing multi-functionality of agroforestry systems in Western Kenya in relation to climate change adaptation and mitigation. Ylva is supervised from SLU and ICRAF.

There has also been numerous MSc thesis from Swedish and Kenyan universities conducted in cooperation with Vi Agroforestry.

Presentation of background material

Lonah/Martha/William. Ask for their ppt

Reference material (printed) a long list provided and also some original questionnaires

(Comment: the list here is not complete/IO)

West Pokot Plantation Area 1984-1994

Discussion and ideas on data.

- Use of data. Which areas to include? Both the areas with a lot of interventions and others with less activities.
- Characterization of the study areas are needed. What are the drivers? Documentation about rainfall during the study period. What can we get from 1980's – land cover changes, looking at images from the 1980's and 90's and today more detailed images. What data is available from the area? The arid land program – the effects of draughts, livestock, etc. Some places data 10-15 years.
- Questionnaire data cover household data.
- We need a survey of available data and share within the group.
- Ministry of planning can have some data, statistics officers, data for different years on population, household, number of livestock. **Who? Willis?**
- Census data, there is a lot of data. Can get the aggregation at local data. **Who? Willis?**
- DDO statistics? **Who? William/Lonah?**
- Forest data, number of seedlings, acreage of planted area.
- The questionnaires have no GPS points but that can be done on a revisit. It seems to be possible to follow up the same households so that we can study changes over time. Local knowledge and drivers of land use change. There can be so many drivers, household level, market etc.
- The RELMA book has done some of the characterization. Published 1999/2000. No follow up on this. Have tried to access it over internet but doesn't seem to be available (scan it).
- Start to make a thorough literature review. **Gert + ??**
- Get metrological data for the period. GTZ land use maps from the 80ies? Arid Lands Program – data for West Pokot? **Who? Mohammed?**
- Information of livestock is needed. To be incorporated in new questionnaires. Need to be complemented with access to secondary data for the time period.

January 15, Field visit to West Pokot

We started by visiting one farmer just outside Chepareria. The farmer had planted a lot of trees and practiced zero-grazing (or semi-zero grazing) feeding the high-breed livestock from the abundant grass growth under the trees. They also cultivated crops, vegetables and fruit as well as some medicinal herbs. This farm is in the most fertile and wettest part of Chepareria district/division.

Then we travelled to Pserum School compound, the first Vi established enclosure and tree planting site. Grass growth was abundant, tree cover good, erosion stopped and previous gullies rehabilitated. School staff told about the school and about the rehabilitation. We then had lunch in an area where the project had planted trees and initiated enclosure. The enclosure was now (hopefully temporally) open for grazing. We also visited a farmer that had a private large land with really nice cattle (mixed breed). He used a paddocking system, moving his herd between different enclosed paddocks on his farm. We continued through the area, making

some stops to watch good and bad (no) management. At times where good management was next to not managed land the contrasts were especially revealing.

January 16, 2013, follow up on field visit with local government officials

-District Forest Officer, Kenya Forest Service. What they do in 2 projects:

1. Natural forest protection/conservation 3000 ha government forest, natural regeneration, some complemented planting, raise seedlings, now bringing in the community forest association, sensitizing the people to own the forest. Challenges: illegal logging and charcoal burning, over-grazing.
2. Farm forestry and dry land forest. Sensitizing the community on using trees, promoting tree planting on farm, rehabilitation in low lands, in highlands promote tree planting for protection, commercial forest plantation, raising seedlings. Challenges: change in land use in the highlands, clearing the native for species, for cultivation.

Kenya Forest Service is lacking the resources to well cover the area we visited yesterday.

In Chepareria they have a tree nursery where they raise seedlings for dry and highland areas.

Livestock advisor West Pokot. There was mainly bare land and gullies in the past, a result of overstocking and overgrazing. The people there believe in numbers, owning a lot of animals.

