



# Gendered Resources Management

Compilation of Participatory Methods and  
Preliminary Results from Kiangara Community  
in August-September 2010

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## **INTRODUCTION**

This is a report of research methods and results that were collected in Kiangara community, Liwale, during August-September 2010. The report is part of my Master's thesis research that studies forest resource use from gender perspective and the potential implications REDD+ climate change policy may have to the forest use of different groups of people in the community. The results presented here represent preliminary results, more profound analysis will be provided in my thesis.

My thesis is part of an umbrella action research project funded by the Academy of Finland (<https://blogs.helsinki.fi/tzredd-actionresearch/>). The project seeks to identify practical models of livelihood diversification through participatory forest management (PFM) and at the same time to understand different ways of mitigating climate change and reducing vulnerability to climate variability. The international agreement related to the Reducing Emissions from Deforestation and Forest Degradation (REDD) and its further accord on REDD+ aims not only to focus on forests and carbon but it also directs support for example to issues related to livelihood diversification, land use planning, land-use change and improved forestry management in developing countries.

This report has two aims. Firstly, it aims to share the information gathered in the community with the people in Kiangara and the various actors that are working in Kiangara and other Angai communities. Secondly, it tries to guide through the process of data collection by explaining in detail about the methods used, the progress of the work and the results. The focus of the report is in participatory methods. However, the research also consisted of interviews with various stakeholders and participant observation, which are not covered in this report.

The original data is in Swahili language, this report uses English translations in order to have the information more comprehensive to more readers.

I would like to express my warm appreciation to Kiangara community, Liwale District Council and particularly my research assistant Mr. Moses Mkoveke for their assistance and efforts during my data collection.

### **Process of Data Collection**

The data collection was guided by Social Impact Assessment for Forest Carbon Projects Manual developed by Katoomba Group. More information about the manual can be found online at <http://www.forestcarbonportal.com/resource/manual-social-impact-assessment-land-based-carbon-projects>.

The work was divided into three phases of fieldwork. The report is arranged accordingly:

1. Basic data about the community
  - Transect walk
  - Resource mapping
  - Resource analysis
  - Seasonal calendar
  - Daily activities chart
  - Wealth ranking
  - Water transects
  - Historical timeline of water and water mapping
  - Family interviews on resource management
  
2. Focus groups with leaders, women, men and youth
  - Identification of needs
  - Preference ranking
  - Problem tree analysis
  
3. Community development plan
  - Compilation of focus groups
  - Defining development objectives for the community
  - Monitoring plan

## **1. BASIC DATA ABOUT THE COMMUNITY**

### **Transect walk**

The transect walk was conducted on the afternoon of 23rd of August. The aim of the transect walk was to get a general picture of the community and its resources and livelihoods. There were six people from the village government and natural resources committee that took part in the activity and two of them were women.

The activity started by introducing it to the participants and giving examples on the things that were of interest to the research, such as natural resources, social activities, livelihoods, and way of living. The transect walk was done following the Nachingwea road from the community centre towards southwest, wandering of the road to see some sites but eventually returning back. The late commencing and low energy levels of participants due to the fasting of Ramadan hindered the activity.

The main observations made during the activity are listed below:

- Majority of houses were made using mud-and-stick technique where a house frame is made from bamboo and the walls made from mud and the thatching from tall grass.
- Men practice traditional bed making by sowing grass rope around a wooden frame that can be sold locally at TSH5000, the grass is harvested from Angai Forest. Women weave mats also using the same grass.

- There are several cultural sites in the community where there is a tree that people leave offerings to during times of hardship and when needing guidance. There are also some annual events when special offerings are brought by families to the cultural sites.
- There is a damp area with tall grass along the road that has multiple functions. Women collect grass for thatching that they can sell with TSH500 per bunch. The area is a source of sand of which ten villages are dependent on and of which the village government taxes TSH5000 per lorry. Digging of sand also provides occasional employment for men. The place is also an important source of fresh water and there were both dry ring wells and self-dug holes for water harvesting (about water situation see below the water mapping and transect). It was also the site for a World Bank funded well project. There were also signs of rice cultivation in the locality.
- Cashew farms, both managed and unmanaged, surrounded the road.
- In many places the bush was burnt due to hunting allowing better view to detect the animals. The community has problems with fire management and they told that a woman had died trying to stop a fire. The community has requested the District to assist them with fire management equipment and skills.
- We observed sesame and maize fields.
- Bamboo grows wildly in the forests and is used for housing, fencing, and basket making.
- Beekeeping was visible in the forest. Majority of the hives are made by removing the bark of a tree (nowadays removed partially to allow the tree to survive). The hives are placed high in a tree by climbing and using ropes. The explanation for this was that because it was difficult to access the hives, the honey would only be harvested when there was a serious food shortage.
- The community members showed many herbal medicines in the forest that are used for various diseases.
- There is a place that is a source of gravel and it is owned and taxed by the Central Government.
- We arrived to a valley that had a lot of wild and planted vegetation and a hand pump borehole. There were fields of millet, bananas and sweet potatoes. Young men were drawing water to their containers on bikes and women were washing clothes near the borehole.

### **Resource mapping**

The resource mapping was done to get an overall picture of the community and its resources. Resources were defined broadly, including natural resources, livelihoods, social and spiritual activities etc. The work was done in two groups, one for Kiangara and one for Litou villages. There were ten people that took part in the exercise of which three were women. Before drawing the maps the groups planned and listed things on pieces of paper that were to be included in the maps. After the drawing each group presented their map and any questions arising were answered.





## Resource analysis

The resource analysis was conducted according to the drawn maps on the previous day. The resource analysis followed a part of FAO's gender analysis (Vainio-Mattila, 2001: Navigating Gender) where community resources are analyzed according to who has access to the resources, who controls them and what kind of benefits are there. The work was done in two groups that were same as in resource mapping.

