

## **Project Update January 2009**

### **1. Project Update**

I am pleased to report that the project successfully kicked off with a series of community studies which enabled me to gain deeper understanding of natural resource management constraints and opportunities in Rwebigoma village. Two complementary working committees were elected, one in charge of the community tree nursery and another in charge of the cut-and-carry grazing project. Farming enterprise selection was successfully done with all participating farmers taking up vegetable growing, and the first five heifer beneficiaries have already been selected. Seminars are ongoing and the community tree nursery is set for May 2009 for the August/September rainy season. Trees for the Future USA has already delivered its seed contribution and farmers are generally excited about the project. See full report on community studies and photograph.

### **2. Full Community Assessment Report**

#### **RWEBIGOMA COMMUNITY PILOT AGROFORESTRY PROJECT 2008/09 COMMUNITY ASSESSMENT REPORT**

##### **1.0. BACKGROUND**

As per the plan, the project kicked off with community studies from September to November 2008. The studies were occasioned by the need to generate baseline data to guide project development in a participatory and culturally relevant way. A community assessment guide was developed to aid this process of understanding the culture and nature of livelihood organization and how these affects natural resource use.

Participatory rural appraisal techniques like village resource mapping, problem identification and ranking, historical trend analysis, village excursions, focus group discussion and interview of key community leaders were used.

##### **1.1. STUDY PARTICIPANTS**

The study involved smallholder farmers of Rwebigoma village of Ruguuza ward, Kibaale Town council. This is an area currently experiencing rapid population growth due to its proximity to the district and town council headquarters that has accelerated demand for charcoal and bricks posing a real threat to forests.

##### **1.2. ORGANISATION OF THE STUDY**

Study sessions were organized on weekends, a time that was favourable to a majority of farmers. Session venues were different homesteads which promoted a sense of friendship and good neighbourhood. Participation was encouraged by all categories of women, youth and men. Gender specific focus group discussions were formed where women could appear dominated during discussion of sensitive issues like resource ownership and control.

### **1.3. KEY DATA AREAS**

Information sought by this study focused on aiding the project planning process to understand:

- Available natural resources, including analysis of the demand and supply situation.
- Control and use of these resources, including nature of user communities and the benefits derived from these resources, available legislations and the effectiveness of such regulations.
- Peoples' attitudes towards resource management.
- Constraints to sustainable natural resource management.
- A way forward from the community viewpoint.

## **2.0. FINDINGS**

The findings on the above key data areas are as follows.

### **2.1. RENEWAL NATURAL RESOURCES AVAILABLE**

Rwebigoma village is diversely endowed with natural resources ranging from two streams of natural water of Kasasa and Kagoro River which flow throughout the year. It also has a multi-species natural forest of Nyarwambu of approximately 300 acres. There are black and calabash monkeys and numerous wild birds in this forest. There is land supporting the growth of a number of crops including cereals like beans, maize and perennials like bananas, cassava and sweet potatoes.

### **2.2. SUPPLY AND DEMAND SITUATION ANALYSIS**

Participants reported an increasing imbalance in the demand and supply of the listed natural resources. There was a declining land per person ratio noted as a result of population increase. Firewood and charcoal were becoming scarce and highly priced due to a growing market in Karuguuza and Kibaale towns. The Nyarwambu forest has significantly reduced in size due to popularization of commercial pine tree growing. By the time of the study two farmers had cleared 20 acres of this natural forest to plant pine. Families which used to graze 20 to 30 heads of cattle have been forced to reduce them to about 5 due to decreasing free grazing zones. Kagoro water stream which used to flow through out the year now registers too low volumes of water during the dry season.

This demand-supply imbalance is projected to worsen in years ahead because current Kibaale district statistics put the population density at 125 persons per square kilometre and is projected to be 200 persons per square kilometre in 2017 if nothing is done. This is too rapid a change considering that population density in Kibaale district was just 20 persons per square kilometre in 1962 and only 98 by 2002. This has a negative implication on the general environment.

### **2.3. NATURE OF NATURAL RESOURCE USER COMMUNITIES**

The characteristics of Rwebigoma smallholder farmers in relation to natural resource use were as follows:

- The youth were mainly engaged in exploitation of forest and wetland resources for charcoal and brick making.
- Women were mainly engaged in cultivation for domestic food requirements and rearing goats, pigs, chicken although the decision to sell and use of incomes from these animals is squarely by men except for single mothers.
- Men are the owners of trees, land and animals but women and children are free to collect firewood from trees.

#### **2.4. BENEFITS OF NATURAL RESOURCES**

Participants enumerated the following benefits they derive from the available natural resources.