They are encouraged to reduce the number on the stocks so that they benefit from the animals that they are having. They provide pasture seeds since it is not enough to ask them to make enclosures they also need to reseed. The farmers can also harvest the seeds and use and sell to the neighbors. Promote improved pastures, "bomaroads" (type of fodder grass) to conserve as hay. Bales can be done if they have resources. Farmers harvest and store on top of trees, it will over dry and the nutrient value will decrease. They promote putting it under shade. They also promote them to use maize stovers to use as feed. They want them to chop it and store in sacks as the farmers do in Trans Nzoia. They have a program with pasture and hay production to sell to pastoralists for reduced price during the dry season.

They also have a upgrading program for improved breeds. They sell bags and bulls to farmers. They have also introduced dairy goats. Promote bee keeping, would be ideal for farmers like the one we first visited. Lower part of the area is suitable for camels, now only 5000 could have 100 000 (?). Livestock marketing, Chepareria an important market, form livestock farmers associations, market their animals as a group, MoU with local communities, keep sell yards. The market is linked to the livestock information system via mobile phones getting prices and number of animals being sold. Export slaughter house under construction, will be handed over to the local community so that they can sell meat instead of live animals. 300-600 cattle and 2000 small stocks are sold per week and up to 5000 poultry. There is a market every week, most business in November and December when there is demand in other areas.

Assistant chief in Chepareria. Land prices have gone up. They see the land is useful for cultivation and pasture. Migration has decreased. If these people could be supported again they would all come to get seedlings and make the enclosures. The market has increased since people come from other parts of the country to buy animals.

Question about the land market: Who is buying? Within the community, in the town and also outsiders. During colonial time it was controlled where to graze when. During the 1970's they grazed all over. People moved from Pserum to Chepareria since it was dry. It was common with group grazing / group ranching. When people started the fencing they saw that they could stay there. Still all papers (on land ownership) are not there.

Q. Can women own land? It is rare, if a woman doesn't have a husband they could get land.

We need to document the process of land tenure. Very little is written about this. There are differences in land size per household in the wetter compared to the drier areas (increasing land size going towards drier areas). The distribution of rainfall is an interesting gradient in land (semi-humid to semi-arid places). Pros and cons why we should settle pastoralists and have land tenure changes.

District Agricultural Officer. We see more crops today. The level of land degradation went down after tree planting and pastures growing. The settlement of farmers gave an entry point for agriculture in the area. Introduction of food crops, training on most suitable crop varieties for the area, increased the food security. They have introduced growing of sorghum, finger millet and cotton, in collaboration with the cotton development unit (for income). Introduce small scale drip irrigation for demonstration of how to use the harvested water. Farmer groups have been formed and trained by their field staff to address the temporal water shortage. Why do many farmers use the long duration maize varieties? They see that it is successful in other areas. Now they are setting up trials including early maturing maize. There is also a need to educate the stockiest (shops supplying seed) to provide the suitable type of seed for the area.

Question: Is there any demonstrations of other traditional crops such as cassava and sweet potato? Yes, especially sweet potato, and they need to start to farm that as income generating crop and not only as subsistence crop. Introduced green grams, a short duration crop, which can produce with the rainfall they have for home consumption as well as income. Ground nuts are another suitable crop for eating locally and selling.

Q. What about cotton? Few buyers and low price discouraged farmers, some buyers never came back to pick up and pay the harvest. Butternut, green grams and groundnuts they can easily sell. Close to market and suitable conditions.

Q. Pigeon peas? Yes, a new crop in the area that can be compared with green grams. They can include it in the trials. Coffee? Seem to be no organization? There are some challenges but has a huge potential. There seem to be some organization of coffee growers in part of the area.

Farmers' groups called farmers forum to discuss market issues etc. They have farmers group at all level up to county.

Q. Are the farmers in Pserum producing in excess to take to the market? It is too early to say that, but there is a potential.

Loriso (Assistant chief Morbus, previously worked for Vi Agroforestry). In 1986 most people in Pserum where shown their piece of land and they wanted to take care of their land. In other areas this have more recently happened and in some areas still not. Now they are trying to fence so that grass can grow. Soil conservation is a hard work for one person to do. People are now trying to catch up and implement.

Q. What are the barriers for adoption? What is making people multiply or not? Adoption is not immediate. Too much work for one person? If the land belongs to your father he will control you he will graze the land. If you have your own land, bought it or inherited, you can do what you like.