Resource analysis (Litou)	Access by gender	Control by gender	Benefit
Cashew trees	M/F	M	Buying iron roofing, cloths, bicycles, radio, educating children etc.
Sesame	M/F	M	Building a house, buying bed and household utensils
Millet and maize	M/F	F	Food, beer brewing for initiation rituals, income from selling
Water wells	M/F	F	Drinking water, construction, bathing etc.
Mobile network towers	M/F	M/F	Communication, employment for youth, revenue to village government
Forest	M/F	Village government	Revenue income to village government, honey etc.
Shops	M/F	M/F	Revenue to village, basic services near, entrepreneurship
Litou Mountain	M/F	M/F	Drinking water, pebble for house construction
Orange trees	M/F	M/F	Income from selling, food
Sand	M/F	Village government	Revenue to village government, material for house construction
Rice valley	M/F	F	Food, business
Cassava field	M/F	M/F	Food, business
Hunting	M	Village government	Meat for food

<b>Resources (Kiangara)</b>	<b>Access by gender</b>	<b>Control by gender</b>	<b>Benefit</b>
Sand	M/F	Village government	Revenue for village government, employment for youth
Cashew trees, banana plants and sesame	F/M	M	Business, house construction, buying clothes, food, educating children
Millet, maize, sorghum and rice	F/M	F	Food, beer brewing, business etc., payment for piece-workers on the fields
Water wells	F/M	F/M	Water for community, cattle, construction and brick-making
Honey	M	M	Food, business, medicine etc.
Timber	M	M	Construction, business, carpentry
Wildlife hunting	F/M	M	Food, business
Mosque, church	F/M	F/M	Religious ceremonies, moral
Sports ground	M/F	M/F	Exercise, friendship, social relations
Dispensary	F/M	M/F	Health treatment etc.
Crop market	M/F	M/F	Storing and selling crops
School	M/F	M/F	Education
Ritual areas	M/F	M/F	Worship, treatment
Pottery	M/F	M/F	Business, water storage
Mat weaving	F	F	Business, home use
Rope making	M	M	Business, traditional bed-making
Basket making	M	M	Business, home use

There were only slight differences in the analysis of the groups. The discussion after presenting the analysis revealed that despite the fact that both men and women participated in most activities together, they both had their own distinctive gendered roles in these activities that is not seen in the analysis of the groups (same applies to seasonal calendar). Therefore the gendered social reality of the community proved to be more complex than the exercise shows.







## Daily Activities Chart and Wealth ranking

The daily activities chart was done on the same day with the seasonal calendar in a large group together to save time. The activity raised a lot of discussion and almost everyone participated in some way to the exercise. The analysis was done in two categories, dividing every day activities according to rainy and dry seasons, because the farming activities varied greatly between these two seasons. In the end of the session the working hours of each category was calculated. The activity made the participants to reflect on their everyday lives and they wanted to discuss about the large differences between the working hours of men and women.

Later, I did the colored analysis of the activities in the daily activities chart in order to emphasize the nature of the work; productive, reproductive, rest, and recreation. These categories are naturally indistinctive and subjective to some extent.

The aim of the wealth ranking was to identify local perceptions about wealth and its division between households in the community. During the exercise it became clear that the qualities listed were for men and that women accessed wealth through their family or marital ties. The participants estimated that there were approximately 740+ households in the community and they divided the households into the wealth categories. The groups were divided by gender and there were eleven participants.

The work of the two groups was partly identical but also consisted of controversies. These were discussed after the session together with the groups. For instance, men and women had defined the number of wives to show person's wealth in opposites: women defined a poor man having many wives whereas men defined rich man to have this quality. After discussion men corrected that the women were right about their qualification as their definition was to do with a number of girlfriends that rich men tend to have many. Also men noted that some estimations that the women had made for the qualities of the rich, especially on portion of sesame fields, was overestimated for the people in Kiangara but could apply to outsiders such as town residents that access land for cultivation in the community for business purposes.

It was interesting to notice that there exists a class of people in the community that does not farm their own fields but serve as workers to other's fields. However, I think that the portion of these households among all the households is overestimated.

Having gender distinct grouping for the exercise helped the women to become more active and relax even later on in mixed groups. Men also complimented them for doing better job than their group had done.

Hour	Man (dry season)	Man (rainy season)	Woman (dry season)	Woman (rainy season)	Girl child (dry season)	Girl child (rainy season)	Boy child (dry season)	Boy child (rainy season)
5 a.m.	Sleeping	Sleeping	Waking up	Waking up	Sleeping	Sleeping	Sleeping	Sleeping
			sweeping	sweeping				
6 a.m.	Waking up	Going to the field	sweeping	Preparing porridge for the field	Waking up, preparing herself to school	Waking up, preparing herself to school	Waking up, preparing himself to school	Waking up, preparing himself to school
					or helping mother with work	or helping mother with work	or helping father on the field	or helping father on the field
7 a.m.	Visiting	On the field	Pounding, drawing water, cutting firewood, washing clothes	On the field	Going to school	School	School	School
	Resting, waiting for the food	On the field	Preparing food	On the field	or helping mother with housework	or field work/house work	or hunting birds	or field work
8 a.m.								
9 a.m.								
10 a.m.	Visiting, business, games	On the field	Pot making	On the field	Helping mother to wash dishes		Waiting for the food	Waiting for the food
11 a.m.								
12 a.m.								
1 p.m.	Visiting, business, games	On the field	Weaving mats, braiding hair	On the field	Playing	Playing	Playing	Playing
2 p.m.								
3 p.m.								
4 p.m.								
5 p.m.								