##### **Forests**

- I. Firewood for cooking, brick making.
- II. Building and fencing poles.
- III. Wild food like “ndali” and passion fruits.
- IV. Boundary marking between villages.
- V. Hunting though increasingly outdated.
- VI. Rainfall purposes.
- VII. Medicine.

##### **Land**

- I. Cultivation for food.
- II. Grazing cows, goats and pigs.
- III. Settlement.
- IV. Sale.

##### **Water streams**

- I. Water for drinking (animals and people).
- II. Planting yams.
- III. Provides mud fish.
- IV. Materials for craftwork like mats and baskets.
- V. Clay for brick making.
- VI. Sand for construction.

The above uses point at how least participants perceived forests as environmentally useful. The mentioning of rainfall came last because farmers mainly consider forests resources uses that are directly beneficial to them. Issues like climate stabilization, tourism, natural beauty and provision of shade are little known to these farmers as potential or actual benefits that forests can or do provide. It should be noted that despite the existence of valuable timber trees, local farmers do not consider trees a serious wealth for they lack the means to exploit them and the knowledge to market them.

## **2.5. EXISTING CONTROLS ON USE OF NATURAL RESOURCES**

About 80 % of the participants had heard about the forestry authority locally referred to as “Owaforesiti” meaning the forestry Officer. None of the participants had ever had any encounter with the forestry officials in the course of using forestry resources. This is mainly due the fact that most of the forests exist on private land where government has limited control. The National Forestry and Tree Planting act of 2003 gives full rights of ownership of natural forests on private land to the landowner and the owner may use the forest in any manner that he or she may determine. The same law mandates the district forest officer to issue directions to the owner of the forest requiring him/her to manage the forest in a professional and sustainable manner. But such directions are not in existence and this partly explains the rapid conversion of forest land into farmland.

Charcoal and fuel wood dealers only interface with district authorities at revenue collection points as they take forest products to the markets in Karuguuza and Kibaale towns.

There are individual tree property rights which are enforced on a few timber species of MUSIZI and MVULE. Serious protection is only after the owner begins to realize at about the 15th to the 20th birthday of the tree. Otherwise, young, wild hardwood tree species are exploited without minimal sanctions because owners do not see any immediate benefit from them.

The implication here is that trees that have not matured for timber harvesting are usually left open for use by anyone interested. The main cause of this is the tendency to look at trees as being a gift of nature available to any one for use. A good illustration of this selective application of private tree property rights is Nyarwambu forest. This 300-acre forest sits on Mzee Gidion Lukamyá’s land and has been a source of firewood, wild fruits, food, building poles and game meat for many homes in Rwebigoma village with out any access limitations imposed on it. But the community members clearly know that mature hardwood tree species belong to the owner and can only be used with the express permission of the owner which is usually at a fee.

This freedom of access to forests products has caused a negative conservation attitude where talk of conservation through indigenous tree planting sounds nonsense to smallholder farmers.

## **2.6. EFFECTIVENESS OF EXISTING REGULATIONS**

The existing natural resource use laws are ineffective as they are only selective in application. The laws bite more on encroachment on public forests but are handicapped when it comes to protection of forests on private land. The forest rules are much concerned about those exploiting forests for timber and charcoal and greatly ignore those who convert forest land into agriculture land yet forest land conversion for farmland is cause number one of forest destruction in Kibaale.

## **3.0. DISCUSSION OF VILLAGE MAP AND HISTORY**

The purpose of the map was to work with participants to locate natural resources around them and generate a historical trend analysis to enable us locate, either in the past or

present, the root cause of the current environmental problems facing the village. The summary below presents the issues discussed.

- The village has supported about five generations and was once known for coffee, cotton and cattle grazing in big numbers. These livelihood activities thrived on large scale production due to availability of land but have since dropped in importance due to pests and diseases, the most recent being the coffee wilt disease.
- The area falls in the “lost” county of Buyanja. The term “lost” was adopted in 1900 when the British colonialists gave this county to Buganda Kingdom as a reward for collaboration to defeat Bunyoro kingdom. This historical fact led to the concept of absentee landlords who prohibited squatters from making long term investments on land- tree planting inclusive.
- From the 1900’s inhabitants of this area did not have land titles and could only build permanent houses and plant long term tree species with express permission of landlords who were unfortunately absent. This resulted into the tendency to depend on nature for trees without ever taking deliberate planting of trees
- To the landlords, planting of long-term trees meant permanent interests in their land which they could not allow.
- To date no single participating farmer holds a land title and very few can tell the true title holders of the land they presently occupy.
- The village’s bush cover has drastically reduced marked by the complete disappearance of hunting and communal grazing activities that were a norm in the past 30 years.
- Acquisition of a district status has led to increased population and the 1995 creation of Kibaale town council encompassing Rwebigoma village has increased the rush for plots of land and clearing of forests for settlement.
- Approximately 20 trucks of firewood and charcoal are felled to Karuguuza and Kibaale towns from Nyarwambu forest every month which never used to be the case in the past.
- Land holding per person has increasingly declined as people who were children 20 years ago are now mature household heads taking off acres of land from the original virgin grazing, hunting and forest land.
- Declining soil productivity and coffee wilt disease badly affected the village’s livelihood. Whereas all farmers had once depended on coffee, today they lament the disease that ruptured their livelihood muscle and they relish a chance to restore coffee growing
- Participants also noted unpredictable rainfall patterns as increasingly negatively affecting their livelihood planning especially crop growing. They reported a lot of crop failures due to misleading rainfall patterns, most complaining of increasing violent storms that never used to be the case in the past 20 years.
- Some water sources like Kabale, Kakalintunsi and Kyakalori which used to provide water through the year have since turned seasonal only providing water during rainy seasons. This was attributed to clearance of forests around these water points.