Q. What is the importance of infrastructure? It has helped the people. They can rent a tractor to come, have improved access to market. During subdivision of land they have set aside land for roads, schools etc.

Reflections and ideas from the field trip (around the table)

What did we see; possibilities and implications for research?

John N, fast possible change in land use and land management. Last time we saw maize growing not always the right variety. Try to quantify the effects of land use change, socio-economic change, biophysical change including macro and micro fauna in soil.

Willis. Get information about the baseline so that we can see what has happened in the past. Documentation in the county, local community and Vi Agroforestry that need to be analyzed. There is a lot of indigenous knowledge. The land tenure changes, ownership is promoting investments and improved livelihoods. What are the drivers of change in attitude, adoption, etc. They are diversifying from livestock only to crops, trees (agroforestry). When population increases movement will be restricted so they will need to intensify, land will not be an endless resource.

Martha: These people are very vulnerable; the visit shows that environmental conservation/rehabilitation is a prerequisite for development.

Lonah: There are lots of potentials to adopt technologies that contribute to farm income. Anything that can contribute to income they will go for. Local farmers being models for other farmers are very important. Although the adoption is slow there has been a lot of change in enclosures by fencing and grass.

William. It is possible to transform this poor land into productivity. The most difficult thing is the mindset of the people. It is now their sons that are in charge and they have been trying and succeeded.

Magnus. Looking for variations and differences over space. We saw the contrast between those who have adopted, adopted to smaller extent and not adopted at all. Now we can try to find some denominators for adoption and change.

Mohammed. Variations and possibilities. How are the seasonal variations? The frequency of draughts. How do we capture historical land use changes, tools, remote sensing, aero photos, etc. Understand tenure schemes. The economics, look at the variation in the area and what crops to promote in different arts, different groups. Household economics, group and community economics – how they mix and choose the crops.

Per: Interested in the qualitative stories of the local people that have implemented new management practices, or not. What are the role of other factors, infrastructure etc.

Catherine: Site characterization of the area, socio-economic and biophysical. Study and understand successes and changes of adoption. Identify hot spots in terms of biodiversity on farm and outside. Look at vegetation maps with the indigenous vegetation, species and their distribution. A specific interest in *Faidherbia albida* and its phenology in its natural environment in bimodal rainfall area.

Peter: Fragmentation and concentration in landscape and biodiversity conservation and productivity. There is a gradient in humidity from semi-humid to semi-arid. Diversity and change in land use as a result of demarcation. Increased crop farming leads to more nutrients taking out of the system. Balance between livestock farming and crop production. How to balance land use options?

Robert. There has been a drastic change in peoples' perception on donors from someone that will contribute money to someone that can provide technology. Now it is about enterprise development. Vi Agroforestry is doing extension and is in the forefront to disseminate new knowledge for dry lands from research e.g. KARI. Some missing links, we are giving stories, there are missing data on how it was and how it is. Spatial changes over time in terms of land use, the settlements, they are becoming agro-pastoralists, we are saying this but don't have data. It is semi-arid areas and people are vulnerable. Land rehabilitation is crucial but the capital that needs to be putting in might seem too high for the person. See knowledge gaps that research can contribute to so that new innovations can be applied. High rainfall in Trans Nzoia leads to erosion in the lowland, big gullies in Kongelai where there is still communal land. People come in there when there is grazing opportunities, other times moving to Uganda. Stocking **rates of livestock, how many per unit area.**

Gert. Difference in management between the enclosures.

Ylva. 2002 I could not see the road when we were driving in the area. The fencing might have done that the natural tree regeneration has been going on. Importance of that versus tree planning? Access to water, less charcoal now than 10 years ago.

Ingrid. Models might be used for nutrient flows/cycling, there is need to understand the processes: For this detailed studies/data on e.g. soils and micro-climate is needed.

Samson. Sparsely populated, organize people in groups or community based organizations to enable to reach as many people as possible. Use the practices we have at present. Crops will be a part, need to diversify to not only grow maize. Diversify livestock production, potential for more chicken. Environmental conservation is key in this area. Empower people to produce seedlings and plant trees.