6 p.m.		Waiting for the food	Preparing dinner	Preparing dinner	Helping mother	Helping mother	Waiting for the food	Waiting for the food
7 p.m.								
8 p.m.	Sleeping	Sleeping	Sleeping	Sleeping	Sleeping	Sleeping	Sleeping	Sleeping
9 p.m.	Sleeping	Sleeping	Sleeping	Sleeping	Sleeping	Sleeping	Sleeping	Sleeping
10 p.m.								
11 p.m.								
12 p.m.								
1 a.m.								
2 a.m.								
3 a.m.								
4 a.m.								
Working hours total	11	12	14	14	11	11	7	7
Productive	Reproductive	School	Resting	Leisure	Other			

<b>Women's group</b>			
<b>Very rich 70</b>	<b>Well to do 150</b>	<b>Poor 200</b>	<b>Very poor 320</b>
Cashew fields 30-50 hectares	hc 10-29	hc 1-9	hc 0
Sesame fields 20-60 hectares	hc 15-30	hc 5-10	hc 0
Maize field 30-45 hectares	hc 10-20	hc 5-8	hc 0
Millet field 10-20 hectares	hc 5-7	hc 3-4	hc 0
Pigeon pea fields 20-30	hc 10-15	hc 5-9	hc 0
Cassava fields 10-15	hc 3-5	hc 1-2	hc 0
'kunde' fields hc 4-7	hc 2-5	hc 1-3	hc 0
Good houses 3-5	1-2	0	0
Businessman of 1-2 shops	1	0	0
Poultry 50-70	10-13	3-7	0
Ducks 15-20	15-13	3-7	0
Number of children 1-2	3-5	6-8	0

Number of wives 0-1	2 -3	4 -6	7 -8
Number of bags of cloths 5-10	3 -4	1 -2	0
Ownership of: motorbike, TV, radio, satellite dish	Bicycle and radio	Bicycle	0

<b>Men's group</b>			
<b>Very rich 70</b>	<b>Well to do 170</b>	<b>Poor 180</b>	<b>Very poor 320</b>
Cashew fields 30-50 hectares	hc 10-29	hc 1-9	0
Sesame fields 5-10 hectares	hc 2-9	hc 0-1	0
Maize fields 5-7 hectares	hc 2-4	hc 0-1	0
Millet fields 4-5 hectares	hc 2-3	hc 0-1	0
Pigeon pea fields 5-10 hectares	hc 4-9	hc 2-3	0
Cassava fields 3-5 hectares	hc 2-4	hc 1-3	0
Groundnut fields 3-5 hectares	hc 2-4	hc 1-3	0
'kunde' fields 3-5 hectares	hc 2-4	hc 1-3	0
Good houses 2-3	1 -2	0 -1	0
Businessman of 2-3 shops	1 -2	0 -1	0
Cattle (goats)10-25	9 - 24	3 - 5	0
Poultry 20-50	10 - 30	5 - 9	0
Government workers			
Great likelihood to be a leader	Likelihood to be a leader	Average possibility to be a leader	No chance to be a leader
Number of bicycles 2-3	1 -2	0-1	0
Number of wives 3-4	2 - 3	1 -2	0

## **Water transects, history of water sources and water mapping**

Two water transects were conducted: one to Mihumo River and one to Litou Mountain. These were the most important water sources mentioned by the community. They are both situated about eight kilometers from the community centre.

The transect walk to Mihumo River was done in a group of four women. Mihumo River crosses through the Angai Forest to Kiangara and it is one of the main fresh water sources in the community. The objective of the exercise was to see the state of the water source, experience the distance to the source and make general observations on the way.

The distance to the river took about two hours on foot firstly along the road towards Nachingwea and later using smaller paths in the forest. The visited site was just at the edge of the Angai Forest Reserve. There was no longer a river but rather a damp place with green vegetation and waterholes that the community had dug to access water underground. Wildlife often comes to the source to drink water and that also poses a risk to the security of women.

The transect to Litou Mountain was done using bicycles because the schedules of fieldwork forced the exercise to take place during the day of Eid-ul-Fitr, ending celebration of Ramadan. The guides to the site were the Village Chairpersons from Kiangara and Litou.

The site is a valuable water source but also has cultural value. The story of the place narrates that there was a borehole where women used to draw water. One day there were two old women and they felt tired to climb down to the hole to get water. There was a young girl that came to get water as well and the old women asked for her help. When the girl climbed down she fell and disappeared into the water. At the same time the place filled with water as the ancestors that stayed at that place were satisfied of the sacrifice they had received. They never found her body. The story tells that on the site there is a big snake where the girl's spirit has moved. If one meets a snake at that place, it is not allowed to harm the snake. When entering the site, one must shout "hodi, hodi" as a way of asking for permission to enter the place. Community needs to prepare food as sacrifice to the site every year in order to maintain the water source. According to the chairpersons, when many households are dependent on the source, the more water there is. They also said that the water source is not a river but that the water comes up from the ground and passes a certain place and then disappears back underground.

On the site there was moist forest with tall trees, a small path that went down to the water source. Down at the source there were big round stones at the place where the water passes but at that moment there was water only in few holes that the community had dug. There was also a large flat stone where the community brings the sacrifice to the ancestors.

Because the water situation in the community seemed to be both crucial and complex, more emphasis was put to the topic in the data collection. During the community transect walk we faced women that had been waiting at a self-dug borehole for water to rise and collect it bit by

bit to their containers since the early hours of morning to late afternoon, spending nights and most of their days at the sites. People complained about the water situation. At the same time there were many water sources that people were using along the road and close to the community centre. For me to understand fully the most mentioned development challenge of the community we spent few days particularly looking at this theme.

I was interested in the development of the situation in the past as well as to have analysis of the existing water sources and their suitability to the water needs of households. There were ten participants of which one was a man that worked on the topic in two groups, one on the historical timeline of water and the other on the water source mapping and analysis.

The history of water was first discussed among the group and then written down in the format of the table below. The water mapping was first drawn on the ground of the village office and then the women drew the picture on a paper. They analyzed the distance of the source to the village centre, the seasonality of the source and the quality of the water.