### **3.1. VILLAGE PROBLEM IDENTIFICATION AND RANKING**

A list of problems facing the farmers was made and ranked according to priority as below:

- Poverty-in this case lack of money to acquire basic household needs.
- Lack of enough land for farming.
- Declining soil productivity.
- Monkeys destroying crops.
- Straying domestic animals.
- Lack of agriculture inputs.
- Erratic rainfall patterns.
- Distant clean water sources.

It should be noted that environmental degradation is not clearly perceived as a problem as very few participants could relate erratic and violent storms, soil degeneration and drying up of wells to mismanagement of available natural resources. When the participants were asked how they were managing the problem, some mentioned clearing of forests to chase away monkeys, doing petty business in the place of farming, shifting cultivation (land hiring) and a few resorted to harming straying animals which solutions are clearly unsustainable. Tree planting was never mentioned as a solution.

### **3.2. AVAILABLE REFORESTATION EFFORTS**

No deliberate reforestation effort was observed during the assessment. Two farmers had planted about 500 pine seedlings but had cleared well over 10 acres of natural trees purely for economic exploits. Farmers erroneously think that any tree planting project which doesn't incorporate pine and eucalyptus is misconceived and therefore irrelevant to their needs. One of the farmers boldly told me that he came to the first meeting hoping to secure pine seedlings from the new project and was a bit disappointed by my explanation of how pine planting is unsuitable for smallholder farmers.

Most farmers admitted that even obvious beneficial trees like jackfruits, avocados, mangoes, and guavas grow through natural processes than by deliberate human making. Very few had ever taken the initiative to plant trees for commercial and domestic consumption, yet they admit that fruit trees are a potential source of income.

### **3.3. AVAILABLE WORKING RULES**

The available working rules are very weak to create an atmosphere where there can be adequate provision for sustainable use of natural resources. Whereas the communities know about these rules, they are equally aware of how ineffective they are. For example, whereas the farmers know that the use of power saws is prohibited by law in timber cutting, they continue to use them because of the weak enforcement mechanism. The existing rules target commercially oriented forest resource users like timber producers and ignore the significant lot of private land cultivators who have turned forests into farmlands.

In Kibaale district for example a private forest owner interfaces with the forest authority at a revenue collection point when the forest owner is seeking clearance for market entry. This clearance usually done on a desk leaves the licensing officer with little knowledge of the extent of destruction done to the forests.

Tree tenure and property rights are very weak only applying to a select number of tree species of a certain age. Many people show little interest in young indigenous tree species

because they see no immediate economic value in them. This is compounded by limited awareness of the markets for forest products like timber among communities. In one of the gardens we visited during the village excursion exercise, there were huge dry logs of Musizi trees, and the owner of the garden did not have any plans for them. He said he neither had the money to split them into timber nor the knowledge of anyone who could buy the logs. This lack of knowledge and means to exploit and market forest products makes tree planting a clear nonsense to smallholder farmers.

### **3.4. COMMUNITY APPROACH TO RESOURCE MANAGEMENT**

The purpose of this element was to find out the approaches employed by members of Rwebigoma village in managing common resources to be able to tailor the project to the existing common resource management regime. There was no single organization spearheading responsible community management of natural resources. Members however belonged to different socio-economic interest associations like saving and credit associations for economic gains. There used to be communal cleaning of community wells and maintenance of village paths known as "*Bulungi Bwansi*"-for the good of the community, but this spirit has died slowly, and this cleaning now is done by individual volunteers not as a community. This historical element of community voluntary contribution of labour and the current belonging to saving and credit associations provides a critical starting point for participatory renewable natural resource management.

### **3.5. CONSTRAINTS TO REFORESTATION**

Participants were asked to enumerate perceived and real constraints to successful reforestation and the following were listed.