There is successful knowledge on planting fences that can be scaled up. Research question, reduce the regeneration period to make it more attractive. There might be more crops that should be tested as well as short duration crops. Water harvest technologies that requires low costs and technology needs to be implemented in the area. Grass planting is a powerful tool to increase infiltration and reduce run-off and provides the feed. Conservation of fodder for the dry season is a priority.

Madeleine.

1. Is this a success story and what has been the trade-offs? Look at resilience perspectives? What are the goals? Needs critical analyses. Things are constantly changing. Scrutinize the success from different angles.
2. What has climate contributed over the period of time we are interested in? The water situation? What are we heading for when it comes to climate change,
3. We should look at it a bit bigger than West Pokot, global land scarcity, need for multifunctional land use and management. How unique is this? Can we build in more services?

Ewa. Cattle look in a good shape. A bit skeptic to all the mixed breeds. We can lose some of the properties and local adaptation of the indigenous breeds when crossing. Looking into aspects of animal fertility? Land use and water aspects. What will happen with the livestock production when more crops are coming in.

Lonha. In 2001/2 it was difficult to see the homes. People have settled and can more easily be found. People are now active and taking part in work. In 2001/2 the men was laying down under trees the whole day. There is little information about livestock from a Pokot. You could not get information about livestock number and children. When they did the surveys they looked into the practices for soil fertility. They made small kitchen gardens enclosures. They did not understand when we suggested them to apply farm yard manure. Women participation and also by men have improved. The women used to do everything and the men were lying under the trees. In meetings the men were talking and gave information and the women did not talk in meetings. Gender needs to be included.

West Pokot officials: If you question a Pokot about animals and children in the past they would say “I have”. Women today will say something about their activities, some issues are related to men and they will not answer. Today you can give some true answers. What is a visitor after and why? In the market they now sell for a lot of money. The people are now more open minded to visitors than before. Traditionally they will not show their animals because they would then all die. Soil conservation is the most challenges factor. What happen if there is a severe draught? The people with a lot of animals will move. The ones with fewer animals with enclosures will stay. During draught, they leave the milking cows and calves behind and move with the rest to Uganda.

Question: About making migration corridors for animals.

Discuss to reduce the number of animals to go into livestock keeping more seriously. About charcoal burning, they only do it when they have no food and need to get income to buy food. That is not the

case now. They are promoting bee hives; discuss the modern versus the local ones. Improve the local hives. Charcoal producers need to be registered and they need to have tree nurseries.

Q: The big change we saw in West Pokot what is it attributed to?

Vi Agroforestry and other NGOs as well as government projects such as rainwater harvesting from roofs, water harvesting, and using fencing plants. Integrated approach including soil and water conservation is needed. Run-off based on grass cover etc. Groups visiting other farmers in another farm/area give a lot. The women groups are doing very well; encourage them to visit each other.

Discussion about research opportunities and ways forward

- Soil C
- Livestock
- Agriculture, crops
- Livelihoods
- Markets
- Institutional change
- Tenure
- Culture change
- Population dynamics
- Ecology
- Land use & land management
- Climate change
- Gender
- Governance
- Policy
- Decision making
- Infrastructure
- Methods
- Satellite images, GIS
- Natural Resources management
 - Water
 - Trees
- Many issues are cross-cutting
- Can be different entry points

We need to develop a research frame work.

CRP 1.1: (i) Reducing the vulnerability, and (ii) Sustainable intensification

Formalizing and take a project name

Reach MoUs between our different institutions

What important big debates do we have to link up with to get attention from different donors?

Students.

MFS/MSc students – UD20 (teacher exchange including joint student supervision)

Application dates for MFS scholarships: February 15, September 15

Mpala research centre (near Nanjuki) where they have exchange between different students. Combine national universities with students from other countries. The 4th year project requires more supervision.

Most ideal would be to have MSc and PhD students

Funding.