History of development of water sources after independence 1961 in the community of Kiangara					
1973	1978	1995	1997	2008	2010
Much rain	Naundumbi water pump was built	Hand pump well was dug	Pump replaced	Two wells were dug by TASAFU (Tanzania Social Action Fund)	World Bank dug us a well
Everywhere in Kiagara there were a lot of standing water	Pumping machine was stolen which led to water shortage	The water was salty	After the pump machine was stolen in 1978, new hand pump was brought in that has been working until 2010	They had salty water	The digging process still continues
Witness made houses to immerse	Outbreak of cholera	The pump broke down because of salty water			
	The whole water pump system failed because of this theft	Shortage of water increased			
	3 people died because of cholera	Conflicts rose between women at the water point			

The analysis showed that there are only few and often distant sources of water that have fresh water. Majority of the water sources have salty water, which people however use in their households for everything but some seem to prefer fresh water despite the extra effort of accessing it from long distance or after waiting at the source for the water to rise. It seems, however, that investments to technical improvements are usually inadequate to meet the demand of the community since they fail to provide with fresh water. On the other hand the sources that the community considers to be the most important ones are natural dams or rivers and are drying up.



Water sources of Kiangara, distance from the village centre and description:

- Duniani**, 0,5 km, hand pump, salty water, most frequently used water source
- Water tank**, 1 km, not in use
- Ndindindi area**, 2 km, wetland, seasonal fresh water source, site for World Bank drilling project
- Naundumbi**, 5 km, hand pump, valley area
- Mitalula**, 5 km, hand pump
- Mihumo River**, 8 km, permanent fresh water source at the edge of Angai Reserve, drying up
- Litou Mountain**, 8 km, cultural site, permanent fresh water source, drying up

## **Family Interviews on Resource Management**

A number of families of different kinds were interviewed about their sources of livelihood and expenditure, forest resource use, as well as control and decision-making of household resources. Interviews were done when time allowed and opportunities occurred throughout the field research process. The idea of the interviews was not to get comprehensive picture about household-level resource use but to have an overall view in how resources are used and managed in families. There were some conclusions that were made based on the interviews:

- At household level, the head of the house is in charge of all resources and assets the family owns. In absence of the man, usually the wife takes his responsibilities.
- All monetary resources are managed by the head of the household. This applies also to salary income that women have earned for the family.
- In some families all decisions concerning resources and assets were done by the head of the household, in some families also the wife participated in decision-making.
- Families primarily use forest resources from the open forest land and not from the Angai Reserve because of the distance (10 km).
- Families that had more diverse livelihoods in addition to agriculture or that were wealthier were less dependent on forest resources (used fewer resources) and often hired people to collect the resources for them instead of gathering them by themselves.
- Many interviewees were not familiar with legal practices in the Angai Reserve.

## **2. FOCUS GROUPS**

The next stage of the data collection was focus group exercise. The aim of the activity was to identify interests of different groups of people in the community. The focus groups consisted of four categories of people: community leaders, men, women and youth. The participants represented both villages and in the leaders and youth group there were participants from both genders. With the youth group an aim was also to have both school attending and those who have left school to have broad and comprehensive representation.

All focus groups followed the same method of identifying the development interests. Firstly the group was asked to list problems they feel that the community is facing. After the listing the participants ranked the problems with beans and matrix using secret voting. Each participant had ten beans, the more beans one gave to a problem the more crucial it was for the participant. It was possible to rank 1-10 problems, but most commonly participants ranked about three problems. After the ranking exercise all votes were counted as a group and the two most ranked problems were analyzed using problem tree. After the activity the analysis were presented to everyone and alternatives were discussed.

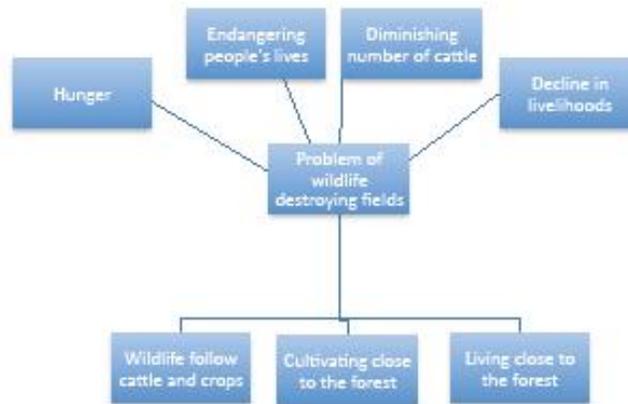
## Leaders

Identified development priorities were:

1. Problem of water scarcity
2. Problem on secondary and primary school education and housing for teachers and other workers
3. Housing for Ward Executive Officer (WAO), Village Executive Officer (VEO) and Agriculture Officer
4. Wild life destroying harvest
5. Problem of expensive agricultural inputs
6. Lack of mosque
7. Lack of market
8. Lack of village office for Litou
9. Increase of HIV in the villages
10. Lack of dispensary in Litou
11. Unplanned harvesting of forest resources
12. Boundary problems between the old and new villages
13. Shifting cultivation
14. Forest burning
15. Lack of school in Litou
16. Lack of vocational training in the village
17. Poor road