- *Technical constraints*; mainly lack of know how in seed selection, propagation and general nursery management.
- *Economic constraints*; many argued that trees take long to mature, and they don't have enough land to sacrifice for long-term tree planting.
- *Financial constraints*; many believed tree planting is an expensive venture both in terms of land, time, seedlings and labour. A coffee seedling for example cost five hundred shillings (0.7 pounds) which competes with immediate cash needs like soap and salt which they can't sacrifice.
- *Legal constraints*; the biggest legal constraint is lack of awareness of the 1998 land Act which clearly gives adequate protection to sitting tenants that were hitherto prohibited by absentee landlords from planting long term crops including trees.
- *Political constraints*; there is a dilemma of conservation versus revenue generation. The district authority has not clearly come out to define its revenue needs vis-à-vis conservation.

### **3.6. LIVELIHOOD ANALYSIS**

- Majority practice subsistence farming with little produced for sale.
- Mixed farming is the norm but at a subsistence level with animals, birds and crops maintained on a small piece of land.
- Farmers keep poor quality animals like cows which do not adequately support their income needs.

- Some are engaged in petty trade in nearby trading centres like Ngangi and Ibambura operating low stock merchandise kiosks.
- Some women are engaged in making of mats, tablecloths and baskets as sources of income.
- A small number of youths raise rabbits for school fees and other scholastic needs.
- Most women are engaged in pig and goat rearing.
- Although the daily care for cows is under the women, proceeds from cows go to men who are the cultural owners of the cows.

#### **4.0. OBSERVATIONS FROM THE STUDY**

- There was a popular willingness to invest time and labour in managing renewable natural resources which offers a promising ground for the success of a community tree nursery. Both individual and collective organizational approaches are feasible.
- Smallholder farmers in Rwebigoma lack the technical knowledge to collect seeds and make use of available local tree species. They have been made to believe that only exotic species have economic and social value.
- Most farmers view the growing of trees especially local indigenous species with a lot of disfavour and are unable to grasp a full range of the values indigenous tree species can provide if they did plant them.
- For a long time, there has been over reliance on natural processes for soil regeneration like shifting cultivation which can no longer be sustained due to increasing population.
- Reforestation is basically a new idea in Rwebigoma village, and it will take a lot of efforts to educate smallholder farmers to help them realize that investment in reforestation is a profitable undertaking.
- Pine tree planting has gained rising current of popular interest among smallholder farmers as a result of the national Saw Log Production Grant Scheme which only encourages pine and eucalyptus, and this makes it a little bit difficult to convince farmers to plant any other type of tree.
- The issue of pine has also led to a false belief that the entire reforestation or tree planting enterprise is a very expensive undertaking requiring a lot of capital outlays.
- There is no credit or any other form of incentive targeting smallholder farmers who are the majority forest users. The Saw Log Production Grant Scheme by the National Forestry Authority is targeting medium and large-scale land holders who are a small factor in the entire deforestation problem in the district.
- The existing legislation on forestry is purely silent on private forest owners who convert them into farmlands.
- Most trees in this village are treated as unmanaged common property in which each individual is in effect free to take what he wants without fearing that sanctions will be imposed. Investment in reforestation therefore strikes these smallholder farmers as sheer nonsense since they see little probability that they will reap from their efforts.
- There is an economic versus conservation value conflict by the District local government. The district Environment Officer agreed that this was a serious dilemma because forest exploitation is one of the top revenue earners for the district and any

restrictive legislation means a direct cut in revenue collection. This is compounded by corruption and political patronage where illegal timber dealers enjoy protection from politicians.

- Internal migrations and population increase have led to a rush for virgin pieces of land including forests. There is a bad practice of clearing forests as a mark of occupation and expression of interest in a given piece of land to scare away potential occupants which has accelerated deforestation in the district.

## **5. CONCLUSION**

Smallholder farmers in Rwebigoma village are moving to a point where they will no longer need to depend on natural processes for the much-needed full land and forest regeneration. The changing land/human ratio imposes the necessity for adaptation of practices that will ensure sustainable use of renewable natural resources. These farmers should be helped to master new technologies if they are to survive the adverse effects of the high rate of environmental destruction. The findings of this study illustrate the urgent need to introduce and support innovative approaches to reverse the current spate of forest loss, land degradation and poverty levels. Critical in these innovations is the need for the popularization of on farm tree planting targeting smallholder farmers who are the biggest factor in forest destruction. Farmers need to be educated in affordable ways of investing in reforestation and the trees bringing multiple benefits to them should be encouraged. Practical technical and economic solutions should be put at the farmers' disposal to popularize on farm tree planting with a dual focus of reversing environmental degradation and economic empowerment. This is what the ongoing project in Rwebigoma is trying to do and this baseline data has proved so vital in refocusing the project approach.