- ✓ Sida/Formas call for collaboration with CGIAR and international and national universities and research organizations. When call, how much money? ***Magnus and Ingrid to check, also for possibilities for post doc funding through Sida/Formas.***
- ✓ VR (u-forsk) call. Will probably open in March.
- ✓ Formas annual call. Multidisciplinary
- ✓ Formulate it as a framework that can be used in several applications.
- ✓ Identify regional organizations in Africa that can receive Sida funding for African institutions and students
- ✓ Gates. ***Magnus to check funding possibilities with Gates. Magnus should also check aligning/cooperation possibilities with CADEP.***
- ✓ CRPs. ***Ingrid contact on CRP 6, Samson on CRP 7 and Mohammed on CRP 1.1.***

Name, conceptual framework and overall hypotheses

The need to formalize the network/initiative was pointed out as needed

- for outward communication,
- as a common platform for research applications (i.e. to show that individual ideas/applications are part of a larger picture),
- to show other stakeholders that we have understood that it is a larger picture,
- as a platform to communicate the larger multidisciplinary picture to others in e.g. a concept note and in multidisciplinary applications
- as a mean for our own continued communication and cooperation.

We then discussed some overall hypotheses for the initiative. The following was suggested and agreed upon:

Triple L; Land, Landscape and Livelihood Dynamics in drylands, West Pokot, Kenya

As overall or general hypotheses the following was suggested and agreed on:

- 1. Privatisation of pastoral land leads to improved production**
- 2. Differences in vegetation, between sites and over time are explained by the adoption of enclosures.**
- 3. Changes in vegetation and animal husbandry have improved the livelihoods.**

Gert will coordinate the Triple L Initiative.

How to capture the complexity (e.g. cause – effect, drivers, synergies – tradeoffs, processes) of the development in the area and of the research issues in a simple and understandable framework was discussed at length and each participant got as homework for Friday to draw a suggestion.

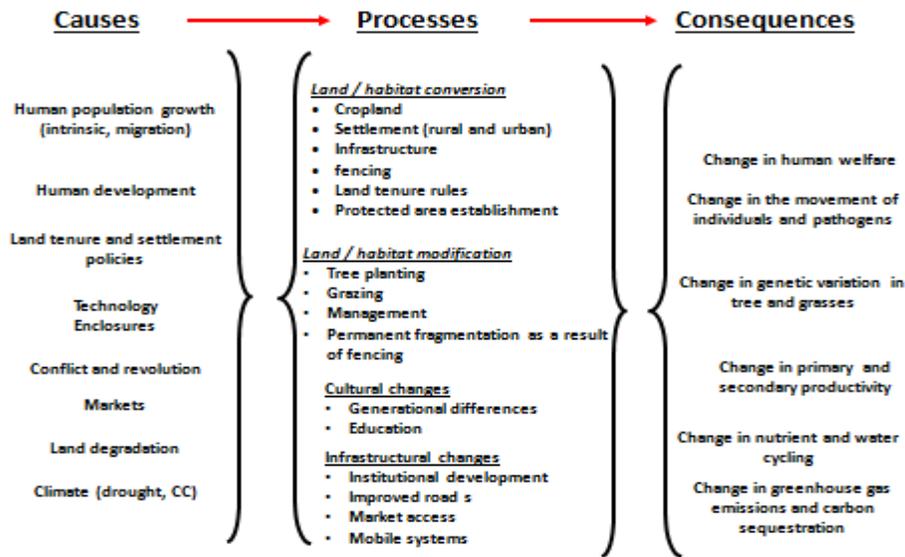
January 17, Mounting Mount Morbus

A successful tour to the top of Mount Morbus. All made it up; and down, the mountain. Mountaineers will get certificate in due time. The top view revealed some drastic changes in the landscape as compared to photos from 1987.