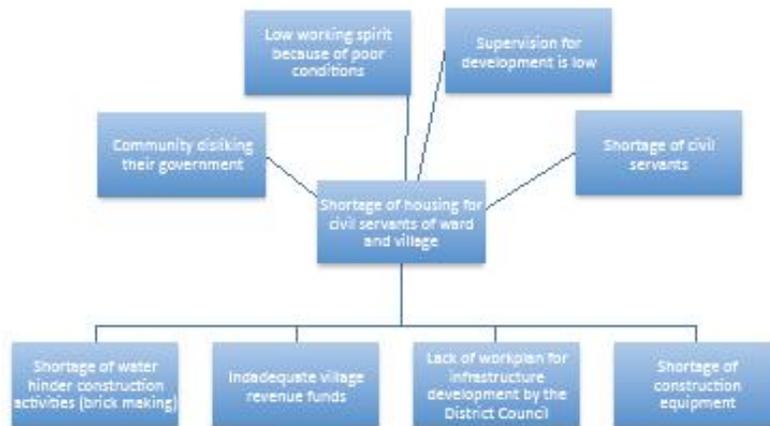
		M	M	M	M	F	F	M	M	F	M	M	Total	Ranking
1	Problem of water scarcity				4							2	6	
2	Problem on secondary and primary school education and housing for teachers and other workers		2		3				3				9	
3	Housing of WAO, VEO and agriculture officer		3		2					3	3	3	14	2
4	Wild life destroying harvest	3			1	1	2	3	3	3	2	2	21	1
5	Problem of expensive agricultural inputs							3					4	
6	Lack of mosque			1		2							3	
7	Lack of market												0	
8	Lack of village office for Litou			4		4	5						13	3
9	Increase of HIV												0	
10	Lack of dispensary in Litou			2		3	3						8	
11	Miscellaneous harvesting of forest resources									3	3		6	
12	Boundary problems between the new and old	4						1	3				8	

	villages																
13	Shifting cultivation																2
14	Forest burning								1			2					3
15	Lack of school in Litou			2													2
16	Lack of vocational training in the village	2	4						3							2	11
17	Poor road																0



Summary of the discussion:

- Reducing cultivation along the Forest Reserve could mitigate risk of wildlife on the fields. People prefer using the land near the forest because it is fertile, virgin and has more rainfall, making it therefore very suitable for shifting cultivation.
- The community has a land plan but every village should also have a game officer
- The wildlife that usually destroys the fields is elephants, small and big monkeys and bush pigs.
- The coping strategy for the situation is to patrol at the field from planting to harvest and scare the animals away. Animals have however learnt the ways of the community and use any available opportunity to return to the field or ignore the efforts of rattling them away. Since women are usually in charge of weeding and other maintenance of the fields before harvest, they often face dangerous situations in confrontations with the wildlife.



#### Summary of the discussion:

- Participants felt that there was not enough financial support from the District and the Central Government to meet these requirements. As alternative they saw that the District and donors should assist the community more. Also community should volunteer more in construction projects.
- Forest and other revenue sources were not mentioned

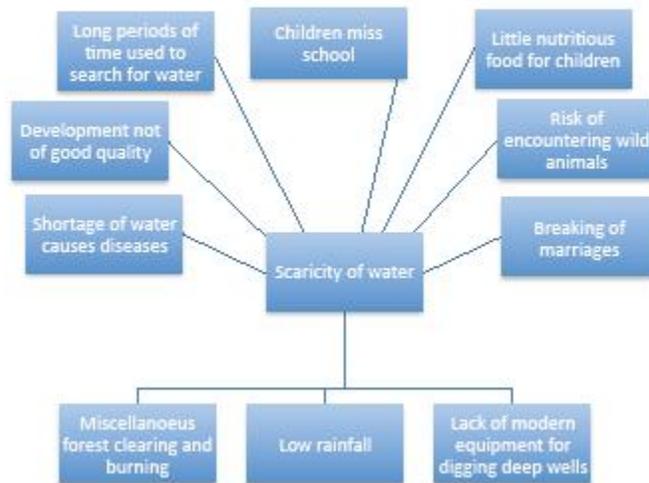
#### Women

1. Shortage of water
2. Few health officers
3. Wildlife destroying harvest
4. Problems of small-scale agriculture
5. Lack of vocational training in the village
6. Miscellaneous harvesting of forest resources
7. Forest burning
8. Lack of capital
9. Boundary problems between the villages
10. Problem of increase of HIV
11. Shortage of housing for clinical staff and teachers
12. Lack of Village Executive Officer (VEO)
13. Divorces

	Problem	F L	F K	F K	F L	F K	F L	F K	F K	F L	F L	Total	Ranking
1	Shortage of water	10		4	3	5	5	4	4	4	4	43	1
2	Few health officers					3	2		2			7	
3	Wild life destroying the harvest		10		3			4			2	19	3
4	Problems of small-scale agriculture											0	
5	Lack of vocational training in the village			3				2	2			7	
6	Miscellaneous harvesting of forest resources											0	
7	Forest burning											0	
8	Lack of capital											0	
9	Boundary problems between the villages											0	
10	Problem of increase of HIV in our village									2		2	
11	Shortage of housing for clinical officers and teachers										2	2	
12	Lack of VEOs											0	
13	Divorces			3	4	2	3		2	4	2	20	2

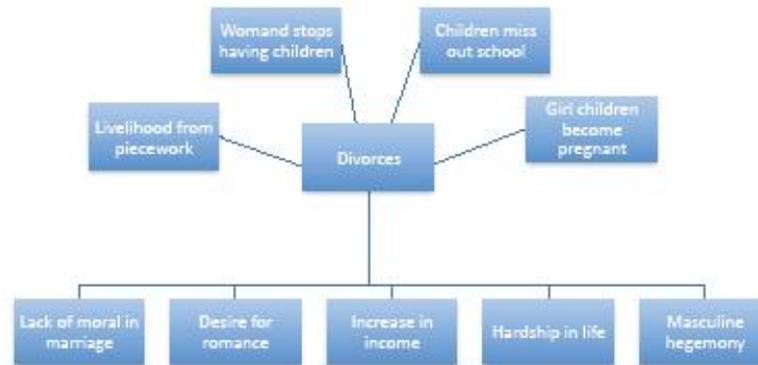
K= Kiangara

L= Litou



#### Summary of the discussion:

- The problem of water is worst during the months of April-January causing diseases like malaria (caused by sleeping by water sources in the night), diarrhea, cholera and other stomach diseases. Also security is a problem since there are confrontations with the wildlife. However there is no risk of sexual violence.
- Because women spend such a long time in household water management tasks it has a negative impact on family development (lost hours for productive work) and family unity. Women explained that when the wives are away from the homes, their husbands often find other women, which leads to disagreements between the spouses. Sometimes women can also meet other men by the water sources.
- Also children's education is hindered due to the need to participate in household water management.
- As alternatives to the situation women mentioned accessing donations to drill more boreholes and to conserve forests as water catchment areas.