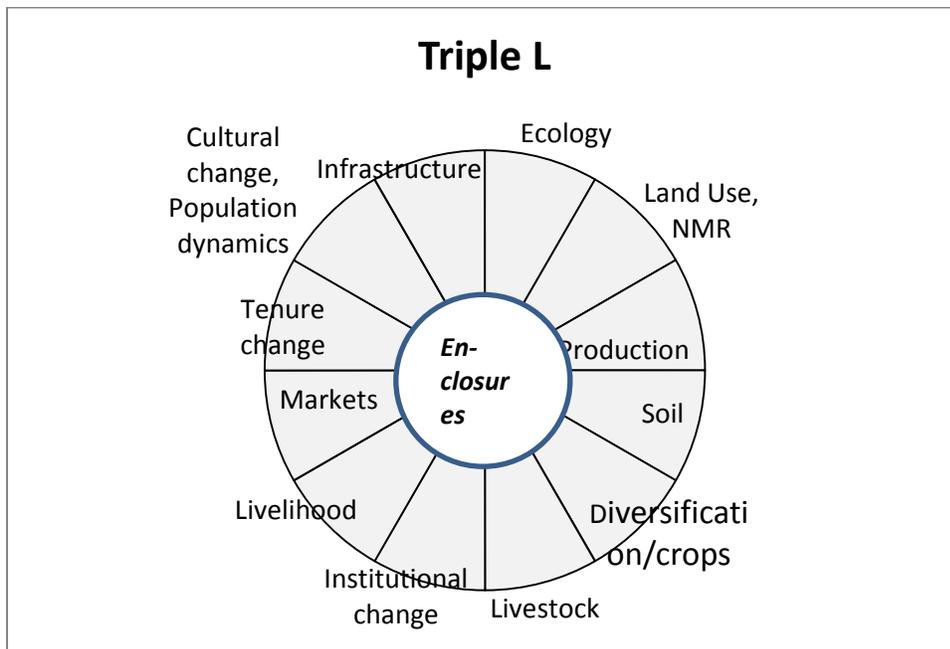
January 18

Conceptual framework

We did agree to use:



However, this is not written in stone, but up for adjustments, amendments corrections or other suggestions in the process of developing a common concept note. The same is true for the pie chart on pertinent research issues identified.



It was pointed out as a good strategy to start the story (and concept note) with a socio-economic (tenure) angle in spite that many research issues identified are biophysical, i.e. this sets the frame. Hence, the contrasting frameworks/paradigms “tragedy of the commons” and “Elinor Orstroms framework” could be a starting point, pointing out that the West Pokot story might be something different or something in between.

Identification of material to be scanned

The background material to be scanned and shared to everybody was identified. ***Ylva and Ingrid will organize and send to all when ready.***

Identification of missing links/competences/issues

- ✓ Gender issues/research
- ✓ Veterinary science
- ✓ Infrastructure, markets
- ✓ Food safety
- ✓ Water
- ✓ Population

Way forward – what’s next

- On Monday 21/1 Gert, Ingrid and Mohammed are to meet ICRAF and ICRISAT (*they were very positive, but made no commitments, we keep close contact*)
- On Monday 21/1 Ewa discuss with SLU Global about getting small funding for capacity building, e.g. financing MSc students and supervisor exchange. (*no clear positive answer, possibilities might arise as part of other engagements*)
- Development of concept note, your response in by February 15.
- Gert will set up a common, to us, not open, platform for our communication on the web (Google Drive or similar)
- Kenyan MSc students, to be coupled with Swedish (MFS) might be financed through regional funds. ***Willis to give details/conditions***
- Gert will (if funded) get two MSc students from SLU to West Pokot in August-September. They will work with soil carbon and water infiltration into the soil. They should be coupled to Kenyan students if possible (on e.g. vegetation cover/ecology)
- Per will (if funded) get one MSC student from Gothenburg in April (???), need/possibilities for coupling to Kenyan student?
- Gert will lead on one research application (U-forsk-VR) in April on soil carbon, water and trees/vegetation + satellite images and system carbon content. Together with Ulrik Ilstedt (SLU), Madelene and Mohammed.

- Ewa might lead one research application (U-forsk-VR) in April on animal health + possibly veterinary science and/or gender issues.
- We will get Magnus and Ingrid's response on the Formas-Sida possibilities for applications for post doc's, or other research.
- We should be prepared for larger multidisciplinary application to Formas, also in April. I could lead the bio-physical part of such (soils, productivity, animal husbandry and ecology), but we also need strong socio-economic component.
- We should keep looking for "planning funds" as we need a follow up/further planning workshop.
- Follow up/further planning workshop in January 2014.