### Summary of the discussion:

- Divorces are common in the community, approximately four cases in a month (740+ households).
- Divorces lead women to move back to their families losing all access to property and become employment on other people's fields (piece work) or practice prostitution to support children (note relation to wealth ranking and the large number of piece workers). Usually the father does not support his children, which leads to challenges in education and girl children often become pregnant at early age.
- Divorces are commonly caused by disagreements about decision-making, polygamy and hardship in life. Women told that increase of men's income often leads to a new marriage rather than improvement of family wellbeing.
- There has been a change in the community stance towards marriage, divorce and counseling by the elders in disagreements. Also women have started to resist polygamy and miscellaneous relationships and demand a say in family decision-making, which can lead to divorces.

### Men

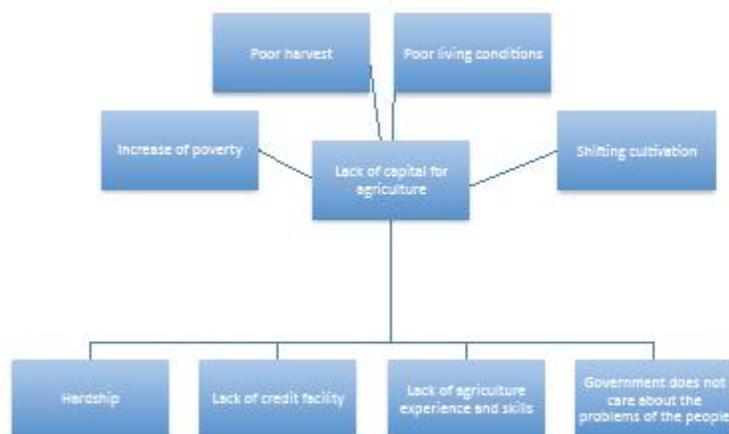
1. Lack of capital for agriculture
2. Lack of wells (water shortage)
3. Forest fires
4. Road
5. Wildlife destruction on fields
6. Shortage of teachers
7. Lack of market for honey and bee wax
8. Chicken diseases
9. Lack of employment

K= Kiangara

L= Litou

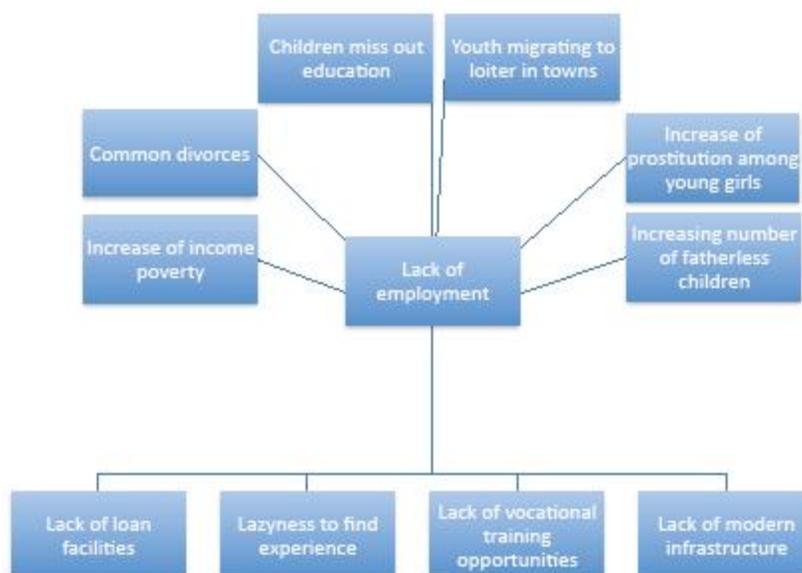
\* = aged

	Problem	M K *	M K *	M K *	M L	M L	M K	M K	M K	M K	M L	M L	Total	Ranking
1	Lack of capital for agriculture		6	5				5	4	3	4	2	29	1
2	Lack of wells (water shortage)	5			4	4		2	3			3	21	2
3	Forest fires						4						4	
4	Road					3	6						9	
5	Wild life destruction on fields		1	3						3			7	
6	Shortage of teachers				1						4	5	10	
7	Lack of market for honey and bee wax												0	
8	Chicken diseases									1			1	
9	Lack of employment	5	3	2	5	3		3	3	3	2		29	1



Summary of the discussion:

- There is a serious problem of food insecurity in the community between January and March.
- The Government subsidizes only inputs for cashew production and inexistence of loans for fertilizers the community practices shifting cultivation.
- New fields are cleared for cashew production but the land is used for maize, millet and sesame production while the cashew trees grow. Since sesame has currently best price among crops its production has expanded very much. If sesame is grow alone on the land, the field can be utilized only for couple of years and there is a need to open new fields to continue production using shifting cultivation. The discussion did not shed light to a question whether food production has adequate portion of farmland compared to cash crops.
- The problem of low productivity has deepened by poor rainfall and wildlife destruction.
- During food insecurity the community can access 4 kg of maize as Government food aid, of which households pay TSH50 per kilogram. Those households who fail to pay this amount the maize is given for free. Due to the limited amount of food aid, the main means of coping are hangadi (roots), upupu (leaves and seeds) and honey products.
- For some participants it was not clear how they would utilize funds if agricultural capital would be available. However, some said that availability of capital for inputs would assist farmers to cultivate on the same pieces of land longer and reduce the need for clearing forest into new fields.
- The men identified the relationship between poor rainfall and forest clearing and fires. They saw that shifting cultivation and forest burning should be discouraged in catchment areas. Forest fires were seen unavoidable as part of hunting and sometimes also for hangadi gathering. Dependency on wildlife as source of protein is a driver that maintains the need to use fire.



### Summary of the discussion:

- Both women and men look for employment, but for married women it is more additional income. Single women look for employment for subsistence.
- The participants explained about migration that lead young people to move to Dar es Salaam, Liwale, Nachingwea and Masasi to look for employment. Young women mainly get employment at some relatives' or neighbours' houses and men in construction and as casual labour. The emigrants maintain ties to their home community but seldom send money to their families. Often they are forced to return to the community because of difficulties finding employment in towns and they tend to be worse off than those who stayed in the village.
- Men said that their incapability to meet the requirements of household income unemployment is a cause for divorces as women prefer a man that can support them and their children.
- Alternative to the unemployment was to address the root causes, improve skills and facilities and to address working moral of people.

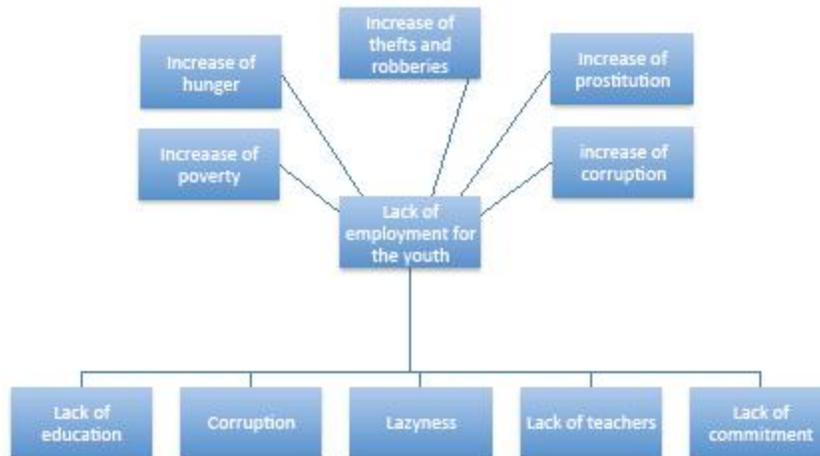
### Youth

With the youth identification of problems was done by dividing them into two groups (school attending and others to get possible differences in the groups' priorities) that discussed and listed problems. Then the two lists were combined. This was done to encourage the youth to participate more openly in the exercise. Despite efforts the youth did not discuss much after the presentations, therefore there are no summaries in this report.

1. Lack of teaching equipment and adequate number of teachers
2. Lack of employment for youth
3. Water shortage
4. Lack of vocational skills and training
5. Lack of youth services
6. Lack of forest security
7. Increase of wildlife destruction to harvest
8. Lack of moral support to the youth to educate themselves
9. Low price of harvest
10. Chicken disease
11. Lack of improved sanitation

\* = attending school

<b>Problem</b>	F *	F *	F	M *	M *	M *	M	M	M	Total	Ranking
Lack of teaching equipment and adequate number of teachers		5		5	4	3		3		20	1
Lack of employment for youth			5	5	4			4		18	2
Water shortage	4	3	2		2					11	
Lack of artisanal skills and training						2			4	6	
Lack of agriculture extension services for the youth									5	5	
Lack of forest protection										0	
Increase of wild life destruction to harvest	3	2						3		8	
Lack of moral support to the youth from their parents to educate themselves							3			3	
Low price of harvest							4			4	
Chicken disease	3									3	
Lack of improved sanitation			3			5	3		1	12	3



### Summary of the focus groups

The research assistant and I gathered the results from the focus groups as a summary to serve as basis for further working with the development priorities of the community. Similar problems were combined and the variations were recorded on the “description” section. The percentage presents the ranking of different groups of the problem, where the percentage is zero, it means that the group mentioned the problem but it was left without votes in the ranking.

**Evaluation of development needs analysis among community groups of Kiangara**

<b>Problem</b>		<b>Short description of the problem</b>
Shortage of water	43 % Women	Lack of reliable water source
	18 % Men	Access to sustainable source of water. Long time used for finding water
	12 % Youth	
	5 % Leaders	
Wild life destruction on the fields	29 % Women	Increase of wild life destruction to harvest on the fields
	6 % Men	
	9 % Youth	
	19 % Leaders	
Agriculture	24 % Men	Problem of shifting cultivation
	10 % Youth	Lack of capital to practice modern agriculture
	6 % Leaders	Lack of extension services for the youth
	0 % Women	Low price of harvest
		High price of agriculture inputs
Health services	7 % Women	Inadequate number of health officers
	7 % Men	
Lack of employment	24 % Men	
	20 % Youth	Lack of employment for youth
Vocational training	11 % Women	
	7 % Youth	
	1 % Leaders	Lack of vocational training
Housing	17 % Leaders	
	2 % Women	Lack of housing for teachers, clinical

		officers and WAO
Infrastructure	17 % Leaders	
	8 % Men	Poor road 8 %, Lack of mosque and village office for Litou
	0 % Women	
Schools	8 % Men	Lack of teachers
	22 % Youth	Lack of teaching equipment
	9 % Leaders	No school in Litou
		Distance to the secondary school from the village
Forest	0 % Women	Illegal hunting, forest fires and security
	3 % Men	
	0 % Youth	
	8 % Leaders	
New villages	0 % Women	Boundary problems
	7 % Leaders	
Social problems	20 % Women	Divorces
	3 % Youth	Lack of moral support from parents
Chicken diseases	1 % Men	Chicken diseases
	3 % Youth	
Improved sanitation	13 % Youth	Lack of improved sanitation
VEOs	0 % Women	Lack of VEO for Kiangara and Litou
Lack of capital	0 % Women	No investment capital
Lack of market for honey and bee wax	0 % Men	Lack of market or place for selling honey and bee wax

### 3. COMMUNITY MONITORING PLAN

The third phase of the process was making community monitoring plan. The plan was done in two days using the summary statistics of the focus groups as basis for discussion. The results from the focus groups were shared and thereafter community development objectives were formed. On the second day a monitoring plan was formed using applied Logical Framework.

8.9.2010	Objectives
1	To reduce the distance of accessing water and to increase reliable sources of water.
2	To control wild life destruction in the fields
3	To improve extension services and accessibility of agricultural inputs
4	To develop workshops and vocational courses in order to increase employment opportunities in the villages
5	To emphasise the importance and responsibilities of forest conservation to the community.
6	To build capacity in the community in entrepreneur skills and accessing initial capital
7	To improve village revenue collection as well as to emphasis community to volunteer in development activities

Monitoring plan for community development - Kiangara			
Objective	Activity	Indicator	Assumptions
1 & 5	To set water by-laws purposely to restore water catchment areas	Visits water catchment areas	Village government is willing to supervise the water by laws
	To educate and discourage unplanned tree felling and forest burning	Reports of village by-laws	Community is willing to adopt forest conservation
	To seek external assistance to spread the service of water pipes along the village roads	Visits forest areas	
		Reduced reported deforestation	
		Existing water pipe lines along the roads	

2 & 5	To sensitize the community to cultivate far from the forest	Increase of population in the villages	Officers in natural resources, land and community development are willing to contribute to proper land use
	To discourage shifting cultivation	Number of sensitization meetings	Decreasing conflicts between human and wildlife
	To educate and to prepare community towards proper land use	Decreased number of new farms	
		Existing land use plan	
3	To increase the number of community agriculture extension officers	Increased number of community agricultural officers	Community will utilize the knowledge provided by the experts
	To supervise that the community sells their crops through the crop storage	Increase of village revenues from the crop storage	
	To set by-laws for fire management	Existing crop selling by-laws	
4	To provide extra curriculums for the existing local artisan teachers in order to assist novice artisans	Number of trainings to artisans	Community is willing to form groups
6	To initiate artisan groups	Number of artisan groups	Artisans are willing to participate
	To disseminate entrepreneur skills to livelihood groups	Training and attendance reports	
7	To establish a road block	Number of road blocks	Village government is willing to supervise the roadblocks
	To identify potential livelihoods	The realized wealth generated under the REDD	Community will be able to recognize REDD benefits
	To link your forest with the REDD process		

## CONCLUSIONS

The preliminary analysis of results shows that gender does play a significant role in resource management at the community level in Kiangara. The general gender theories concerning natural resources management applied in this community. For men, natural resources have potential for income generation as for women, natural resources are means for meeting the subsistence needs of the household. Both genders have their own distinct roles in resource management and livelihoods that support each other. Men have almost all control over monetary resources and assets (e.g. fields, cattle, and other property), including those that women have gained for the family through their work input. It was also seen that improvement of men's income levels does not necessarily enhance the state of living for the family but may lead to extension of the family through marriages. Divorces were common in the community and caused by stress from inability to meet the requirements in livelihoods or household roles and polygamy, made women and children vulnerable because of losing access to resources through marriage and opportunity for education in many cases. This shows that the issues of natural resources management and livelihoods can have a far-reaching impact to social well-being in the community. Also because of the complex nature of resource management in families and communities, the gendered interests do not necessarily get represented in community arenas simply by adding women to the decision-making forum. Therefore more diverse and profound integration of gender is needed in development interventions and governance.

In the focus group sessions and the following community monitoring plan development the aspect of livelihoods rose as the major concern for the people. It is valuable to note, that poor forest management practices and lack of security in forests was mentioned in the focus groups but was not ranked by any of the four community groups. However, in the monitoring plan phase of the process improved forest management was seen as one of the key issues to tackle problems of water, food security, employment and increase of village revenue.

These issues are crucial for the future of the forest in the community. Pressure from the forest resources can be released by addressing the livelihoods in a sustainable manner. My opinion is that in the case of Angai, too much emphasis has been put into forest management process alone, which has not been able to provide solutions to the drivers of forest degradation and sources of poverty. On the other hand the livelihoods must be addressed in a coherent manner with the improved forest management in order to avoid controversies in interventions and therefore inefficient and unsustainable poverty reduction. Particularly, finding ways to support agricultural production in a sustainable manner (e.g. agroforestry as means of addressing the inaccessibility of fertilizers) is crucial for both food and income security.

The issue of water is vital for all development in the community. Inaccessibility of water forces families spend extra working hours in household water management, away from production, education and from their families. What makes the water scarcity such a fragile issue is that the basic interventions, like drilling more boreholes, do not necessarily offer good solutions in an area where water tends to be salty. Therefore more attention should be put to water source

conservation and improvement of household water management in all activities. Agriculture for food and income is considered vital, but shifting cultivation and forest fires caused by agriculture land clearance constitute a great threat to the sustainable way of living and consumption of water sources. REDD+ funding could provide an alternative and highly needed additional funding for the forest conservation activities, which are vital in order to protect the water catchment in the Angai area.

Lastly, Kiangara community is not a united, harmonious, and necessarily striving for common good, but it is a group of people struggling from power, resources and self-realization. Therefore it is vital to acknowledge that there are significant differences between different community groups (and also within groups) in how resources are managed, what kind of development priorities they have and how they are able to benefit from development interventions. This is to say that decisions made concerning interventions need to be made with the awareness of these differences and with well-planned mitigation measures of negative impacts. Particularly attention should be made towards elite capture and the importance of non-monetary resource management to community welfare.